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The State of Data 2020

Mapping a child's digital footprint in the state education landscape in England

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Executive summary

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Children have lost control of their digital footprint by their fifth birthday simply by going to school.

The State of Data 2020 report

- is a call to action from teachers, parents and young people for change in law, policy and practice on data and digital rights in state education and its supporting infrastructure;
- maps the scope of every statutory data collection for the first time, from the Early Years to A-levels in attainment tests and the censuses collected by the Department for Education;
- reveals gaps in oversight, transparency and accountability in product trials and edTech that collect children's data; in what, why, and how it is used, through a selection of case studies.

Data protection law alone is inadequate to protect children's rights and freedoms across the state education sector in England. Research trials are carried out routinely in classrooms without explicit parental consent and no opt-out of the intervention. Products marketed for pupils are increasingly invasive.[1] Students are forced to use remote invigilation tools that treat everyone as suspicious, with automated operations that fail to account for human differences, or that harm human dignity.[2]

Data protection law alone is inadequate to protect children's rights and freedoms across the state education sector in England. Research trials are carried out routinely in classrooms without explicit parental consent and no opt-out of the intervention. Products marketed for pupils are increasingly invasive.[1] Students are forced to use remote invigilation tools that treat everyone as suspicious, with automated operations that fail to account for human differences, or that harm human dignity.[2]

This report asks government, policy and decision makers to recognise the harms that poor practice has on young people's lives and to take action to build the needed infrastructure to realise the vision of a rights' respecting environment in the digital landscape of state education in England.

We make recommendations on ten topics

1. Legislation and statutory duties
2. Assessment, Attainment, Accountability and Profiling
3. Administrative data collections and national datasets
4. Principles and practice using technology today
5. EdTech evidence, efficacy, and export intentions
6. Children's rights in a digital environment
7. Local data processing
8. Higher Education
9. Research
10. Enforcement

Now is a critical moment for national decision makers if they are serious about the aims of the National Data Strategy[3] to empower individuals to control how their data is used. After the damning 2020 ICO audit[4] of national pupil data handling at the Department for Education, will you make the changes needed to build better: safe, trustworthy public datasets with the mechanisms that enable children and families to realise their rights or will you stick with more of the same; data breaches,[5] boycotts[6] and bust opportunity?

Will you act to safeguard the infrastructure and delivery of state education and our future sovereign ability to afford, control, and shape it, or drive the UK state to ever more dependence on Silicon Valley and Chinese edTech, proprietary infrastructure on which the delivery of education relies today.

The 2020 exam awarding process demonstrated the potential for discrimination in data, across historical datasets and in algorithmic decision making. While some may consider the middle of a global pandemic is not the best time to restructure school assessment, progress and accountability measures, change is inevitable since some collections were canceled under COVID-19. Now is the time to pause and get it right. We are also at a decisive moment for many schools to decide if, or which new technology to invest in, now that most of the COVID-19 free-trial offers are over.

Privacy isn't only a tool to protect children's lives, their human dignity and their future selves. The controls on companies' access to children's data, is what controls the knowledge companies get about the UK delivery of education and the state education sector. That business intelligence is produced today by the public sector teachers and children who spend time administering and working in the digital systems. So while many companies offer their systems for free or at low cost to schools, schools have intangible costs in staff workload and support time, and donate those labour costs to companies for free. Our children are creating a resource that for-profit companies gain from.

Exclusive Department for Education funding to support schools' adoption of tech giants[7] products in lockdown, further established their market dominance, and without any transparency of their future business plans or intentions or assurances over service provision and long-term sustainability.

The lasting effects of the COVID-19 crisis on children's education and the future of our communities, will be as diverse as their experiences across different schools, staff, and family life. Worries over the attainment gap as a result of lost classroom hours, often ignores the damaging effects on some children of the digital divide, deprivation and discrimination and lack of school places for children with SEND, that also affected children unfairly before the coronavirus crisis. Solutions for these systemic social problems should not be short term COVID-19 reactions, but long term responses and must include the political will to solve child poverty. Children's digital rights are quick to be forgotten in a rapid response to remote learning needs, but the effects on their digital footprint and lived experience might last a lifetime.

We call for urgent government action in response to the COVID-19 crisis and rapid digital expansion:

- the Department for Education to place a moratorium on the school accountability system and league tables as pupil data continue to be affected by COVID-19, making comparable outcomes and competitive measures meaningless and misleading. We suggest a pause on the Early Years attainment profile, and Key Stage One SATs and only sampling Phonics Tests and a sample of Key Stage Two SATS. Reception Baseline Test is not fit for purpose and should be stopped indefinitely, alongside the Multiplications Times Tables Check.
- core national education infrastructure delivered by the private sector should be put on the national risk register as its fragility has been demonstrated in the COVID-19 crisis
- publish a list of actions the Department will undertake in response to the 2020 ICO audit
- build better infrastructure at national, regional and local levels founded upon a UK Education and Digital Rights Act, and give it independent oversight through an ombudsman and champion of children's rights for national data in education, placed on a statutory footing.

Sector-wide attention and longer term action is needed to address

1. **Access and inclusion:** Accessibility design standards and Internet access and funding
2. **Data cycle control, accountability and security:** mechanisms are needed by industry and schools for lifetime governance and data management for where children leave schools and leave education and that restore lifetime controllership to educational settings
3. **Data rights' management:** A consistent rights-based framework and mechanisms to realise children's rights is needed between the child / family and players in each data process; schools, LAs, the DfE, companies, and other third-parties for consistent, confident data handling; right to information, accuracy, controls and objections.
4. **Human roles and responsibilities:** The roles of school staff, parents/ families and children need boundaries redrawn to clarify responsibilities, reach of cloud services into family life, representation; including teacher training (initial and continuous professional development)
5. **Industry expectations:** normalised poor practice should be reset, ending exploitative practice or encroachment on classroom time; for safe, ethical product development and SME growth
6. **Lifetime effects of data on the developing child:** The permanency of the single pupil record
7. **Machine fairness:** Automated decisions, profiling, AI and algorithmic discrimination
8. **National data strategy:** The role of education data in the national data strategy and the implications of changes needed in the accountability and assessment systems
9. **Procurement routes and due diligence:** Reduce the investigative burden for schools in new technology introductions and increase the independent, qualified expert support systems that schools can call on, benefiting from scaled cost saving, and free from conflict of interest
10. **Risk management of education delivery:** Education infrastructure must be placed on the national risk register, reducing reliance on Silicon Valley tech giants and foreign-based edTech with implications for data export management, and increasing transparency over future costs, practice, and ensuring long-term stability for the public sector.

This year marks 150 years since the Elementary Education Act 1870 received royal assent. It was responsible for setting the framework for schooling of all children between the ages of 5 and 13 in England and Wales.

Todays' legislation, the Education Act 1996 is the primary legislation upon which most statutory instruments are hung to expand pupil data collections, and start new ones for millions of children generally as negative statutory instruments without public consultation or parliamentary scrutiny. It is no longer fit for purpose and lacks the necessary framework when it comes to data processing and related activity in the digital environment in education. It is therefore our first in ten areas of recommended actions on the changes our children need.

Foreword

The State of Data Report provides a snapshot of the uses and abuses of children's data in school. Its rich findings will be of great help in tackling the inequities and intrusions that children suffer.

Robust data privacy protections in schools and educational settings are urgently needed. School is not optional for children and therefore the harvesting of their data must not be compulsory.
A child's gait, their visits to the bathroom, their exam results, their parents' immigration status and their visits to the school counsellors must not be available to third parties, nor should companies be allowed to claim educational benefits that are unproven nor be able to impact on young people's educational outcomes without meeting minimum standards that ensure their products are fit for use.

This comprehensive report deserves close reading by all those concerned with children's privacy and security. Ministers and officials in the Department of Education and government would do well to consider its detailed recommendations that reveal both a gross injustice for an entire generation of children, and usefully signpost the way forward.

Baroness Beeban Kidron, Chair
5Rights Foundation

1.1. Introduction

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In 2020 as the world's children continue to be affected by school closures in the COVID-19 pandemic, technology plays a vital role in education. Some tools enable the delivery of essential information, connecting school communities outside the classroom. Others provide national platforms for sharing educational materials, or offer alternative means and modes of Assistive Technology and augmented communications, supporting the rights of those with disabilities.

But many families across the UK still don't have the necessary hardware or Internet access to support online remote learning at home. In addition, a lot of the critical infrastructure to deliver the administrative access to education is enabled by Silicon Valley big tech — companies originally set up by and for business, not educators. The Department for Education's (DfE) rapid response to a need for remote learning in the COVID-19 pandemic, bolstered the near duopoly in England's school system by offering funding in the Platform Provisioning Programme, to schools to get started with only two providers' systems— either Google or Microsoft.[8] Is that lack of sovereignty in the state sector sustainable? What is the current business model? What happens when freeware business models change? There is inadequate capability and capacity in schools to understand much of the technology marketed at them. Staff are expected to make quick and effective procurement choices for which they have often little training and can lack access to the necessary expertise.

Some of the greatest ongoing debates in the education sector on assessment and accountability, funding, curriculum and governance all have implications for children's digital records. And we are at an acute point of heightened awareness of disadvantage and distance learning. Understanding how technology should support these needs was part of the regular delivery of education. A large part of products offered to schools was for administrative support, but tools supporting learning to date have in the main offered stand-alone and closed commercial product offerings. The exceptional demands of remote learning now demand more focussed attention on what is desirable, not only on what is currently available.

Creating better public sector infrastructure and local systems

Today, schools overstretched by austerity, routinely push costs back to equally cash strapped parents. Lack of investment in school infrastructure means parents are increasingly asked to pay upwards of £400 in lease-to-buy hardware schemes and take on ever more back-office pupil admin through linked pupil-parental apps. Freeware products may choose to make money through data mining or ads instead of charging an upfront fee that schools can't afford. Children using the product may not know their data and behavioural activity is used as a free resource by companies in product development and research. Practice that can fail to comply with the law.[9]

Imagine instead, a fair and open market in which safe tools were supported that were effective, equitable, and proven to meet high standards. To support better accessibility, pedagogy and provide trustworthy emerging technologies we must raise standards and hold businesses and the state accountable for their designs and decision making.

Imagine if the government invested a flat rate in COVID-19 teacher training support, and open funding to build tools that schools need, to support a blended approach beyond autumn 2020.

Imagine moving away from systems that siphon off personal data and all the knowledge about the state education system—using teachers' time and work invested in using the product for their own benefit—and instead the adoption of technology focussed on children's needs and transparently benefited the public interest. Imagine decentralised, digital tools that worked together across a child's school day centred on the child's education rather than a series of administrative tools that are rarely interoperable and most often siloed.

Despite the best intentions of peer-to-peer demonstrator schools to share best practice and selected digital products, there is no joined-up vision for a whole curriculum approach, underpinned by pedagogy and proven child outcomes. Promotion encourages adoption of ABC products because it can help you with XYZ as a bolt-on to current practice. Rather than looking at a child-centric and teacher-centric experience of teaching and learning and asking what is needed. While many products look and sound appealing, many of the learning outcomes are contentious and unproven, and are rarely compared with giving every secondary school child a full set of subject text books for example.

Government must work to safeguard the national infrastructure behind the delivery of state education and our future state ability to afford, control, and shape it. But it must also provide a high standards framework for educational settings to be able to address the lack of equity and access at local level; due diligence in procurement in technical, company integrity and ethical terms.

There is rarely a route for families' involvement in decisions that affect their child from high level democratic discussion of the corporate reform of education through to the introduction of technology in education, down to the lack of consultation on the installation of CCTV in school bathrooms. Without new infrastructure, the sector has no route to move forwards to develop a consistent social contract to enable and enforce expectations between schools and families.

Creating safe national data systems

Learners have also found themselves at the sharp end of damaging algorithms and flawed human choices this summer across the UK, as the exam awarding processes 2020 left thousands of students without their expected grades and stepping stone to access university. People suddenly saw that a cap on aspiration[10] was a political choice, not a reflection of ability.

The historic data used in such data models is largely opaque to the people it is about. The majority of parents we polled in 2018 do not know the National Pupil Database exists at all. We have campaigned since 2015 for changes to its management; transparency, security and reuses.

In the wake of the national Learning Records Service breach,[11] the Department for Education tightened access to the approval process for new users of the 28 million individuals' records in Spring 2020. The Department now requires firms to provide details of their registration with both the Information Commissioner's Office and Companies House, as well as evidence of their being a going concern. And it will be dependent on firms providing "a detailed description of why they need access" —all of which one would have expected to be in place and that routine audit processes would have identified before it was drawn to national attention by the Sunday Times[12]. But it is just one of over 50 such databases the Department for Education controls, and what about the rest? The ICO findings from its 2020 audit should be applied to all national pupil data.

These databases are created from data collected in the attainment tests and school censuses, some of which didn't happen this year. So what needs to happen next?

After the exams fiasco 2020, and pause on attainment testing for the accountability system, we propose a moratorium on league tables, accountability, and Progress 8 measures until at least 2025. Delay the national central collection of children's records and scores in the new Reception Baseline and Multiplications Times Tables Tests. Data should work to support first and foremost the staff that create it in the direct care of the children in front of them. The Department for Education should receive sampled data from Early Years, Phonics and Key Stage Two testing and enable a decentralised model for the minimum necessary information transfers of Year 6 into Year 7 transition, which may adjust the Common Transfer File.

Building a rights' respecting digital environment in education

Few families would let an unlimited number of strangers walk into their home, watch what they do on-screen, hear what they say or scan every Internet search and label it with risk factors. No one would let strangers or even school staff take a webcam photo of their child without their knowledge or permission. We would not expect outsiders who were not qualified educators to stand in the classroom and nudge a child's behaviour or affect their learning without DBS checks, safety and ethical oversight and parents being informed. Yet this is what happens through current technology in use today, across UK schools.

Imagine England's school system as a giant organisational chart. What do you see? Which institutions does a child physically pass through? How do the organisations relate to one another and who reports to whom? Where is regulation and oversight and where do I go for redress if things go wrong? It is nearly impossible for parents to navigate this real-world complexity amongst the last decade of restructuring of the state school system. Now add to that the world we cannot see. It is hard to grasp how many third-parties a child's digital footprint passes through in just one day. Now imagine that 24/7, 365 days a year, every year of a child's schooling and long after they leave school.

Learners' rights are rarely prioritised and the direction of travel is towards ever more centralised surveillance in edTech, more automated decision making and reduced human dignity and may breach data protection, equality and consumer law.[13] The need for protection goes beyond the scope of data protection law and to the protection of children's right to fundamental rights and freedoms; privacy, reputation, and a full and free development..

"The world in thirty years is going to be unrecognizably datamined and it's going to be really fun to watch," said then CEO of Knewton, Jose Ferreira at the White House US Datapalooza in 2012.[14] "Education happens to be the most data mineable industry by far."

We must build a system fit to manage that safely and move forwards to meet the social, cultural and economic challenges young people face in a world scarred by COVID-19 and as we exit the European Union. We must not model our future aspirations for the economy and education on flawed, historic data.[15]

We must also enable children to go to school without being subject to commercial or state interference. *"Children do not lose their human rights by virtue of passing through the school gates… Education must be provided in a way that respects the inherent dignity of the child and enables the child to express his or her views freely…*[16]

The Convention on the Rights of the Child makes clear that children have a specific right to privacy. Tracking the language of the UDHR and ICCPR, Article 16 of the Convention states that "no child shall be subjected to arbitrary or unlawful interference with his or her privacy, family, or correspondence, nor to unlawful attacks on his or her honour and reputation," and reaffirms that "the child has the right to the protection of the law against such interference or attacks. These standards imply that children should be given the same levels of protection for their right to privacy as adults. When contextualising children's right to privacy in the full range of their other rights, best interests, and evolving capacities however, it becomes evident that children's privacy differs both in scope and application from adults' privacy." (UNICEF, 2017)[17]

By placing this background work into the public domain (in parts two to five of this report) we intend it for others to use and help keep it up to date with current information and case studies in the constantly evolving areas of statutory data collections and technology to collectively build better.

1.2. Scope of the report

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We set out to map a snapshot of the current state of data processing in 2020 for children in education in England, age 2-19. In Parts 2-4 we describe a selection of some of the common data processing, what systems do and why, how they share data and consider their risks.

This report is about how systems create, use and exploit information collected about children as well as content created by them, and how that data is processed by third-parties, often for profit, generally at public sector cost in terms of school staff time and from school budgets.

We include applied case studies in the online report content (Part 3), brought to our attention by a wide range of stakeholders including young people, parents, state school, private school and public authority staff with the aim of drawing out more concrete discussion of common issues in a rapidly changing field. We are grateful to the companies that contributed to our understanding of their products and reviewed the case studies in advance of publication.

We do not attempt to present this as a comprehensive view of the entire education landscape that is constantly evolving. We need to do further research to map data flows for children with special educational needs who leave mainstream schooling and 'managed moves'. We do not cover secure children's homes or secure training centres. But there are consistent gaps with regard to lack of respect for child rights highlighted across Ofsted reports of all settings where children receive education, so that children in the Oakhill Secure Training Centre[18] may have much in common with those in edTech demonstrator schools.

We have sought views from discussion with a wide range of others: academics, benchmarking companies, data protection officers, data consultancies, researchers, school network managers, suppliers, vendors. In 2019 we also ran workshops with young people.

We include the opinions of over 1,000 parents in a poll we commissioned through Survation in 2018, and the views from 35 school IT network managers and staff on the online forum Edugeek, polled just before the GDPR came into enforceable effect in May 2018. The latter was too small to be a representative sample of opinions, but is an interesting snapshot of views in time.

This report is not about how children access or use the Internet in their personal lives. There is already a lot of discussion about child protection with regard to online stranger-danger, or restricting their access to harmful content.

We aim to map what personal data is collected by whom, for what purposes and where it goes and why. This report is only a sample of the everyday data collection from children in the course of their education and tells only some of the story that we can see. The fact that so much is hidden or hard to find is of itself a key concern. Gaps that readers familiar with the sector may identify, may highlight how hard it is for families to understand the whole system. We intend to update this knowledge base in an online repository and maintain it with current examples as time goes on. We welcome case studies and contributions to this end.

1.2.1 The report structure

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This report falls into five parts.

Part 1: a summary report of recommendations and main findings

Part 2: national statutory data collections including a CV at-a-glance age 0-25

Part 3: local data processing including a day-in-the-life of an eleven year old

Part 4: highlights from the transition from compulsory school to Higher Education

Part 5: an annex of data, source materials, research and references.

This is Part 1 and consists of this introduction and summary report to highlight our ten areas of recommended actions. Parts 2-5 are online only.

Part 2 starts by identifying the core infrastructure behind national statutory data collections in the state education system affecting children typically from birth to age 25. We mapped the most common statutory data collections for the purposes of the national accountability system that are about recording a child's attainment and testing and the seven types of census collected by the Department for Education on a termly or annual basis. A subset applies to every child in mainstream education with additional collections for each child who attends state-funded Early Years settings, is a child at risk, or leaves mainstream education and is counted in Alternative Provision. We added in the most common data collections from local level progress and attainment testing for schools' own purposes and additional testing applied to a sample of children nationally every year for national and international purposes. And we address where all this data goes when it leaves a school and how it is used.

Finally we look at samples of other significant pupil data collected through schools about children nationally, such as health data and the vital role of the school vaccination programme as well as the interactions with school settings by other national institutions for youth work, careers or school regulation by Ofsted.

In Part 3 we address local data processing. We map common aspects of the local data landscape and address the data processing from the daily systems and edTech interactions that affect children from both primary, secondary and further education to help readers' understand the volume of data flows between different people and other organisations outside the state education sector. We include a range of case studies picking out different types of edTech most common in schools today.

In Part 4, we address in brief, the transition between school and Higher Education, from childhood to adulthood. We look at some of the most common data processing from applicants and students as they transfer from state education to Higher Education at age 18. We cover both national data collections and local institutional choices processing data for student data analytics and national policies such as the Prevent programme.

Part 5 contains an Annex of tables, and figures including comparisons of national data collections and use across the four devolved nations only to serve as a comparison to England's policy and practice, and while many of the same questions around edTech apply across all of the UK, we do not attempt to map the landscape outside England.

A future and further stage of this project would look to map the Department for Education funding flows across the sector to see where there are differences between who provides data about a child, where the child learns, and who gets the money for providing their education. In researching the Alternative Provision sector in particular the discrepancies indicate a lack of accountability when where a child goes and where the money goes are to different places.

Later guidance will be created from this to help advise teachers and parents of what they can do to protect children's human rights as we continue to move into an ever-more machine-led world.

1.3. Recommendations and selected findings

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Three futures need to be championed and must be made compatible in a long term vision for a rights' respecting environment in state education. 1) The rights of every child to education and promotion of their fullest development and human flourishing[19], 2) the purpose and value of learning and education for society and its delivery, and 3) the edTech sector's aspirations and its place in the UK economy and in export. We must build the legal and practical mechanisms to realise rights across the child's lifetime and beyond the school gate, if the UK government is to promote all three. It is against this background that we have undertaken this report at defenddigitalme and recommend founding that framework in legislation upon which that vision for the future can flourish.

1.3.1.1 Recommendations One | Legislation and statutory duties

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For national governments

1. Legislate for a UK Education and Digital Rights Act to safeguard the infrastructure behind the delivery of state education and our future sovereign ability to afford, control, and shape it.

2. An Education and Digital Rights Act, with due regard for devolved issues, would build a rights' respecting digital environment in education and consider standards for procurement, accessibility and inclusion; address data justice and algorithmic discrimination, and ensure that introductions of products and research projects to the classroom have consistent pedagogical value, ethical oversight, safeguarding, quality and health and safety standards.

3. Core national education infrastructure must be put on the national risk register. Dependence on products such as Google for Education, MS Office 365, and cashless payment systems, all need to have a further duty to transparency reporting obligations. We are currently operating in the dark where remote learning is and is not supportable, and about the implications of dependence on these systems for the delivery of key school functions and children's learning.

4. Legislation, Codes of Practice, and enforcement need to prioritise the full range of human rights of the child in education. This should be in accordance with Council of Europe Recommendation CM/Rec (2018) of the Committee of Ministers to member States on Guidelines to respect, protect and fulfil the rights of the child in the digital environment.[20] Stakeholders at all levels must also respect the UNCRC Committee on the Rights of the Child General comment No. 16 (2013) on State obligations regarding the impact of the business sector.[21]

5. An Education and Digital Rights Act would govern not only children's rights to control the access to educational information and records by commercial companies about themselves, but govern rules on routine foreign data transfers and address the implications for the export control, value and security of national public sector created data about our education system through our children's learning and behavioural data held by private companies, in the event of mergers and acquisitions.

6. Accessibility and Internet access is an economic and a social justice issue. As 1 in 4 children lives in poverty[22], this must come before you promote products on top of the delivery systems. Government should extend the requirement on affordable telephony to broadband to help ensure every child has equitable access to the Internet at home and to keep pace with the connected digital economy to support children in-and-beyond the pandemic crisis response.

7. Ensure a substantial improvement in the support available to public and school library networks. Recognise that children can rely on public libraries for quiet and private study space, particularly those from disadvantaged backgrounds, notwithstanding current COVID-19 limitations.

8. Ensure consistency across the devolved nations for children's biometric data protection. A range of biometric data are processed by commercial companies but the Protection of Freedoms Act 2012 applies only to schools in England and Wales. Introduce legislation on protections of biometric data in Northern Ireland and Scotland consistent with England and Wales, to protect and fulfil the rights of the child in the digital environment across the public sector.

9. Public sector bodies must facilitate mechanisms to explain the Right to Object that accompanies the legal basis under which they carry out most educational data processing under the GDPR Article 6(1)(e) and give families and children a way to exercise it

10. Freedom of Information laws should be applied to all non-state actors, companies and arms-length government bodies, as pertains to their educational and children's services activities commissioned by the publicly funded state sector.

11. Under s66 of the Digital Economy Act it is a criminal offence to disclose any personal information [obtained] from administrative data for research purposes. Such activity would already be an offence under s.55 Data Protection Act 1998 if undertaken without the data controller's consent. (Mourby at al. 2018)[23] This should be applied to third party commercial data processors that are repurposing administrative data obtained from public sector data processing at local level (a child's pupil data) and disclosing it to third-party researchers that the school did not engage or request that children's data be repurposed.

12. A White Paper should start the ball rolling, to address the sector-wide changes needed, focussed from a people-first and pedagogy perspective. It needs to explore further the rights' issues raised in the pandemic response such as product design and accessibility, infrastructure access and equality, the lack of social contract between children and their data processors; and staff skills; as well as horizon scanning to identify the necessary secure and sustainable infrastructure and governance models required for a safe, just, and transparent digital environment in education.

For the Department for Education

13. A national oversight body is needed on a statutory footing to oversee data governance in education to address the lack and compliance and accountability found by the ICO in its audit of the Department for Education, and issues in the broad use of edTech. A National Guardian for education and digital rights, would provide a bridge between government, companies, educational settings and families, to provide standards, oversight and accountability. Capacity and capability across the sector would further benefit from a cascading network of knowledge with multi-way communication, along the principles of the NHS Caldicott Guardian model.

14. Accessibility standards[24] for all products used in state education should be defined and made compulsory in procurement processes, to ensure fair access for all and reduce digital exclusion.

15. A national model of competent due diligence in procurement should be developed and the infrastructure put in place for schools to call on their expertise in approved products. Procurement processes must require assessment of what is pedagogically sound and what is developmentally appropriate, as part of risk assessment including data protection, privacy and ethical impact. Assessment of risk is not a one-time state, at the start of data collection, but across the data life-cycle.

16. Start with teacher training. The national strategy is all about products, when it should be starting with people. Introduce skills, data protection and pupil privacy into basic teacher training, to support a rights-respecting environment in policy and practice using edTech and broader data processing. This will help to give staff the clarity, consistency and confidence in applying the high standards they need. Ensure ongoing training is available and accessible to all staff for continuous professional development. A focus on people, not products, will deliver fundamental basics needed for better tech understanding and use and provide the human support infrastructure needed to reduce the workload and investigative burden in school procurement.

17. Establish fair and independent oversight mechanisms of all national pupil data collected in censuses and standardised testing, so that transparency and trust are consistently maintained across the public sector, and throughout the chain of data processing starting from collection, to the end of its life cycle. Develop data usage reports from the Department for Education for each child, that can be downloaded and distributed by schools annually or on request to show individuals what is held about them by the Department and how it has been used.

18. Fix the inconsistency of approach in current legislation that exists between Local Authority and other academy/free schools et al. on the parental right of access to the child's educational record. Standard reports should also be mandated from school information management systems providers to address the inconsistency of how Subject Access rights are fulfilled by the wide variety of school information management systems. Shift the power balance back to schools and families, where they can better understand what is held about them by whom and why.

19. Every company that has a seat at the national Department for Education UK edTech strategy table, or that can benefit from access to public sector pupil data, should also have statutory obligations to demonstrate full transparency over their own sector practices, including business models, extent of existing market reach, future intentions, and meeting data protection law.

20. The Department for Education's statutory guidance 'Keeping Children Safe in Education'[25] obliges schools and colleges in England to "ensure appropriate filters and appropriate monitoring systems are in place" but gives no guidance how to respect privacy and communications law or rules on monitoring out of school hours or while at home. This needs urgent regulatory intervention and changes in legislation to prevent today's overreach that affects millions of children at home in lockdown and while remote learning. (See case studies, part three) Defining safeguarding in schools services and software application standards could begin in the short term as consultation with industry and civil society, and lead to a statutory Code of Practice.

21. To ensure respect for the UPN statutory guidance[26] that states the UPN must lapse when pupils leave state funded schooling, at the age of sixteen or older, the Department for Education should clarify what 'lapse' means in accordance with the law, for retention and data destruction policies.

For Local Authorities and Multi-Academy Trusts and educational settings

22. Public Authorities should have a duty to carry out a Child Rights Impact Assessment before any adoption of large scale or high risk projects involving children's data obtained through schools. Public Authorities should document and publish a transparency and risk register of such projects, and any data distribution, including commercial processors /sub processors terms of service, any commercially obtained sources of personal data collected for processing.

23. Public Authorities should have a duty to document routine large-scale linkage of administrative data processed about individuals in the course of their public sector interactions (Dencik et al 2019) as part of ROPA (GDPR Article 30) and in particular where such data is used for predictive analytics and interventions. Re-use should be made transparent and registers updated on a regular basis. (i.e. Data bought from brokers, third-party companies, scraped from social media) Data Protection Impact Assessments, Retention schedules, Procurement spending on data analytics and algorithm should be published as open data, and GDPR s36(4) Assessments published with regular reviews to address changes to contribute to a improved cumulative national transparency.

24. Public bodies at all levels must respect the Right to Object that accompanies the legal basis under which they carry out most data processing under the GDPR Article 6(1)(e). Local Authorities and educational settings must enable consistent ways to explain to children and parents when they have a right to object and offer ways to exercise it and processes to make the balancing test and communicate its outcome, where it applies when processing personal data under the public task at all levels.[27] (GDPR Articles 6(1)e, 9, and Recitals 69 and 70). Staff must be trained on their obligations and how to fulfill them.

25. All educational settings must have a statutory entitlement to be able to connect to high-speed broadband services to ensure equality of access and participation in the educational, economic, cultural and social opportunities of the world wide web.

26. Ensure respect for the UPN statutory guidance[28] in retention and data destruction policies that states the UPN must lapse when pupils leave state funded schooling, at the age of sixteen or older.

27. Furthermore, the UPN must be a 'blind number' not an automatic adjunct to a pupil's name. It must be held electronically and only output from the electronic system when required to provide information to:

- Local authority
- central government
- another school to which the pupil is transferring
- a third party (for example, a supplier of a schools management information system) who have entered

- a third party (for example, a supplier of a schools management information system) who have entered into an agreement to provide an education service or system to a school, local authority or government department and process data on their behalf
- A pupil's admission number, rather than the UPN, must be used as the general pupil reference number on the admission register or paper files.
- The sharing of UPN data with a third party for work or a service not commissioned by the school, local authority or another prescribed person is not permitted nor would the sharing of UPN data for any purposes not related to education.

1.3.1.2 Findings 1 | Legislation and statutory duties

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28. Nesta proposed in its 2019 report, Educ-AI-tion Rebooted?[29] that the Government should publicly declare an ambition to create a system of responsible education data sharing by 2030. That somewhat suggests that they believe we do not have one today. We agree with both positions but suggest that 2030 is too far away and the governance framework must start to be built with urgency.

29. The State delivery of education cannot reliably depend long term on the planning of private providers, or their free-for-first-three-months offers, to deliver critical educational infrastructure on which both the public sector and the ability to go-to-work of millions of parents rely.

30. Rapid response by the Department for Education to support schools without any remote learning platform was exclusively supportive of the 'Big Two' Google and Microsoft, and indirectly supported their market foothold. Yes," many educational settings lack the infrastructure" but that should never mean encouraging ownership and delivery by only closed commercial partners. The current route risks the UK losing control of the state education curriculum, staff training and (e)quality, its delivery, risk management, data, and cost controls.

31. At national level there is no independent oversight of how any data infrastructure at local and regional school level is managed. The delivery of education fails to appear on the national risk register despite its brittleness and the problems in its vulnerability caused by remote learning demands in response to the shock of the COVID-19 pandemic. Who owns and has responsibility for the infrastructure? How much is dependent on Silicon Valley and what is known about future ownership, stability, security and costs? Where is it inadequate? Does it meet national needs from the child's educational perspective? What plans exist if a company that provides its products plus teacher training for free today, nationwide, starts charging tomorrow?

32. It is not within OSR's current remit to regulate the operational use of algorithmic models by the government and other public bodies. Where this regulation should sit needs to be decided and put on a statutory footing after the review of the 2020 exams awarding process.

33. Questions of accountability, funding and data are inextricably linked, but when it comes to managing the digital child, there is often confusion over who is responsible for what information when. And the sensitivity of digitized pupil and student data should not be underestimated.[30]

34. To guard against Department for Education reputational risk and if the national edTech sector is to be successful in its home grown support of children's learning and administration as well as in an export strategy, national and local level changes are needed to ensure product integrity and safety standards are achieved.

35. Data protection law fails to take account of emerging technologies that process information about children's bodies and behaviour but that do not meet the definition of biometric data. Data protection law alone cannot offer children adequate protections when it comes to product trials and research trials or controls, involving children without parental consent.

36. Data protection law is insufficient to protect children's full range of rights in the digital environment. Only by reshaping the whole process for the long term, will we have a chance to restore the power balance to schools and to families. Schools must return to a strong position of data controllers and delegate companies to data processors with consistent standards on what they are permitted to do. That infrastructure may not exist, but we need to build it.

37. Start with designing for fairness in public sector systems. Minimum acceptable ethical standards could be framed around for example, accessibility, design, and restrictions on commercial exploitation and in-product advertising. This needs to be in place first, before fitting products 'on top' of an existing unfair, and imbalanced system to avoid embedding disadvantage and the commodification of children in education, even further.

38. While the government is driving an edTech strategy for post-Brexit export, it fails to adequately address fundamental principles of due diligence. This needs to go beyond questions of data protection which is a weak protection for children, disempowered in the domestic public sector environment. A child rights framework is needed to ensure high standards generate the safe use of UK digital products worldwide, not only in the school life of a child, but for their lifetime.

39. Finding a lawful basis for children's personal data processing for many emerging technologies is a challenge. For example, many apps' and in particular AI companies' terms and conditions may set out that they process on the basis of consent. But children cannot freely consent to the use of such services due to capacity and in particular where the power imbalance is such that it cannot be refused, or easily withdrawn. "Public authorities, employers and other organisations in a position of power may find it more difficult to show valid freely given consent." (ICO)

40. Consent and contract terms must be rethought in the context of education and for children and their legal autonomy at age 18 and clarified with schools. As set out by the European Data Protection Board in 2020 Guidelines on consent[31], children [and their guardians] cannot freely consent to data processing, where the nature of the institutional-personal power imbalance means that consent cannot be refused, or easily withdrawn without detriment, and they recognise that the GDPR does not specify ways to gather the parent's consent or to establish that someone is entitled to perform this action or how consent should expire from parents and be asked of a young adult.

41. There are also problems with understanding the shared roles of child/parental consent that data protection law fails to address for educational settings where processing is primarily part of a public task. Collecting flawed consent is routinely used as a tick box exercise, and not the proper communications process that it should be to explain what tool is used, how and why.

42. At the local level the proliferation of apps used in educational settings for administrative purposes, or to support learning and special needs or wellness interventions has no oversight. Although many digital tools market themselves as meeting Ofsted standards or to help schools do well in inspections, the Inspectorate plays no role in the standards of digital rights or safety and these marketing claims may be baseless when the regulator has not approved them.

43. One academy Trust cites over 85 third-party companies and organisations in a non-exhaustive list that interact with children's daily lives, some of whom will in effect also have access to 'peer into parents' phones' too, when they use the parent app to view children's school records, update the cashless payment system, notify school of absence or view the behaviour-points their child earned that day.[32]

44. While schools must only hire staff to work with children after DBS checks and due diligence, anyone can set up a technology company without financial background or safety checks and get into children's lives and seek to influence them online without any independent oversight. Some edTech can be very intrusive but in ways that may not be apparent to parents. Some products can take photos via a child's webcam. Some digital tools enable companies to find out about children's mental health and identify the most vulnerable; and the companies then seek to engage in life-long relationships with millions of children who were required to use the product simply because they went to a school that chose to let them into the children's lives.

45. With no minimum pedagogical or safety standards, hundreds of apps and platforms can influence which books a child will read, shape if they like a subject or not, determine what behaviours are profiled. They can advertise straight to parents' mobile phones to influence their personal choices or pitch upgrades from the free product the school chose to use, to the premium product that parents pay for. While some tools offer parental portals they often focus on presenting their own perceived added value: dashboards, monitoring reports and even giving parents copies of children's every move, an itemised list of food and drink bought in the canteen, or behaviour recorded in school systems.

46. None offers sufficient insight into how the company behaves or shows how the child's data they process is shared with affiliated companies, sets out what advertisers parents should expect to see on their mobile phones, or how algorithms use a child' data to monitor or predict their behaviours and influence a child's educational experience.

47. The constant commercial surveillance of our online behaviours that the adTech online advertising industry is built on; knowing when you use a product, for how long, where you click, which pages you stay on and where you go next online when you leave an app; is deeply embedded in much of the edTech industry. As set out in the UNICEF issue brief no.3 in August 2020 on good governance of children's data, government policies in countries around the world offer only limited protections for young people in this expanding, commercialized media culture. (Montgomery et al. 2020)

48. The values and educational vision that sit inside products are hidden in black-box algorithms embedded in a child's daily school life in the classroom and beyond, as a result of school-led procurement. Algorithms with hidden biases and unintended consequences are used in educational settings from low-level decisions, such as assigning class seating plans based on children's behavioural scores to shaping their progress profiles every day. AI might be shaping an adaptive curriculum or assigning serious risk classifications about Internet activity.

49. Internet monitoring that operates whenever a child, teacher or school visitor connects to the school network or GSuite environment, can surveil screen content and searches, by analyzing everything the user types or receives on their device, even passwords[33] including on personal devices depending on the school policy and provider of choice. Some systems can capture text every thirty seconds until the user has stopped or performed an action. If the device is offline, text capture might be sent as soon as it reconnects. Some use AI to match what is typed on-screen with thousands of keywords, which can even include items a child subsequently deletes, suggesting that a child is a risk to themselves or to others, or at risk from radicalisation and label a child's online activity with 'terrorism'. Many of the monitoring may continue to work out of school, offsite and out of hours as long as the connection to the school network or GSuite environment remains. Most families we polled in 2018 do not know this. Or know that their child's on- and offline activity may continue to be surveilled remotely through school software, devices or services during lockdown, or routinely at weekends and in the summer holidays.

50. The UNCRC Committee on the Rights of the Child General comment No. 16 (2013) on State obligations regarding the impact of the business sector require that:

> "a State should not engage in, support or condone abuses of children's rights when it has a business role itself or conducts business with private enterprises. For example, States must take steps to ensure that public procurement contracts are awarded to bidders that are committed to respecting children's rights. State agencies and institutions, including security forces, should not collaborate with or condone the infringement of the rights of the child by third parties. States should not invest public finances and other resources in business activities that violate children's rights."

51. The use of biometrics is not routinely permitted for children in other countries as it is in the UK.

52. Putting high standards and oversight of these sensitive processes in place would not only be good for learners. Schools need clarity and consistency, to have confidence in using technology and data in decisions. Companies big and small, need a fair, safe, and trusted environment if a sustainable edTech market is to thrive.

53. An alternative model of data rights' management in education works in the U.S., governed by FERPA with local state variations. It offers a regional model of law and technical expertise for schools to rely on, with standard trusted contractual agreements agreed at the start of a school year on a regional (State) basis with technical expertise appropriate to the necessary level of due diligence edTech can demand.

- Schools are data controllers. Processors cannot change terms and conditions midway through the year, without agreed notification periods, and reasonable terms of change.
- Families get a list each year (or at each school move) to explain the products their child will be using and legal guardians retain a right to object to products.
- Schools are obliged to offer an equal level of provision via an alternative method of education, so that objection to the use of a maths quiz app is not to the detriment of the child and they do not miss out on teaching.

"In the U.S. Between 2013 and 2018,40 states passed 125 laws that relate to student privacy. In general, these have coincided with states moving to online statewide testing (which has increased the quantity of data created and shared) and as states have built integrated data systems that combine data from multiple state agencies. Some common goals of these laws are

- building upon FERPA and PPRA by further restricting what student data a school can collect or share with others
- providing further requirements and guardrails related to student data shared with websites, online services, and applications
- designating a chief privacy officer and other individuals at the local level responsible for ensuring compliance with privacy laws
- requiring more transparency about what data schools collect and what it is used for
- requiring that schools and vendors meet certain data security standards
- requiring notification to parents in the event of a data security breach." (Student Privacy Compass, 2020)[34]

54. There is a public demand for greater accountability from technology companies. Two thirds asked in the DotEveryone survey for the People, Power and Technology the 2018 digital attitudes report[35] said "the government should be helping ensure companies treat their customers, staff and society fairly. People love the internet—but not at any cost. When asked to make choices between innovation and changes to their communities and public services, people found those trade-offs unacceptable."

55. The Library and Information Association has pointed to the Chartered Institute of Public Finance and Accountancy figures of a net reduction of 178 libraries in England between 2009-10 and 2014-15.[36]

56. Educational settings rarely respect the Right to Object that may apply when processing personal data under the public task 'in the exercise of official authority'. This covers public functions and powers that are set out in law; and there are no mechanisms for schools to communicate when and why the right applies, the process, or for children and families to exercise this right in national statutory data collections or the collection of local administrative data or in digital tools that process data for marketing. (GDPR Articles 6(1)e, 9, and Recitals 69 and 70.)

57. Due to inconsistent legislation, parental access rights to your own child's school records is not standardised for children across all settings as regards rights to the educational record and inconsistent between Local Authority and academies and other models of education.[37]

58. Standard reports to meet data protection law vary wildly between school information management systems providers and generate inconsistency in how Subject Access Rights are fulfilled by a wide variety of settings. Schools can struggle to meet SARs due to the way in which information is managed, and some offer limited system ability to generate legally required documents. In a quid pro quo for MIS providers to access the public sector they should be required to demonstrate a high minimum standard requirement to support schools' needs.

1.3.2.1 Recommendations Two | Assessment, Attainment, Accountability and Profiling

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While many may consider the middle of a pandemic not the best time to restructure school assessment, progress, and accountability measures, it is inevitable since some of the mainstays of the system do not exist for some year groups after their cancellation under COVID-19. The Department for Education Data Management Review Group 2016 findings are yet to be realised, so that schools can have greater freedom to balance professional autonomy and agency against the demands of the accountability system. And the recommendation from the 2017 Primary Assessment enquiry has not been realised to ensure the risks "of schools purchasing low-quality assessment systems from commercial providers" are mitigated against through standards' obligations. This year's awarding process and its failure of fitness for purpose also demonstrates a need for better risk assessment and understanding of the potential for discrimination in data, across all of these systems at all levels.

For the Department for Education

59. Urgent independent statistical assessment must be made of the modelling using Key Stage 2 and GCSE prediction reference grades for the 2021 GCSE exam awards process, and the A-levels grading system, including assessment for bias and discrimination in data and design. Obligations on algorithmic explainability need met in ways that meet student needs in plain English and we propose an individual level report that educational settings (exam centres) can download that will demonstrate any data sources, calculations and how each grade was awarded at individual level. The Office for Statistics Regulation (OSR) Review may wish to address this.

60. The Department for Education should place a moratorium on the school accountability system and league tables 2020-25 while an assessment is carried out on fitness for purpose.[38] Recognising where pupil data will continue to be affected by COVID-19 making comparable outcomes and competitive measures meaningless and progress measures may be misleading, this means a pause on EYFS, Baseline, MTC, KS1, and only sampling Phonics and a sample population could sit the KS2 SATs or alternative assessment where preferable.

61. Support 2021+ Primary into Secondary school transition beyond the national sampling of KS2 SATs scores, with KS2 SATs or similar year 6 assessment used for local area use only, in context, and for school transfers, building a fair and lawful decentralised data model, based on the six-into-seven principles, allowing staff to concentrate on children's local needs.[39]

62. Carry out an independent national review and a Child Rights Impact Assessment of the state school accountability, local and national progress measures, and benchmarking models— including those designed by commercial providers and sold to the public sector— to assess for lawfulness and safeguards to prevent harm from individual profiling (aligned with the GDPR Article 25 and recital 71) since such measures 'should not concern a child'.

63. The Department for Education should correct its national guidance,[40]"There Is no need for schools to share individual Progress 8 scores with their pupils". This instruction from the Department for Education leads to unfair data processing practice by schools in breach of the first data protection principle.

64. The Reception Baseline Assessment should not go ahead. It must be independently re-assessed for compliance with data protection law and algorithmic discrimination in a) its adaptive testing model design b) Right to Object c) the plans for seven-year score retention and d) decision to not release data to families. The pilot and trial data were not collected with adequate fair processing.

65. Who watches the watchdog? All reuse of historic datasets for regulatory overight by Oftsed should be independently assessed for discrimination as identified in the 2020 exams awarding process. While it is not within OSR's current remit to regulate the operational use of models by the government and other public bodies where this regulation should sit needs to be decided and put on a statutory footing.

66. Every expansion of the seven school censuses and standardised testing should require public consultation and affirmative procedure before legislation can expand national data collections

67. The recommendation from the 2017 Primary Assessment enquiry has not been realised to ensure the risks "of schools purchasing low-quality assessment systems from commercial providers" are mitigated against through standards obligations.

68. Teacher training in statistics and understanding bias and discrimination in data is required to inadvertently perpetuate any historical bias in schools data that staff have to interpret, including socio-economic, ethnic, and racial discrimination.

69. Right to explanation and fair processing must become routine and realised across all school settings. Attainment test results and progress measures must be made available to pupils and families and cannot be carried out in secret or the results black-boxed (aligned with the GDPR Articles 12-15, 22(2)(b) and 22(3)). A standard process must be designed to enable this two-way communication and offer meaningful routes to address questions and seek redress.

70. Privacy and Data Protection Impact Assessments should be routinely carried out and published before any new national test, new data collection or new processing aim is announced, especially where it concerns profiling, sensitive data types or the use for punitive purposes. The assessment should be independent from organisations involved as data users and be published. (aligned with the GDPR Article 22(2)(b)).

1.3.2.2 Findings 2 | Assessment, Attainment Profiling and Accountability

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71. The summer 2020 exams awarding process was always going to be hard. But then it resulted in the Prime Minister making claims about mutant algorithms and the resignation of the Chief Regulator of Ofqual. Its risk assessment[41] was signed off only a day before the publication of GCSE results which appears odd given it is after any data processing was carried out.

72. There were no Key Stage 2 SATS tests and yet primary age children have successfully transitioned from year six into seven. There was no accountability sent to the Department for Education. Although there are no progress 8 measures calculated for this year's cohort, teaching and learning continues.

73. The pause on standardised testing in 2020 shows that it is possible. Leckie and Goldstein (2017) concluded in their work on the evolution of school league tables in England 1992-2016: 'Contextual value-added', 'expected progress' and 'progress 8' that, "all these progress measures and school league tables more generally should be viewed with far more scepticism and interpreted far more cautiously than they have often been to date.[42] With respect for the late Harvey Goldstein perhaps it is the right time like no other, for the government to recognise his 2008 assessment of school league tables. They are not fit for purpose.[43]

74. Progress 8 was intended to measure the impact a secondary school has on a pupils' performance across eight subjects. It uses the Key Stage Two results of pupils in their last year at primary school as a starting point. It is a flawed and unsuitable measure of individual ability at age 10 designed as it is to measure system accountability, and almost certainly of dubious value to repurpose for reference in GCSE grade modelling, through its reinforcement of feedback loops.

75. Gaming the system by primary schools or parents, can affect the results for those pupils and therefore the accountability measure as a "value-add" of the secondary school. Pupils may not go on to measure up to their expected attainment level, between age 10-11 and GCSEs taken at age 16. Judging secondaries by Progress 8 is therefore a mechanistic but rather meaningless measure, and it is commonly accepted that some primaries data is inflated through above average test preparation by the school or parents beyond what may be expected.

76. All pupils with KS1 results are slotted into PAGs alongside thousands of other pupils nationally. The DfE then takes in all the KS2 test scores and calculates the average KS2 score for each PAG. The result is a made-up metric distorted by the pressures of high stakes of accountability. (Pembroke, 2020b)

77. Without teacher training in statistics and understanding bias and data discrimination, teaching staff are likely to inadvertently perpetuate any historical bias in the data they have to interpret. Given the significance of carrying out assessment it is a big gap in teacher training, as Dr Becky Allen told the Education Select Committee Enquiry on primary assessment in 2017, that "we do not have a system of training for teachers that makes them in any way experts in assessment". Some schools had resorted to buying commercial options of varying quality, as described by the Association of Teachers and Lecturers concerned about several dubious "solutions" commercially available to schools which do not offer value for money or a high-quality assessment framework. It was proposed in 2017 that the risks "of schools purchasing low-quality assessment systems from commercial providers" are to be mitigated by high quality advice and guidance, rather than change of policy and practice. That recommendation from the enquiry into Primary Assessment has not been realised and must be with strengthened standards requirements.

78. Children and parents have the right to obtain human intervention in any automated decision making, to express his or her point of view and to contest the decision. Accountability measures that routinely profile a child fail to address these rights today, and furthermore require change to build human safeguards into the process so that any errors are easy to identify, the outcomes easily understood by the staff and parents, and any effects as a result explained to both. Fair processing is required to explain what data has been collected and how it will be processed.

79. Individuals have rights to access data, and request correction of inaccurate personal data. A person has the right to object, on grounds relating to his or her particular situation, at any time to processing of personal data concerning him or her which is based on either the GDPR Article 6(1)(e) processing is necessary for the performance of a task carried out in the public interest or in the exercise of official authority vested in the controller; or (f) processing is necessary for the purposes of the legitimate interests pursued by the controller or by a third party, except where such interests are overridden by the interests or fundamental rights and freedoms of the data subject which require protection of personal data, in particular where the data subject is a child.

80. The Department for Education Data protection: toolkit for schools (2018)[44] fails to inform schools to apply this right to all statutory high stakes testing and school census data collections, how to do so, or provide any mechanism for families to make an objection to the Department for Education as the data controller.

81. This applies to all data processing across the collections in the accountability system and must be applied in the case of the Reception Baseline Assessment as well as to all other statutory high stakes tests and school census data collections.

82. The Reception Baseline Assessment has a number of significant problems with the test approach as regards data protection law and in its design. It is problematic from an equality and disability rights perspective given that the same approach is not inclusive for all. When we reviewed the Data Protection Impact Assessment for the Baseline Test,[45] we found it omitted many of the risks including its adaptive test design, omitted that reasons for not taking the test were collected, and did not mention how data may be accessed by third parties from the National Pupil Database. We have been unable to get an answer from the NFER or Department as at September 2020, how they believe it meets the full range of legal obligations of UK data protection law. We were told by an NFER spokesperson in September 2020, that the Department is currently reviewing the DPIA and the privacy notices in advance of the assessment becoming statutory (in 2021). Given the DfE release of data to third parties (including policing, DWP fraud investigation and for the purposes of the Hostile Environment) our opinion is that the rights of individuals to protections of rights and freedoms outweigh those of the Department, and distribution goes further than fair processing and parents' reasonable expectations. The Reception Baseline Assessment, for national purposes, should not proceed.

83. The Department for Education Data Management Review Group 2016 report with the aim of reducing teacher workload had a finding we can strongly support four years later. "Government, school leaders, and teachers, rather than starting with what is possible in collecting data, should challenge themselves on what data will be useful and for what purpose, and then collect the minimum amount of data required to help them evaluate how they are doing. Decisions about the identification, collection and management of data should be grounded in educational principles. In this way schools can have greater freedom to balance professional autonomy and agency against the demands of the accountability system."[46]

84. By contrast no work has been carried out from a child's perspective or considering legal obligations towards data protection and privacy seen through the lens of children's rights for the extensive research trials and innovation fund interventions. This should be done urgently through child rights' impact assessment.

85. The Core Content Framework for Initial Teacher Training[47] in England, which sets the parameters for a minimum entitlement in initial teacher education makes no reference to technology-supported learning, or digital rights, or data literacy skills despite the vast amount of assessment and accountability measures. This must change and become part of basic teacher training.

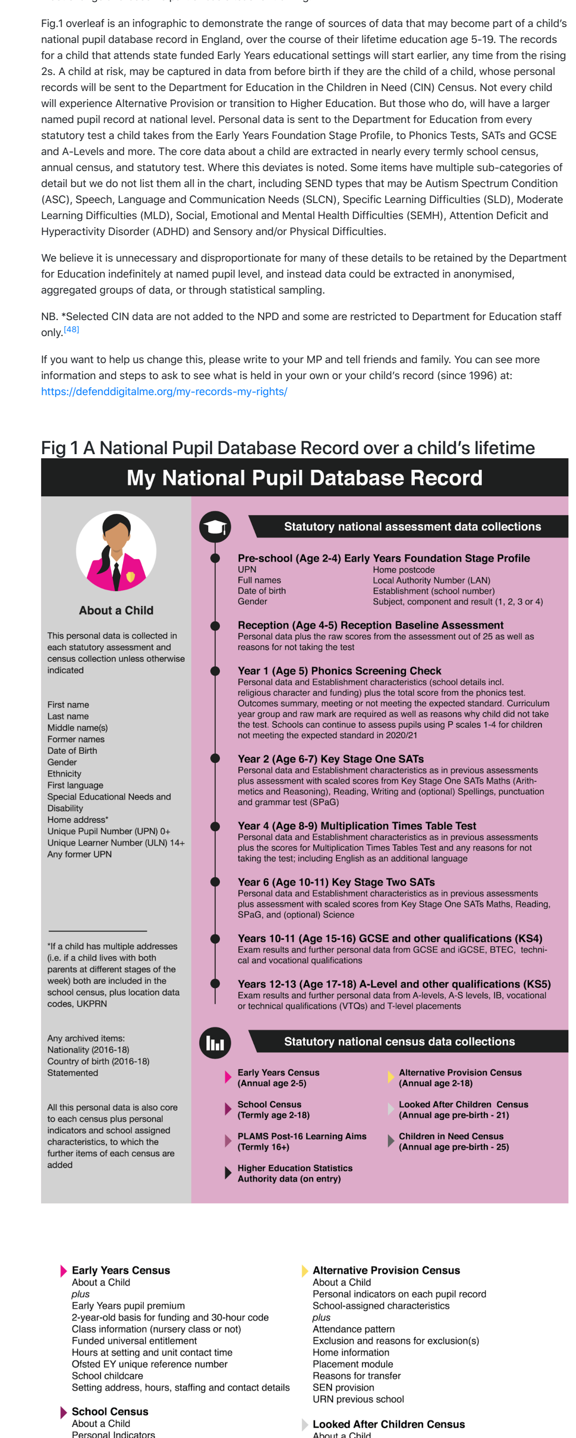
Fig.1 overleaf is an infographic to demonstrate the range of sources of data that may become part of a child's national pupil database record in England, over the course of their lifetime education age 5-19. The records for a child that attends state funded Early Years educational settings will start earlier, any time from the rising 2s. A child at risk, may be captured in data from before birth if they are the child of a child, whose personal records will be sent to the Department for Education in the Children in Need (CIN) Census. Not every child will experience Alternative Provision or transition to Higher Education. But those who do, will have a larger named pupil record at national level. Personal data is sent to the Department for Education from every statutory test a child takes from the Early Years Foundation Stage Profile, to Phonics Tests, SATs and GCSE and A-Levels and more. The core data about a child are extracted in nearly every termly school census, annual census, and statutory test. Where this deviates is noted. Some items have multiple sub-categories of detail but we do not list them all in the chart, including SEND types that may be Autism Spectrum Condition (ASC), Speech, Language and Communication Needs (SLCN), Specific Learning Difficulties (SLD), Moderate Learning Difficulties (MLD), Social, Emotional and Mental Health Difficulties (SEMH), Attention Deficit and Hyperactivity Disorder (ADHD) and Sensory and/or Physical Difficulties.

We believe it is unnecessary and disproportionate for many of these details to be retained by the Department for Education indefinitely at named pupil level, and instead data could be extracted in anonymised, aggregated groups of data, or through statistical sampling.

NB. *Selected CIN data are not added to the NPD and some are restricted to Department for Education staff only.[48]

If you want to help us change this, please write to your MP and tell friends and family. You can see more information and steps to ask to see what is held in your own or your child's record (since 1996) at: https://defenddigitalme.org/my-records-my-rights/

Fig 1 A National Pupil Database Record over a child's lifetime



1.3.3.1 Recommendations Three | Admin data collections and national datasets

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The ICO summary of its compulsory audit[49] of the Department for Education data handling is damning. Lack of oversight, accountability and lawfulness. National data collections of highly sensitive data have been rushed through successive parliaments in negative secondary legislation that far outstrip the data collection intentions of the original Education Act 1996 or squeezed into surprising places in non-education based legislation. Changes are needed in the making of legislation, risk assessment, re-use and repurposing of national pupil datasets, research access, and recognition of rights. Some national practice is currently unlawful, unsafe, and unaccountable. This needs substantial work to be fit and proper foundation on which to build a national data strategy "to drive the collective vision that will support the UK to build a world-leading data economy." To be of greater value to users and reduce tangible and intangible costs to the state at national, local authority and school levels, national datasets should be reduced in size and increased in accuracy. The current direction of travel is ever more data and 'mutant' algorithms, when it should be towards more accurate and usable data within a trusted regime with standards, quality assurance and accountability. This needs action if the national data strategy is to become more than an aspiration

For Government at national level

86. The Government should set out a roadmap towards a system of responsible education data including a governance framework and independent oversight by 2030, in a white paper for an Education and Digital Rights Act. Interim steps should be sooner.

87. The government sets out its aim in the Digital Charter[50] to give people more control over their personal data through the Data Protection Act, and to protect children and vulnerable adults online. We suggest that this should start in education by recognising the need for change of its own practices at national level to protect children's confidential personal data from use by third parties and for purposes far beyond our reasonable expectations.

88. The Secretary of State for Education must act on the recommendation from the 2014 Science and Technology Committee Report Responsible Use of Data; "the Government has a clear responsibility to explain to the public how personal data is being used.[51]

For the Department for Education

89. The Department must address all of the ICO findings in a timely manner and publish its changes to restore public and professional confidence in its data handling capabilities.

90. Independent oversight should be established on a statutory footing for education data as a national data guardian responsible for national children's data, and supporting educational settings with expertise in research ethics, algorithmic accountability and public engagement.

91. Following its ICO audit and the national Learning Records Service breach[52] an independent audit should be carried out of the reuse of children's personal confidential data from all national pupil datasets, distributed to third-parties, at national level.

92. Introduce, improve and publish routine audit reports of third-party data distribution. The Department must be able to audit which child's information was used in which third-party release and proactively provide this information as part of national Subject Access Requests

93. The Department for Education must address the requirements under the Data Protection Act 2018 (and GDPR Article 25) to minimise its data collections and ensure proper policy, technical and security measures to address excessive data collection and retention (including at national levels on leaving school), limit unique identifiers, and ensure anonymisation.

94. The Department for Education must ensure data minimisation in any data dissemination as requested by research users who must currently 'remove and manipulate extraneous data'.

95. Children's data must not be used for purposes incompatible with the one that legitimised their collection and that the people were told about at that time. Non-educational purposes of national pupil data by other government departments (Home Office and DWP) must end.

96. A non-commercial-use should be restored on data collected prior to changes of 2012 law which repurposed how data is used by new third-parties, because the Department for Education is liable for improper and unlawful re-use. Fifteen million people in the data had already left school and have never been told that their data could be used for the new purposes post-2012 and these re-uses are therefore in breach of data protection and wider privacy law.

97. The Department for Education should articulate a vision for education that moves away from controlling models of dataveillance, and instead prioritise local needs, using decentralised data for greater value across the sector at local level, and use sampling for national data purposes.

98. Data may reflect discrimination embedded in historic social, class and racial norms. Any historic data used in algorithmic decision making at national level (such as the standardisation model for exams or the LEO dataset) should be assessed with the benefit of hindsight from summer 2020 to identify and mitigate risk.

99. Commission an audit of systems and algorithmic decision making using children's data in the public sector at all levels, in particular where commercial machine learning processes education or children's social care, to ensure safety, fairness, accessibility, societal impact and sustainability are considered by-design in public policy.

100. Carry out a risk assessment of the planned 2021Children In Need (CiN) census expansion with a view to aggregate not individual data collection. The Unique Pupil Number (UPN) is routinely processed by thousands of companies daily, since the protections around its distribution were loosened in 2010. We believe that there has never been any assessment done on the risk levels this creates, in particular links between CIN data at Local Authority or national level and UPN distribution.

101. The Department must recognise the distinct issues raised in data governance and design mechanisms where personal data in a child's record may no longer be only personal data, but interpersonal, and about a whole household. The Department must be able to meet their legal obligations on access to records by the data subject including sensitive data (e.g., CIN census).

102. The Star Chamber Scrutiny Board (Department for Education data expansions decision making board) should increase public trust in their role in data collections after the nationality/country-of-birth expansion 2016 crisis and start to publish its advance meeting topics, post-meeting minutes, summary of outcomes, and its Terms of Reference.

103. Every expansion of statutory data collections (school census and attainment) must have public consultation

and Parliamentary scrutiny, ending the use of only a negative statutory instrument to introduce nationwide new or expanded children's personal data collections recognising that children merit specific protection with regard to their personal data.

104. Address the implications of poor data quality for policy making, research and operational re-use of administrative data in particular where used by other Departments, by ensuring transparency of each record to every person whom data are about on a regular (annual) basis or on demand so that people have the ability to correct errors in their own data held.

105. Any recipient or user of national administrative datasets should be obliged to publish their work or outcomes of using the data in the public interest, free and open access. The public sector funds the creation, collection, linkage and cleaning of the data which companies then use for private-profit. A quid pro quo in return would be in the public interest.

106. Commercial users of the National Pupil Database must not be permitted to continue to work around the safeguards in place in the 'five safes' research infrastructure used by academic researchers since 2018. The distribution outside this and unsafe practice must end.

107. The DfE must act on the recommendations made by the UK Statistics Authority Office for Regulation in March 2018 including "publishing a public guide to data identifiability and the NPD either drawing on the identifiability spectrum framework developed by the Wellcome Trust Understanding Patient Data programme, or proving details outlining how the National Pupil Census and NPD will be GDPR compliant."[53]

108. Create a mechanism for an educational setting to download an individual's National Pupil Database record, at individual request, to let them see it, including to correct any inaccuracy and to inform them where data has been distributed. Schools should be able to download data reports either on demand, or a minimum annual basis. This would enable schools to show pupils what data is held about them, where it has gone, and allow schools to support the Department in meeting the duty towards national Subject Access Rights.

109. The Department for Education (DfE) must recognise individuals' and legal guardian existing rights to Object to Processing afforded in the UK Data Protection Act 2018 under the GDPR, and assess how this affects and will be met in their data processing of administrative datasets. It should be for the controller to demonstrate that its compelling legitimate interest overrides the interests or fundamental rights and freedoms of the data subject.

110. Children must be given a right to restriction of disclosure to private companies to ensure their full development and adult flourishing by default. Individual school records with behavioural history should be suppressed from distribution; records such as violence, sexual misconduct, or drugs and exclusions. If these were a criminal record it would be suppressed under the Rehabilitation of Offenders Act 1974; but as non-criminal records, may be passed on for life to third parties, without a child's (or their later adult) knowledge, to an indefinite number of third parties

111. Start fair communications across the education sector with children and families, telling them annually which of their personal confidential data will be submitted before every school census and ensure the optional items and Right to Object are clearly communicated.

For Local Authorities

112. The basic consistency in how we count children across the education system must be addressed with process and technical fixes, through training staff and system design. A single census must always count either actual heads or full time equivalent, across a year or on a single day, not a mixed approach across different local authorities or Alternative Provision settings (based on our research across every Local Authority).

113. Clear responsibilities and accountability for communication to families need to be established.

1.3.3.2 Findings 3 | Admin data collections and national databases

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114. There are issues in practice of what data is collected, how it is collected and how those people are informed and able to exercise their rights in a meaningful way across the whole sector.

115. Our research indicates inconsistency in the collection of data about children in Alternative Provision, in the basics of how numbers were recorded. Some Local Authorities counted each child only once who spent any time in AP across the year no matter how often. Others counted the same child more than once if that child attended AP more than once in the year. Others counted the total full time equivalent across the year. Some counted children only in the AP setting on the day in January of the census. We suggest this basic counting problem should be considered and assessed in any reviews of "missing children."[54] We are not suggesting it is the cause of 'missing children' in the numbers, but we certainly think it is a contributory factor.

116. The majority of parents polled in 2018 do not know the National Pupil Database exists. 69% of parents replied to a 2018 poll that they had not been informed that the Department for Education may give away children's data to third-parties.[55] "Many parents and pupils are either entirely unaware of the school census and the inclusion of that information in the National Pupil Database or are not aware of the nuances within the data collection, such as which data is compulsory and which is optional." (ICO, 2019)

117. The Department for Education policy supports unsafe data distribution and enables work arounds for commercial users to access children's identifying and sensitive records at scale.

118. Millions of children's sensitive personal confidential data at pupil-level have been released from the National Pupil Database in over 1,600 unique releases to third parties since March 2012.[56]

119. Repurposing of educational records has become normalised by the Department. Since July 2015 the Department for Education has facilitated the Home Office monthly matching of children's national pupil records with Home Office records to find people for immigration purposes under a Memorandum of Understanding on data sharing[57]. Neither the DfE nor the Home Office demonstrate any accountability for the outcomes of what happens to children and their families as a result, saying in reply to Parliamentary Question 92745 in September 2020 that the information "is not readily available and could only be obtained at disproportionate cost."

120. In 2019 the DfE permitted the use of 2,136 children's records from the National Pupil Database for a criminal investigation. It is not known why this was not done by asking the school, but by using the national database.[58]

121. In April 2018 DfE permitted the use of the National Pupil Database for a DWP benefit fraud investigation of 185 children.[59]

122. The Department for Education in England is aware that they share too much data with third party users, calling it an 'excessive' amount of data in the underlying datasets'.[60] The DfE 2018 Hive data dissemination discovery report found that, "Users are required to download the entire dataset, then remove and manipulate extraneous data reducing it to a specific subset. Many expressed a desire to be able to customise the data they downloaded."[61]

123. Administrative systems that began 20 years ago are coming of age and questions of retention and data destruction of core individual education records now need both attention and action.

124. The necessary infrastructure on which safe, fair and transparent data processing runs in state education which ensures consistent good practice, understandable to the children, or even to school staff has never been built or is at best haphazard and has been retrofitted to the data distribution in practice.

125. A problem is caused at national level by school information management systems that do not offer local granular data controls. i.e. parents want ethnicity held by the school but not submitted in the national census.

126. Data collection systems can be far out of step with parental expectations. A data input form used by thousands of schools across England to record school census information in 2016 allowed administrators to ascribe a child's ethnicity. Italian parents complaints to the Embassy in London resulted in an apology from the DfE about country of birth and language forms sent out by UK schools asking parents whether their child was "Italian", "Italian-Sicilian" or "Italian-Neapolitan". The Ambassador pointed out that Italy has been a unified country since 1861.[62]

127. In 2015, a total of 37,000 students responded to UCAS' Applicant Data Survey. 90% only agreed with sharing personal details outside of the admissions process only with active and informed consent[63]. This is ignored by the government and data users and there is no social contract for processing the Longitudinal Educational Outcomes (LEO) dataset or NPD linkage of Higher Education data.

128. The Department for Education cannot continue to hold personal data collected between 2016-18 indefinitely that it does not use, because it was collected for Home Office not educational purposes (school census: nationality, country of birth). This requires regulatory enforcement of data destruction.

129. The Department for Education cannot continue to rely on research exemptions for indefinite retention of the National Pupil Database, since the same data is increasingly re-used for direct interventions and other incompatible purposes.

130. Research exemptions do not relieve such processing from all data protection obligations.[64]

131. Research use of data should not be considered 'neutral', may be used for interventions and may cause harm. A research project in 2013 through The University of Cambridge, the Greater London Authority and the Education Endowment Foundation (EEF) set up a randomised control trial to assess the effectiveness of an intervention for children at risk for fixed term exclusion from school in October 2013 with roughly 800 children in Years 9 and 10 in 40 selected schools. The NPD data requested was used to create a model to predict exclusion based solely on administrative data for London schools and schoolchildren. The trial was an independent evaluation of a 12-week-long intervention, Engage in Education-London (EiE-L), delivered by Catch22. "Anecdotal evidence from the EiE-L core workers indicated that in some instances schools informed students that they were enrolled on the intervention because they were the "worst kids"; this may not only hinder any engagement in intervention but also jeopardise the teachers' relationships with the students and thus contributed to negative effects."[65]

132. The Department for Education passes the responsibility on to schools to explain to parents what data may be collected in the school census and what it will be used for. The DfE however does not pass on the full information to schools to allow the responsibility to be met, such as keeping secret Home Office re-uses. The DfE cannot tell a school which child's information was used in which third party release. Schools are therefore unable to meet this fairness obligation that the DfE delegates, and the DfE fails to meet its legal obligations.

133. Personal data about children is ascribed to them in schools, then gets added to their longitudinal records through the school census or attainment tests, and is kept forever. Children and parents never see their national school records. Mistakes that we do not see today, can get copied and distributed again and again, and used to make decisions by schools, companies, or other government departments.

134. The Department does not maintain records of the number of children included in historic data extracts[66] and it cannot tell you as an individual whether or not your own data was sent to charities, commercial organisations, data analytics companies, journalists and think tanks, among the uses approved for research purposes. The DfE demonstrates little accountability for its own actions, when it comes to pupil data collected for the purposes of school accountability.

135. Sensitive data, special category data in data protection law terms collected in attainment tests is not given due attention in education compared to other sectors such as health. SEND data should be treated with the same respect as health data in the NHS. This is not currently the case and it is treated as routine administrative data. It is passed around apps companies and to platforms without parental knowledge or permission and to third-party researchers with too little attention. Where profiling includes ethnicity and disability or other SEN health related categories of data, it must be proportionate to the aim pursued, respect the essence of the right to data protection and privacy, and provide for suitable and specific measures to safeguard the fundamental rights and the interests of the data subject. (aligned with the GDPR Article 9(2)(g) Article 22(4)). Staff routinely process data on the assumed basis of a statutory obligation or duty in the course of a public task without understanding the nuance of obligations on special category data.

136. Data protection best practice is not always aligned with reasonable or ethical expectations of privacy. There is no opt out of the use of the National Pupil Database. The default public interest position in the UK is for sharing of public administrative data for secondary purposes is an opt-out, not opt-in mechanism, where one exists at all since the Digital Economy Act 207 (Troubled Families and Public Services) and Small Business Act 2015 (LEO data).

137. For children this is impossible where parents take decisions on their behalf which cannot be revoked. In education very little data processing is consent based. Children are entirely reliant on the decision making of the adults.

138. Pupil level data is produced by school staff at great workload cost, is passed on to the national databases from where it is distributed for free to commercial companies that repurpose it into for-profit products then sell it back to the same schools that created the data to start with, as data analytics back to schools with individually personalised profiles and targets for children.

139. Local Authorities are using education data from Key Stage attainment tests and other pupil data for purposes it was not designed for. (See report of the project Data Scores as Governance: Investigating Uses of Citizen Scoring)) Data Justice Lab at Cardiff University. The researchers examined uses of data analytics in public services in the UK with a focus on re-use of administrative data. They are concerned with the advent of data-driven scores that combine data from a variety of sources as a way to categorize citizens, allocate services, and predict behaviour, by Local Authorities and their partner agencies. (Dencik et al, 2018).

140. Public engagement work carried out about public data uses has already been extensive,though it sometimes does not return the answers those who call for entirely new public engagement want to take into account. When the Administrative Data Research Network was set up in 2013, a new infrastructure for "deidentified" data linkage, extensive public dialogue was carried across the UK. It concluded in very similar findings as was apparent at dozens of care.data engagement events in 2014-15.[67] There is not public support for

- "Creating large databases containing many variables/data from a large number of public sector sources,
- Establishing greater permanency of datasets,
- Allowing administrative data to be linked with business data, or
- Linking of passively collected administrative data, in particular geo-location data"

141. The other 'red-line' for some participants was allowing "researchers for private companies to access data, either to deliver a public service or in order to make profit. Trust in private companies' motivations were low.

142. The Department for Education has not yet delivered on recommendations made by the UK Statistics Authority Office for Regulation[68] in March 2018 including publishing a public guide to data identifiability and the NPD" drawing on the identifiability spectrum framework developed by the Wellcome Trust' Understanding Patient Data programme, or proving details outlining how the National Pupil Census and NPD will be GDPR compliant.

1.3.4.1 Recommendations Four | Principles and practice using technology today

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We are yet to see articulation of a future-thinking vision for education that moves away from centralised data surveillance and intra-schools competition, and instead prioritises local needs and collaboration. The best of what COVID-19 highlighted in communities across the UK was in systems of human support networks, with the continuity of learning and children's welfare and rights at its centre. In June 2019, the High Level Expert Working Group on Artificial Intelligence (HLEG-AI) in their Policy and Investment Recommendations for Trustworthy Artificial Intelligence, proposed children must be better protected when using emerging technologies. That needs extended in England to protection from excessive or non-consensual research trials of emerging products and practice. (See case studies, part three.)

For policy makers at all levels

143. Technology must first do no harm through its application or through a denial of provision. The digital environment in education must serve children well. It must be safe, inclusive, and equitable, promoting social justice and human dignity.

144. Children in England require adequate online infrastructure to support digital access as part of remote learning in state education. This is a priority in COVID-19 but of equal urgency for every child and homework under regular circumstances.

145. The digital environment in education must offer a fully funded, interoperable infrastructure that does not rely on parent paid or leasing schemes to spend hundreds of pounds in order to have access to hardware in the classroom. No child in state education should have to pay for the technology that a school requires them to use.

146. Access to hardware and software in the classroom is important to provide and fully fund across education. State education must offer a fully funded, interoperable infrastructure that does not rely on parent paid or leasing schemes to spend hundreds of pounds in order to have access to hardware in the classroom. No child in state education should have to pay for the technology that a school requires them to use. Access must be across education, including for example further education to enable skills training and the access to specialist software such as in design and engineering.

147. Investment is necessary in people and pedagogy, through Initial Teacher Training and Continuous Professional Development. Data privacy and protection and data and digital skills, and a review of current policy and practice should begin through consultation.

148. A regional shared-service model for legal and data protection due diligence and contract support is needed to reduce staff workload and increase standards. Build national and regional knowledge and support centres to carry out due diligence research and reduce the investigative burden for school staff in procurement with modified public tasks, that can have the clout at scale to modify contracts with companies but with reduced commercial and competitive incentives seen in today's Grids for Learning infrastructure. They must be transparent and accountable to the public, subject to FOI and publish registers of procurement, together with associated due diligence assessments, DPIA and audits.

149. Create safeguards for children from the use of excessive and invasive surveillance via various biometrics, facial detection and recognition, emotional manipulation, and neuro-/cognitive technology by commercial companies, or via webcam, voice recording, or gait and movement analysis, noting UN Special Rapporteur David Kaye's call for a moratorium on facial recognition technology.

150. A statutory ban is needed on webcams taking a photograph of a computer user without their knowledge or permission, and on monitoring their use of the Internet or school digital environment at individual user level with personalised risk categorisation outside school hours. Monitoring should be kept distinct from security, filtering and blocking services and not at pupil level activity.

151. A statutory ban is needed on webcams taking a photograph of a computer user without their knowledge or permission, and on monitoring their use of the Internet or school digital environment at individual user level with personalised risk categorisation outside school hours. Monitoring should be kept distinct from security, filtering and blocking services and not at pupil level activity.

152. Pupils and students must be free from any obligation of using personal profiles and accounts on social media to sign up to apps used for school work.To avoid privacy risks, educators must allow Higher Education students to separate group and personal accounts and more broadly, limit their use for course communications and administration

153. Artificial intelligence and other emerging technology companies must not exploit children's data gathered in the course of compulsory education, for their own company product development. Companies must not use AI as a loose marketing term, when a product does not contain any computing that can be classed as artificial intelligence. (See case studies, part three.)

154. Alternative ways of meeting a child's right to education should be met without detriment if a child or either parent objects to participation in product trials following a similar consent model as biometrics in schools in the Protection of Freedoms Act 2012. Routes for redress and the accountable owner for outcomes must be a named individual, communicated in advance of the start of a trial and not only the third-party organisation company name.

155. Following the HLEG-AI recommendation, children should be ensured a free unmonitored space of development and upon moving into adulthood should be provided with a "clean slate" of data storage by default with retention beyond compulsory education in administrative datasets, on a necessary and proportionate legal basis, as an exception not the rule.[69]

1.3.4.2 Findings 4 | Principles and practice using technology today

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156. A vision for education should include how technology is a supporting tool, not a decision-maker shaping the design and delivery of education. The current edTech bolt-on product approach from the top-down, or even through recommender 'Roadshow' schemes will not deliver that vision, because it is based on product-centric promotion, not a child-centric, skills and capability strategy. A shift is needed from edTech promotion to how and why education should use which technology at all in the curriculum not just to support school admin. Whether what is really needed from the child's perspective exists in the market today at all should be assessed as part of reviews into lockdown learnings. If not, then build it.

157. When it comes to children's learning what is current edTech promoting that is not centred on testing rote knowledge? Where is the adaptive learning edTech that is truly personalised and respects privacy not done through company-centralised surveillance? Where is a strategy driving collaboration and creativity, the Renaissance skills that go beyond regurgitating knowledge about how to apply critical thinking skills to analyse and synthesise content? Much of the edTech focus is on school administrative and teacher workload support. While that may result in better businesses, it won't get better outcomes for children.

158. For an edTech strategy across England that works for all, investment in people, pedagogy, and local infrastructure should not be focussed on further embedding the market power and hold over the sector of big tech monopolies, or for-profit individual companies ad hoc promotion that then frequently get bought out by venture capital. Knowledge generated by edTech about learning from our public sector, should not be indefinitely siloed and monopolised in competitive companies. Private sector companies should, with proper privacy preserving techniques, ensure open data in a quid pro quo exchange that is of benefit at local level.

159. Technology should not be a means in itself and the edTech agenda needs to recognise that technology may not offer appropriate solutions in particular to complex social problems. "To what extent is 'intelligent' surveillance a solution for anti-social youth behaviour in an area without enough alternative evening activities or public spaces? The focus should be on taking off the 'tech goggles' to identify problems, challenges and needs, and to not be afraid to discover that other policy options are superior to a technology investment." (Veale, 2019)

160. Communities have kept it together in the face of COVID-19 and it is communities with schools at their centre that will bring us out the other side. Schools have found approaches to managing ongoing blended learning, and raised financial support for their most vulnerable families, often anchored by local business loyalty, where the DfE provision has let them down. We will continue to need that resilient human network after we leave the EU. Youth services restored.[70]

161. Staff working in a school digital environment lack consistent levels of support from people with technical competence (regional overarching support has been reduced since closure of British Educational Communications and Technology Agency (Becta) and austerity cuts in Local Authorities in shared services.

162. 'Free-to-school' products may be popular with schools scraping by on austere budgets, but can come at a cost to a child if personal data is collected and used by the provider in ways a family cannot see. If we change nothing, children and parents will never know the extent to which their personal data has been shared, used, misused, sold, breached, or hacked over the course of their school lifetime and they will not be able to exercise their rights as an adult, leaving school at 18. Harms are not all theoretical or in some far off future.

163. Safeguarding-in-schools services and software can be deeply invasive. Legislative protection and policy change are needed to accompany the existing weak statutory guidance in England for school pupil web surveillance vendors, to assist schools to comply with the Data Protection Act 2018, human rights law, breach of communications law, and to end the serious invasions into private and family life that exist today which have become normalised through overreach in school practice, in particular outside school hours

164. Highly sensitive biometric data is a child's for life. It may be used in a child's adult life for as yet unidentified significant security and identification purposes, yet biometrics may be used rather casually in schools for insignificant tasks such as printer management. Based on FOI responses carried out by Pippa King in 2018, 57% of 400 schools asked, used a biometric system, and 37% used biometrics for more than one application. Our commissioned poll of 1,004 parents[71] in February 2018, found that 50% had not been informed for how long a child's biometric data would be retained. Parents don't know how companies use children's data from school; from homework apps, the school census, to CCTV. Only half of parents say they have been told how long CCTV images are kept for. Biometrics has grown exponentially without any corresponding increase in the regulation or oversight who can collect such sensitive data and why. Discrimination against those who opt out of its use in canteen services or lack of respect for rights protected by law are already common. Further data about social, emotional, and mental processes may not fit the data protection definitions of use for the purposes of identification of an individual.

165. Punitive examples of poor edTech products are mean spirited, invasive and treat children as outliers in behavioural norms or as a potential criminal, cheat, or fraud.

166. Everyday problems parents bring to us, can range from disputing of the value of a maths app that makes so much of the gaming aspects of its animation that a child is stressed by not being able to do the sums fast enough so that sheep fall off a cliff, to feeling bullied through the behaviour profiling app that the teachers use to award positive or negative points in front of peers in the classroom to the point that the child dare not say anything at all.

167. A vast array of school software is premised on detailed and centralised data surveillance. Not only what did you spend in the canteen today, but what exactly did you buy? How did you behave today? Who were you sitting next to when that happened? When were you out of school and what were the reasons for it? Information that trusted teachers have always known and used to put a child at the centre of their teaching and care, are now used out of context and may be accessible to hundreds of strangers including across a school Trust, companies or researchers. Pupil data has become business intelligence used to define school improvement or metrics with which to measure school standards. Simple facts have taken on interpretations and weight with a permanency they were never intended to have.

168. Industries have been built around reporting to parents to a degree and complexity many do not need or want, producing detailed school data analytics at pupil level and around creating insight that the pupils may not benefit from, or when simple information would be enough.

169. We are not aware of any independent research into what parents want and the quality of information such tools convey.

1.3.5.1 Recommendations Five | EdTech evidence, efficacy, ethics, exports and engagement

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Policy makers should recognise that the hype of 'edTech' achievement in the classroom so far, far outweighs the evidence of most delivery. More than three quarters (79%) of teachers and school leaders surveyed want to see clear proof that EdTech works in the classroom. To build a trusted relationship in edTech efficacy and intentions, then a sea-change is needed in industry, research, Think Tank and policy making bodies current approach and attitudes that assume entitlement to access state school children, trial products on them, and use their data as a free resource. Normalised poor practice should be reset, enabling safe and ethical product development, that is not exploitative or encroaching on educational time, supported by common standards developed in conjunction with children and families, their representatives, civil society, industry, teachers, and regulatory bodies.

Evidence

170. Independent assessment of the Nesta / DfE £4.6m partnership Innovation Fund[72] interventions should be undertaken considering lawful obligations towards data processing, due diligence and of children's rights for both consent to participation in and in the data processing aspects of edTech research trials and innovation fund interventions in England.

171. Oversight and accountability is required of all product and research trials intended to gather edtech evidence in a consistent single view. Testing products in 'real' conditions in educational settings, may be extremely hard, but it should be. Our children do not go to school in order to be research trial participants or perform school work in order to perform labour to develop a commercial product. The state has a duty to meet a child's right to education and with their best interests at heart without exploitation or unduly manipulating their behaviour or affecting learning in ways that a child cannot see or choose. Some research trials and product trials today have inadequate ethical oversight and this must be addressed with urgency. (see 1.3.9 Research)

Efficacy

172. Democratic sector-wide consensus is needed at least on some aspects of state education and technology. Competing discourses will continue to debate personalised learning and contested meanings about the type of expertise is needed for the 21st Century. What self-directed learning should look like? Whether education is about process or content? And the type of evidence that is required to establish whether or not personalised learning leads to better student outcomes?[73] We cannot continue to ignore the reality that these products are in use, siloed rarely serving children or families best needs, and poorly regulated.

173. Recognise that not everything that looks or sounds good, may be good and efficacy and ethics of aims, need assessed. "In educational systems that emphasize development and, for example, social competences, formative assessment might be higher on the list. As a result, there is a risk that AI might be used to scale up bad pedagogical practices." (Tuomi, 2018)

174. While the EdTech Evidence Group (EEG)[74] organised by Sparx aims to "sustain high-quality evidence gathering in members' own organisations," it lacks independence and whilst its members integrity is not in doubt, externally it can only be seen to be marking its own homework. This function could be better placed on a statutory function under the new data guardian and ombudsman for children's rights in education, and would play a role in ethics, exports and give guidance on engagement between the sector, children, families and educational settings in matters that go beyond the remit of data protection at the ICO.

Ethics

175. Transparency should also start from the top down. Public transparency and accountability of the edTech influencers seeking to shape the sector should be encouraged through publication of meeting minutes and Terms of Reference from governmental and non-governmental bodies including the DfE EdTech Leadership Group[75] and the edTech Advisory Forum[76] and the edTech Evidence Group, to enable wider democratic discussion.

176. Ethical use of AI in the classroom needs addressed in legislation and a Code of Practice. Recognise that some emerging technology is inherently harmful to the dignity and human rights of a child and should be banned from UK education.

177. Enable children to have a free unmonitored space of development and upon moving into adulthood with data deletion by default to provide a "clean slate" of any private third-party storage of data aligned with the HLEG-AI recommendations. Schools should retain any necessary records as controllers, not companies as data processors noting the DfE guidance on unique pupil number (UPN) retention and its requirements to lapse.

178. Safe use of AI and big data analytics by state and commercial sector in education needs stronger enforcement of responsibilities and rights on data processing, and in particular minimising profiling, and higher risk processing of biometric data used for identity systems to process basic administrative tasks in the canteen, library, locker and building access.

179. Advertising should not be considered a compatible purpose under data protection law, that overrides a child's best interests, or the protections of rights and fundamental freedoms. Advertising to a child and/or parents should be banned in education (edTech) products.

Exports

180. For a successful UK export market, any makers and manufacturers of edTech must ensure to meet the full range of widely recognised international children's rights conventions, legislation and guidance in order to find receptive markets and regulatory acceptance outside the UK. These standards should be consistent and clear across the domestic sector to ensure fairness for all and become a benchmark for high quality expectations.

181. UK international reputational risk must be protected. If the UK government hopes for edTech exports are to become a reality, we must champion safety, quality and pedagogical benefit in the home market. Without this, reputational risk will not only affect single products abroad, but contaminate the UK reputation for export as a whole.

182. The knock on effects of changes intended elsewhere in government must be appreciated in their effect on edTech export of children's products. If the UK gains a reputation for disdain of human rights,[77] the edTech exports sector will undoubtedly suffer not only in terms of sales impact to schools, but in the likely impact of loss of a data adequacy decision.

183. Any national promotions such as the BESA LearnEd roadshows which have an indirect Department for Education approval, should have an independent assessment process to ensure high standards of data protection and ethics in the products being promoted.

Engagement between companies and in educational settings

184. Procurement decisions should only be made after thorough due diligence of financial, ethical and legal policy and the experience for children using products in practice behind the screen and in consultation with families at the educational setting.

185. The controller/processor relationship needs redrawn in practice in edTech adoptions and engagement with families is necessary in order to be able to address rights. There are serious data implications: for inequality, costs, privacy and surveillance. Contract terms must be possible to adapt at school level and for example, end the bundling of multiple and bundled processing purposes into the contract such as repurposing for third party research for which the processor becomes a joint data controller, diminishing the school's control over records. Today's terms and conditions often go beyond processors' lawful basis that is not extended to them through schools' public task.

186. A National Guardian for education and digital rights, would provide a bridge between companies and educational settings and families, with a focus on people rather than products. Its role may support due diligence and ethical approvals of products but for the purposes of the protection of children's rights, rather than product promotion. There is currently no infrastructure to support schools or families with standards, oversight or accountability. Capacity and capability would benefit from a cascading network of knowledge with multi-way communication, along the lines of the NHS Caldicott Guardian model.

Fig 2. An illustrated day in the life of a datafied child | common school activities

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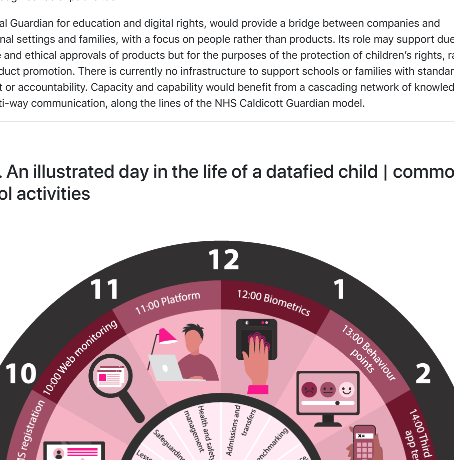

Fig 2. This illustration is intended to show a high level digital day-in-the-life of an eleven year-old at state secondary school. The common core administrative functions in educational settings that are supported by the Management Information System, the digital centre of a school records system. The outer ring are the activities in which children's data most commonly leave the school and are processed or controlled by third-parties for daily interactions. It also includes the processing of hours that children do not see: data transfers to Local Authorities and the Department for Education as part of regional decisions on risk scoring and predictive analytics programs, or for the national census termly for the school census and annually for some others. These functions may entail processing of a child's personal data by dozens of companies in one day, every day, across their entire education.

1.3.5.2 Findings 5 | EdTech: evidence, efficacy, ethics, exports, engagement

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Evidence

187. At local level, UK research published by the learning technology company Sparx, shows that more than three quarters (79%) of teachers and school leaders want to see clear proof that EdTech works in the classroom. Sparx reported that UK schools spend about £900m on education, technology with the UK EdTech market set to be worth £3.4bn in 2021.

188. Most importantly the EdTech Evidence Group[78] (EEG) points out that there is a need to have "efficacy and educational outcomes at the heart of our product development" and that schools need to have consideration of their 'opportunity cost': a year spent using the wrong product for that customer means a year's missed opportunity for their students or staff.

189. But how is any negative effect on a child who spends a year using the wrong product resolved? The harm that bad technology does to young people in educational settings should be the problem we solve first. Some of the current and emerging products may be at best ineffective and take away teaching time without additional harm. Others are used to punish or shame children in front of peers, or scoring can be used to ration resources,

190. The emerging calls for independent evidence in edTech are welcome, but are not enough to protect the sector when one of its own falls short, and whether through misleading marketing or unlawful and unethical practices, a company causes widespread backlash or mistrust in the sector.

Efficacy

191. The impacts of technology use on teaching and learning remain uncertain. Andreas Schleicher – the OECD's director of education – caused some upset in 2015 when suggesting that ICT has negligible impact on classrooms. Yet he was simply voicing what many teachers have long known: good technology use in education is very tricky to pin down. (Selwyn, 2019)

192. Remote learning under COVID-19 has demonstrated both how technology may support learning but also revealed edTech shortcomings at first hand in the experience of many parents

193. Machine learning in children's social care may have dangerous blind spots. Deciding what shape future societies will take, not only involves determining, democratically and inclusively, how to steer the values and motivations that are currently driving the gathering energies of technological advancement in machine learning. (Leslie et al. 2020). It requires an understanding of how children are being shaped in their use of and use by technology today. Technology and its infrastructure is not politically, ethically, or economically neutral.

Ethics

194. "Some of these e-learning platforms and the learning analytics they facilitate have enormous capacity to foster the development of innovative and effective learning practices. At their best, they can enhance and complement the interactions of students, parents and educators in the educational environment and help them fulfil their respective potential. Nevertheless, e-learning platforms may pose threats to privacy arising from the collection, use, reuse, disclosure and storage of the personal data of these individuals." (ICDPPC Resolution on E-Learning Platforms, 2018)

195. There need be no conflict between privacy and innovation, yet some products in emerging fields, including machine learning and Artificial Intelligence infringe on rights. Legal guardians in the UK are concerned according to Nesta, how this may affect their children including through discrimination and social equity. (2019)[79]

196. 61% of parents polled by Nesta for the report Educ-AI-tion rebooted?, anticipate that AI will be fairly or very important to the classroom in the near future. However, many are fairly or very concerned about consequences of determinism (77%), accountability (77%) and privacy and security (73%).

197. The current postcode lottery of product trial participation and adoption across the sector, a single school and a child's school lifetime, means thousands of children are treated unequally and are guinea pigs in the government agenda to develop an edTech market.

198. "Edtech is often not informed by pedagogy and the design of interfaces often lack user-centricity, putting hurdles in the way of teachers, rather than empowering them." (Aerts, Educ-AI-tion rebooted? 2019)

199. New and emerging technologies are increasingly invasive and need greater ethical attention. A wave of advocacy for neurotechnology development and implementation is spreading in the field of education. (Williamson, 2018d)

200. Southgate et al point out in their 2019 report Artificial Intelligence and Emerging Technologies in Schools, commissioned by the Australian Government, that: "Luckin and colleagues (2016) also identify the potential

for AI teaching assistants to be used to unfairly or surreptitiously surveil the performance of teachers (using pupils' data), a point supported by Campolo et al. (2018) who recommends that 'more research and policy making is needed on the use of AI systems in workplace management and monitoring' (p.1). Other concerns include the way in which AI aims to change learning behaviour through making recommendations, using persuasion and offering feedback, which may not ultimately be in the best interests of the learner. There are some who suggest that AI learning companions that are intended to support students on their lifelong learning journeys 'may result in the perpetual recording of learner failure to the detriment of future progress.' (Luckin et al., 39).

201. Safe data and ethical practice with clear explanations for families must be prioritised by design and default. Companies must demonstrate that they meet the requirements of the rule of law not simply state it in privacy policies. Companies must stop using pupil data for their own purposes for profit, or to make inferences about autism or dyslexia for example, if that's not your stated product aim, it's likely unlawful. Contract terms for settings must be careful not to burden schools with long term technology choices made in the short term and control of vendor relationships and activity must remain with the setting.

202. If a school chooses to participate in a research trial or government department driven intervention, it may receive £1,000 for its administrative costs. These incentivise schools to say yes but children often have no way to refuse. This power imbalance must be addressed through an opt in mechanism and equal alternative activity offered without detriment.

203. There is no independent overall ethical oversight of these trials and the sector at scale at a national level, or duty to publish evaluations for parents of previous trials of the same product to be run in their school to make an informed decision about risks and benefits.

204. In 2017 Wired magazine[80] revealed that the government's Behavioural Insights Unit had been experimenting with using machine learning algorithms to rate how well schools were performing, and they were described in ways that seemed opaque by design: "Data on student's ethnicity and religion were deliberately excluded from the dataset in an effort to prevent algorithmic bias. Although some factors will influence the algorithm's decision more than others, Sanders refused to say what those factors were. This is partly because he doesn't want schools to know how the algorithm makes its decisions, and partly because it is difficult to know exactly how these algorithms are working, he says. "The process is a little bit of a black box – that's sort of the point of it," he says."

205. Technology can be transparent, decentralised, collaborative and user-focussed. Privacy preserving tools can be built that do not require registration and still be free, they can run directly in your browser without data retention.[81] Most popular UK used tools are not like this, but if such standards were mandated then it would level the playing field for participants that choose to avoid today's data surveillance and adTech-based services.

206. Ethical use of AI in the classroom also needs to consider what authority and perception of a single truth assistants such as Alexa, Siri or Cortana offer. These systems are not designed with children in mind, and their vocabulary and interactions may be unexpected. In February 2018 Alexa users reported their machines emitting unexpected laughter-like and whistling noises without being prompted to wake.[82]

207. How will children know that an electronic assistant merely offers the top answer that a search engine would do in response to a question, but without the ability to cross reference that answer with others. How will children critically evaluate answers offered by the computer with a human-like voice interface, if there is no alternative on offer to evaluate against? Or will they understand that any list of answers has been pre-determined by the design of the search engine corporation and their in-built values, or lack, and bias of importance and rankings?

208. Professor Laura Czerniewicz is the Director of the Centre for Innovation in Learning and Teaching (CILT), at the University of Cape Town wrote in 2020,[83]"What we learnt from going online during the university shutdowns in South Africa is that it will be political. Change will be appropriated for different ends and tell different stories for different people. Technology is never neutral. Keep it simple and as complex as is essential. Keep issues of inequality upfront. Plan for your own context. There are serious data implications: for inequality, costs, privacy and surveillance. It is not just academics and students who are under pressure, remember all the other people involved. Be careful not to get stuck in the long term with technology choices made in the short term. Keep academic control of vendor relationships."

Exports

209. The Department for Education (DfE) and Department for International Trade (DIT) launched an International Education Strategy in March 2020. The strategy sets out the government's ambition to increase the value of education exports to £35 billion per year by 2030 and suggests almost a quarter of Europe's education technology companies are based in the UK. The April 2019 edTech strategy stated that EdTech exports are worth an estimated £170 million to the UK economy.[84]

210. While the edTech sector may have enjoyed a lack of regulation enforcement in England to date, companies cannot expect similarly soft approaches from other countries, in particular where data protection supervisory authorities are more active in the education sector.

211. Despite this when we asked at the BESA LearnEd roadshows in 2019, BESA had not carried out data protection risk assessment as part of any due diligence in the products it was promoting.

Engagement

212. Often tech 'solutionism' simply shifts an existing process from paper to computer but fails to cater for structural disadvantage or becomes more discriminatory or creates new risks such as cashless systems.[85]

213. The proliferation of competitive apps and platforms in use create a siloed set of tools that parents must navigate between for a variety of different purposes; for home school communications, administration of cashless payment systems, booking appointments, recording absence, helping children to do or submit homework. This increased time and effort is pushed onto parents, compared to when none of these digital tools were previously available. Most of the communication through these systems may be one way because the administrator from the school is not the department responsible for the area; questions on welfare, communications or academics.

214. We have found no research on the parental experience of digital tools; how time consuming parents find it to manage multiple different processes on different apps in addition to emails, push notifications, letters and information posted on the school website or whether these tools offer time savings to schools or displace the admin time required to parents.

215. A consistent approach is needed for school children, students or their families to be fully aware of how their data are being used, and in the course of state education they have no meaningful choice or control over data processing. We believe few staff in institutions across the state education sector, providing services to children aged 2-18, have adequate grasp of this. This is a poor foundation for the expansion of an edTech strategy DfE began in 2019. This needs developed in conjunction with stakeholders and expectations set in legislation.

216. Complexity is no excuse for failing to provide information to the child or family.[86]

1.3.6.1 Recommendations Six | Children's rights in a digital environment

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Devolved nations have made greater efforts than England to establish a national child rights framework across public services delivery. (Wales 2011 Rights of Children and Young Persons Measure and in Scotland the Children and Young People's Act 2014). To strengthen a unified and outward looking approach to children's rights would bring consistency across the Union for business and the public sector with a more sustainable and explainable standardised set of expectations.

For policy makers at national level

217. All stakeholders must recognise that children have rights in the digital environment that may be different from an adult. From the static point of view the child is a person who has not yet attained physical and psychological maturity. From a dynamic point of view the child is in the process of developing to become an adult. (WP29, 2009)

218. The government should level-up a duty to undertake the assessment of child rights impact in its own and wider public sector functions to the highest current standard across the devolved nations. Have due regard for part one of the UN Convention on the Rights of the Child and its optional protocols to which the UK is a signatory state. Child Rights Impact Assessment should be obligatory as part of large scale technology and/or data project introductions. Data minimisation, purpose limitation, and data retention should be given additional weight in data project planning, system design, practice, and enforcement when dealing with a child to ensure children's flourishing and development to their full potential.

219. Commit to children's rights in education; to access education, to equal treatment, to participation, reputation, to privacy of communications and family life, to freedom of speech, and to the full and free development and human flourishing at the centre of any technology in a world in which decision-making about us, is becoming ever more machine led without us.

220. Recognise that children's full development and flourishing may be supported but may also be limited by data about them; through labels given to them for life or their digital footprint compromised in school, or through the use of historic educational records used in predictions or for data-led decision making using individual level data, or as part of a data cohort.

221. The State has obligations to meet in its lawmaking and procurement at all levels of government to respect the UN General comment No. 16 (2013) on the impact of the business sector on children's rights. This needs applied in practical ways and through Statutory Guidance or enforceable Code of Practice.

222. General comment No. 5on the implementation of the UNCRC emphasises that "implementation of the Convention is a cooperative exercise for the States of the world" and includes the obligation to ensure that non-State service providers also operate in accordance with its provisions, thus creating indirect obligations on such business actors.[87] (UNCRC, 2003)

223. Recognise all obligations in Article 24 in the Convention on the Rights of Persons with Disabilities regarding education.[88] These duties apply to all children, with a view to realising this right without discrimination, and on the basis of equal opportunity.

224. Article 12 of the UNCRC promotes the child's right to express his or her views freely, "in all matters affecting the child", those views being given due weight. The government must enable standardised tools and routes to exercise rights under data protection law principles, the right to information, the right to participation, and the right to privacy and family life; engaging the child as an active participant in the promotion, protection and monitoring of his or her rights, when it comes to a child's journey through education and control of their digital footprint

For the Department for Education

225. Build the infrastructure for an improved alternative model of data rights' management in education, as an addition not instead of individual empowerment, styled on that of the U.S., governed by national law, the Federal Education Rights and Privacy Act, FERPA with regional controls and oversight, to better control national, regional and local data rights.

226. Subject Access Rights must be met by all government departments, including the Department for Education and its arms length bodies, and through easy to access routes.

227. Uphold the dignity and the rights of children with disabilities through the guaranteed award of an Education, Health and Care Plan upon application.

228. The necessity and proportionality of the permanent national pupil database and Individual Learner Records should be audited with regards to 'sealed envelopes' for children at risk or for whom a permanent identifier will carry over an old name or identifiers that put any child with a new identity or location at risk.

229. Enable better protection for vulnerable children through suppression of behaviour and exclusion records for children, treated similarly to the Rehabilitation of Offenders Act 1974.

230. End state surveillance under the Prevent Programme, stopping the mass monitoring 24/7 of pupils' digital activity, collection of communications data, or retention of records over time of individual behaviour by companies, in particular any data storage abroad should be deleted.

For educational settings and companies they use

231. Educational settings should always remain data controllers. Companies that process pupil data not for the purposes a school requires, but the purposes decided by the company (product enhancement and new development, research, data analytics) should ensure they understand the implications that may change them from a processor to a controller and realise this is not determined by terms and conditions, or what is stated in a contract, but by the nature of the data processing. Companies alone cannot make decisions about how or why data should be processed, those instructions must be governed from the educational setting, during the pupil school life and beyond.

232. Companies that process children's data should publish an annual child-friendly / plain English policy of use and register of any data sharing between or outside its own business

- international conglomerates with multiple affiliates that may include any other subsidiaries, joint venture partners or other companies that they control or that are under common control should be listed individually
- Product sales that included personal data transfer in connection with, or during negotiations of, any merger, sale of company assets, financing, or acquisition of all or a portion of a business to another company

233. Private companies should publish corporate statements on how they implement the UN Guiding Principles on Business and Human Rights, and integrate human rights due diligence throughout their supply chain and servicing, develop rigorous safeguards against abuse, human rights violations, and establish effective remedial mechanisms for children

234. Families should be asked for opt-in consent before local authority or other linkage between nursery, primary, and secondary pupil data and commercial data broker records or other third-party data sources or data provided later in life such as from higher education, with exceptions, replacing routine linkage without consent and repurposing individual records.

235. Develop steps as part of Admission processes, annual updates, and on school entry/departure to ensure families know that pupil personal data is collected by the school, for Local Authority and to be sent to the national Department for Education or its programs, providers, research partners, governmental bodies, or regulators.

236. Children and families need to have meaningful routes to have their rights explained, or to exercise them and a way to be informed and seek redress when necessary throughout the educational lifetime. Enable mechanisms for communicating what edTech products will be used, for example, in the course of a year, on an annual basis and ensure ways of respecting all the rights afforded to families in making decisions about their use.

237. Ensure policy centres on the best interests of the child, which recognises that a person who has not yet achieved physical and psychological maturity needs more protection than others. Its purpose is to improve conditions for the child, and aims to strengthen the child's right to the development of their personality and character to the full. This protection falls to family, society, and the state

238. Schools should continue to offer families the ability to make cash payments in schools when settings choose to switch to cashless payment systems for the purposes of all administration.

239. Recognise that ever greater permanency of data does not serve children well that need to learn from mistakes as they mature. Retention periods for third-party processors need to be reduced (often at 25 years) and given special attention because children merit additional protection. The default position for a child leaving school, should be that any personal data retained is held by the school as data controller, not the processor; and all pupil data held by third parties should be destroyed-by-default after transfer to the school

240. Understanding how our personal data is used by others makes a difference to the balance of power in common interactions with companies and the state. Educational settings and providers have an important role in maintaining that balance if children are to remain in control of their own lives, with autonomy, able to make informed choices, see or object to discrimination, and understand interferences with democratic rights, as they grow up.

1.3.6.2 Findings 6 | Children's rights in a digital environment

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241. In the rush to remote learning in response to the pandemic, children's rights have been ignored at speed and scale in 2020, more than ever before. We need to fix that to create a safe and trustworthy digital environment in education, fit for children's future.

242. Article 8 of the ECHR provides individuals, including children, with the necessary means to protect a private sphere in which they can develop their personality.[89]

243. In a world that talks about ever greater personalisation, we are in fact being treated less and less as an individual, but rather as a comparison, and ranked according to how we measure up against other profiles built up from historical data, and our comparative outcome or likelihood of paying back that loan, judged and determined according to their collective past behaviours.

244. "Boyd and Crawford's (2012)[90] observation regarding big data is particularly relevant in the AI context: 'Many (people) are not aware of the multiplicity of agents and algorithms currently gathering and storing their data for future use.' (p.673). This leads to the third area of awareness - Students, parents and teachers should be made fully aware of AI data harvesting, storage and sharing arrangements with informed parental opt-in consent and student assent obtained. This is supported by the recommendations from the IEEE (2017)." (Southgate, 2019)

245. While there is often debate on the risks to AI product development in education from privacy and ethics, there must be much more time for understanding given to the risks to children whose classroom experience, interactions, scoring, learning pathways, development and how they are perceived by staff as a result is all shaped by the expansion of computer-driven decision making and big data analytics that turn the human development in all its complexity and uniqueness of individuals, into simplified dashboards for comparison of norms and outliers and can result in focussed intervention on a few picked by "the data", at the expense of others.

246. The United Nations Committee on the Rights of the Child, in its 2016 examination of the implementation of children's rights in the UK, called for the UK State Party to introduce "a statutory obligation at national and devolved levels to systematically conduct a child rights impact assessment when developing laws and policies affecting children", and to "publish the results of such assessments and demonstrate how they have been taken into consideration in the proposed laws and policies".[91]

247. Children in England should expect that their rights will be prioritised and enforced so that they can entrust their digital identity to third parties and can exercise their right to education, without finding it means accepting exploitation by default. This trust cannot be overstated in a time of growing socio-political and economic uncertainty, and technological advance and against the backdrop of the algorithmic exams fiasco of the summer of 2020

248. Children have a right to their reputation. Their reputations are increasingly shaped by the growing quantities of information available about them online. This not only influences children's interpersonal relationships, but may also have an impact on their ability to access services and employment as they enter adulthood. (UNICEF, 2018).

249. Over three quarters of parents polled in 2018 said (79%) if offered the opportunity to view their child's named record in the National Pupil Database would choose to see it.While parents give the Department for Education a high level of trust to use data well (68%), almost the same number of parents (69%) said they had not been informed the DfE may give out data from the National Pupil Database to third parties.[92]

250. Ease of access to freeware technology in practice has far outstripped school staff and parental knowledge of their data rights and responsibilities. We need to be able to empower young people in everyday digital interactions as they mature but also ensure they have a clean slate at age 18 of what commercial companies may pass around about them as school children.

251. In the 2017 report, Growing Up Digital, the Children's Commissioner wrote, "we are failing in our fundamental responsibility as adults to give children the tools to be agents of their own lives."[93] Nowhere is it more obvious and reprehensible than in the course of their own education.

252. Children are disempowered by their age and capacity. Parents with concerns do not want to be seen as problem parents and rarely have the time or capacity to question data collections. Statutory collections mean that staff are habitualised in the belief that consent is not required which is conflated with not informing parents or telling them when data is ascribed by school administrators or Local Authorities

253. Parents should be involved in the consent decisions of their children unless the competent child specifically objects, or there are reasons against it in the best interests of the child. Local authorities should establish a default position of involving parents in decisions about sharing their children's sensitive data unless a competent child refuses such involvement. (Dowty, 2009)

254. Most importantly children's own views are rarely taken into account. It is a myth that young people don't care about privacy. The 2017 edTech book edited by Rosemary Luckin, Enhancing Learning and Teaching with Technology: what the Research says, mentions privacy not from the adults advocating more data collection, or even in the opening chapter on the role of genetic inheritance in education, but in the section Pupil Recommendations, from the Year 7s, children aged 11-12, who said, "increase privacy for pupils; stop spying on us."[94]

255. Livingstone et al. (2019) documented how children care about their privacy online, that they want to be able to decide what information is shared and with whom, and further they found that, "teachers are unclear what happens to children's' data and there is common misunderstanding of how much data leaves a school:", "The only time it does [to the government] is when we do the Year 11 data [...] Because obviously they'll do the tracking of different groups.", (teacher, London) and when it comes to using educational platforms teachers assume some sort of quality control has already been done, "I would've thought the fact that it's a school-based software, this has all been properly regulated." (teacher, London)

256. The Council of Europe 2016-21 Strategy on the Rights of the Child,[95] has an entire section on the digital world. It makes clear that, "Children have the right to be heard and participate in decisions affecting them" and recognises that capacity matters, "in accordance with their age and maturity". In particular attention should be given to "empowering children, such as children with disabilities."

257. Lawmaking and procurement at all levels of government do not yet respect the UN General comment No. 16 (2013) on State obligations regarding the impact of the business sector on children's rights: "A State should not engage in, support or condone abuses of children's rights when it has a business role itself or conducts business with private enterprises. For example, States must take steps to ensure that public procurement contracts are awarded to bidders that are committed to respecting children's rights. State agencies and institutions, including security forces, should not collaborate with or condone the infringement of the rights of the child by third parties. States should not invest public finances and other resources in business activities that violate children's rights."[96]

258. The Difference report (IPPR, 2017) set out the economic impact of high levels of exclusions and the additional educational needs and high numbers of children with complex needs that are overrepresented in excluded children. The government should assess the economic impact expected by contrast if support was offered from the Early Years through an automatic award of an Education, Health and Care Plan upon application for children to uphold their right to education.

259. Families polled, want to be offered an opt in/out to school census pupil data third-party reuse especially for special educational needs and disabilities (SEND) data. 81% of parents agreed that parental consent should be required before a child's SEND data is shared with third-parties. Parents of children with SEND routinely need to wrangle a computer-says-no mentality to get their legal entitlements to education and care.

260. Families that find their child referred to the Prevent programme, have little remedy to correct false opinions or mistakes and the government failure to make sure the Independent Review was carried out as it should have been in law by August 31st 2020, lets down the vast majority of people wrongly referred[97] of whom an unknown volume may be as the result of their interactions with school imposed Internet Monitoring software in school or at home.

261. The UN Special Rapporteur's 2014 report on children's rights and freedom of expression stated: "The result of vague and broad definitions of harmful information, for example in determining how to set Internet filters, can prevent children from gaining access to information that can support them to make informed choices, including honest, objective and age-appropriate information about issues such as sex education and drug use. This may exacerbate rather than diminish children's vulnerability to risk."[98]

262. Developers may both intentionally and unintentionally shape how children are affected through their systems' design. There are no statutory boundaries of how far a third-party is permitted to nudge a child's behaviour, how they affect a child's mental health, how they profile and judge a child's performance, how they judge the intent behind a child's Internet search, and what data analytics they process. All these decisions are dependent on companies that are subject to change of control at no notice, through sales, mergers, private equity and takeovers. These decisions shape children's education and their lives.

263. While it may be convenient particularly where high street banks have closed down and processing cheques and cash has become increasingly difficult, using third party cashless payment providers should not be considered part of a public interest statutory requirement and offer no alternative. They are not consent based systems, when schools give parents no choice but to use them whether privately using their own device or through a PayPoint in a shop.

264. As ever more data is collected about individual children at a national level, we must ensure safeguards are in place so that unique lives are not misrepresented as simply outliers in a dataset that requires normalisation. Too many among the proliferation of products right now encourage flattening of outliers and conformity to standardisation. Even so-called personalised products, often simply find patterns in behaviour and compare it to that of other children, therefore standardising and norming the 'adaptive' offering once again not to you, but a child 'like' you and we have seen the harms this can cause, through the experience of thousands of children and young people affected by the 2020 exams awarding process.

1.3.7.1 Recommendations Seven | Local authority and regional data processing

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Children's rights appear to have low priority when it comes to procurement or research projects. Many products influence behaviours, choices and habits and there is little transparency for families how these tools shape their child's educational experience or what and how they learn. To restore a rights respecting relationship between families and schools when it comes to edTech, then the controller/processor boundaries need redrawn between edTech companies and educational settings and this needs oversight at a higher level than single school, for example by MAT or Local Authority.

For Local Authorities and equivalent MAT level service provisions

265. Only those Information Management Provider Systems must be procured that can enable schools and Local Authorities to manage granular data permissions with different controls on the same piece of data. i.e. ethnicity or Alternative Provision census data.

266. Public Authorities should document and publish a register of the datasets they are processing, to increase transparency of what educational data and personal data they process about children, including commercially obtained sources of personal data collected for processing, or linkage with data provided by individuals in the course of their public sector interactions. (i.e. Data brokers, companies, social media) Publish Data Protection Impact Assessments, Retention schedules, and any GDPR s36(4) Assessments with reviews to address changes.

267. Public Authorities should document and publish a register of the commercial processors / sub processors they engage in children's data processing and which datasets each is involved with to increase transparency of who processes which data.

268. Government at national and regional levels should produce high level organisational charts of education services, and how the various organisations interact when it comes to roles and responsibilities, transfers of money and information. That gap today contributes to poor data management and lack of accountability and oversight for keeping families informed

For educational settings and providers

269. Terms and conditions should be agreed with service providers at a higher level than individual school settings and also retain flexibility for schools to require contract changes. (ie in Scotland due diligence and procurement is overseen at Local Authority level). Schools must stay data controllers not only in written contracts but in practice. Processors must stop doing all they might like to as regards passing data onto third parties that schools didn't ask for, or repurposing it for product development even where set out under school contracts. This happens today on a manufactured 'consent' basis in UK schools, which fails children and parents. Companies need to offer stability in terms and conditions throughout the school year, with agreed notification process for necessary change, and reasonable terms. Families should get a consistent list each year (and at each school transfer) to explain the products their child will be expected to use— and crucially, legal guardians must be able to retain a right to object. Schools must be obliged to offer an equal level of learning provision via an alternative method, so that any objection is not to the detriment of the child.

270. Local Authority or national data processing must have a clear and workable chain of communication through schools to families. For example in the communication of Alternative Provision school census data transfers. Where nationality, country of birth, or passport data is retained for Tier 4 visa or other purposes in the School Information Management systems, it should be made clear when they are retained for local or national purposes, in particular where data is passed on to the Home Office, and for how long and why. These data should be collected for this narrow and specific purpose and transparently processed to the pupil, family and/or their agent.

271. Companies contracted by schools have an obligation to inform the child/family how their data are used. This applies throughout the life cycle of the data processing, not only at the point of collection, and must be in clear and easy to understand language for a child, in line with data protection legislation. We would design a new framework for managing this through schools.

272. Reduce and simplify the number of policies given to parents on admissions. These often come as thirty separate, multi-page documents, and third-party commercial companies are commonly left out of explanations in privacy notices and retention schedules.

273. CCTV and other cameras should be made unlawful in toilets and bathrooms in all educational settings, and exceptional classroom use needs statutory guidelines and oversight from the Surveillance Camera Commissioner.

274. Non-essential biometric data processing should end where it is excessive and less invasive offerings are possible in line with other regulatory rulings after the introduction of the GDPR i.e. fingerprint readers for low security and routine transactions in canteens and libraries should be replaced with PIN and card systems.

1.3.7.2 Findings 7 | Local authority and regional data processing

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Capability and capacity

275. Competence, consistency, confidence and capacity must improve across the education sector from Early Years through Higher Education when it comes to staff understanding of the digital environment, data management, and children's rights.

276. According to a survey carried out in 2018 by The Key,[99] schools were ill prepared to appoint Data Protection Officers, indicating a poor readiness despite pre-existing data protection law.

277. In a small and informal survey of school IT staff in the UK in March 2018 we commissioned:
Over 75% disagreed that their school current data protection policies and practice met good data protection standards, or that they were confident and ready for the GDPR.

- Over 65% of schools never inform the child or parents which personal data have been shared with an external third party when assigning new accounts with apps or technology platforms
- Only 17% performed any regular data audit from the school's pupil information management system to have oversight and traceability of pupil data distribution. Their systems don't offer that functionality.
- Almost a third indicate that their schools did not have data protection duties assigned to anyone at all three months before the enforcement date of GDPR and despite the fact that UK Data Protection law had been an obligation for over twenty years.

278. At the regional and local settings level, there are too few staff with limited knowledge and capacity to perform the necessary level of due diligence in procurement, with the required level of technical and functional capability to understand many of today's products and range of relevant law which go beyond the GDPR but require understanding of children's rights, human rights, equality, communications and privacy laws

279. Almost every human contributor to the education of a child today, is also involved in the creation, use or distribution of information about the children in their care. People that collaborate in any organisational unit — a school, a governing body, a Multi-Academy Trust, a Research network, flow data within, across and outside that organisational unit. Each playing different roles — their level of responsibility and accountability for decisions how the data is managed, shape their data duties, in data terms, as Data controllers and Data processors.

280. The House of Lords Select Committee on Artificial Intelligence report, AI in the UK: ready, willing and able? published in April 2018[100] recommended in particular, that the ethical design and use of technology becomes an integral part of the curriculum. That should be broadened into digital rights and understanding but it cannot happen until teacher training enables it.

281. Staff do not question why data is to be sent to the Department for Education and those who do, may often be met with well-intentioned but misinformed advice as was demonstrated in the 2016 school census expansion. They don't know what they don't know. In schools it results in distributing privacy notices that are misleading or not distributing information at all.

282. Thus a fairness fallacy ensues. Ever more data is created and collected in schools and lasts a lifetime in national records, but staff, parents and pupils have limited understanding of its use. This combination means that children and parents have no oversight or control of what data is collected, where they go, who has them, for how long or why.

Lack of transparency and information

283. A transparent organisational framework in which to understand a child's digital journey within the education system is missing. There is no easy way for a child or parent to understand the structure of the state education system, and therefore what flows of data exist between organisational units.

284. A child's learning journey is fragmented between multiple institutions supplemented by numerous companies without interoperability, multiple different usernames and log-ins and no single view of their shared view of pedagogy or learning goals. Maths alone in a school might be using a personalised learning platform, three different apps to quiz in the classroom and practice at home, as well as the school platform of choice. How many are necessary and proportionate? There is no one with joined up accountability for a child's digital footprint as it travels between institutions and their supporting third-parties across a child's education.

285. Knowledge from the child's data benefits primarily the company for product enhancement or development, but not the child as they transfer between year groups or settings.

Design functionality and lack of suitable tools for families and children

286. School Information Management Provider Systems tell us it would be too expensive for them to manage granular data permissions and this fails schools that then cannot meet their data processing obligations distinctly at local and national levels. For example, the family may be content for a school to know and retain information about nationality or adopted-from-care, but not want those same data to be sent to the Department for Education in the school census. Right now in most systems, nationality is either present in the system field, or it is refused. It cannot show that it is both at the same time. This results in the maximum rather than the minimum data being collected at local level and all fields being sent, where held, to the Department for Education in a school census without any choice.

287. Despite the opportunities that digital transactions should be able to offer, there is often little value-add above and beyond a replacement for paper. For example, a school-home email or messaging service might not be offered in the parents' native language.

288. A meaningful framework and tools are missing for explaining the fair use of a child's digital footprint from the classroom for direct educational and administrative purposes at local level, including commercial acceptable use policies. What is required and what is optional in the termly school census? What goes to the government and what goes to companies? Model reports that give information annually to families accompanied by teacher training would deliver clarity, consistency, and confidence to school staff.

289. Digital understanding for all is required. But we cannot allow companies to use flawed notions of consent and ownership to push the onus for accountability back to our own actions alone. Having a digital understanding should not mean that an undue burden of understanding or obligations to point out problems in certain products or raise objections, is pushed back onto children and parents when they have no effective tools to exercise their rights in school settings. There must be a stronger partnership between schools and families and the consistent tools to allow communication of information rights and to exercise them.

290. Exam grade calculation is a black box of decision making based on historic data and comparable outcomes every year. The exam results fiasco of 2020 exposed an obvious gap in transparency and accountability: there was no at-a-glance report available that schools could use to explain to a candidate how their result was calculated using historical data, their own exam performance, and the standardisation process. That kind of tool is needed every year for schools to be able to show how their grades, or own data inputs combine with national comparable outcome calculations and result in overall grades for each pupil.

Lack of democratic engagement and public consultation

291. The volume of data transfers and stakeholders involved in education today is excessive and grows without families knowledge or ability to object to expansion.

292. Monitoring third-party intentions and appropriateness for schools impossible to manage in a meaningful way in the current lack of oversight framework. Unless we reduce the overall number of external actors, and poor quality products involved in the data processing of children's data in schools, and have properly and professionally assessed standards, bad practice can only be identified on a case by case basis but may affect hundreds or more schools simultaneously. For consistent, trustworthy standards an overarching quality model for product approval and oversight is needed before outsiders obtain approved access to school children's digital life.

293. The boundaries of what is ethical as well as lawful have become blurred using technology in schools and that can reach into children's private activities, space and time. In a trial of up to three years, ending in February 2013, pupils at West Cheshire College wore tags that allowed them to be tracked in detail throughout the college's three campuses. "The technology was introduced with the aim of assessing how it could be used for self-marking class attendance registers, safeguarding purposes, and to improve the physical management of the buildings."[101]

294. It is increasingly common to see news reports of CCTV in school toilets[102] and parents upset at the intrusion and lack of consultation. There is no corresponding evidence of effective behaviour change as a result of introducing cameras in cloakrooms or all school surveillance and yet parents find themselves disempowered when decisions are made that they feel breach their children's rights. An ombudsman should be available to parents for appeals.

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The data industry that now operates in the Higher Education sector is vast and includes student surveillance 24/7, across campuses that increasingly strive to be smart, across the student whole experience from academic attainment and predictive analytics assessing 'risk factors' for drop out, to a lifetime of alumni fundraiser calls. Everyday data collections sit behind the infrastructure for building access and attendance registration and administration using fingerprint readers for the interface with printer and cashless payment systems. Universities surveil social media for reputational risk, online activity for the Prevent programme and the Student Loans Company may scan every social media for signs of fraud. Learning and attendance data are repurposed for tasks the data were never designed for in predictive analytics and even mental health risk indicators. Voice activated routine support services that process biometric data excessively, risk [103] trivialising high value biometric data. The young applicant on the cusp of adulthood remains deeply disempowered.

295. Applicant equality monitoring data at UCAS, HESA and higher education settings must be anonymised and aggregated at the point of collection and only statistics should be shared across different organisations including national funding bodies.

296. Data collected in the process of a student's administration and education should not be automatically assumed for repurposing in student data analytics or predictive data analytics programmes. This must be a separate process, operate on opt-in basis and with the possibility to withdraw consent at any time. The choice must be freely given and not have any detrimental effect on the student that chooses to withhold consent

297. Settings should be obliged to publish registers on their institutional website in a proactive approach to transparency over their adoption of data surveillance services and systems, including third-party data analytics, predictive analytics, social media scanning, plagiarism detection, remote proctoring, and all third-party data processing purposes beyond the student years for the full data life-cycle of a student not only at the time of collection. Since a duty of fair processing already exists there should be no concern over risk to their institutional commercial or competitive interests. But this should not be hidden away across various privacy notices and instead offer a single-view to the student of all such data processing.

298. Applicants must be protected from historic Prevent programme referrals being passed on to Higher Education institutions without their knowledge, or having the ability to correct inaccurate data or object ahead of the information transfer.

299. The Student Loans Company should increase their transparency and simplify their access to information that is for the benefit of students, such as about funding in particular for part-time learners and what the information requirements are at each stage rather than focus their efforts disproportionately on covert data practices for the purposes of fraud detection.

300. The Student Loans Company should end their surveillance of students' social media. Investigations for fraud must not communicate to the institution until suspicions are proven fact and the student's well being is assured, in particular in the case of estranged students.

301. Monitoring social media by Higher Education institutions for the purposes of reputational risk should not include individual student social media accounts even where used in non-targeted ways because it means students are disproportionately likely to feature.

302. Remote proctoring should be a consensual process with a guaranteed right to an alternative exam invigilation process, and without detriment to the students that opt out.

303. Institutions should be obliged to publish statistics on their use of plagiarism detection systems. Students are treated by default as potential essay cheats by plagiarism detection algorithms. The psychological and stress consequences for students of being under constant forensic, automated surveillance, deserves more attention before systems' adoption.

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304. The majority of applicants (90%) in a UCAS survey of their 2015 UK applicants,[104] agreed with the statement that they should be asked for consent before their personal data was processed for various purposes. Over twenty times more than disagreed (4%) with that statement. The majority of respondents were happy for their data to be shared for research purposes where there is a clear public benefit, and also on a consent basis.

305. A further 8% of applicants suggested that they would rather share no data at all with UCAS and not apply, than have it shared. In our own discussions with under 35s on the use of their data, it is often those who already feel most marginalised and stigmatised, including BAME and LGBTQ+ communities, who are in the group most likely to want to maintain control over their data and may be the very minority that 'inclusion data' seeks to understand but will exclude as a side effect of the way it is collected.

306. Equality Monitoring data from students in Higher Education are passed on from UCAS and universities to HESA, the Higher Education Statistics Agency Ltd. HESA passes these sensitive and personal confidential information on to other funding bodies. These sensitive data now sit on a named basis in multiple national databases, including the National Pupil Database at the Department for Education, where it may be linked with hundreds of other pieces of personal confidential information about each individual, in their lifetime record starting from age 2. There is no justifiable necessity for distribution of named data in this way that is proportionate to the risks to fundamental rights and freedoms.[105]

307. Local Student Information Analytics at Higher Education institutions, may use student characteristics and behaviours in dashboards, business intelligence and key performance indicators. The types of data these analytics software range from[106] applicants and students' personal data from general registration, use of Virtual Learning Environment interactions, processing financial data, alumni data, course data and interactions with facilities, such as libraries and e-books. It may also be used for analysis of workforce data held by the university.

308. "The rise of education data science as an infrastructure for big data analytics in education", wrote Ben Williamson in Big Data in Education (2017)[107], "raises significant issues about data privacy, protection and the responsible use of student data. In a recent news article it was reported that the company Blackboard had conducted a massive data mining exercise on student data from 70,000 courses hosted on its learning management platform."

309. Jisc are seeking[108] to 'make the market' for UK learning analytics, including working with Civitas Learning. But compared with the efforts for the institutions, there are no efforts to explain what the data mining means to students so that institutions and vendors can benefit from "economies of scale; better understanding of solution pricing; mitigation against lock-in; ability to benchmark against peers; general 'de-risking'; and for vendors: reduced cost of sales; and lower barriers to innovation."

310. Northumbria University[109] provided 97 pages about their pilot use of learning analytics software from Civitas Learning International in 2017. That material did not include information about the use of algorithms because, "Northumbria University does not hold a copy of any algorithms being used in this pilot." They also withheld some information, applying an exemption because the University considers that the release of such information at this stage of the pilot could prejudice its own commercial interests. Students and applicants have a right to be informed when such automated decisions may affect them and currently they are not.

311. At the Student Loans Company, (SLC) Counter Fraud Teams have access to a number of social media sites including Facebook, Twitter, LinkedIn, Instagram and My Space. In January 2019 [110]however, there was no definitive list available from the SLC of which platforms may be monitored, even though such sites are used as and when necessary as part of an investigation.

312. Organisations which are monitoring students' social media are currently on the rise but it still appears the exception that universities will monitor individual students for interventions. In 2017, the University of Buckingham began keeping tabs on students' social media posts to check whether they are showing signs of mental health problems, such as anxiety or depression.[111] However we are increasingly being made aware of anecdotal evidence of the chilling effect of academic institutions that ask teachers and academics to show restraint on social media in what they may state publicly, even on comments made in a personal capacity.

313. We did not research the widespread use of plagiarism software, its data processing or effects. However this topic needs assessment of the effects of its use on students and needs better research to see the application in UK universities through a UK lens and also respect cultural norms. Students are treated by default as potential essay cheats by its plagiarism detection algorithm. The psychological and stress implications of being under constant surveillance deserves more attention. Contract cheating services and getting others to write your work in 'essay mills' are not new, but the speed and scale of services thanks to online access has changed universities' approach to dealing with them and investing in services to combat rather than solve the issues. A diverse student population will inevitably reflect different approaches to research and reference to others' work may and written work without appropriate credit, may not be intentionally submitted to be fraudulent, signal guilt or lack of integrity. What automated systems may pick up as plagiarism may also reflect poor referencing, diverse approaches to learning, respect for the authority of others' work, unfamiliarity with the expected boundaries of collaboration versus 'cheating' by sharing work, and limited writing experience or experience in English as an additional language. (TES, 2020)

314. Online proctoring can have significant harmful outcomes on human dignity regardless of technical functionality because of how it changes candidates' experience and how it makes them feel. Even privacy preserving solutions may negatively affect students' human rights.

315. Automated surveillance and automated decisions without adequate protections for human rights, safeguards from harm or that offer accessible and meaningful routes of redress can have lifelong consequences for young people. Whether lessons have yet been learned from the TOEIC [112] experience by the UK government appears doubtful in the aftermath of the exams 2020 fiasco.[113]

316. There are a number of disasters waiting to happen at scale, either as a result of accident or abuse in Higher Education. The question is perhaps only whether the misuse of named equality monitoring data, the loss of a mega database of anything a student has ever done and written from third party plagiarism or learning analytics platform, or a compromise of student biometric voice data, will be the first to grab the news headlines.

1.3.9.1 Recommendations Nine | Research

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There is no single definition of research, or reference point for the volume and location of trials, testbeds and industry-led projects going on in schools in England. What the application of these various testbeds, projects and trials can mean for a single child across their educational life is not clear. Organisations carrying out research trials and not subject to Freedom of Information decline requests for transparency statistics. It is impossible for us to research this at school level due capacity and it would be costly for schools to ask at scale, how many trials are typically going on at any one time across the sector. But it appears a glaring gap in understanding how much and which children are subjected to what kinds of interventions in their classroom or school-led activity at home. No single organisation appears to have oversight or be accountable for these activities.

317. An independent oversight board should be established for every product and research trial application in educational settings and published in a review and approvals' process, its structure along a similar model to the Confidentiality Advisory Group (CAG) in health.

318. The board and independent ethics oversight process should be established within the remit of a new national data guardian for education with audit access to all trials in educational settings or involving children and a high standard of ethics should be applied, as in health.

319. A single national view should be publicly available of the volume of research, third-party access to schools, their intentions and outcomes. Every product trial and research intervention in educational settings must be registered in an open, free-to-access, national transparency register.

320. Every Privacy policy, Data Protection Impact Assessment, Legitimate Interests Balancing Test, and Research Ethics paperwork should be published and linked to within that register.

321. The register should be easily searchable by setting name, and by postcode, transparently publishing which trials are live and which schools have participated in, in the past.

322. The public benefit must be a prerequisite for research ethics approval for trials in state schools and other educational settings and findings published after completion of the trial.

323. Trials with interventions in live classrooms that take time away from the child's regular school activity and designed for trial purposes must be made opt-in by consent only.

324. Parents and children should be offered a Right to Object to data distribution in product trials or research projects regardless of the legal basis for data processing.

325. Children's routine state education time should not be used to generate private for-profit products from product trials in particular when children have no choice but to attend.

326. Behavioural science, neuroscience, personalisation using real-time or historic profiles, facial recognition and gait analysis, nudge, affective tech, immersive VR, and other emerging technologies should not be routinely trialled in state education because the effects may be significant and lasting but currently may be poorly understood. Any controlled research studies should require independent ethical oversight, registration, and opt-in consent.

327. Routine administrative tools that schools ask families to use for tracking sickness and absence should be opt-in not opt-out for all indirect reuses including research purposes.

328. The Behavioural Insights Unit, The Education Endowment Fund, Institute for Effective Education, Nesta, The NFER and The Sutton Trust and other similar organisers of trials at scale involving children, should immediately publish a list of all their current and past trials involving UK school children. Information should include how many children are or were involved in how many schools, including the implications for children at settings designated as Associate Research Schools and the nature of trials, whether on an interventions or data-only basis and the nature of the intended outcomes.

329. Police for the purposes of criminal investigation, and the DWP for purposes of fraud investigation, have begun to get access to the National Pupil Database at pupil level for interventions. This increasingly jeopardises the public trustworthiness of all public interest research. The same data can no longer be maintained indefinitely at pupil level for academic research purposes as its indefinite retention jeopardises children's fundamental rights and freedoms being held at national level. The linkage of administrative datasets at national level remains without a social contract and there appears to be no appetite at the ADR to resolve this. Therefore the organisations are failing to meet their DPA obligations for researchers and access should end.[114]

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330. The definition of scientific research purposes has substantial ramifications for the range of data processing activities a controller may undertake. The term 'scientific research' is not defined in the GDPR. Recital 159 states "(...) For the purposes of this Regulation, the processing of personal data for scientific research purposes should be interpreted in a broad manner. (...)", however the EDPB considers the notion may not be stretched beyond its common meaning and understands that 'scientific research' in this context means a research project set up in accordance with relevant sector related methodological and ethical standards, in conformity with good practice.[115] Recital 33 does not disapply the obligations with regard to the requirement of specific consent. (EDPB Guidelines, 2020)

331. A number of initiatives financially incentivise schools to provide their pupil's data for research purposes and there is no oversight how often this happens or mechanisms for parents to understand it. This means that there is no oversight how disruptive such interventions may be to a child's learning or well being across their educational experience as a whole.

332. There are significant implications for children from human rights and ethical perspectives.

333. Researchers may see personal data from children, students and staff published on social media as "fair game"[116] when in fact using personal data needs to respect human rights under data protection law by both academic researchers[117] and commercial developers. They must meet their obligations and not only pass duties back to their data sources and schools without any accountability for whether necessary processes such as fair processing happen.

334. In other work, small academic trials can be going on in schools at any time in regular lessons. Large scale trials involving thousands of children at hundreds of schools, can take place as part of regular school activities. Parents are not always asked for consent and may be refused requests to withdraw children from interventions because they are set up as part of regular, whole-class activities.

335. The Research Schools Network is a collaboration between the EEF and the Institute for Effective Education (IEE) to fund a network of schools which support the use of evidence to improve teaching practice. Launched in 2016, the Network currently numbers 37 schools: 27 Research Schools and 10 Associate Research Schools. All have been appointed following a competitive application process. Applicants need to have the capacity and reach to connect with up to 200 schools in their respective regions. The Research Schools Network aims to lead the way in the use of evidence-based teaching, building affiliations with large numbers of schools in their region, and supporting the use of evidence at scale. (EEF, 2020)[118] Highfield Nursery school Ipswich, was the first early years setting to join the Research Schools network.

336. The Nesta EdTech Innovation Testbed in conjunction with the Department for Education to trial 'software, such as apps, websites or online programmes' launched in mid 2019 and explicitly tells participating schools on its website that there is no need for individual consent. In doing so they appear to conflate a lawful basis for researchers' access to the data with the third-party processing. The only lawful basis for processing mentioned, is vaguely public interest, which does not take into account the processing by the product company, or the potential additional legal requirements when processing children's special category (sensitive) data. "Since this project is generating evidence on products to help existing school and college objectives, and is in the public interest, there is no need for individual consent."[119]

337. The boundaries of the definition of 'research' goes beyond public interest statistical analysis and it is today used to cover a wide range of interventions with children in their everyday school activities. Children's personal data and findings from 'research' projects are being used in the development of commercial products. As Nesta explained about one example project in 2015,[120]"Based on this work with teachers and students, Ai-Media UK has been able to develop 'The Visible Classroom' further into a refined product for supporting teacher professional development. What was a new technology not tried in schools in this format before, has become a product that can be rolled out to schools."

338. Some products are simply piggy-backing research purposes on top of a school administrative app, such as for sickness and absence tracking that parents are asked to use across the whole school and while nominally use may be on a 'consent' basis it is hard to decline use.

339. While some third-party companies may offer an opt-out process for research reuse of school administrative data,[121] repurposing absence reporting and children's health data for other things with only an opt-out, for example, rather than active and freely given opt-in is poor practice for data relating to health under Article 9 of the GDPR. Inclusion in research data sets and processing special category data for "anonymisation" to create open datasets should require an opt-in consent, not rely on an opt-out or legitimate interests.

340. Companies that process children's personal data collected during the use of an app or platform routinely misunderstand the nature of the legal requirements of anonymisation for research purposes assuming their own repurposing of data for both product development by themselves, and by others, and passing on data for research purposes in pseudonymous or anonymised formats. They fail to grasp that as data processors they do not have the authority to make decisions about the nature and purpose of processing, that the act of anonymisation is of itself processing which requires its own legal basis for the processing and that such basis is generally absent. This leads to research without an adequate lawful basis or fair processing having been carried out with appropriate levels of accountability. (See case studies in Part 3)

1.3.10.1 Recommendations Ten | Enforcement

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Good data management today in the sector is inconsistent and limited. To move forwards children need adults to fix what is currently broken and be accountable to children enabling them to understand and exercise their rights, rather than ignore them as usual today. It must be clarified quickly whether or not the ICO Age Appropriate Code of Practice applies to educational settings[122]

341. Children need a strong approach when it comes to the protection and interpretation of their 'data subject's rights and freedoms' and 'significant effect' because they are still developing physically and mentally and their own and families authority in schools is disempowered.

342. UK regulatory enforcement (of data processing that does not meet legal requirements aligned with the GDPR, the Data Protection Act 2018 or Convention 108 and PECR) should be carried out consistent with GDPR regulatory action to date in the education sector; such as in France, Sweden, Norway, and Poland. A UK sector wide-review of certain areas of pupil data processing, rather than individual educational settings may find many of the similar issues at national level pupil data handling, at local levels: lack of accountability, lack of fair processing or explanation of rights, over reliance on the public task and lack of lawful basis. Such a review might follow the lead of the Victorian Information Commissioner (Australia) who published a report on an examination of the use of digital learning tools in primary schools, and how privacy issues are managed when these tools are selected and used.[123]hey found, "schools are at risk of breaching the information privacy principles when using apps and web–based learning tools that handle student personal information." (August 2020)

343. The standard of sector-wide information and professional training on the GDPR has generally been of poor quality and often misleading on controller and processor roles, obligations and children's consent. There is a lack of in-depth experience in the GDPR training offerings often provided for by previous 'cyber-security' or IT specialists but not from qualified professionals in law and in privacy, communications, child rights and data legislation. Accountability for quality standards should be raised through intervention by the ICO in particular when gross findings at a school were not identified by third-party commercial GDPR trainers, and through certification and training.

344. edTech companies and research organisations that operate across the sector should be of priority for ICO enforcement. Lack of enforcement in the education sector has led to data protection being seen as a low priority in school settings.[124] But children's rights and responsibilities by design and by default will not be realised through single school improvement alone but rather by raising standards across multiple settings and dissuasive of poor practice at scale.

345. Basic principles of data protection and enforcement must be realised sector-wide. Obligations that apply to the necessity and proportionality of a task, the amount of personal data collected, the extent of the processing, the retention period of identifiable data are often least well understood and simply accepted by schools in 'click-wrap agreements' that they cannot adjust. In particular, such measures shall ensure that by default personal data is not made accessible without the individual's intervention to an indefinite number of natural persons is rarely considered as part of data protection by default and design.

346. The right to obtain human intervention on the part of the controller in automated decision-making must be offered proactively to families since children cannot exercise this right themselves. In line with the GDPR recital 71, profiling should not routinely apply to a child.

347. An ICO code of practice should set out what is considered 'necessary and proportionate'. Not only in terms of the data processing within an app or platform, but whether that tool is of itself safe, ethical and necessary or whether a less invasive method of that teaching or learning or administrative exercise would be as necessary and proportionate to the task.

348. Data Protection Impact Assessments (DPIA) should be considered "high risk" when the risk is cumulative at scale across a range of settings by the same controller or processor.

349. Children need adults to rethink what is seen as a 'significant effect' for a child, which could be very different for a child than an adult, and address this appropriately in enforcement.

350. Obligations should be made on controllers and processors of biometric and body data to have a duty to explicitly register processing such data with the ICO where it concerns a child.

351. As many manufacturers are based abroad, or export abroad, enforcement collaboration is going to be important. Cooperation and consistency in particular as regards children's data with third countries, must take into account the countries' own regulations and mechanisms, which could be outside the EU remit of the GDPR, however that serve well alongside the GDPR rights and enforcement. Cooperation on the basis of other mechanisms may be more effective than the GDPR alone, for example the Convention 108+ including the Additional 26 protocol to Convention 108[125] regarding supervisory authorities and transborder data flows (ETS No.181) and further Guidelines for Data Protection for Children in Education (forthcoming 2020).

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352. Data Protection Officer duties are often duties added onto staff with existing roles, such as Business Manager, and it is unreasonable to expect them to meet the key requirements of the GDPR Article 37(5) without specialist training and adequate time to give to the role. Shared services may be a better use of school resources and skills to have a dedicated DPO between schools that has the necessary legal expertise and data protection knowledge needed for the role as DPO, but even then the knowledge of edTech can be missing and needs strengthened to understand emerging technologies and the emerging harms.

353. Conducting a DPIA is a legal requirement for any type of processing, including certain specified types of processing that are likely to result in a high risk to the rights and freedoms of individuals. However data controllers may not be aware that their setting is only one of many that the same joint-controller or processor is processing for, so that a school class of thirty pupils may not be considered high risk and a school may not carry out a DPIA. But when no school does, and the same business manages the data for thousands of schools, it can be the case that no one has performed a DPIA because it is the duty of the controller. This can result in the cumulative high risk processing being underestimated

354. The standard of sector-wide information and professional training on the GDPR has been of mixed quality, often misleading those receiving training in particular on controller and processor roles, children's consent and misstating obligations on schools when a child turns 13. Unqualified and unregulated training providers are able to misinform large audiences such as at trade shows and large scale events without redress. Certification should be required and demand high standards of legal knowledge as well as data protection practice, recognising that children merit specific protection with regard to their personal data, as they may be less aware of the risks, consequences and safeguards concerned and their rights in relation to the processing of personal data.

355. There is a failure to grasp and pass on critical legal understanding that the GDPR and data protection law is not all that matters when processing children's data. Privacy law, protection of communications, equality law, other child rights and international guidelines, safety and even employment law and court rulings may need to be understood and respected.

356. There has been little enforcement action reported to date in the education sector. "In the second quarter of 2016, 40 data security incidents were reported to the ICO regarding the education sector, compared with 278 for the health sector, where notification is already compulsory. This means that incidents have been low, statistically speaking, so the action taken has been light and in the form of a managed "undertaking", whereby the ICO stipulates preventative and corrective actions that have to be taken within a set time frame. Since 2015, only two educational establishments have had to sign up to an ICO undertaking."[126]

357. Without enforcement it is unlikely that we will see improvement on current practice in England. Without knowing the expected standards for ensuring that, by default, only personal data which are necessary and proportionate for each specific purpose of the processing, and where less invasive methods are not available, data collection will continue to be excessive

358. Avoiding security threats should become a stronger preventative action among enforcement action. The inherent risks of outdated systems include exposure to ransomware and other security threats[127] across the range of the education sector from primary school to Higher Education. Many of the universities that reportedly responded to FOI requests this summer, and confirmed they had had a ransomware attack, reported they dealt with multiple attacks, with Sheffield Hallam University reporting the highest number, 42 in the past seven years[128]

359. Data minimisation must be prioritised. Few schools seem to do as good a job as John Taylor Multi Academy Trust (JTMAT) in Staffordshire, explaining all its third party processing on one webpage.[129] But each school could ask itself whether over 85 unique third-party processors of data routinely necessary for educating a child in state school? That is before adding the hundreds of DfE external data users of their national pupil record, further access for regional and local authority purposes and sub-contractors.

360. In 2018 Members of the House of Lords said in debate,[130]Schools routinely use commercial apps for things such as recording behaviour, profiling children, cashless payments, reporting and so on. I am an advocate of the uses of these technologies. Many have seamless integration with the school management information systems that thereby expose children's personal data to third parties based on digital contracts. Schools desperately need advice on GDPR compliance to allow them to comply with this Bill when it becomes law." They championed children's agency, "young people probably need more protection than at any other time in our recent history. They should have control over their own data.""[131] And they called for, "Both children and parents [need] to be properly informed of these rights and the use to which data is put at every stage throughout a child's school life and, where applicable, beyond."[132] Enforcement should ensure compliance, that rights are realised, and fair processing is meaningful not a 'get out of jail free card' simply by having a privacy policy posted on a website. Many parents will not know which companies process their child's data and cannot know where to begin to look for a policy, and some products are brand names that appear small, but on deeper research reveal a multinational conglomerate.

361. Schools are disempowered by standard contracts that companies will not edit. Excessive processing in UK schools has become normalised and does not have a lawful basis because the necessity in the performance of a public task has been so loosely interpreted both in schools, and commonly by their third-party processors. Companies will regularly claim to be processors when their actions demonstrate they are (joint) data controllers yet they fail to demonstrate any accountability for the responsibilities this requires including transparency of processing to the children, and responsibilities to meet Subject Access Requests.

1.4. Definition of a child and education data

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1.4.1 Who do we mean by a child

In England broadly in education law as well as data protection law, a child is anyone aged under 18 except where stipulated otherwise. Although you can leave school on the last Friday in June if you turn 16 by the end of the summer holidays, you must then do one of the following until age 18[133]:

- stay in full-time education, for example at a college
- start an apprenticeship or traineeship
- spend 20 hours or more a week working, volunteering, in part-time education or training

This has implications for what data is collected from education data collections such as the censuses, and for how long. School statutory data reporting requirements therefore apply to everyone up to age 18. Some aspects of children's social care and education may also make statutory obligations for young people up to the age of 21 or 25, such as leaving social care or those with special educational needs and disability.

As regards data protection law, children are only aged up to 18 and therefore there are a number of years for young people who may be regarded as having additional vulnerability or in need of extra adult care, for whom their data rights are out of sync with their educational rights and data collection is inconsistent.

Compulsory education ages and definition of "pupil" are different across the UK, and within the meaning of the 1996 Education Act; the Education (Scotland) Act 1980, The Education and Libraries (Northern Ireland) Order 1986, or young people with special educational needs or disability within the Children and Families Act 2014.

In all cases, the best interest of the child carries weight, so data controllers are required to make it clear to children and/or their legal guardians what their rights are at the outset of any data processing, in a way that is meaningful and appropriate for the individual's circumstances.

Our research has shown that the complexity of roles and responsibilities means that very often no one explains to a child or their family what their data rights are, or provides any way for them to be realised, and this is acute when the data processing is done by a different agent than where a child sites, for example in the Alternative Provision Census where no LA had made those efforts in 2018.

1.4.2 What do we mean by data

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It is difficult to imagine just how much information is created and collected about children throughout their education, or how that information is used, stored, and shared with others. Most data used in schools is ascribed by staff. While it may be fact based it can also be:

- **observed**, by tracking people with assessment comments online or on devices;
- **derived** from combining information with other data sets; or
- **inferred** from human opinion, or even machine based algorithms to analyse a variety of data, such as third-party sources via social media, location data and records of activities in order to profile people for example in terms of their behaviour, state of well being or safeguarding.

Core educational records were once the only data that schools would exchange as children move across the sector throughout their education.

Now a child and parent may both contribute data to a multitude of software systems maintained by third party suppliers. School staff ascribe an often detailed set of opinions and adjectives that last a lifetime. Increasingly machine-assessed measures of behavioural profiling through points or keywords are used to measure and predict success or failure and databases store that prediction on a permanent record at local and national level.

Personal data from parents and the wider classroom or community can be part of a child's school record. Families are encouraged to comment on a child's profile from the Early Years Foundation Stage. At primary school, parents, carers and staff can comment on a child's digital portfolio. This may be stored on a cloud-based platform, with comments and photos of school work and the child.

Personal data is first collected by a school for the purposes of administering a child's admission to a school from legal guardians' applications to the state school system for a place. Once the place has been assigned through the Local Authority, more information is collected by a school directly from the legal guardians. Schools store this personal data in their management information system (MIS) — though the brand name acronym for the most commonly used system among 15 common UK providers, Capita SIMS[134], which supplies over 80% of England's schools, has taken on a common use.

Having started school, a child's individual named pupil record is managed and built up over the course of a child's time spent at that school through the MIS. Most systems are cloud based, and the data is therefore stored off site, with support from the provider companies. When a child moves between schools, the core of that record is transferred by the sending to the new receiving school, in what is known as the Common Transfer File (the CTF).

Schools manage their internal administration by accessing the core data held on the MIS through their chosen software and tools, for timetabling and planning for example. Schools then start to input their own data to a child's named record. This is added by school staff in the classroom and through administration. This can include behavioural records, or individual needs such as health and special educational and disabilities, safeguarding data that may come from or go to children's services, whether a child is entitled to free school meals and if the school can claim pupil premium (additional funding on a named-child basis, most commonly as the result of a child's family low income status).

All these types of data use and reuse are generally for the administration of a child's education and direct care from a school, while in loco parentis but those boundaries of school responsibility and reach into private and family life have become blurred as cloud-based processing allows surveillance and data processing 24/7, 365 days a year. Data collected by a school may now be from the child's homework, or all online activity at home.

The administration of the school can also involve outsourcing to private companies, that provide the capability to supplement on-site administration through technology so that the data are processed by and controlled by the company. For example, cashless catering systems are now common in UK schools to enable families to manage the pre-payment of lunch money, as well as payment for materials in food tech, art or DT lessons, or optional school trips.

Personal data created about and through a child's experience of learning are limited within the MIS. However, the number of actors involved in creating personal data about a child's learning outside of the educational record can be vast, where a school supplements teaching, classroom and homework activities, with digital tools.

This raises questions over what is and is not part of a child's state educational record, who has control of that. Where data is held by third-parties can schools meet all their lawful obligations? For instance, if a parent asks for a copy of the educational record, it must be available within 15 days under the Education (Pupil Information) (England) Regulations 2005 (SI 2005/1437). This is shorter than the month of a Subject Access Request and some companies may fail to provide information about a pupil in this time period and will only fulfil a SAR via the school as a go-between and decline to answer questions directly, even once a parental identity established by the school. This 4-way relationship child-parent-school-company is cumbersome in understanding a child record and while schools should rightly play a role in confirming a legitimate SAR request, companies that are data controllers should meet requests and answer questions directly, once the approved status is given.

1.4.3 Can parents consent on behalf of a child

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The 2009 report by Dowty and Korff addressed the law and children's consent to personal data sharing, and still holds true today.

It has long been the case that agencies can share information without consent about children whom they believe to be at risk of significant harm from neglect or abuse. It is also true that practitioners have always maintained case notes and discussed particular concerns with each other. However, what is relatively new is the question of whether children can consent to having sensitive data that they reveal to one person stored on a database and shared with others. In this instance, 'sensitive' means information about their mental or physical health, their beliefs and their private lives.

Legal guardians act on behalf of a child and where children have competency, children can act in their own best interests. Children can also exercise rights over their data to the extent of forbidding others – including their parents – from having access to their confidential records.

Government policy and children's online activities raise all kinds of questions about confidentiality and the integrity of data, and they push the vital issue of who can or should consent to the collection, storage and sharing of children's confidential information to the top of the agenda. (Dowty and Korff, 2009)[135]

It is common bad practice in schools to collect flawed 'consent' forms on admission, which are required acknowledgements rather than a valid consent process for data processing i.e. 'Please consent here.' We have not seen data collection forms that discern between local and national purposes. These forms need improvement for school admissions and school census processing to inform families what is collected for which purposes, ask for consent for optional items, and separate national from local needs.

Consent is often invalid. If a school or companies do ask for consent as their lawful data processing basis it can only be valid where a pupil or family has an informed and freely given choice, without bundled purposes, no pressure to agree, and no detriment to refusing. For example if a parent/child declines to use a consent-based AI platform that the school demands is used in the classroom, the school must be able to offer an equal educational alternative.

It is not valid to ask for consent to use a routine digital product in the classroom where children and parents cannot freely decline without detriment and such processing must be careful to address the reasons why the terms and conditions require consent. Often it is because the company is processing pupil data beyond the school remit. I.e. for the company's own purposes that it has chosen to carry out, not at the request of the school: product development, research purposes or passing data on to third parties. The Information Commissioner's Office guidance makes it clear public authorities, which includes educational settings, will have difficulty relying on a consent basis for data processing, given the power imbalance.[136] This is especially true for children.

Consent will rarely be a lawful basis for processing data in a school. However for biometric data processing where offering an alternative is obligatory, freely given consent is required and schools must not process biometric data from a child if either a parent or the child objects. These protections are offered in England and Wales, under the Protection of Freedoms Act 2012. This legal obligation is often ignored (38% of families we polled where school biometric systems were in use in 2018, said they had not been offered a choice).

The idea that a 'digital age of consent' of thirteen applies to schools for all data processing is mistaken, or even that it applies to all the apps and platforms that schools require children use. Organisations that ask this of schools, appear not to understand data protection law, specifically the requirements of the GDPR, or the legal basis for pupil data processing.

The Department for Education data protection toolkit for schools (2018)[137] sweepingly states that "Parental consent will always expire when the child reaches the age at which they can consent for themselves (13 years old)." This adds to misunderstanding in some schools if, how and when consent is a lawful basis for processing children's data, whether 'information society services' applies to education apps data processing[138] and fails to address questions of capacity versus age, or the power imbalance that often invalidates consent.

Consent is sometimes asked for, where processing is excessive. Such processes also often make third parties data controllers, not processors, from a data protection perspective in law, although they will argue that "we are data processors as set out in our contract and terms and conditions." If so, then a processor should be doing nothing more than very narrowly that processing which a school has expressly required of them. But third parties often go beyond this, and determine the nature and purpose of processing. Extensive adTech analytics, third party re-use or repurposing for research distribution, or keeping data forever for their own product development even where de-identified, makes processing that relies on the school's public task likely unlawful and more likely that third-parties are [joint] data controllers.

In "Cookies That Give You Away: Evaluating the Surveillance Implications of Web Tracking," released in 2014, Reisman et al. explained how web pages with embedded trackers can connect a user's web page visits back to the specific user. Cookie consent is rarely valid.

Consent is rarely informed. Like the Department for Education when it comes to national processing, suppliers often fail to properly pass on necessary information to schools to allow the fair processing responsibility to be met, such as adTech third party processor re-uses, repurposing for research distribution, or keeping data forever for their own product development. Companies fail to tell schools which child's information was used for which third party purposes. Schools are therefore unable to meet this obligation that the companies delegate, and the companies in turn fail to meet their own accountability obligations.

It is impossible for a school to really understand how many of these digital tools work or see that data processing goes beyond what the school requires due to complexity and vague terms of service. Researchers at the Oxford University Department of Computer Science, revealed the extent of hidden ad trackers, in an assessment of nearly one million apps (Binns, Zhao 2018). If even the developers might not understand the full extent of what their code does when it comes to re-using third party data analytics and cookies for example, (Ekambaranathan, Zhao and Van Kleek 2020)[139] then suppliers cannot explain it to schools, and schools cannot to families or children.

In the same way that third-party data processing at national level from the Department for Education assumes fair processing is done, it falls through an accountability gap in local data processing too.

1.4.4 Parental access to a child's educational information

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The House of Commons July 2016 briefing paper CBP-7657 considers parental responsibility and access to pupil records.[140]

Parents may be recognised differently under education law than under family law. For the purposes of education law, section 576 of the Education Act 1996 defines a 'parent' as:

all natural (biological) parents, whether they are married or not;

any person who, although not a natural parent, has parental responsibility for a child or young person (this could be a step-parent, guardian or other relative);

any person who, although not a natural parent, has care of a child or young person.

A person has care of a child or young person if they are the person with whom the child lives and who looks after the child, irrespective of what their relationship is with the child.

In family law 'parental responsibility' means all the rights, duties, powers, responsibilities and authority which by law a parent has in relation to the child. People other than a child's natural parents can acquire parental responsibility, for example through being appointed a guardian or adopting a child. More than one person can hold and exercise parental responsibility for a child.

Education law gives parents the right to information about their child's education. However, these rights differ depending on the type of school the child attends. In all cases a parent can access information about their child's education where the child is below the age of capacity, or where the child agrees, through a Subject Access Request under UK data protection law.

In addition, the Education (Pupil Information) (England) Regulations 2005 (SI 2005/1437) give parents of pupils at Local Education Authority (LEA) maintained schools the right to access their child's educational records. Educational records may include information such as the records of the pupil's academic achievements as well as correspondence from teachers, local education authority employees and educational psychologists. Parents have a right to access their child's educational record, even if their child does not wish them to access it. This applies until the child reaches 18.

The Education (Pupil Information) (England) Regulations 2005 do not apply to non-maintained schools (e.g. academies, free schools and independent schools). This means that parents have fewer rights to access their child's educational records than parents in Local Education Authority maintained schools. Instead, the Education (Independent School Standards) Regulations 2014,[141] which came into force on 5 January 2015, set out certain minimum standards that all independent schools (including academies and free schools) must meet.

The standards an information provision requires that an annual written report of each registered pupil's progress and attainment in the main subject areas taught is provided for the parents of that registered pupil. This could offer an ideal place to expand upon the duty to include a list of data processing and third-party data sharing activities, as well as the lawful basis for each activity.

Schools also have the right to refuse a parent's request for information if they consider that disclosure is likely to cause serious harm to the physical or mental health of the pupil or another individual.

New legislation should adjust these discrepancies and introduce fairness across all kinds of educational settings.

1.4.5 Then the children became data

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The number of exams GCSE-level students in the problem faculty children often needs are shortlisted was a motivation and instead public bodies prioritise the protection of the system.

Ofsted's [Chief Inspector](#) has [described](#) the [Department for Education](#) as "[data rich, information poor](#)". [I have felt](#) this echo in the room at many of the conferences I've attended, and I've written about it myself. Ofsted's data dashboard is part of a [system](#). The harmful effects of standardisation is not new for the time of [Robert Peel](#). Peel's police force was [founded](#) in 1829 and [Dickens](#) was writing about the dehumanising [grades](#) in system [led](#) domestic and third fail to realistic how close they all are. But, as the issue is the issue of greater societal understanding after those harms became mainstream in and more for a wider range of [people](#). Ofsted's data [dashboard](#) is part of a system that [has](#) been in place for [decades](#). It's not new. It wasn't an historical issue until [I](#) [made](#) it [one](#) by [my](#) [actions](#).[[1]]

If you are positive and targeted for interventions or a child in a Trusted family again and again access public [bodies](#) and [Ofsted](#) [Ofsted](#) [Ofsted](#)

2.1.7 The Personal Learning Record (PLR) and Unique Learner Number (ULN)

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The Learning Records Service began in 2010. It is used as the key identifier for the Personal Learning Record of all individuals in England who access post-16 education and training, and a record of learner activity is kept and updated whenever age 14. This includes anything funded by the Skills Service.

The Unique Learner Number (ULN) is a unique number given to each learner aged 14 and above in England, and the Learning Records Service (LRS) will remain with an individual for their lifetime including it wells supported and educated.

Middle element secondary, secondary, all through, special and PRUAP schools need to send the information to the LRS in order to receive a ULN for each learner aged 14 and above on roll.

ULNs are randomly allocated to all pupils on roll aged 14 and over on census day and for pupils on roll who were aged 14 as at their leaving date. ULNs are assigned to pupils aged 14 or over in publicly-funded institutions in England.

The Learning Records Service (LRS) is part of the Education and Skills Funding Agency and [1] delivers this number.

Awarding examiners are required to collect and validate ULNs and provide candidate achievement data to the LRS for all examined learner learners.

The Personal Learning Record (PLR) is held by the LRS and contains validated achievement data to support learners' progression into further learning and employment.

Learners can decide who can see their PLR and can update some of the information in their PLR. Learners can:

- as part of the Connexions with their learning provider
- as part of the Connexions with their learning provider

The Education and Skills Funding Agency (ESFA) will undertake agency of the Department for Education (DfE) published a primary notice in ESFA to transfer all of the Young People's Learning Agency's (YPLA) functions. Access granted to Individualised Learner Record data to learners published by the DfE on its website for DfE statistical first releases (SFR) and key stage 2 and key stage 4 performance tables.

Be aware for some reason details of how these data is processed in early 2010.[2] [3] Learners from Records can be made by submitting a form to the Skills Funding Agency.[4]

In January 2020 the Sunday Times reported[5] that the LRS had been accessed by data intelligence firm 99 which shares clients include Ofsted and Bethal among other gambling companies. The data contains information about learners' education history, including exam results, qualifications and training courses. Wolves and Ofsted have denied [6] [7] [8] [9] [10] [11] [12] [13] [14] [15] [16] [17] [18] [19] [20] [21] [22] [23] [24] [25] [26] [27] [28] [29] [30] [31] [32] [33] [34] [35] [36] [37] [38] [39] [40] [41] [42] [43] [44] [45]

The records are submitted as part of "statutory assessment and reporting arrangements" in the Early Years Foundation Stage Accounts Framework on a named individual basis at national level to be added to the National Pupil Database. Children under 5, living 2yrs, are out of compulsory school age. Guidance says, "Practitioners must not undertake any direct assessment of children's skills in this area. Assessments must be record completed under the terms of the relevant EYFS profile."

It acknowledges that assessment at such an early age may be difficult.

"The EYFS profile is a summative assessment. It can support other aspects of early learning and development outcomes. Despite this, practitioners might find the observation and assessment of some aspects of learning and development difficult to assess in the EYFS profile. Practitioners should be aware of the risk of this learning and development not being recorded in the EYFS profile."

The EYFS profile should be completed at the end of the year before the child moves into KS1.

If the final term of the year in which the child reaches age five, and no later than 30 June in that term, the EYFS profile must be completed for each child in that year group.

The assessment must be age or stage (option based and anecdotal or observation based).

"Moderation of the EYFS profile is a sampling process and not a method for checking each child's assessment. Moderation visits are intended to provide assurance that teachers are making accurate assessments of children's learning and development. The moderator will look at a sample of children's profiles, including any evidence, results of observations, information from assessment records that supports the overall picture of the child's development."

"Evidence doesn't have to be formally recorded or documented. The extent to which the practitioner chooses to do so is a matter for professional judgement." (Guidance, p.19)

All EYFS providers must promote a written summary of each child's development and learning. For early KS1 this must state whether the child is 'not yet reaching expected levels (emerging)' meeting 'expected levels or 'exceeding' expected levels.

Although guidance says 'prepare to consider' reading EYFS profile results to parents as part of their discussions it seems to be in fact a copy of that child's profile, the provider must make this available.[EYFS]

The Profile itself is an ongoing observation, all teachers' records to be passed on to the next provider or school. Assessments are recorded on entry, during regular summaries and on exit.

Each child's level of development must be assessed against the early learning goals. Practitioners must indicate whether children are meeting expected levels of development, or if they are exceeding expected levels. Practitioners must base their assessments on what children can do and any significant achievements gained on a collection of paper evidence often in the form of stories of good or poor development, photographs, work samples, record interactions, positive and negative opinions, with the final 'checking/ticking' of the Profile.

Children's profiles are expected to carry out the check at a developmental step and it is clearly tied to health. Local Authorities may encourage providers to put the written summary into a child's red book so that parents can share it with health visitors. Assessments are carried out against seventeen early learning goals and descriptors grouped as the six prime skill assessment.

When a child transfers from one school to another whether at a standard age of transfer to another stage of education, or mid-year, the EYFS profile must be forwarded to the next school. This is a statutory duty and is to be sent between schools in the Admissions Transfer File (ATF) or Common Transfer File (CTF). The content included depends on stage and timing.

Under age 5s' file, Early Years Foundation Stage data is included in the transfer file for local use.

The summary EYFS Profile is also sent to the Local Authority and national Department for Education.

Early years providers must report EYFS Profile results to local authorities, upon request. Local authorities are under a duty to share this data to the relevant Government department.[EYFS]

Early Years Foundation Stage Profile	
Children's Full:	
Name	
Surname	
Date of Birth	
Unique Pupil Number	
School/LEA number	
Gender (Male/Female)	
Ethnicity	
Entering full time/part time	
Starting date	
Term	
Assessment Point and Stage	
Communication and Language	
Listening and attention	
Understanding	
Speaking	
Physical development	
Moving and handling	
Health and self care	
Personal, social and emotional development	
Self confidence and self awareness	
Managing feelings and behaviour	
Making relationships	
Literacy	
Reading	
Writing	
Mathematics	
Number	
Shape, space and measure	
Understanding the World	
People and communities	
The world	
Technology	
Expressive arts and design	
Exploring and using media and materials	
Being imaginative	
Child's views on the record of achievement	
Parent's views on the record of achievement	

2.2.4 Reception | Reception Baseline Assessment (RBA)

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The national Reception Baseline Assessment (baseline test) at the end of spring has been delayed until September 2021 due to the pandemic with no plan in sooner as data is to be an early adopter school.

The National Foundation for Educational Research (NFER) are contracted for 2R to develop, trial and pilot the new reception baseline assessment (RBA).

It is a national test in maths and English, carried out by practitioners in the first six weeks term, it is a task-based assessment, delivered in English, using physical materials that children can easily handle such as bricks and counters. Practitioners will be trained to administer the RBA and will be able to carry out the administering the test, using a computer tablet.

Scores are recorded as 0" 20 "standard 'it is an adaptive test, so that not every child is offered the questions to enable them to achieve all the possible marks.

As the assessment includes marking, the number of marks presented will vary from pupil to pupil. Pacing, which is the time allowed for each question, will also vary. Pacing is the maximum time allowed for each question, and may be terminated within in which they are unlikely to be successful and the time required to administer the full assessment and the possible loss of motivation that pupils may feel if they are unable to complete an item. The RBA is not intended to be a test of speed, but pacing is necessary to ensure that the assessment is fair, with permitted, both of task 10 mins.

At the end of the assessment, no score is recorded for each pupil. The data is not age standardised and there is no pass/fail mark.

Families will be told the test scores, or see the personal data collected is submitted to the NFER and the DfE, and schools will not get more than a summary statement. Results and the personal data of each child, will be

p-scale, level and sublevel in reading, writing and maths at KS1 has a point value, which enables the DfE to calculate a KS1 average point score (APS) across the three subjects for every child that has a KS1 result (note: pupils without a KS1 result are excluded from progress measures). Their KS1 APS is then used to place pupils into a prior attainment group (PAG), of which currently we have 24, ranging from pupils that were on p-scales at KS1 (pupils with SEND) up to pupils that were Level 3 in all subjects. There is even a PAG for pupils that were level 4 at KS1, but there aren't many pupils in that group.

"All pupils with KS1 results are therefore slotted into PAGs alongside thousands of other pupils nationally. The DfE then take in all the KS2 test scores and calculate the average KS2 score for each PAG.

"The result is a made-up metric distorted by the pressures of high stakes of accountability." (Pembroke, 2020b)

The Secretary of State for Education, Damian Hinds wrote in the i-newspaper in February 2019, that "SATs are not public exams – they are tests, and there is a difference. These are not A Levels or GCSEs with results that count on an individual basis in the long term."

At defenddigitalme we disagree. Some companies create predicted progress scores for each child. These machine made predictions can count on an individual basis, shaping expectations of progress flight paths and have direct effects on children as a result — both those targeted for extra intervention, and those left out as a result of the predictive scores that schools buy from companies

"We blow them up to A1 and stick them on the staff room walls," was how one teacher told us the benchmark profiles are used in their school, "so that staff can see the six children every year to put extra focus on," and implicit in that, whose outcomes will affect their Oftsed ratings.

Today there is no transparency to parents or pupils as these progress score data is not generally given to families and there is no consistent guidance on doing so. Some schools and Local Authorities buy the analytics produced by companies and some do not. Whether this processing is necessary for the child, whether it benefits or discriminates against the child, and whether a child and/or parent could opt out of this profiling may need tested in the courts before a change would be made, however, the public and professional scepticism of the soundness and real value-add of Progress 8 at age 14-16 is loud.

Progress 8 was intended to measure the impact a secondary school has on a pupils' performance across eight subjects. It uses the Key Stage Two results of pupils in their last year at primary school as a starting point.

Leckie and Goldstein (2017) concluded in their work on the evolution of school league tables in England 1992-2016: 'Contextual value-added', 'expected progress' and 'progress 8' that, "all these progress measures and school league tables more generally should be viewed with far more scepticism and interpreted far more cautiously than they have often been to date.[199]

Gaming the system by primary schools or parents, can affect the results for those pupils and therefore the accountability measure as a "value-add" of the secondary school, where pupils do not go on to measure up to their expected attainment level, between age 10-11 and GCSEs taken at age 16. You cannot fairly judge secondaries by Progress 8 and it is likely some primaries data is inflated through above average test preparation by the school or parents beyond what may be expected.

With regard to the effects this automated profiling has on a child as part of progress flight paths, we believe much stronger safeguards and transparency are required on their use. Teachers we know use these at face value and do not necessarily understand how the benchmark or predicted scores are reached. The likelihood of staff spotting errors in the analytics is therefore low. The lack of critical scrutiny before accepting the implications and the direct effects on children has become ingrained in the school system in England.

And the effects of the role of KS2 data in GCSE comparable outcomes is opaque to most people.

The Department for Education in fact explicitly tells schools in national guidance,[200]"There Is no need for schools to share individual Progress 8 scores with their pupils".

This instruction from the Department for Education to avoid fair processing, leads to unfair data processing practice by schools in breach of the first data protection principle.

Furthermore when it comes to the lawfulness of processing, the 2017 Article 29 Working Party Guidelines on Automated decision making and profiling for the purposes of Regulation 2-16/679 (GDPR) are clear that while the recital 71 suggestion that such activity should not apply to children is not an absolute ban, controllers should not rely upon the exceptions in Article 22(2) to justify it routinely.

The acceptance that gains in pupil test scores are the best available metric to measure teacher performance (Murphy, 2013) is premature without any assessment of primary Key Stage data quality — not only in terms of what is expected of the SATS data once delivered; but its design to assess if the test is fit for purpose, looking at automation bias, and the self-reinforcement loops from parental tutoring and teaching-to-the-test. All before one asks the simple question whether a ten year old's attainment as-seen only on a single day and using a one-size-fits-all type of assessment is appropriate at all to use as a system measure over years.

These SATs scores, when used as a reference score in GCSEs, then carry forwards any in-built bias and discrimination into the data driven expectations for GCSE. Worse still they may also be used to link to other datasets for interventions in individual lives by Local Authorities and their partner organisations, the data is increasingly being given a weighting they do not deserve and were never designed to deliver.

Even at GCSE level, because of how exam courses have been designed to stratify some pupils into taking Higher and others into Foundation level and split exam entry, the system may be opaquely stacked against more people getting a good pass at a former C grade, now a 5.

If they are entered for the Foundation level they must complete the paper and do well, to get the top available grade (you can't be awarded higher than a 5 on the Foundation paper), whereas a weaker candidate entered at Higher level, may complete well under 20% of the paper, taking more time over each answer, and still achieve the same grade outcome. It is a gameable design albeit a gamble on the part of the teacher who enters candidates to make a wise choice.

2.3.2 Opinion on the outcomes of choice and accountability

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Choice in the realm of American education, according to Moe and Chubb, was first proposed by conservative economist Milton Friedman and later promoted by Ronald Reagan. (Moe and Chubb, 2009).

But can the concepts of a free market system sit well within the framework of state education? If a family has only one catchment area secondary school within their affordable housing and a reasonable driving distance and that is the only one the school bus route will take the child to, how much choice do I really have to choose the neighbouring school, if they can't get physically or safely get there?

This is a particular challenge for children with special educational needs whose choices are already limited where a school declines to offer the child a place.

Teachers can come and go and change the quality or nature of a child's experience and learning. Few families will choose to disrupt a child's school year established routine and friendship groups, to move to a different school even if it is not far away if there is a change of staff. The human social and emotional factors of change are not factored into the narrative of choice, which in education may be reserved for those privileged to have more choices already in transport and parental time. The lag time in attainment changes for a school, means accountability data do not affect families' decisions in real time and the amount that schools vary by can be wildly misconstrued in small numbers.

The case study in Groupcall's case study guide on MIS data analytics[201] sums this up:

> *"Be careful how you tie in accountability and target setting to analytics. As soon as individual performance or Performance Related Pay is attached to simple data measures, they often become distorted and can drive unwanted behaviours and practices. Remember the old adage of Goodhart's Law: 'when a measure becomes a target, it stops being an effective measure'."*

In reality, managing the mechanism of the accountability system has become a target. Staff are obliged to meet its enormous appetite for data, and demonstrations for Ofsted, the regulator. Because its tasks take up such an inordinate amount of time to create, gather, compare, and then decide and assess their effectiveness over time, whether to make any intervention based on the data at so any levels — classroom, school-wide, MAT-wide, Local Authority wide and Country-wide, the system measurement conflicts with delivering quality teaching and learning. The accountability system has taken on a life of its own, driven by the Department for Education and by the companies that benefit from the promotion of the data outputs that they sell back to schools and authorities.

Teachers create the data, collate the data, clean the data, summarise and correct and submit the data, all as part of their taxpayer funded role. Then the administrators at school, MAT, and Local Authority may do the same, before passing on the next stage. Then the same happens again once the data reach the Department for Education. Then the data is passed on, for free, to the data benchmarking and intermediary companies, who do it all again. And then they sell the ranked and rated and prettified data and information as data products back down the chain to schools, MATs, and Local Authorities that pay to get their own data back again, in dashboards, and to compare with others across the country. Anyone exploring the practicalities of the process, leaving aside its politics, must see that it is vastly inefficient and costly to the State education system as a whole. We call on government to provide an assessment of the cost of the delivery of the accountability system at school, MAT, and national levels.

As Cathy O'Neill describes in her 2016 book, Weapons of Maths Destruction, an entire industry thrives on the feedback loop in China and the U.S.. But we should not for a moment think this does not exist in England. Families that seek tutoring to the test, in effect not only widen the injustice between those who can afford to get coaching and tutoring outside of school, and those who can't, but exacerbate the social injustice between those who can afford to get extra tutoring for SATs and those who can't. In a system in which cheating is the norm, following the rules amounts to a handicap. The only way to win in such a scenario is to gain an advantage and make sure others aren't getting a bigger one. (O'Neill, 2016)

As Goldstein and Spiegelhalter pointed out in 1995 already, "this also raises the interesting issue of feed-back effects, namely that public knowledge of this kind which then is acted on may change the composition of institutions and hence directly affect their operation, so that the relationships formerly observed no longer hold."[202]

"If students decide to choose A-level institutions (where a choice is realistic) on the basis of previous adjusted comparisons then those institutions with apparently 'better' results will have greater competition to enter and will therefore be able to exercise selection. For many this will change the characteristics of their students and the characteristics of the students of 'competing' institutions. If there are interactions between student characteristics and institutional policies then future adjusted comparisons will also change."

Because the government mandates the measures, it is rarely asked whether an adequate legal basis for such data processing exists today — but the accountability of the organisation is built upon processing personal data of an individual child and this brings with it lawful obligations.

In theory, accountability makes teachers and schools that fail to reach expected standards suffer sanctions; performance related pay, job loss, reconstitution and reform through imposed academisation.

But Academies, Free Schools and independent schools do not have to abide by the School Teachers' Pay and Conditions Document, the Conditions of Service for School Teachers in England and Wales - commonly known as the 'Burgundy Book', or other terms and conditions negotiated nationally for school teachers and support staff. They may make their own decisions concerning the level of teachers' pay. These outcomes as a result of academisation[203] are less frequently discussed than the 'profits before pupils' scandals.[204]

Academisation is the process by which maintained schools leave local authority control and oversight.

It is clear that if the pay and conditions negotiation framework is weaker in academy non-maintained schools, the collective power of teaching staff is undermined by this new model of educational system design. If pupils have not improved their attainment as a result of a new testing and accountability model, then one must ask if the aims of the data driven systems have been met. Were they designed in the best interests of pupils or more about political ideology designed to shift power away from teaching unions?

As Moe sets out in an essay Has Ed Reform failed?from his 2014 book, What Lies Ahead for America's Children and Their Schools, publishing school performance measures are part of the politics and reform of education. "There is heightened pressure on school districts and teachers to raise test scores and promote learning. State accountability systems regularly test students—But the reality is that the nation's fifty-plus-one accountability systems do not actually hold anyone accountable."(Moe, 2014)

The same appears true in England.

2.3.3 Profiling for rolling predictions and progress 8

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The intention of GDPR to protect children from unexpected uses of their personal data includes a requirement to not usually make decisions based solely on automated processing about children if this will have a legal or similarly significant effect on them.

When profiles are posted on staff room walls to target certain children for teaching intervention, is that a significant effect? If it were not intended to have a significant effect, should school bother doing the data analytics given the monetary and intangible costs?

Children (or their family) must be told what will happen to their personal data,how and why it is processed by whom, and what rights they have. Current Department for Education guidance on Progress 8 is at odds with the requirements of fair processing under current and future data protection law.

"The GDPR does not prescribe the format or modality by which such information should be provided to the data subject but does make it clear that it is the data controller's responsibility to take "appropriate measures" in relation to the provision of the required information for transparency purposes."[205]

By contrast, profiling of children is generally kept secret and not called profiling but progress measures.

> *"Transparency is a cornerstone of data protection law and crucial to help people not only understand how their information will be used to their benefit, but also the risks and safeguards, including any defaults that might impact on their privacy. Transparency is also key in helping people be aware of their rights and how to exercise them."[206] (Walshe, 2019)*

The author was able to obtain Early Years Foundation profiles and Key Stage profiles from both her Local Authority and directly from the commercial organisation that processed personal data about her own children for the purposes of data analytics, using Subject Access requests.

These were not made available by either the children's Early Years nursery, their primary school directly or from the Department for Education via Subject Access Request.

2.3.4 Analyse School Performance Database (ASP)

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Analyse School Performance (ASP) is a secure system for which everyone who has access must have a valid role within the delivery of education within either a school (including governors), LA, MAT, Diocese, Ofsted or the Department for Education. Access is via Secure Access (Secure Access is the key secure single point of entry system used by the Department for Education to give external users in education institutions and Local Authorities access to various Departmental IT systems), and levels of access to reports/data is based upon the role and entitlement to see data. Organisations can only see pupil level about the pupils relevant to that organisation. The system is a replacement for RAISEonline, which provided similar functionality from 2005 to July 2017.

The Department for Education contract award, the accredited suppliers will receive performance data from the ASP service from 31 May 2017.

> *"The intention is that they will develop products that sit alongside ASP but provide value-add, innovative services targeted at schools and colleges to promote self-improvement and performance accountability.*
>
> *"Take up of these services by schools is entirely optional, and other packages that support them understand performance are available. It is for schools to choose how best to undertake their work about self-improvement and accountability, using whatever software or approach best meets their needs."*

The contract to was awarded to 8 suppliers[207]:

Alkemygold Ltd

Arbor Education Ltd

Asset for Schools

Fischer Family Trust (FFT) Education Ltd

For Schools Support Ltd

Maze Education Ltd

National Consortium for Examination Results (NCER)

Software for Data Analysis Ltd (SDA)

The level of data accessible by each user group is documented in the attached 'ASP user access model'.

ASP contains sensitive pupil level data, accessible to authorised users within that same school or organisation. The Department says that dynamic reporting does not allow users to create tables containing sensitive items such as FSM and CLA with other data items.

> *"Seeing small groups of pupils is however part of the intended functionality to support schools in ensuring all pupil groups make the right progress. It is for these reasons that the service has the terms of use, identity management and security levels that it does.*
>
> *"ASP allows reports to be downloaded or printed. As part of the terms and conditions which a user signs during registration, they are made aware of their roles and responsibilities in using this data."*

Access to ASP is granted through a Secure Access 'Approver' – which means they are an authorised user within an organisation with additional responsibilities to create and delete user accounts. As of 16/02/2018 there were 62,195 approved users of the ASP with access to identifiable pupil level data. The table in the Annex details what kinds of users have what kind of access.

2.3.5 Analysis of national pupil data released for benchmarking

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While the purposes of national pupil database releases are not categorised or grouped in any way, we have had to make our own estimations of the data re-use using the keywords in summaries of the DfE third party releases register. From 2012 to December 2019, our analysis estimates around one quarter of data reuse was for benchmarking purposes.

This chart is a case study example of what kinds of data is released, in a typical Tier 2 data release and why the NPD dataset could be re-identified by combination with other knowledge datasets.

This company applied for and received Student and Exam Level data for Key Stages 2, 4 & 5. From the school name and exam results it may be possible to identify some individuals' other data. For example, you know that in School A, one child sat A-Level in Biology. Perhaps several children sat A-level biology, but only one sat Biology *and* English. This combination of data factors that are easily identifiable with other knowledge.

The national pupil dataset is a census, so you know that every child that was on roll at the school at a particular time, will be in the data, you just need to find the one or two identifying features to find them in a targeted search.

Education data may include data that have been made public, such as exam results that are posted on Results Boards or in the press. Add into that, a rare subject, or rare combination, or child of a public figure at a known school, or perhaps MPs whose school name and year of leaving are on their Wikipedia page, and the entirety of the dataset released for an individual that included some simple institution identifiers may be increasingly easily exposed.

Student Record:

Sensitivity	Field	Description	Purpose	Example
	PupilMatchingRefAnonymous	Random Identifier	To match Student Record to Exam Result Record	CCA553C070D2B6FAC8
Tier 2	AgeAtStartOfAcademicYear	These fields enable us to separate pre and post 16 data into different sets for further analysis.		16
Tier 2	YearOfBirth			2000
Tier 2	MonthOfBirth			05
Tier 2	Free School Meals (FSMeligible and EVERFSM_6)	This field enables us to group the data into two sets for aggregated analysis.		1 or 0
Tier 2	Lower Layer Super Output Area (LSOA11)	This field enables us to group the data into different sets for aggregated analysis at local authority level.		E01000001

Exam Result Record:

Sensitivity	Field	Description	Purpose	Example
	PupilMatchingRefAnonymous	Random Identifier	To match Exam Result Record to Student Record	CCA553C070D2B6FAC8
	LAESTAB	Institution Identifier	So aggregated performance of Providers can be ranked	123/4567
	EXAMYEAR	Year in which exam result was awarded	So Benchmarks can be updated annually	2017
	SUBLEVNO	Qualification Code	To allow the identification of qualifications and subjects	1010
	MAPPING	Discount Code		1 or 0
	QAN	QAN		601/0120/1
	GRADE	Awarded Grade	To allow for performance analysis at aggregated level	A*-E

Example of our Aggregated Output

We run calculations against the datasets in order to produce Subject Benchmarks at National Level.

So for example the output for a few A Level subjects would look like this (figures are illustrative only):

Subject / Percentile	100	90	75	60	50	40	25	10	0
A - Biology	1.14	1.03	0.97	0.92	0.89	0.87	0.81	0.72	0.45
A - Chemistry	1.12	1.12	1.10	1.10	1.02	1.02	0.98	0.98	0.89
A - English	1.12	1.09	1.03	1.01	0.96	0.92	0.85	0.75	0.43

2.3.6 Risk scoring at Local Authority Level using SATS scores and school data

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Repurposing SATs scores designed as a school accountability measure for any type of indicator, flag for inclusion in Troubled Families, or for risk assessing an individual child for potential future interventions by Local Authorities is at best careless may be dangerous and should often be considered negligent. Negligent because of the systemic unwillingness to examine the true nature of these data, their context and purpose, at the time of collection from a child and understand that they are not fit for purpose.

A vast amount of data about the same people can be extracted and is done so with certain underlying assumptions and generalisations about reasons and outcomes related to absence and attendance, exclusions, and attainment. The final report of the project Data Scores as Governance: Investigating Uses of Citizen Scoring summarised the results of one year of research by the Data Justice Lab at Cardiff University. They examined uses of data analytics in public services in the UK with a focus on re-use of administrative data and concerned with the advent of data-driven scores that combine data from a variety of sources as a way to categorize citizens, allocate services, and predict behaviour, by Local Authorities and their partner agencies. (Dencik et al, 2018)

In 144 pages, the word 'child' appears 108 times, and school 37.

Some of its highlights include the case study of Camden Council is one of the first local authorities to have implemented a master data management system, 'to allow the single view of a citizen' and one of its key uses of the index is to enable fraud detection, such as validation for residency for accessing council services such as school places.

The key problem about much of this data is it gives an invisible weight to a moral judgment or expectation on poverty. Parenting while poor is assumed to correlate to poor parenting.

> *the disentanglement of data systems, and the breakdown of the type of data and variables used to make assessments, point to the necessarily abstracted and reduced constitution of social knowledge and lived experiences that data analysis depends on in order to algorithmically process information. This is significant in several respects. In the case of Bristol's Integrated Data Analytics Hub, for example, it was recognised how data-driven risk assessments can only take account of risk factors such as school attendance, records of domestic abuse, etc. but cannot account for insulating 'positive' factors such as other types of social engagement or wider family networks that rely on contextual knowledge and unstructured information. Furthermore, whilst there are attempts to aggregate data to identify broader social issues that shape opportunities and challenges for families and individuals, household-level and individual-level data tends to personalise risk, privileging individualised responses over collective and structural responses. For example, we run the risk of measuring the impact of school absences but not the impact of school cuts. In other words, these systems, in their emphasis on correlation over causation, can individualise social problems by directing attention away from structural causes of social problems (Keddell, 2015; Andrejevic, 2017).*

The use of data collected in educational settings for algorithmic decision making and risk scoring in children's social care is even more flawed where "models will potentially contain dangerous blind-spots" explained in greater depth in the section in this report on child protection and vulnerable children's data.

2.4 Seven national education censuses in England

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2.4.1 The Early Years Census | age 2-5 | annual

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The early years census is a statutory census that takes place every January. All local authorities must submit data about early years providers who receive direct government funding for 2-, 3- or 4-year-olds, including:

- all private, voluntary or independent nurseries and providers of early years education
- schools that provide daycare for full days or in shorter sessions
- childminders and childminding networks

The individual child level data collection from PVI settings is a statutory requirement on providers and local authorities through regulations under Section 99 of the Childcare Act 2006 and The Education (Provision of Information About Young Children) (England) Regulations 2009. This is different from others, based on the Education Act 1996.

While Local Authorities validate and process the return through the electronic COLLECT system, many early year providers, childminders and nurseries, are very small private businesses and can provide data to the Local Authority in all manner of formats, including paper. The business and technical specification outlines the requirements for a single data file from each EY setting within an authority. If there are, for example, 120 EY settings within an authority then the Department will expect 120 files with each one containing a return from a setting. Each file must contain data as outlined in the specification in respect of content, structure, and format. (Early Years Census Guidance 2021).

2.4.2 School Census | age 5 - 18 | Termly (Three times a year)

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The School Census as it is known today, began in 2002. When it first began, the annual 'Form 7' census, as it was known, involved only statistics for a school as a whole in aggregate, not information about individuals. Between 2002 and 2007, the Schools Census dataset was known as the Pupil Level Annual Schools Census (PLASC). Comprehensive PLASC data was first collected in 2002. Since then the termly data collections have included individual pupil names.

The School Census is a statutory pupil-level data collection collected each term, three times in any academic year, from all maintained (state-funded) mainstream schools in England. This includes nursery, primary, secondary, middle-deemed primary, middle-deemed secondary, local authority maintained special schools. Pupil Referral Units (PRUs - for children who do not go to a mainstream school) also complete this school census not the Alternative Provision Census.

Further schools not maintained by the local authority, including:

- academies, including alternative provision (AP) academies (for children who do not go to a mainstream school)
- free schools, including Alternative Provision free schools
- studio schools
- university technical colleges (UTCs)
- non-maintained special schools (schools for children with special educational needs that the Secretary of State for Education has approved under section 342 of the Education Act 1996)

Service children's schools abroad also participate on a voluntary basis. Schools that are entirely privately funded are not included.

While under the fair processing obligations of Data Protection Law it is a statutory duty for educational settings to tell parents and pupils where data is optional, and tell them what it will be used for before submitting it to Local Authorities or Department for Education, this does not happen in practice.

Only four items of about 400 possible submitted items on each child across the censuses are optional. At the time of writing the optional items which can be refused by a child or parent and not ascribed, are:

- Country of Birth (no longer sent to national level since June 2018)
- Nationality (no longer sent to national level since June 2018)
- Ethnicity
- Service Family child (and its four 'concern' subcategories)
- Adopted from Care

School Census data is in part used to allocate funding, to measure performance, and the data is published online in various formats, as well as to make available to third-parties from the National Pupil Database at pupil level.

Some modules are collected for pupils no longer on roll, that is, those that left the school prior to census day:

• pupil identifiers

• pupil characteristics

• pupil status

• termly exclusions

• home information (for those pupils for whom post-16 learning aims are being submitted)

• termly attendance

• summer second half term attendance

• post-16 learning aims

• 16-19 bursary fund

The census dataset contains approximately eight million records per calendar year, and includes variables on the pupil's personal data, including name, home postcode, gender, age, ethnicity, special educational needs, free school meals eligibility, as well as educational history and attainment results.

The census also sends sensitive data to the Department for Education, such as absence, exclusions and their reasons, indicators of children in armed forces families, or indicators of children in care, or adopted from care. The data collected on children from age 2-19, three times a year, creates a "lifetime school record" of characteristics, testing and tracking, to form a single longitudinal record over time. This single central view of a child's personal confidential data and their educational achievement, behaviours and personal characteristics, is core to the National Pupil Database[208], a linked database controlled by the Department for Education.

The Department for Education also uses the school census to ask schools to provide establishment level information as well as pupil level information.

2.4.3 Children-in-Need Census | age pre-birth - 25 | Annual

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The data in this census are collected under section 83(3) of the Children Act 1989. The Unique Pupil Number is routinely processed by thousands of companies daily, since the protections around its distribution were loosened in 2010. We believe that there has never been any assessment done on the risk levels link between the CIN database and UPN distribution.

The children in need census is a highly sensitive child-level data collection. In 2018-19 there were four modules of data in this children in need census, each with its own set of data items[209]:

- Child identifiers: including the pupil's current and former unique pupil number
- Child characteristics such as ethnicity and disability:
- Children in need details about referrals, child protection conference, assessments, and Section 47.
- Child protection plans about past and present abuse.

The census covers the financial year each year (1 April to 31 March).

It collects data on children referred to local authority social care services because their safety, health or development is at risk. This includes:

- children in local-authority care (in placements in a residential home, in a foster family, or with relatives)
- children who are getting support from their local authority's social care services
- children who are the subject of a child protection plan
- unborn children who will potentially need support from social care services

The number of records in a table does not necessarily correspond to the number of individual children. In the year 2018-19 the number of children counted in the annual period included 476,848 with a valid UPN and 231,993 without a valid UPN. A total of 708,841 incidents but not necessarily individuals.

If a looked after child is adopted during the collection year and the child remains a child in need, the local authority must submit two separate unlinked records for that child. The second (post-adoption) record for that same child must contain new child identifiers:

• A new 'LAchild ID';

• A new UPN which should have been assigned to the child by the school. Do not record the child's pre-adoption UPN under former UPN;

• Referral date will match the date of the court's adoption order

Children going through adoption who have been adopted from care are automatically included in the children in need census. Step-parent adoptions are not in the scope of the children in need census.

Local Authority IDs are assigned by the LA. Unborn children are allocated their own 'LA child ID'. This must be a unique id for each child (no longer than 10 characters), and it should be retained from year to year. The 'LA child ID' can only contain alphabetic or numeric characters. It must be the same id that is used for other purposes, for example in the children looked after data collection return. Local authorities are free to choose their own child ids according to the above format.

According to the Children-in-Need guidance a unique pupil number (UPN) is automatically allocated to each child in maintained schools in England and Wales. It is an identifier only for use in an educational context during a child's school career and it is subject to data protection restrictions. However, there is no explanation of what those data protection restrictions are. This children in need census is also added to the National Pupil Database, with limitations on the transfer of assessment factors, such as opinions about drug misuse by other family members.

In addition the dataset from each annual collection is retained by the Department in a discrete collection because of this subset of data that are not added, and because unborn children and under 5s, and other children not in school may not have a Unique Pupil Number. As a result, the CIN census is not maintained as a longitudinal database but a subset of its data becomes part of the National Pupil Database longitudinal database retained forever.

The total numbers of children across each year held by the Department, are therefore not easy to collect, though we asked for these and the Department did their best to provide them.[210] We have concerns about which third party organisations are approved users, unclear accountability for security of data after its release to third parties and data destruction and whether such data should not be entirely protected in 'sealed envelopes' restricted from distribution, except in aggregate.

Information on the number of times the databases holding CiN data have been accessed is not held by the Department.

CiN data is held on a number of databases within the Department for Education, for the purposes of primary and secondary statistical analysis.

Ten people have access to the dataset that contains the most recently collected CiN data. This is restricted to the data collection team and management chain, including the IAO, who are directly involved in the data collection and statistical release and therefore need this level of access to carry out their roles.

After the main statistical release, the CiN data is opened up more widely, to colleagues who need to do secondary analysis and require access for the purpose of carrying out their role effectively. Twenty-three individuals have access to this dataset and a further 137 users have access to the CiN data that resides within the Pupil Data Repository (PDR)database, the primary means of accessing NPD data for internal DfE staff.

The Department says that access rights to the PDR and analytical databases are subject to continuous audit and review, with users who no longer require access being removed.

The figures above do not include those with access to the CiN collection on the department's COLLECT data collection system, such as a small number of Data Collections Service Desk staff and the technical development staff who prepare and administer the collection. These individuals require access to the collection blade to carry out their roles, but are not users of the data.

In 2020-21 new data will be collected, bout child on child and adult on child physical and sexual abuse factors. The data will be stored in the same way as the other assessment factors (to be collected by the Department between April and July 2021). This data will be available to internal users through the datasets.

2.4.3.1 CiN data matched to the National Pupil Database

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A record from the CiN census is matched into the NPD if there is enough identifiable or characteristic information (mainly UPN, but also gender and date of birth) available in that record which either:

a) identifies the child as already being in the NPD via its appearance in other data sources (which includes the school census and the early years census and 6 previous CiN-NPD datasets) and from which the existing pupil ID can then be attributed to the new record from the current CiN census year, or

b) involves creating a new pupil ID for the child when the child's characteristics cannot be accurately determined as currently existing in the NPD.

Hence, even though a record from the CiN census has been matched into the NPD (i.e., given a pupil ID), it does not necessarily mean that it can be linked to other data in the NPD if there is no other information attributed to that pupil ID from other data sources. This is particularly relevant for the CiN census as a new child can appear, and therefore be matched into the NPD for the first time, before they start school if enough characteristic information is available in their CiN record to create a new pupil.

We believe that there is no necessity and proportionality for the data for Children in Need to be collected and processed by the Department for Education at national level on an individual child-level basis. This should instead be aggregated data.

There are privacy concerns as those requiring local authority support are generally of poorer socioeconomic circumstances, and such interference becomes discriminatory, reinforcing the groups of people that are routinely picked out as patterns in the data.

Taking a case study from the US in December 2017, The Illinois Department of Children and Family Services called it a day on a $366,000 program that used computer data mining to identify children at risk for serious injury or death. The agency's director called the predictive program technology unreliable. DCFS Director Beverly Walker told the Chicago Tribune that her social care agency was suspending use of the Rapid Safety Feedback program because it "didn't seem to be predicting much."

"Predictive analytics (wasn't) predicting any of the bad cases," Walker said. This has been echoed in the UK in the research by the What Works Centre of algorithms and machine learning in children's social care.

The risks include algorithms disproportionately selecting disadvantaged children of colour or other profiled commonalities, for government intervention, and automated decision-making replacing the judgment of experienced child social care professionals, and their over reliance on the system being right.

Before 1998, the SSDA903 collection covered all looked-after children. Between 1998 and 2003, the SSDA0903 return covered only a one third sample of children, those with a day of birth divisible by three. There was then an aggregate return, the CLA 100 return, which was used to provide 'fast track' data and to gross the sample data. In 2001, the AD1 (children adopted) returns were introduced and the OC3 return (19th birthday) in 2002. From 2004, the CLA100 return was discontinued as the SSDA903 reverted to covering all looked-after children.

Becoming a web-based data collection for the first time, the SSDA903 return also incorporated the AD1, OC1 and OC3 returns. The OC2 data (outcomes for looked-after children) was introduced in 2009, the aggregate OC2 collection was discontinued the following year. Information on timings of adoption decisions was added in 2010. The OC1 data was discontinued in 2012. In 2014, the OC3 cohort was expanded to include all former relevant young people and collect information at their 19th, 20th and 21st birthdays. This was expanded further in 2016 to cover 17th and 18th birthdays.

2.4.4 Looked after children census | age 0 - 18 | Annual

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Under the Children's Act 1989, a child is looked after by a Local Authority if he or she is in their care or is provided with accommodation for more than 24 hours by the authority. They fall into 4 main groups of children who are:

(i) accommodated under a voluntary agreement with their parents (Section 20),

(ii) subject of a care order (Section 31) or interim care order (Section 38);

(iii) subject of emergency orders for the protection of the child (Section 44 and 46);

(iv) compulsorily accommodated. This includes children remanded to the Local Authority or subject to a criminal justice supervision order with a residence requirement (Section 21) or if they are likely to cause self-harm. 'Section 25 children' also includes children being remanded to local authority accommodation awaiting trial, or awaiting sentence following conviction (s23(1) CYPA 1969 and s21 CA 1989) or Children detained under PACE, who are helping the police with their enquiries, prior to either being charged or released. In all cases Social Services would be involved.

2.4.4.1 Post Looked After Arrangements: self-declared data added to the school census

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The 'Updating Post Looked After Arrangements' section of census collects information regarding children on roll on census day that have left care through either adoption, a special guardianship order, a residence order or a child arrangement order. Children who have left care under one of the measures listed above are eligible for the post looked after element of the pupil premium. This funding is needed by the school, but the onus is on the parent/guardian to provide it.

The DFE collects this information in each census, but administrators should only enter a pupil's name if the persons with parental responsibility have self-declared to the school that their child was In Care immediately before Adoption, under a special guardianship order, a residence order or child arrangement order. As part of the self-declaration process, parents must show the school evidence of the adoption/special guardianship/ residence/ child arrangement order.

2.4.5 Alternative Provision Census | age 2 - 18 | Annual

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The Alternative Provision (AP) Census is a Local Authority return. The data is at individual level and requires attendance patterns to be recorded, enabling full time equivalent calculations.

Our research indicated a great deal of inconsistency in this collection, how numbers were recorded. Some Local Authorities counted each child only once who spent any time in AP across the year no matter how often. Others counted the same child more than once if that child attended AP more than once in the year. Others counted the total full time equivalent across the year. Some counted children only in the AP setting on the day in January of the census. We suggest this basic counting problem should be considered and assessed in any reviews of "missing children."[211] We are not suggesting it is the cause of 'missing children' in the numbers, but we certainly think it is a contributory factor.

An expansion of the Alternative Provision census starting in January 2018, adds further sensitive data to the National Pupil Database including pregnancy, physical and mental health, and a code for young offenders, as reasons for transfer out of mainstream education.

This trend is typical of the scope creep of data collection towards every more individual and invasive data into children's private and family lives. Pupil Referral Units were expected to enter the total number of teenage mothers expected to attend in Census week until 2014, however since 2018, the Alternative Provision Census includes a reason for an individual child's transfer from mainstream into Alternative Provision education, that includes 'pregnancy'.

Following (SI 807/2017) for the first time the new labels 'young offender' and pregnancy, mental health and others will be added to named records. Parents and pupils are not offered any opportunity to object. Personal data in the National Pupil Database are given out for commercial use. Government appears to fail to understand the increased risks this puts children at.

The Department amended AP Guidance 2017-18 to lower the age group for which such data should be collected. "Within the AP census, pupils should be aged between 2 (as at 31 December 2017) and 18 (at 31 August 2017) - those pupils born between 01/09/1998 and 31/12/2015."

As the instrument was subject to negative resolution procedure and did not amend primary legislation, no statement on human rights was included in the Statutory Instrument Explanatory Memorandum and no privacy impact assessment was carried out.

We are concerned about the privacy impact because once collected, identifying data is added to the National Pupil Database and can be given out to third parties; over 1,603 times as of December 2019, many for commercial re-use and even to journalists[212] without a child's or parent's permission.

We appreciate the reasons why it is important [213] to understand these children's life stories. We are concerned about how that data is collected, distributed, and never deleted. Every child has a right to privacy and confidentiality and this has been ignored.

Pupil Referral Units (PRUs) constitute one form of AP. Department for Education statistics indicate that there are 15,000 students in PRUs, an increase of 16% since 2011/12 but these organisations complete the School Census, not the AP census.

The duty of the Local Authority in Part 3 of the Children and Families Act 2014[214] is to have regard to supporting and involving children and young people and regard to the views, wishes and feelings of the child and his or her parent, or the young person; the importance of the child and his or her parent, or the young person, participating as fully as possible in decisions relating to the exercise of the function concerned; and the importance of the child and his or her parent, or the young person, being provided with the information and support necessary to enable participation in those decisions.

This duty is not met regarding their data management.

At the time of writing defenddigitalme is in the early stages of a judicial review of this expanded data collection and wider reuse of pupil data from the National Pupil Database.

2.4.6 Post-16 Learning Aims census (PLAMs) | age 16 - 18 | Annual

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Schools with a Sixth Form are required to provide details about Learning Aims once a year in addition to the School Census Autumn Return. The return collects information about Learning Aims that were undertaken during the previous academic year as well as those that were started or continued during the academic year.

Learning Aims are required for learners in National Curriculum Year 12 or above for whom the school claims post -16 funding from the Education Funding Agency (EFA). Learners are expected to be in National Curriculum Year 12 and above if the majority of their learning is at level 3 or above. Students in a different Actual National Curriculum Year Group 11 (or below) with the majority of their learning at level 2 are no longer included in the return.

Exam results are used to determine the QAN / discount code and are fed into the PLAMs data together with the individual level data about a young personal and their employment or course details. These include the

- Qualification Accreditation Number (QAN) or now known as Qualification Number (QN)
- Discount Code, now known as Subject Classification Code (SCC)
- Start date, planned and actual end date of the Learning Aim
- Current Status of the Learning Aim, i.e. Completed, Continuing, Withdrawn, Transferred
- Learning Aim withdrawal reason, e.g. illness, injury, etc.
- Core Aim (the primary Learning Aim being undertaken in a student's programme of study)
- Partner UKPRN - sub-contracting UK partner identifier
- Maths and English GCSE Prior attainment for each student in year 12 and above for whom Learning Aims are collected
- Traineeship details

2.4.7 Independent School Level Census (SLASC) (Annual)

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The SLASC applies to registered independent schools only. SLASC is an annual, statutory census that takes place every January. Independent schools are are expected to provide their contact details, the aggregate number of pupils on the attendance register, the number of teaching staff, the courses of study, the number of pupils with special educational needs (SEN), the number of pupils in local authority care, annual fees, details of accommodation, the number of staff members who have joined or left since the last census, and details of the school's proprietors. This data is in contrast with the state system, not at pupil level.

2.4.8 Controversial expansions to the school census

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2.4.8.1 2016 nationality and country of birth

In June 2016 the Department for Education expanded the school census to start collecting nationality and country of birth on every child in England.

Greg Mulholland MP on October 10, 2016 asked then Secretary of State for Education, the Rt Hon Justine Greening MP, whether the policy risked turning teachers into border guards.

In response, she said, "This is about making sure we have the right data and evidence to develop strong policy. That is a sensible approach, but it is important we respond to the concerns of schools that see additional numbers of pupils related to migration. We need to have a better sense of the stresses and strains, so that we can target resourcing effectively."

The spokespeople from the Department, The School Standards Minister[215] , The Education Secretary[216], and the Lords spokesman[217] and press stories[218]

all stuck to the same line since May 2016; "these data will not be passed to the Home Office. They are solely for internal DfE use for analysis, statistics and research."

The School Standards Minister said in July 2016, "The collection of data on the country of birth and nationality of pupils will be used to improve our understanding of the scale and impact of pupil migration on the education sector, and provide the Department with a better evidence base for future policy decision making."

At the same time, there was a removal of the age limit restriction to ethnicity for under 5s.

And the data collected about home addresses expanded, without any explanation to include a unique property number (UPRN) which is generated 'automatically'.

"This is a unique alphanumeric identifier for every address in Great Britain and provides a comprehensive, complete, consistent identifier throughout a property's life cycle - from planning permission to demolition. For the 2016-17 school census the UPRN will be added as a voluntary data item to be returned alongside the full address. The collection of UPRN should be relatively "invisible" to data providers with the burden managed by the way addresses are processed within school systems. Schools are not expected to collect, or look up the UPRN and instead this would be generated automatically within the school system when entering addresses if using the OS AddressBase database as a reference."

The failure to explain how this coding would be added to records, or that ethnicity would be sent to the national pupil database for the under 5s, were of less pressing concern compared to the explicit and more obvious risks of collection of country of birth and nationality.

Privacy notices issued by schools based on the Department for Education template, failed to tell parents and children that the new data were optional, and parents reported being chased repeatedly to return nationality data. Common misunderstandings include that the data would be used to allocate funding (untrue) or that it was somehow connected to allocation of resources for EAL children (also unfounded).

The data were optional, and parents and pupils could return a reply as refused, but schools were required to ask for the data. In effect it became an opt-out model with children as young as 10 we know of, put on the spot in classrooms to tell teachers if they were not British.

Schools Week reported in September 2016 that Pupils who were not white British told to send in birthplace data.[219]

Errors were compounded by poor forms and outdated software system design and practice, as well as what can at best be described as careless and insensitive classroom handling.

Common school information management systems used by thousands of schools across the country to record census information allowed staff to 'ascribe' a child's ethnicity where parents failed to provide it.

In our outreach with over 3,000 schools we mostly met surprise that data were being used for immigration enforcement at all, and often administrators were not aware that data was optional. In only two instances we met school staff who agreed that school children's data should be used for immigration enforcement, and in only one discussion with school teaching staff at a research conference did we hear the view that it should be used, "to get them out of here as soon as possible."

The vast majority of schools tried to meet their obligations to both tell parents and pupils data were optional and fulfil the data collection. However, the forms used were often poor. Parents and staff submitted examples on social media using the hashtag #FormFail in 2016-17 to highlight common failings to communicate choice, or misinformation on funding.

After 18 months of collection the data quality was poor. The Department for Education published figures based only on the January 2017 census data, that showed there were 8.1 million pupils registered at schools in England.

- 23.5% of pupils had no recorded country of birth
- 20.6% country of birth was not yet obtained (NYO)
- 1.9% country of birth active refusal (plus 1.1% not known – should be used where truly unknown and separate from NYO) = 153,900 refusals.
- 25.6% of pupils had no recorded nationality of which 22.5% was not yet obtainedand 2.1% refusal (1.0 not known) = 170,100 refusals
- 74.4 per cent of pupils were recorded with a specific nationality. Of those pupils where a nationality was provided, 91.4 percent were recorded with a nationality of British.

In April 2018 Schools Week broke the news that the Department for Education would no longer require collection of nationality and country-of-birth.

Monthly transfers of children's data for immigration enforcement continue.

2.4.8.2 Timeline graphic: expansion of the school census 2016

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March 2013 Ministers planning immigration crackdown on 'education tourists'.

August 2015: After the General Election,Nicky Morgan, SoS for Education, announces a review of the impact of immigration on education or 'education tourism'. There are concerns this is a reworking of 2013 plans to 'crackdown' on migrant families.

Nov-December 2015: The Star Chamber Scrutiny Board approved the change to expand the school census collection to include country-of-birth and nationality. The purpose and reason given is: "Whilst the department collects limited information on children who have moved into the English education system from abroad, the collected information is insufficient to ascertain the impact that such entrants have on the education system. The introduction of these data items will assist in the identification of such pupils and may facilitate the targeting of support to such pupils."

December 2015: FOI request to ascertain the size of the NPD. The total number of Unique Pupil Numbers (UPNs) in the NPD as at 28/12/2015 was 19,807,973. (ca. 20 million). This has pupil records since 1996 so many people in the database are now adults, who have never been told their personal data is given to third parties without consent.

December 2015: A revised Memorandum of Understanding (data sharing agreement) in place since July 2015, v1.0 is finalised on December 18, to share the individual confidential data including nationality "(once collected)" of up to 1,500 children a month from school census with the Home Office. This did not become public knowledge until December 2016, and published on whatdotheyknow in February 2017. All references to Home Office (HO) in the document refer to the work of UK Visas and Immigration, Immigration Enforcement and UK Border Agency / Border Force. The agreement signatories are from the DfE Data and Standards Analysis team, and HO Director for Interventions/Sanctions. The Border Force Removals Casework Team facilitates the data transfers. There is no public acknowledgement of this use of school census data by DfE until late October 2016. It is not known in the public domain until our FOI requests are answered in August 2016, and its full extent is not known until December 2016.

2016

February 29: A later technical change notice includes language data expansion for all children.

May 4: The announcement was published "after a delay obtaining clearance". The Department instructs schools to collect the data for the 2016-17 school year census, and many schools begin before the school summer term ends, even before the Statutory Instrument is laid on July 21st.

June 23: Schools Week first reports the change and teacher concerns about the expansion to collect country-of-birth and nationality from every child age 2-19.

July 4: FOI request for Meeting Minutes of the Star Chamber Scrutiny Board where decision on census expansion was taken. The Secondary Legislation Scrutiny Committee was told in September by the DfE by letter, that the board would have raised concerns before signing off had they had any. Release of these minutes is refused by the DfE (not released until November 2017 after appeal, shortly before withdrawing from the Information Rights Tribunal).

July 6: defenddigitalme wrote to the Department raising concerns of forms failing fair processing, demanding data as required for funding, confusion, duties under the Equality Act, and that this is not in the best interests of children, but 'to assess the education system" and concern it may be used in immigration purposes.

July 9: Schools Week reports that English as an Additional Language (EAL) professionals feel its implementation is rushed and poorly thought out "it was wrong to just "grab the [scales] from Wales, without consultation".

July 25: Nick Gibb MP, Schools Minister denies that the new data will be shared with other Government departments in a written parliamentary question 42842, when asked if the DfE consulted (a) schools and (b) parents on the new requirement to collect country of birth data in the 2016-17 school census; how parents are informed of their right to opt out of providing that information; for what purpose that information will be used; and whether that information will be shared with other Government departments. Nick Gibb said. "The data will be collected solely for the Department's internal use for the analytical, statistical and research purposes described above. There are currently no plans to share the data with other government departments unless we are legally required to do so. The Department has not consulted directly with parents regarding the changes to the school census."

July 26: Nick Gibb says in another written parliamentary question 42942, "The data will be collected solely for internal Departmental use for the analytical, statistical and research purposes described above. There are currently no plans to share the data with other government Departments" when asked what limitations will be placed on disclosure of such information to (a) other government departments and (b) private third parties; and whether her Department plans to change its protocols or processes for handling and disclosure of confidential information when country of birth data begins to be collected. Nick Gibb replies. "There are currently no plans for the Department to change the existing protocols and processes for the handling and disclosure of confidential information."

July 26: defenddigitalme wrote to the Minister for School Standards to ask how data would not be passed to other government departments following the claim made in the answer to Written Question PQ 42842.

July 27: Statutory Instrument 808/2016 laid before Parliament to expand the School Census collection via amendments to the Education (Information about Individual Pupils) (England) Regulations 2013 and the Education (Pupil Information) (England) Regulations 2005.

August 1st: In FOI request Ref: 2016-0032573 DfE reveals data sharing from the National Pupil Database data with the Home Office and Police: Since April 2012, the Police have submitted 31 requests for information to the National Pupil Database. All were granted, only 21 resulted in information being supplied. Since April 2012, the Home Office submitted 20 requests to the National Pupil Database. Of these 18 were granted. 2 were refused as the NPD did not contain it. (Note: The volume of Home Office requests, for over 2,500 individuals, will only be revealed on October 27, 2016).

September 3: defenddigitalme raised concerns on the Statutory Instrument to the Lords secondary legislation scrutiny committee. The Government responded to the Committee.

Sept-Oct: Schools scrambled to collect data in September before the on-roll census day on October 6th. Parents shared dismay and confusion on social media. A grassroots campaign Against Borders for Children (ABC) is launched by teaching staff, parents, civil society and — children's, migrants', and human rights' supporters.

September 23: defenddigitalme writes to the Star Chamber Scrutiny Board to ask what they knew of the existing Home Office access when they approved country-of-birth and nationality data collection. After a reminder sent in November, an anonymous reply is received, which addresses none of the questions.

September 23: Schools Week reports: Pupils who were not white British told to send in birthplace data: "confusion could increase fears among ethnic minority families about how the data might be used, although education leaders say they have received assurances it will not be passed to the Home Office."

September 26: over 20 rights' organisations under the ABC campaign umbrella write to the Secretary of State to call for the census expansion to be scrapped and urge a boycott by parents and schools of the optional collection.

September 26: Department claimed in BBC report that 'these data will not be passed to the Home Office.'

September 29: defenddigitalme and Department meeting, we are told that no data sharing agreement is yet firm or in place, and it is under discussion. This was a lie. (See 2015)

October 6: School Census on roll day. Funded schools for children 5-19 start submitting 2016-17 census data including country-of-birth and nationality for the first time, among calls from parents for "this racist policy to be scrapped."

October 6: late afternoon, FOI Ref: 2016-0042333 confirms Home Office access to previously collected school census pupil data includes name, home and school address. Purposes of all cases within the Home Office requests "are a) dependant(s) of a parent/guardian who is suspected of an offence under section 24 or 24A of the Immigration Act 1971, or section 35 of the Asylum and Immigration (Treatment of Claimants) Act 2004 has been, or is being committed (or b) the child in question is an unaccompanied minor.)" "Each Home Office request includes details of the individuals concerned as held to enable to us to search for them in the NPD."

October 10: The Secretary-of-State Justine Greening insists in Education Questions insists that the collection is: .."about making sure we have the right data and evidence to develop strong policy."

October 12: Lords questions on the census expansion. The Lords government spokesman, Viscount Younger of Leckie said, "I reassure the House that the information is kept within the Department for Education and is not passed on to the Home Office." The government spokesperson confirms that there is no sanction for parents or schools who choose not to provide country of birth and nationality data in the census.

October 12: The Guardian reports a new data sharing agreement is "in place" with the Home Office.

October 14: defenddigitalme writes to the Secretary of State, Minister for School Standards and Department to object to the use of pupils' home address and school address divulged for deportation enforcement and absconder tracking of parents and adults through children's data and asks to see a copy of the new datasharing agreement by end of data that will restrict Home Office use of new census data items. It is not forthcoming. Press told to use FOI.

October 18: Still in secret, version 2.1 of the original Memorandum of Understanding in place since December 18,2015 to share the individual confidential data including nationality "(once collected)" of up to 1,500 children a month from school census with the Home Office is signed off, amended from October 7, to remove reference to 'nationality' data. This does not become public knowledge until December, and published on whatdotheyknow in February 2017.

October 23: Against Borders for Children campaign social media Thunderclap on Twitter reaches over 1 million.

October 24: The Independent reports that Brighton and Hove City Council tell parents they can override parents and pupils' refusal of consent to provide optional ethnicity data, and that Heads can ascribe ethnicity.

October 27: Extent of Home Office access to pupil's home address published in PQ 48635 answered by Nick Gibb. Very first government admission at all outside of our FOIs and questions asked since May. "Between July 2015 and September 2016 [...] requests relating to a total of 2,462 individuals have been made by the Home Office to DfE and 520 records have been identified within DfE data and returned to the Home Office."

October 27: The National Union of Teachers calls for this use of pupil data by the HO to end, emphasising that "schools are not part of policing immigration".

October 28: Lord Nash reported in Schools Week wrote new data will be kept separately due to its 'sensitivity'.

October 31: Home Office FOI 41221 confirms monthly access for immigration purposes. It appears that in addition to one request made in 2013 for 341 pupils, monthly access began in 2016. (see also PQ 48635 October 27)

October 31: The House of Lords agree to a motion of regret. Lords say, "this proposal has all the hallmarks of racism", "Parents are upset, not just about how this information might be used but because these questions are asked at all," and that "DfE denials of any ulterior motive do not sound convincing."

November 3: Schools Week reports former Secretary of State for Education Nicky Morgan "had to 'fend off ideas' from Downing Street" including blocking plans to share the new census information and that passing on the specific data to the Home Office was "not something we would want to see." This calls into question the current Ministers' honesty about its purposes of the collection.

November 3: Schools Week reports "MPs hope power of prayer will scrap pupil database changes".

November 16: Following letter from September 26, representatives of nine human rights organisations (as representatives of all signatories) meet with civil servants and Chief Data Officer at the DfE.

November 17: The Independent reports "Government scraps plans for controversial nationality census for 2-5 year-olds."

November 24: Right to retract data from autumn census. Lord Nash confirms that if parents have previously provided this information to schools and now wish to retract it, they should inform the school of this decision and the Department will remove any information collected on country of birth and nationality during the autumn census.

November 28: The UK Statistics Authority urges the Department for Education to set out plans for ongoing review saying that maintaining public trust is essential, requiring an ongoing commitment to communications and transparency including "clear communication of purpose"

December 1: The BBC reportsTheresa May had a plan to 'deprioritise' illegal migrant pupils and Laura Kuenssberg tweets that Cabinet Office letters reveal the collection of country-of-birth was agreed as part of this policy compromise.

December 15: The Department for Education released the Memorandum of Understanding with details of the agreement between the DfE and Home Office, via FOI. It reveals the intent was to give pupil nationality data to the Home Office. The original version in place between 2015 and October 14, 2016, would share "(once collected) nationality" (15.2.6). This had been backdated and amended effective Oct 7, 2016 (the day after the first collection of the new data) apparently after campaign pressure, from over 20 rights organisations and press scrutiny. The question remains unanswered whetherthis new census nationality data may be used for Home Office purposes within the DfE, even if the nationality data itself is no longer to be exchanged. Country-of-birth, language and nationality data could be accessed and used by the Department for Education search algorithms for this bulk data analysis for immigration purposes and the results providing a higher matched rate of data to the Home Office as a result, and the MOU would still hold true.

2017

January 10: The Department for Education released updated guidance on the school census to schools with one week notice before the Spring census on roll date. By now, most schools have already collected the required data since the announcement in May 2016.

January 12: After the DfE had seemed unwilling since November to communicate the changes to schools, the campaign coalition under Against Borders for Children supported by Liberty writes to every school in England to tell them about the intent of the expanded census and encourage them to tell parents and pupils of their rights to refuse and retract data.

January 19: Spring census collects nationality and country of birth data for the second time, and ethnicity data from 2-5 year olds for the first time in the Early Years census.

February: The DfE declines to provide the numbers about nationality and country-of-birth data collected in the autumn census in response to parliamentary question 62925 citing future plans to publish it.

April: The NUT conference supports motions opposing nationality and country of birth collection and calling for more information to be given to schools and parents.

May 18: Summer School Census on roll day. Nationality and country-of-birth collected by DfE for the third time.

May 18: The Information Commissioner's Office issues a Decision Notice on FOI in favour of the release of the Star Chamber Scrutiny Board (SCSB) meeting minutes from November 2015. Parliament had been told in July 2016 the SCSB, "approved the collection of country of birth data via the school census in November 2015." The Government response in a letter to concerns raised at the Secondary Legislation scrutiny committee on the SI 808/2016 also stated, "Should there have been concerns regarding these changes, SCSB would have raised these for discussion requesting clarification or amendment before providing their formal decision to accept or reject the changes." Our questions and letters remain unanswered whether the Board knew when they made the decision on the school census expansion, that pupil data was already being passed on a monthly basis to the Home Office and that "Nationality (once collected)" would be given to the Border Force Removals Casework Team as per the HO-DfE agreement in place between July 2015 and October 2016.

May 23: Ongoing monthly releases of pupil data to the Home Office Border Force Removals Casework Team continue, and the DfE releases the Q1 numbers via FOI.The DfE declines to provide an audit report to show if and how nationality data is being used.

June 13: the DfE appealed the Information Commissioner Office decision on the Freedom of Information Request for the Star Chamber Scrutiny Board (SCSB) 2015 meeting minutes. At a November 2015 meeting the SCSB signed off the collection of nationality and country of birth.

We believe they did not know nationality data "Once collected" was intended to pass to the Home Office for immigration enforcement or that an agreement was already in place, handing over pupil data on a monthly basis. This board meeting was where Parliament had been told the decision had been scrutinised and that had they had any concerns, they would have been raised. A hearing is planned for November 13, 2017 at the First Tier Tribunal on information rights, in case EA/2017/0122.

October 5: Sky News, a spokesperson confirms the Department of Education has become a Department for Deportation. "The Department for Education confirmed to Sky News that information about "illegal migrants" was obtained from the National Pupil Database and used to contact families to "regularise their stay or remove them"."

This is not what schools are told how pupil data is used which the schools collect from parents and pupils in trust, and with a duty to tell them fairly what purposes personal data may be used for. The DfE revised privacy notice template for schools is published on October 5, but also fails to tell them explicitly that individual and identifying data is given to commercial companies, press, charities, think tanks and a range of information intermediaries, as well as researchers, without consent.

October 5: The DfE declines the Freedom of Information request to publish how School Governor personal data is used, how the pupil nationality data since collected are being used, or release the live data sharing Memorandum of Understanding.

October 10: The House of Lords debates the Data Protection Bill second reading.

Lord Lucas questioned new powers, "Paragraph 4 of Schedule 2, on immigration, takes away rights immigrants have at the moment under the Data Protection Act. Why? What is going on?"https://goo.gl/FUzaBo

October 13: The DfE withdraws its appeal at the First Tier Information Rights Tribunal. Sends a letter to defenddigitalme to accompany the release of some of the disputed materials from the FOI of July 4, 2016 [download .pdf 288 KB] to request the Star Chamber Scrutiny Board Minutes of November 2015. The minutes reveal little, and there is no recorded discussion or questions about the purposes of the collection of nationality data.

October 25: Government response to questions from the Secondary Legislation Scrutiny Committee (SLSC) about the purposes of the SI 808/2016 [response .pdf 424 kB] The DfE final remark (Point 15) confirms the Star Chamber were not told about Home office use of school census data that began in 2015, when they signed off the future nationality data collection in November 2015, or of the agreement which was 'updated with new purposes' on November 27, 2015 and included in 15.2.6 "(Once collected) Nationality". This is significant when Ministers relied on the assurance that the Star Chamber had approved the expansion and had raised no concern. [See PQs of July 2016, and the assurance given to the SLSC by the DfE in September 2016[response .pdf 707kB].]

November 22: Against Borders for Children (Schools ABC) launch a crowdfunder to take legal action with the support of Liberty. They campaign to end the Department for Education's policy to collect country of birth and nationality information on 8 million children in England every year, and the use of all school census data in immigration enforcement and its strategic aim to 'create a hostile environment' for migrant children in schools.

November 27: a ministerial correction (HCWS272) made by Nick Gibb, Minister of State for School Standards, on the numbers of pupils data released to the Home Office and police. "Information supplied by the Data Modernisation Division of the DfE has been identified as containing incorrect facts in the response provided to Parliamentary Questions concerning the volume of children's records passed onto the police and the Home Office (PQ48634, PQ48635 and PQ52645) and in figures quoted during a House of Lords Debate on the 31 of October 2016 on the Education (Pupil Information) (England) (Miscellaneous Amendments) Regulations 2016. "

December 14: The use of pupil data by the Home Office and police was included for the first time in the quarterly third-party data published figures of data shared with "external organisations".

The Department published its statistics on the collection of nationality and country of birth data for the first time - as collected in the January 2017 census. In summary, in January 2017, there were 8.1 million pupils registered at schools in England.

- 23.5% of pupils have no recorded country of birth
- 20.6% country of birth is not yet obtained (NYO)
- 1.9% country of birth refusal (plus 1.1% not known – should be used where truly unknown and separate from NYO) = 153,900 refusals.
- 25.6% of pupils have no recorded nationality of which 22.5% is not yet obtained and 2.1% refusal (1.0 not known) = 170,100 refusals
- 74.4 per cent of pupils were recorded with a specific nationality. Of those pupils where a nationality was provided, 91.4 percent were recorded with a nationality of British

The data quality is clearly very poor, with over a quarter not providing nationality, and a significant active refusal rate. The not yet obtained rate is also highly significant, despite Local Authorities and schools being chased by the Department and Schools Information Management System providers, to make sure they returned data or refused, and cut down the not yet obtained rate.

2018

April 9: Schools Week reports, DfE ends divisive pupil nationality data collection "Schools will no longer be forced to collect data on their pupils' nationality and country of birth following a major U-turn by the government, Schools Week can exclusively reveal. The Department for Education is expected to write to schools in the coming weeks to outline its plans to remove the controversial categories from the school census. It means schools will no longer have to ask parents and pupils for the sensitive information as part of the census, which takes place three times a year."

June 28: Nationality and Country-of-Birth and Language Proficiency (items under SI 808/2016) must no longer be collected for school census purposes, with immediate effect. This is confirmed by the Department for Education update to school census guidance 2018-19.

September 2018: FOI reveals the making of the original data sharing agreements, which would eventually include, "(Once Collected) Nationality". This includes comments that show the bulk datasharing agreement would be unlawful, since the purposes were not educational, and therefore outside the remit of the legislation which permitted the data collection under section 537A of the Education act 1996. [ref p5 of 16, version 0.2].

September 21: Delete pupil nationality data or face legal action, campaigners warn ministersMore than 20 human rights and privacy campaign groups have signed a letter to Damian Hinds, the education secretary, urging him to destroy the information collected under controversial changes to the school census, introduced in 2016.

October 15 2018: DfE refuses in written response.

November: Together with Against Borders for Children, we wrote to every MP and some members of the House of Lords to explain that children's data are still being shared for the purposes of the Hostile Environment, and to ask for support of the three point plan.

December 2018:

December 19: Minister confirms in PQ 201097 that school census data are used in immigration enforcement.

And says that families no longer have any available process to retract nationality data submitted to the Department between October 2016 and June 2018. "The last opportunity for parents to retract this information was via the last collection in summer 2018." Schools and families have not been informed. [PQ 20201096]

In the background, the government has published the Immigration Bill 2018. It includes a blanket sweeping away of privacy rights, exposed by the 3 Million campaign. "Every EU citizen applying for Settled Status to accept its Privacy policy that allows it to share all data with "public and private sector organisations in the UK and overseas".

Against Borders for Children, supported by Liberty, submitted its next stage of formal complaint to the Office of the Information Commissioner to ask for school children's nationality data to be deleted and enforcement action, as well as regulation to be enforced.

January 2019

The Guardian revealed that the Minister had confirmed national pupil data collected for educational purposes, was still being used for immigration enforcement purposes.

The agreement between the Home Office and Department for Education was updated [download as a .pdf 267 kB].

No other related policy changes have been announced in the 2018-19 Guidance for schools, and parents have not been informed they can no longer retract data.

June 2019 defenddigitalme issued legal action in the form of a regulatory complaint to the Information Commissioner against the DfE regarding pupil data in the National Pupil Database.

October 2019: the ICO initial findings were reported that there were wide ranging and serious data protection issues but the ICO has made no public statement in the four-year course of the controversy.

"This investigation has demonstrated that many parents and pupils are either entirely unaware of the school census and the inclusion of that information in the NPD, or are not aware of the nuances within the data collection, such as which data is compulsory and which is optional. This has raised concerns about the adequacy DfE's privacy notices and their accountability for the provision of such information to individuals regarding the processing of personal data for which they are ultimately data controllers."

At the time of writing, we await a final ICO decision and although the ICO audit summary of the Department for Education was published in October 2020 there were no explicit actions released..

2.5 The National Pupil Database

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The first version of the NPD, including information from the first pupil level School Census matched to attainment information, was produced in 2002 after the first named data collection.

The BBC reported in 2002[220] that what caused most alarm about the changes, was "the requirement to include pupils' full names, along with their home postcodes. The Department for Education says this information is needed only by technical staff and anything that is passed on to other agencies will be anonymous."

Ten years later, identifying data began to be given away routinely to journalists, businesses, charities, think tanks and researchers. In 2015 they started giving names and addresses to the Home Office to further the purposes of the Hostile Environment.

The NPD is now one of the richest education datasets in the world holding a wide range of information about pupils and students dating back to 1996. Data is retained indefinitely.[221].

In May 2019, the National Pupil Database contained over 21 million individual pupil records on a named basis, and it grows every year by an annual cohort of around 700,000.[222]

The various census datasets are merged together with Key Stage tests, at the Department for Education and accumulate throughout a child's life as part of an individual record in the National Pupil Database, a longitudinal record created from linking around 25 different datasets.

The possible data items collected for each individual pupil is listed in the National Pupil Database User Guide. There are about 400 possible variables to collect on an individual pupil. The full national code sets of all the items of data that can be collected on individual children within educational settings for national needs, past and current, can be downloaded from the Department for Education are listed in the common basic data set (CBDS)[223].

The pupil level data is personal confidential data which include sensitive personal data, or special category data as defined by the Data Protection Act 2018. The National Pupil Database contains identifiers that come from the pupil's personal data, as well as pupil numbers and school and local authority identifiers. With effect from 2010/11, the pupil's UPN (unique pupil number) remained consistent throughout their time in school and remains permanently on the record. The include:

- Fixed pupil characteristics which are expected to stay the same, such as date of birth.
- Time-varying pupil characteristics: these may change in each sweep of the census because they describe the circumstances of the pupil at that point in time.
- Key stage test results and other attainment data: data at the ages of five, Early years foundation stage profile or (FSP) seven (KS1), eleven (KS2) 14 (KS3), 16 (KS4 or GCSE) and 18 (KS5).
- School type characteristics describe the school the pupil attends.

2.5.1 National Pupil Database

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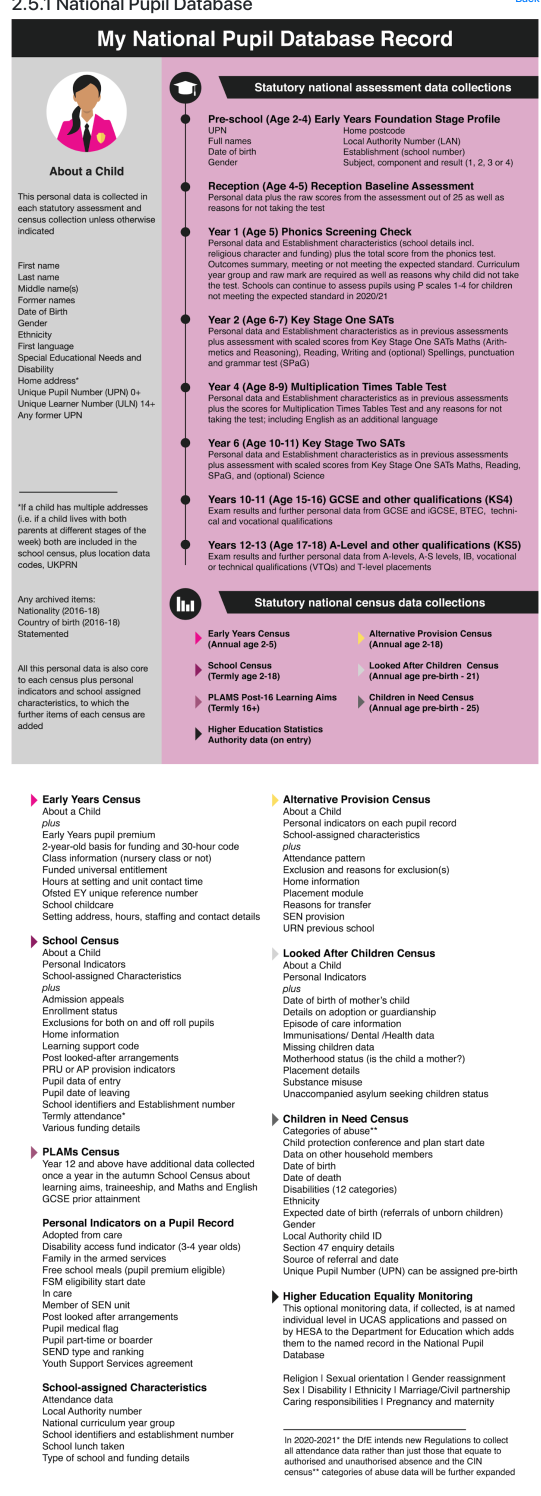

2.5.2 National Pupil Database | Subject Access Rights

In 2017 the Schools Minister claimed to Parliament that the National Pupil Database is exempt from Subject Access Requests.[224]

"A subject access request for personal confidential information may be refused if it falls within a statutory exemption. The Research, History and Statistics exemption (section 33(4) of the DPA), applies to personal data being processed for research, historical or statistical purposes. As the personal information that a pupil or parent has requested is held on the NPD for these purposes, it is exempt from release to the pupil or parent."

Since the National Pupil Database is processed for operational purposes, not only research purposes we have challenged this position. In May 2018 the author obtained an incomplete extract of her own child's national pupil record. At the time of writing we await a decision from the Information Commissioner's Office.

2.5.3 Named records at national level

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There is an obligation for schools to provide named data from the school register to the national government.

Taken from the Department for Education guidance on parental responsibility, 2016:[225]

> *"Regulation 5(1)(a) of the Education (Pupil Registration) Regulations 2006 requires a school to record the full name of every pupil in alphabetical order in the admissions register.*
>
> *This is generally interpreted to be the child's full legal name and not any other name that the child is known by.*
>
> *However, there may be circumstances where a name change has already been effected by the school and it would not be in the best interests of the child, who might be known by a new name, to refer back to a different name. Ultimately it is a matter of policy for the*
>
> *school to decide but the best interests of the child must be the paramount consideration when making a decision.*
>
> *Where a child is subject to a special guardianship order there are particular considerations in cases where a school receives a request to use a different surname for a pupil.*
>
> *Section 14C(3) of the Children Act 1989 (CA 1989) states that:*
>
> *While a special guardianship order is in force with respect to a child, no person may cause the child to be known by a new surname [...] without either the written consent of every person who has parental responsibility for the child or the leave of the court.*
>
> *Schools must therefore decline requests from special guardians for a child to be known by a different surname unless the above criteria are met."*

MPs in the House of Commons were assured on the changes to the "Central Pupil Database" in 2002 by then Minister of State for Education and Skills, Stephen Timms, that, "The Department has no interest in the identity of individual pupils as such, and will be using the database solely for statistical purposes, with only technical staff directly engaged in the data collation process having access to pupil names."

Today names are used commonly in linking datasets across and outside government, as well as for direct interventions such as Home Office immigration enforcement and research led postal surveys and direct contact such as a test sent out by the Institute of Education for a research project.

2.5.4 Third-party distribution of national pupil data

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(last updated Jan 1, 2021)

David Cameron announced in 2011, the government would be "opening up access to anonymised data from the National Pupil Database [...]." This was an expansion to other third parties, since academic public interest researchers already had access.

The stated intention, come 2011 for the education sector, was that Open Data was going to be enabling, to allow parents to see how effective their school is at teaching high, average and low attaining pupils across a range of subjects, from January 2012.

- "Opening up access to anonymised data from the National Pupil Database to help parents and pupils to monitor the performance of their schools in depth, from June 2012. This will enable better comparisons of school performance and we will look to strengthen datasets in due course."
- "Bringing together for the first time school spending data, school performance data, pupil cohort data and Ofsted judgements, from January 2012, in a parent-friendly portal, searchable by postcode".
- "Data on attainment of students eligible for pupil premium to be published from January 2012."

In reality what happened in 2012 is that another purpose piggy-backed those under Michael Gove as Secretary of State at the Department for Education. Personal data was given away to commercial users to create a private sector marketplace from children's public administrative data. And the distributed data was no anonymous but sensitive and identifying.

New legislation under the the 2012-3 changes to the Education Act 1996,was passed to distribute raw data from National Pupil Database under terms and conditions with third-parties who for the 'purpose of promoting the education or well-being of children in England are conducting research or analysis, producing statistics, or providing information, advice or guidance', and who meet the Approved Persons criteria of the 2009 Prescribed Persons Act amended in 2012.

In a presentation to the NPD User group in September 2016, the Director of the DfE Data Modernisation group acknowledged the excessive release of sensitive data: "People are accessing sensitive data, but only to then aggregate. The access to sensitive data is a means to an end to produce higher level findings."[226]

And the DfE 2018 Hive data dissemination discovery report found that, "Users are required to download the entire dataset, then remove and manipulate extraneous data reducing it to a specific subset. Many expressed a desire to be able to customise the data they downloaded."[227]

In answer to a parliamentary question in 2018, the Schools Minister, Nick Gibb wrote:

> *"According to centrally held records at the time of writing, from August 2012 to 20 December 2017, 919 data shares containing sensitive, personal or confidential data at pupil level have been approved for release from the National Pupil Database. For the purpose of this answer, we have assumed the term sensitive, personal or confidential uses of information to be data shares classified as either Tier 1 or Tier 2 as set out in the National Pupil Database area on GOV.UK. [In addition] There were 95 data shares approved between March 2012 and this classification system being introduced."* [228]

Each of those releases of data may have included millions of individual records. Since then, the number of releases has nearly doubled to just over 2,000 by June 2020.

A list of completed National Pupil Database Third Party Requests and those in the pipeline, are published on a quarterly retrospective basis.[229]

The data items for release were classed into four tiers by the Department for Education and following the change of legislation, releases of the data since 2012 to third parties have not been anonymous, but have been mostly of identifiable and highly sensitive (Tier 1) and identifiable and sensitive (Tier 2) data. Fewer releases were of aggregated data that may be identifying due to small numbers (Tier 3) and identifying non-sensitive items (Tier 4).

According to our analysis, since there is none published, of the documented requests for identifiable data that have been through the Data Management Advisory Panel (DMAP) request process in March 2012 – June 2020, about 43% was released for academic research through universities, and about 33% of the individual applications approved (as distinct from volume of data used) were for use by commercial companies and think tanks (note this is *separate* from additional releases via the ASP service). These calculations also exclude police and Home Office reuse.

About 14% of all applications approved (as distinct from volume of data used) of identifying and sensitive pupil level and data, were from government and arms length bodies, with 6% going to charities and non-profit, 3% exam boards and 1% others making up the rest.

There were 21 rejected applications between March 2012 and June 2020, including a request "by mistake" from the Ministry of Defence to target its messaging for recruitment marketing.[230]

The Department does not release data on how many records are released each time, but every one of the releases could each contain millions of individual pupil records.

New data analytics products and services have been developed using taxpayer funded data generation, collection, cleaning and distribution. Data analytics that schools and Local Authorities buy back again, to meet the accountability measures driven by the government.

Approved uses include identifying and sensitive data released to the media, "to pick interesting cases/groups of students".

The Telegraph newspaper was granted identifying and sensitive data in 2013, for all pupils in the KS2, KS4 and KS5 cohorts for the years 2008-2012.

A Freedom of Information request at whatdotheyknow.com Ref: 2015-0054037 confirmed that the release of 5 years worth of data (2008-2012) from the National Pupil Database included children's sensitive personal data including SEN and FSM indicators, ethnicity and language. These are not statistics but at pupil level and there was no suppression of small numbers.

These identifying and sensitive items, or identifying data items were matched at individual pupil level with census data for KS2, KS4 and KS5 datasets before release at individual level.

The Schools Minister Nick Gibb replied in answer to a parliamentary question on the release of millions of children's records to the Telegraph in 2013 that the release "did not contain any data items that are highly sensitive or have potential to allow children to be identified."[231]

But an email obtained via FOI in 2015, showed the Department sought "cast iron assurances", that the data the Telegraph would publish would not identify children. The data the journalists were given are from Tier 2, identifying and sensitive data, including special needs, free school meals, ethnicity and attainment, longitudinal records for about nine million children across multiple years of their education. If the data had not been identifying the paper wouldn't need to give such an assurance. There was no small numbers suppression.[232]

"The Daily Telegraph requested pupil-level data and so suppression was not applicable."

There is little detail on the precise uses of the data. We were able to get access to the original application for, but were told that, "There is no further written business case for the approved Tier 2 variables other than what is included in the application form. After a telephone discussion with the Daily Telegraph, the Tier 2 variables requested were subsequently approved as they were required to differentiate between the different intakes that schools have. To effectively compare schools, the Daily Telegraph wished to factor in the "different types of pupil" who are present at different schools. Information on pupil characteristics related to prior attainment: gender, ethnic group, language group, FSM eligibility and SEN provision status were deemed by the Department to be appropriate as these are seen as important factors in levels of pupil attainment. The approved Ethnic Group Major and Language Group Major variables are the least sensitive versions available of this data.

"**At the time of this request (February 2013) we did not require the requestor to inform us of the conditions for processing that they relied on.** The requestor signs an agreement which confirms that they will process the data in accordance with the Data Protection Act (DPA) and it is the responsibility of the requestor to ensure this is the case. As such there is no written evidence available of the condition for processing under Schedule 3 of the Data Protection Act that the Daily Telegraph relied on."

The raw data is sent to the requestor's own location. DfE does not charge for data (and has not since the NPD process began), nor does DfE charge for the processing and delivery of extracts to customers.

There is no transparency of the volume of how many children's data have been given away in approved uses either, because,"the Department does not maintain records of the number of children included in historic data extracts." (PQ109065)

Public interest research use of pupil level data through other routes of access to the data, include increasingly projects linking individual data together with other education and employment data from citizens' interactions with other government departments and public services, known as public administrative datasets.

For example, the LEO dataset is made up of individual level information from the National Pupil Database (NPD), the Individualised Learner Record (ILR), the Higher Education Statistics Agency (HESA), Her Majesty's Revenue and Customs data (HMRC), The National Benefit Database (DWP), the Labour Market System and Juvos, the unemployment research database. Further work by DfE compares self-reported salaries from the 2008/09 DLHE survey with earnings data from the LEO dataset coming directly from HMRC tax records.[233]

The volume of Police and Home Office use first made public through Freedom of Information requests in 2016, were first officially published by the Department, in the Third Party Release Register in December 2017, under "External Organisation Data Shares".

Police requests were only documented going as far back as July 2015. This omits police access to records before this date, as noted in a ministerial correction (HCWS272) made by Nick Gibb in November 2017, Minister of State for School Standards, on the numbers of pupils data released to the Home Office and police.[234]

Interdepartmental transfers of data include to the Cabinet Office for preparation of Electoral Registration Transformation work in 2013, to match participant data in the National Citizen Service, and for use in the Troubled Families programme, as well as arms length bodies such as NHS Digital for a survey "What About Youth" mailed home to 300,000 15 year olds in 2014.

The cost of the data collection burden is immense, its necessity unclear, and tangible value unmeasured.

Since legislation changed over time to permit new uses and access to personal data by new third parties, over 15 million people whose data was already in the National Pupil Database and who had already left school pre-2012, have not been informed how their personal data may be used, for what purposes, and by whom.

As observed in 2014 by Owen Boswarva, "the central concern is that parents and pupils themselves are not sufficiently aware of the way the data is being shared with third parties."

There appears to have been no concerted effort to bring the consultation or the NPD initiative to the attention of parents or pupils."

2.5.4.1 Summary of concerns over Pupil Data and Commercial Use

In our analysis of DfE releases to third parties published between March 2012 and June 2020:

- One third of approved requests for release of identifying pupil data is commercial use.
- The Department and recipients do not notify parents or pupils (past or present) that their data have been released or to whom, for how long or for what purposes.
- Releases to seven commercial companies approved for benchmarking under ASP may include all data items including pupil names.
- Releases commercial companies outside the ASP providers, exclude name, but may be sensitive and identifying.

Children's data rights are ignored in respect to National Pupil Data

- Subject Access Rights are respected [PQ 108573][235]
- Right to Rectification
- Right to Erasure
- Right to Object to Processing
- Right to Restriction of processing
- Distribution to third parties has repurposed the pupils' personal data collected for their education, in breach of the first and second data protection principles.

Data is retained forever and named. The records given away include special needs and sensitive behavioural labels such as theft, violence, alcohol, sex. They are never filtered out from research.

Commercial exploitation: Controllers and Processors

Pupils and holders of parental responsibility are not notified of the commercial exploitation of national pupil data.

The GDPR imposes direct compliance obligations on both controllers and processors. [See Rec.22; Art.3(1)] and we believe the DfE is deficient in ensuring processor obligations Art.28(3)(h) as there is no standard process of audit after data is released.

We asked for an estimation of the extraction costs to the Department via FOI, among other questions on audit and security in November 2017.

What are "research purposes" and where do we draw the line with commercial exploitation Private tutor companies? The Football Association? National newspapers?

The organisations which are using it, include for production of heat maps on their website (Private Tutoring company), or very extensively, data analytics that resell their analysis back into the education sector and schools.

The Department for Education therefore passes out identifying pupil level data to commercial organisations to use, and in effect outsources the management of pupil privacy to the third party organisation. There is no notification to children or parents. "Privacy notices" with several clicks down into a document many never read, are ineffective by design.

The continued challenge of commercial exploitation in 2019 and beyond, is the continued enormous growth of the use of pupil data by third parties from schools, that the schools themselves give out to third parties - without parental and pupil consent or any real understanding - to third parties for behavioural profiling, using app designed classroom seating plans, homework and school cashless payment systems.

The market is vast and growing and we are reviewing only some of those in common use right now. They are unregulated and have no oversight.

For most of these, schools don't offer any choice to parents or children at all.

The tools are designed to help schools run their administration, or manage homework, or behaviour and so on. But there is often zero understanding how they work and what it means for the children's personal data and privacy, and schools are generally uninterested because "consent" they feel is unnecessary as they are processing as part of their public role and consent is therefore unnecessary.

Some of these most commonly used apps in schools in England, are overt about their parallel commercial offering, like the app "Show my Homework" which also offers private tutor matching services on their website.

Others exploit children's data in ways we cannot see, especially if apps are processing data abroad (commonly the US), often without privacy policies, and those that do exist, are never sent home.

Schools can automatically connect the third-party tool provider to the school information management system (SIMS), without parental knowledge, permission or choice.

Parents often first know that the school is going cashless, when they receive an email with the parent password to log-in to accounts that have already been created, and the pupil profile has been created by the company, often including the child's school photo.

Profiling using children's data is the norm in behavioural tracking, classroom management, even seating plan apps that claim to use "AI" to design the plan based on behaviour.

We believe school staff are ill equipped to judge the security and privacy implications of these uses of children's confidential data, and the commercial market is growing at a pace that needs independent oversight and standard policies for apps used in education. Teacher training must introduce privacy and data protection into standard basic training.

2.5.5 National pupil data request and release process

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In September 2018, the Department for Education changed their data access model.

Access is granted through an applications process to the Department for Education Education Division and internal Data Management Advisory Panel (DMAP), and is subject to requesters complying with terms and conditions imposed under contractual licence arrangements. The DMAP Terms of Reference was first published in July 2016 by the Department for Education.

The Department for Education application procedures for handling requests for data from the National Pupil Database, from March 2012, enabled interested parties to request extracts of data from the National Pupil Database (NPD) using forms available on the Department for Education website. Data supply agreements, agreement schedules and individual declarations for researchers and third-party organisations who have received DfE approval for applications for data extracts are completed before users are sent the password protected data.

The sensitive and identifying items that require DMAP approval include name, date of birth, postcode, candidate numbers, Pupil Matching Reference (Non Anonymised), detailed types of disability, indicators of adoption from care, reasons for exclusions (theft, violence, alcohol etc).

There is no ethics committee review for the release of identifying or sensitive data directly from the National Pupil Database by the Data Management Advisory Panel or Education Division.

There was no privacy impact assessment of the National Pupil Database, despite ongoing expansions until April 2019.

2.5.6 Legal basis for the release of pupil level data by the Department for Education

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The risks posed to children's confidentiality by the addition of names to the collection in 2002[236] have proven to have been well founded.

The release of data permitting pupil level release of individuals' identifiable data to third parties from the National Pupil Database was updated by 2013 changes to legislation. Section 114 of the Education Act 2005, and section 537A of the Education Act 1996, together with the 2009 Prescribed Persons Act, were amended in 2010 and 2013, to allow the release of individual children's data to third parties.

The Data Protection Act 1998, in particular, Principle 1, and subsequently the UK Data Protection Act 2028, sets out a fairness obligation which cannot be set aside merely because of the presence of a legal basis such as a Statutory duty. On October 1, 2015, this latter point was again made explicit for public bodies in the judgment of the Court of Justice of the European Union in the Bara case (C-201/14) in which it ruled that "[the Directive] must be interpreted as precluding national measures...which allow a public administrative body of a Member State to transfer personal data to another public administrative body and their subsequent processing, without the data subjects having been informed of that transfer or processing," i.e. individuals must be informed when public bodies share personal data and why.

For sensitive data (Tier 1 and Tier 2 of the National Pupil database include all the data items classified as 'sensitive') an additional condition from Schedule 3 of The Data Protection Act 1998 must also be met to justify a legal basis for disclosure. These conditions are a high bar, for example, in the interests of justice.

The Data Protection Act 1998 (s33) gives research exemptions for the purposes of statistical and historical research purposes, most significantly on the principles of indefinite retention and data minimisation, as well as Subject Access rights, for as long as data is processed for the legitimate interests of the Data Controller. To qualify for the research exemption [20], the research must be able to comply with the following 'relevant conditions':

(a) that the data is not processed to support measures or decisions with respect to particular individuals, and

(b) that the data is not processed in such a way that substantial damage or substantial distress is, or is likely to be, caused to any data subject.

It does not relieve researchers of all data protection obligations.[237]

2.5.7 National Pupil Data linkage | Longitudinal Educational Outcomes data

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The largest scale linkage of pupil data across multiple datasets yet began in 2015. The Longitudinal Educational Outcomes data links together individual educational flight paths from age 2-19, together with their further and higher education data, employment earnings through HMRC data, Student Loans data, and welfare data through access and linkage with the Department of Work and Pensions.

In June 2017, WONKE reported some of the concerns over this dataset in a beginner's guide to Longitudinal Education Outcomes (LEO) data.[238] We support David Morris's conclusions that it is a deeply flawed dataset to be used as it is currently by policy makers, and LEO is amalgamated historical data that does not always belong together and is riddled with caveats.

It is being used as "a measure of the 'value added' by a university degree. LEO is not a performance indicator. It isn't even a predictor of how much students at any university or on any course will earn in the future: it's historical data, and future labour market outcomes are arguably too variable to be predicted based on past outcomes."

For example, the data is skewed because it does not include whether a graduate is working full-time or part-time, or the details of the job they are doing, as these are not required by HMRC.

> *The tax data for part-time workers, for example, does not indicate that they are working part-time. This means certain types of workers may have a lower income recorded in LEO. As a result, if many people from a particular course worked part-time, the earnings may look much lower than for a course where everyone worked full-time. People with earnings from self-employment, or those undertaking voluntary work or unpaid internships will not be included because they are not earning. There's caveats on people who work abroad and International students. Data from small numbers of people are less likely to represent typical earnings than data from larger numbers. Earnings data displayed on Discover Uni may relate to graduates from more than one course. For example, where there are fewer than 15 graduates who studied chemical engineering at a provider, their earnings data may be combined with graduates from other engineering courses. If these different courses have very different earnings, this will not be visible to the user. Also, past trends in earning potential are not always a reliable guide to the future. (OfS, 2020)*

The Small Business, Enterprise and Employment Act (2015), passed in the final days of the Coalition, authorised the permanent linking and ongoing publication of this data by DfE.

The Rt Hon Nick Boles MP in evidence given In January 2016, to committee as Minister for Skills, Department for Business, Innovation and Skills said, "We did a huge study of more than half a million data points, matching up people who had completed level 2 and 3 apprenticeships and their incomes three to five years later. It was the first time this had ever been available. For some reason, we were able to do it with our data in a way that was not yet—though it is now—possible with education data."[239]

A huge new linkage of personal datasets across a lifetime was made without public consultation, and in legislation that no one could reasonably expect to be about a personal data extraction, and still few people in the data know about and no way to correct errors in their record such as people with Chinese names, where the match rate was poorer than others assumed to be because first and last names may be switched in some datasets.[240]

But just because you can do it, does not mean you should. The LEO dataset is an attempt at alchemy to turn data we already have into something valuable that you wished it could be. It is a fiction to suggest and despite this is used at face value as a predictive indicator of future earnings, for example as Liz Truss[241] set out in the House of Commons in 2018, saying " The LEO dataset shows you how much you can expect to earn by studying particular courses."

The data do not control for differences in the characteristics of graduates. This is a very important caveat when comparing graduate salaries across providers. Some subjects have a much wider range of institution outcomes than others. For example, a very high level of variation is seen in Business and Management where the median earnings ranged from £17,900 at the lowest institution to £75,900 at the highest.[242]

The assumed simplicity of LEO may appeal in policy making and politics, but it is not the accurate or predictive data asset it is often portrayed as. In particular as we come through COVID-19 and as we leave the EU anyone using this dataset to imagine the future labour market based on past outcomes is wilfully keeping their eyes wide shut on reality.

At best we believe it suggests little more than things people commonly assume. Medics earn more than artists. Jobs in London earn more than in Yorkshire and The Humber. The cost-benefit of creating, cleaning and maintaining this dataset as well as its compliance with data protection law should be subjects of further research.

2.5.8 National Pupil Data releases for policing and Home Office purposes

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2.5.8.1 Home Office reuse of pupil data for immigration enforcement

In July 2015, the Department for Education and Home Office Border Removals Team agreed a Memorandum of Understanding[243] to start using national pupil records for imigratin enforcement. Shared data included first and last names, date of birth, gender, home address and school address for up to 1,500 children a month, from the last 5 years of their records, for various purposes of direct interventions.

Version 1.0 of the agreement was valid from July 2015 until October 7, 2016 a day after the first collection of nationality in the 2016 School Census. It was updated in v2.1 to remove the item 15.2.6 (Once collected) Nationality. Subsequent versions of the agreement have not been released.

In October 2017, the Department for Education confirmed in an interview with Sky News[244] that information obtained from the National Pupil Database was used to contact families to "regularise their stay or remove them."

them.

During the course of 2018, the DfE inserted a statement into the national privacy notice for schools for the first time, that it is using national pupil data for Home Office purposes of immigration enforcement. It was nearly three years after it began processing pupil data monthly for that purpose.

The Home Office may provide the personal data to the Department for Education to check against and returns matching updated details of up to 1,500 children every month according to the terms of the agreement.

Upon receipt of a request from the Home Office, the Department will check the data held in the National Pupil Database (NPD) for a match based on name, date of birth and address. The data searched against in the NPD is obtained from the following sources:

- School Census
- Alternative Provision Census
- Pupil Referral Unit Census (last collected in 2013, incorporated within the School Census from 2014)
- The Early Years Census

In the Committee Stage discussion of the Data Protection Bill on March 13, 2018, speaking on behalf of the Government, Victoria Atkins MP, explained explicitly that national pupil data is one area that the exemption the government put into the Data Protection Act 2018 is intended to be used for:

> *"If we know they have a child, we will seek assistance from the Department for Education assistance to find the whereabouts of the child. That child has not committed a criminal offence, so I would be very concerned to ensure that the Home Office, Border Force or whoever else acted lawfully when seeking that data in order to enable them to find the parent or whoever is the responsible adult, as part of the immigration system."*

This exemption in Schedule 2, Part 1, Paragraph 4 of the Data Protection Act regularised what was a secret policy and practice, only made public through our exposure and the extensive campaigning by Against Borders for Children, founded to oppose the collection of nationality and country of birth and the use of all pupil data for Home Office purposes in ways that are punitive for children and their families, and ignores children's rights.

In December 2016, we were given to understand that the ICO shared our concerns over the Home Office use of pupil data, and in the failure of the Department to inform schools and parents about this new purpose of collection and use.

> *"It is apparent that the disclosures to the Home Office are not for research purposes, which could mean that the ability to rely on the exemption, at least for that data, is removed.*
>
> *" It is apparent that many parents and pupils do not have a clear understanding of what data their school sends to the DfE, and what the DfE does with it. Schools therefore need more clarity about this from DfE if they are to be able to give appropriate fair processing information themselves. This is also needed so that schools understand what is mandatory and what is not, so that they can make sensible and proportionate decisions about what data they ask parents and pupils to provide."*

Despite this 2016 written statement, to date the ICO has not taken any enforcement action. Four years on, nothing has changed and the process continues monthly.

1545 pupils' details were given to the Home Office by the DfE between July 2015 and July 2020 out of the 5998 that the Home Office asked for.[245]

In September 2020 we asked the Home Office for information about the outcomes per month, per year, of the pupil data processing from the Department for Education after it was received by the Home Office, whether data was further onwardly shared beyond the Home Office, and if yes to whom (ie police / Border Force / Local govt), the total number of interventions with a family or individuals and the nature of that intervention, ie removal or visa renewal.

The Home Office declined to explain how they have used the monthly data once they get it.[246]

Which aspect of children's rights and the National Pupil Database use will be upheld?

Data collected for educational purposes are being repurposed for incompatible purposes in breach of the second data protection principle.

And either the Department can claim research exemptions status[247] and its ongoing refusal to enable rights including Subject Access Rights and keep data with a longer approach to data retention, or it is a national database of children's data used for direct interventions. The research exemptions under data protection law do not permit both statuses to be true.

2.5.8.2 National pupil data | use in policing

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In November 2019, personal data from all 2,136 pupils who attended a specified school during a four year period was provided to police from the National Pupil Database.[248]

Schools process data about criminal offences, exchanging information with YOMS and police. But much more often process data about behaviour which reads similarly, but where there is no criminal conviction; in reasons for exclusion such as theft, violence, and other misconduct.

Criminal records get expunged and restricted from distribution to third-parties at some point under the Rehabilitation of Offenders Act 1974. However pupil data is not treated with the same retention periods as the Rehabilitation of Offenders Act 1974 but are retained indefinitely, and at national level, may be distributed to a wide range of third parties at pupil level, long after the child has left school.

Reasons for exclusion from school are not criminal convictions, but often a Head's best opinion which reason fits best. However children never see these data about them in their own record, or what has been sent to the national pupil database.

If a friend has ever taken the blame for another, without a right to correction, how accurate may their resulting Troubled Families flag be? What threats are there, where journalists have access? Commercial companies get these data in the name of "data analytics," but should they and who measures or is accountable for benefits versus threats to the children?

2.5.8.3 National pupil database | Police National Computer data linkage

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In 2016 ten years' worth of national pupil data across various years for each data set (2000-2015) were linked with police data, including children's highly sensitive personal data, looked after, exclusions, SEND and ethnicity and language.

These identifying and sensitive items, or identifying data items were matched at individual pupil level with census data for the Early Years (age 2-5) KS2, KS4 and KS5 datasets, Alternative Provision 07/08-14/15 (plus T1 and T2) and ten years of Children Looked After from 2005 until 2015 and Children in Pupil Referral Units 2009-2013

This was done at individual pupil level, and without suppression of small numbers which was considered important only for published outputs.

2.5.8.4 National pupil database | use by the Institute of Criminology

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Similarly identifying and highly sensitive pupil data was used between September 2013 and 2019 by the Institute of Criminology at Cambridge University to explore the possibility of creating a brief predictive tool which schools can use to identify pupils at risk of exclusion, as an aid to informal teacher assessments.

The researchers asked for a lot of data. "As it's not clear what the best predictors would be, we (necessarily) require as much information as possible on the pupils, short of knowing their names and addresses, hence the breadth of our request." They said in their application, "We would also require as much information as possible about the schools in terms of school level measures of ethnicity, gender, academic performance, type of school (e.g. secondary, academy, specialist disability school) and so on. Once we have this model, we will then repeat the exercise with data from the 40 schools in the study. This will be a separate NPD application and/or may be collected directly from the participating schools."

When we asked for a copy of the original request via FOI, the Department for Education was unable to find and provide this from the request they fulfilled in 2013.[249]

2.6 Other school exams and tests

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Outside of the national standardised testing system, schools may choose to administer additional tests or have them imposed by the government. These do not form part of a child's permanent national record but may be used to support local-level teacher made assessment or meet other national purposes.

2.6.1 The National Reference Test | National sample

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In 2019, three hundred and forty eight schools were selected to take part in the 2020 National Reference Test (NRT)[250]. In 2017 the Government introduced legislation which requires that the head teacher of a selected school ensures that pupils take the NRT.

Ofqual explains that its purpose is to provide additional information to support the awarding of GCSEs. The information from the test will be considered each year by Ofqual and the exam boards prior to GCSEs being awarded: this began in 2019. The NRT will provide information on changes in performance standards over time and is based on results from a national sample of students who take the test shortly before taking their GCSEs. The claim is that the "test will indicate if, over several years, there is a change in how students perform at the national level, which exam boards can then consider during awarding."

The NRT provides additional evidence to support the setting of grade boundaries in 9 to 1 GCSEs in English language and maths. The NRT is a one-hour test, administered by NFER on behalf of Ofqual, which reflects the sorts of questions students can expect in exams for either GCSE English language and GCSE maths. It is taken by a representative sample of students who are taking their GCSEs in the same academic year. NFER organises and invigilates the test on behalf of schools, but relies on some help to prepare for the test from a nominated contact at each school.

This test is another designed to check the system, not directly for the benefit of or to support the children who take the test.

2.6.2 The PISA test | International sample

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The Organisation for Economic Co-operation and Development (OECD) Programme for International Student Assessment (PISA) evaluates education systems worldwide by testing 15-year-olds in key subjects, like maths, English and science. It can also ask about wellbeing.

Tests are typically administered to between 4,500 and 10,000 students in each country. Students are also asked about themselves and their family and home; language learning in school; their views on reading; "How you think about your life"; School and the school schedule and learning time.

Questions about family life include things like whether children have poetry books and classical literature and art at home. How many rooms with a bath or shower, TVs, cars, musical instruments,and tablet computers probe at family wealth. Pupils are asked about their parents' main job and level of education. Questions about the classroom include if there is noise and disorder, or whether the teacher sets clear goals for their learning or not. And the questions on wellbeing are detailed, and children are asked to what extent they agree with set statements, on loneliness and making friends, or their opinions like,'when I am failing, I am afraid that I might not have enough talent,' and if they have discovered a satisfactory meaning in life. They also appear to seek to measure empathy with questions like, 'Before criticizing somebody, I try to imagine how I would feel if I were in their place.' and ask about their decision making and values.'I boycott products or companies for political, ethical or environmental reasons.' 'When I see the poor conditions that some people in the world live under, I feel a responsibility to do something about it.' The questions about their own experiences are very personal including bullying and levels of parental support.

The PISA-based Test for Schools provides information about the learning environment and students' attitudes gathered from student questionnaires, and estimates of school-level performance. The PISA database contains the full set of responses from individual students, school principals and parents. You can view examples of the questions asked, online.[251]

2.6.3 Cognitive Abilities Tests (CATs) | Commercial, Local decision

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Additional tests such as CATs are often administered on the arrival of Year 7 new starters (age 10-11) to secondary school. This may be because the school does not trust Key Stage 2 SATs scores to be accurate, or consistent, or that they want a different kind of test for local purposes.

These are routinely administered in schools but not sent to the National Pupil Database. GL Assessment, claims that their CAT4 is the UK's most widely used test of reasoning abilities for children aged 6 – 17+ years. Other tests are available including from CEM, Hodder, the NFER and Renaissance Learning. Parents tend not to know they happen because they are viewed as for internal-only purposes. Schools forget that the companies access the resulting data too, and often for their own purposes, and there is an obligation to tell families they happen and what data will be collected, by whom, for how long and why.

In a time of algorithmic techlash, the adaptive tests should come under particular scrutiny. The summative data can be misinterpreted as assessments of progress and their profiles acted on. Any subsequent significant effects are under researched and poorly understood by families.

Secondary schools use Cognitive Abilities Tests, CATs, to test general intelligence levels and to stream or set for certain subjects. They are designed to assess a pupil in verbal; quantitative; spatial reasoning, and non-verbal areas. The results are given in SAS (Standardised Age Scores) so they take into account a pupil's age. The average SAS is 100. The scores are used to calculate predicted levels and are used by some to predict the outcome of GCSEs.

According to GL Assessment[252], these are entirely automated decisions based on profiling.

> *"Following administration, a range of reports are automatically generated. No need to data-crunch. Data is presented in visually accessible tables, bar charts and scatter graphs that allow for easy comparison, as well as clear narrative explanations that explain the pupil profile and its implications for teaching and learning.This allows you to address patterns and adapt your teaching methods to suit individual (or group, where a similar learning profile is shared) needs, ensuring feedback is appropriate and targets are achievable."*

The Cognitive Abilities Test: Fourth Edition (CAT4) provides a robust, standardised measure of cognitive reasoning ability, without reference to curriculum-based material and regardless of previous achievements or first language.

- Age range: 6-17 + Years
- Suitable for: Teachers, Assessment Co-ordinators and SENCOs
- Test duration: 45 minutes per part. 2 hrs 15 mins in total.
- Test format: Digital/Paper

2.6.4 NFER Tests | Commercial, Local decision

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The NFER sells tests that align with the Key Stage one and two tests including KS1 reading and mathematics assessments.

Termly KS2 reading, mathematics and grammar and punctuation tests are available for years 3, 4 and 5 and one set of three spelling tests is available for use at any time of year at the teacher's discretion. New year 6 reading, mathematics and grammar, punctuation and spelling tests are available to order for use in the autumn and spring terms

They suggest[253] that termly tests produce valuable data to help inform ongoing teaching and learning. This data includes both standardised and age-standardised scores, which allow pupil attainment to be benchmarked nationally, as well as enabling meaningful comparisons between pupils and groups of pupils. Using NFER Tests at different points in the year enables progress to be monitored within a year and year-on-year by comparing pupils' standardised scores over a period of time.

A standardised score of 100 is not the same as, nor equivalent to, the year 6 scaled score of 100. On NFER tests, a standardised score of 100 represents the average performance of the sample. The scaled score of 100 represents the 'expected standard', as defined by the DfE and is not the same as an average score. The measure of age-related expectations provided in the summer tests may be a better guide, but NFER states that they do not claim to provide any measure that explicitly predicts or mirrors the year 6 scaled score.

2.6.5 Questions of commercial test quality and school procurement

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Research in 2018 considered some of the properties of a range of the commercial tests that the Education Endowment Foundation has used in its randomized controlled trials. They looked at how well they predict Key Stage 2 scores, and compared this to the benchmark of the predictive validity of Key Stage 1 levels. Their results "highlight how the correlation between the commercial assessments and Key Stage 2 tests are somewhat disappointing, particularly in English." The results of the study cast doubt over the predictive validity and reliability of some commercial assessments and recommended that

> *"Schools need far more rigorous and robust information on the usefulness of the myriad commercial assessments available to them. It is currently extremely difficult for schools to make sensible decisions around the choice and purchase of commercial tests for the learning and assessment of their pupils. Commercial assessments may well be useful and provide value to teachers and pupils but it is not yet easy for interested parties to compare and contrast the pros and cons of different tests. We also do not know which commercial tests are most predictive of future performance in national assessments, how well different commercial tests line up to contemporary school curricula, nor the extent to which different tests contribute to improved teaching and learning in schools." (Allen et al, 2018)*[254]

2.7 Health data collected in educational settings

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2.7.1 Education and Health Care Plan (SEND)

Before children even get to school many families have to navigate the complex interactions between education and health if their child is to apply for an Education and Health Care Plan (EHCP)[255]. It sets out any special educational needs a child has, and the provision a local authority must put in place to help them. Talking to parents that have been through the process I have met many that are in a war of attrition. The system to manage the data flows for this process are complex and inconsistent. Parents often speak of being left in the dark in knowing who has accountability where in the process, or of disagreeing with data recorded in the plans.

The system appears designed as a barrier to access in a world in which scarcity of resources has become ingrained for so long at Local Authority level that keeping above-average costing kids out of education or their costs reduced to the bare minimum is the default position. Children have become data on a balance sheet prioritised above the needs and best interests of every child. This policy choice is costly in the longer term not only to children and families during the process and the appeals and system that has grown up around its failure.

The National Deaf Children's Society issued a warning after its new analysis of the Department for Education's 2018 exam results for pupils up to the age of 19. It showed that just 44% of deaf pupils achieve two A-levels or equivalent, compared to 63% of hearing pupils. Deaf children arrive at school with amazing potential only to begin a lifetime of being left behind. (NDCS, 2019) The government must address all learning needs if we are to improve outcomes for all children.

An EHCP can cover a dependent child up to the age of 25, so can also ensure support or a specialist placement at further education colleges (but it does not cover universities).

One parent Rachel Mewes, told us her story to explain why the process takes its toll on parents.

"My daughter has a diagnosis of Down's Syndrome. She was diagnosed with Trisomy 21 before birth. Down's Syndrome is a clinical diagnosis of learning disability, yet, despite this, we were still required to submit extensive information on why Betsy needed assessing for an EHCP.

Being constantly made to revisit the things your child struggles with and to frequently focus on the negatives about your child's condition takes its toll on parents. We were required to fill out a parental views form, detailing everything we felt Betsy needed support with and had to input into an assessment from her nursery. Reading reports of how your child is assessed as developmentally delayed is tough. But we do it, as this is what the government says we have to go through in order to get our child what they need to access education.

Alongside those reports we had to detail all of the professionals involved in Betsy's care. Speech and Language therapist, Portage worker, Paediatrician, Physiotherapist and Occupational therapist and a few others. The LA are required to get information from them all in order to inform the report requesting an assessment that the panel will then approve or deny. We trusted them to do this. They didn't. A couple of weeks before the panel were due to meet I discovered that physiotherapy and OT had not been approached. My daughter has a physical disability and a report sent to the panel to decide if she needed an EHCP was devoid of any information on her physical needs. It was left up to me to approach OT and physio to ask them to submit information on my daughter. This was a hugely stressful experience as I had only found out what the LA had done so close to the deadline. OT managed to get their information in with a day to spare. Physiotherapy didn't. My daughter's EHCP assessment request went to the panel without any information from her physiotherapist.

These experiences fit into a few paragraphs, but they represent 6 months of stress, worry and trauma. What I didn't mention was that our request to even submit an EHCP assessment request was denied twice, before the council finally allowed us to. As a result, my daughter did not start preschool with her peer group. She still hasn't."

The UK is a signatory to the European Social Charter, a Council of Europe treaty[256] that guarantees fundamental social and economic rights as a counterpart to the European Convention on Human Rights, which refers to civil and political rights. It guarantees a broad range of everyday human rights related to employment, housing, health, education, social protection and welfare. Article 15 guarantees the right of persons with disabilities to education, independence, social integration and participation in the life of the community and Article 17 ensures states provide children and young persons a free primary and secondary education. The government must do more to see that it is realised.

2.7.2 Health data as part of the educational data infrastructure

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Hospital schools, Medical Pupil Referral Units, Alternative Provision and Home Tuition, all have obligations to maintain records, share information, and submit children's records in the relevant census as any other educational setting. Simply by attending one of these settings will indicate need.

2.7.3 Health data at local level for reporting purposes

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At local level, schools use a variety of third party providers to track and store health data online, often both extracting the core records from and duplicating information held in the school information management system MIS.

Records can include local incident recording such as bumps and scrapes, injury, accident, hospital visits and being sent home with illness, as well as medication and allergy details.

A range of commercial software third parties are commonly used in UK schools in addition to what is tracked in core information management systems. iSams's Medical Manager, Evolve Accident Book, apps and platforms compete for market space, such as StudyBugs, Operoo, and Medical Tracker, which may get a nightly transfer of the personal data from staff, parents and pupils including student photos from the MIS and can also store documents, such as GP letters, create reports of trends over time for incident type or per child and link to child protection data.

Section 100 of the Children and Families Act 2014 places a duty on governing bodies of maintained schools, proprietors of academies and management committees of PRUs to make arrangements for supporting pupils at their school with medical conditions and includes guidance on administration of medications.

Software may provide a vaccinations section for storing every vaccination, booster and notes, and appointments can be recorded complete with event details and medical notes. Results are displayed in a customisable grid and contain medical notes, warnings, health flags and contact cards. Some also have a large number of subprocessors.[257]

2.7.4 Health data at national level from the educational setting

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At national level, there are four datasets in which child level data is stored and used and that are collected from children in school, and all result in data being sent to NHS Digital.

NHS Digital is an arms length body of the Department of Health. NHS Digital is the national information and technology partner to the health and care system.

Data held on the Personal Demographic Service (PDS) includes the personal details such as name and contact details. As such does not hold any information relating to a child's education but is in effect their electronic NHS 'registration ID card'. This is used as core identification and linkage key for other datasets.

2.7.4.1 National Child Measurement Programme (NCMP)

Record level demographic and health data are collected twice in a child's primary school experience. The National Child Measurement Programme (NCMP) measures the height and weight of children in Reception class (aged 4 to 5) and year 6 (aged 10 to 11), to assess overweight and obesity levels in children within primary schools. Before the programme starts each school year, local authorities write to the parents and carers of all children eligible for measurement to inform them of the programme. Parents or carers can choose to withdraw their child from the process by responding to the letter.

NHS Digital holds the datasets and are the Data Controller and Data Process for the NCMP.

Primary Care Trusts (PCTs) were responsible for the collection, holding and processing of NCMP data until legislation[258] in 2013 transferred the responsibility to local authorities.

Secondary legislation[259] granted permission to local authorities and NHS Digital to hold and process personal identifiable data for the purposes of the National Child Measurement Programme.

> **Personal information**
>
> **9.** The following information relating to a child to whom a weighing and measuring exercise relates, in these Regulations referred to as personal information, is prescribed pursuant to paragraph 7B(1)(a) and paragraph 7B(1)(d) of Schedule 1 to the 2006 Act (information relating to children prescribed for the purposes of disclosure and processing)—
>
> (a) name and address of the child,
> (b) date of birth of the child,
> (c) sex of the child,
> (d) name and reference number of the child's school,
> (e) ethnicity of the child, and
> (f) NHS number of the child.

Despite this, there is failure to understand at local and regional level that the NCMP is a named individual level dataset of children's personal data which is passed on to NHS digital for linkage with both the existing or future NCMP dataset, and other longitudinal health datasets held and distribution to other third parties.[260]

Torbay and South Devon misinforms children and parents, in the same way that other local authority areas do, that data do not include identifiable data.

> **What happens to the results?**
>
> Results from all schools in your area will be gathered together and held securely by your local NHS and then sent to the Department of Health – but these will not include details that could identify your child, such as name or date of birth.

West Sussex similarly explicitly says that information submitted does not identify individuals.

> The data that is generated by the NCMP is used within the local authority and NHS to help plan the provision of future services that are designed to support healthy weight and lifestyles in the area. The information is also submitted for national analysis and publication. The information submitted does not identify individual children.

There is no explanation or far processing therefore given to children and parents, how data is used within NHS DIgital, or its distribution to third parties, and there is lack of clarity in the 20-page long Statutory Instrument[261] at what disclosure point, data is made anonymous.

> **Onward processing of information by the Information Centre**
>
> **16.** Information which has been obtained by the Information Centre under regulation 15(1), including information which has been further processed in accordance with regulation 15(2)(a), may be disclosed by the Information Centre to—
>
> (a) the Department of Health, including Public Health England, an executive agency of the Department of Health;
>
> (b) the local authority which provided for the weighing and measuring exercise, where the information which is disclosed to the local authority concerned is derived from that exercise;
>
> (c) any other person, with a view to enabling further processing of the information for the purposes of research, monitoring, audit or the planning of services, or for any purpose connected with public health, subject to the condition that the information may be disclosed only in a form in which no individual child can be identified.

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2.7.4.2 Smoking Drinking and Drug Use among Young People survey (SDD)

Demographic, behaviours and attitudinal data at individual level are collected in a biennial survey of secondary school pupils in England in years 7 to 11 (mostly aged 11 to 15), focusing on smoking, drinking and drug use. It covers a range of topics including prevalence, habits, attitudes, and for the first time in 2018, wellbeing. The 2018 survey was conducted by Ipsos Mori, and questioned 13,664 year 7 to 11 pupils, mostly aged 11 to 15, from 193 schools across England, between September 2018 and February 2019.

2.7.4.3 Children's Dental Health Survey (CDHS)

The Children's Dental Health (CDH) Survey applies to England, Wales and Northern Ireland, commissioned by the Health and Social Care Information Centre. The 2013 survey was the fifth in a series of national children's dental health surveys that have been carried out every ten years since 1973.

The 2013 survey provides statistical estimates on the dental health of 5, 8, 12 and 15 year old children in England, Wales and Northern Ireland, using data collected during dental examinations conducted in schools on a random sample of children by NHS dentists and nurses. The survey measures changes in oral health since the last survey in 2003, and provides information on the distribution and severity of oral diseases and conditions in 2013.

2.7.4.4 Community Services Data Set[262] (CDHS)

The CSDS extended the scope of the Children's and Young People's Health Services (CYPHS) data set extending the collection of data to apply to children and young people in receipt of publicly funded services. (Public Health England).

NHS Digital is the Data Controller for the CDHS and holds the latest CDHS 2013 dataset.

Providers of publicly-funded community services are legally mandated to collect and submit community health data, as set out by the Health and Social Care Act 2012.

The Community Services Data Set (CSDS) expanded the scope of the Children and Young People's Health Services Data Set (CYPHS) data set, in October 2017, by removing the 0-18 age restriction. The CSDS supersedes the CYPHS data set, to allow adult community data to be submitted. The structure and content of the CSDS remains the same as the existing CYPHS data set. The Community Information Data Set (CIDS) has been retired, to remove the need for a separate local collection and reduce burden on providers. Reports from the CSDS are available to download from the web page Community-Services-Data-Set/reports.

The CYPHS data set was mandated for central flow to NHS Digital from 15 October 2015 (for September 2015 data) for all providers of publicly-funded community services, who are legally mandated to collect and submit community health data, as set out by the Health and Social Care Act 2012.

The CYPHS data set describes national definitions for the extraction of data in relation to the following key areas:

- personal and demographic
- social and personal circumstances
- breastfeeding and nutrition
- care event and screening activity
- diagnoses, including long term conditions and childhood disabilities
- scored assessments

Data may be pseudonymised during analysis and when published, are at aggregate level and small numbers suppressed.

While consent is not required to include patient data within the CSDS, patients do have a right to object to their data being collected.

2.7.4.5 A comparative table of key health data surveys made in schools

National child measurement programme (NCMP)	Smoking drinking and drug use amongst young people survey (SDD)	Children's Dental Health Survey (CDHS)
Data type held	demographic and health data at individual level (height and weight), NHS number	demographic, behaviours and attitudinal data individual level
Children	Reception year (age 4-5) and again in year 6 (age 10-11)	School children in England aged 11-15
Volume of database	1million plus measured each year	12.5k sample every other year
Age ranges	4-5 and 10-11	School years 7 to 11 (secondary Schools age and age 15-16)
Data controller	NHSD Data Controller and Data Processor Jointly responsible with PHE - parliamentary regulation	NHS Digital
Retention period	unlimited; data held since start of survey in 2006	unlimited; data held since start of survey in 1
comms to collector	collected by LA staff, often school nurses	administered in schools by contractor's inter team working with teachers; fieldwork proced and questionnaires included in each national statistics report
link to more info	https://www.gov.uk/government/publications/national-child-measurement-programme-operational-guidance	http://content.digital.nhs.uk/article/3743/Sm Drinking-and-Drug-Use-among-Young-Peop England

2.7.5 Immunisations administered in educational settings

The Vaccination and Immunisation service is a key responsibility of Public Health England to ensure the safe and effective delivery of all vaccine programmes for children in England. There are a variety of vaccinations given at specific points during childhood, routinely administered in school settings. At the time of writing in August 2020, its future responsibility is unclear following the announcement that Public Health England is to be disbanded and replaced by a new National Institute for Health Protection (NIHP).

Some vaccinations are delivered by NHS community nurses and others via outsourced contractors, such as Sirona Healthcare. Information about the vaccines and their purpose is available online.[263] There is a mixture of communication approaches, in some areas a broad approach involving SMS text, school website and consent form home are used to communicate and collect the need for consent to carry out the immunisation.

- Children's flu vaccine, annual nasal spray to certain age groups at primary school and Year 7.
- Adolescent boosters, Diphtheria, Tetanus, Polio and Meningitis C vaccines:

- MenACWY vaccine given as a single jab containing vaccines against meningitis A, C, W and Y (13 - 18 years)
- 3-in-1 teenage booster given as a single jab containing vaccines against diphtheria, tetanus and polio (13 - 18 years)

- Human Papillomavirus vaccine for girls-only in two doses a year apart. (12-14 years)

Consent to administer the vaccine

Information collected via Freedom of Information requests from school settings show that consent to carry out the immunisation is clearly understood to be a necessary requirement. But the next stage of consent, to data transfers and re-use is poorly communicated and rarely properly administered.

Parental consent to administer the vaccination is gathered consistently on an individual basis by the body responsible for the vaccine administration or by the school on their behalf, using a variety of mixed communication methods, often on paper forms, sent home for the guardian's signature.

"This is coordinated and vaccinations administered by Public Health School Nurses. School does not hold any information or data."

"Obtained and collated by the Health service."

"The consent form is supplied to the parents by Liverpool Community Health NHS."

"Please contact Sirona Healthcare for the relevant information."

"This is provided by the local NHS trust and copies are not kept by the Academy."

Sometimes consent decisions between children and parents may conflict.

"Consent is required from parents but if it is refused a pupil can consent for themselves if a health professional deems that they understand."

Although in the majority of cases written consent is required from legal guardians, settings also suggested that it is not always the case.

"Year 11s can consent themselves, but we do always prefer a sign[ed] consent.'

Consent to collection and use of data is missing

In contrast with the permission asked to carry out the vaccination itself, there is no consent asked for data collection, further retention, or its distribution.

There is no permission sought for the associated onwards sharing of personal and medical data, and there is no explanation given how these data is stored at the central NHS Digital database or explanations how data may be distributed from there. Opt out is not offered.

The only leaflet we were sent in 2017 which mentions the medical records at all, dates from 2014 and says, "Information about your vaccinations will be added to your NHS records."[264] Which "information" will be added, and where is not explained. There is also no consent option offered for its collection or choice offered about the indirect re-use of data for commercial or other purposes, administered through Local Authorities, Public Health England and or NHS Digital on receipt of the electronic records.

2.8 Child protection and vulnerable children's data

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The overlap between education and children's social care for the purposes of this report are in three areas. One, children's social care as a governmental department, sits under the Department for Education. Secondly, personal data from children in the education systems are often core data that feed into other systems at Local Authority level, in children's social care. And thirdly, a number of commercial third party providers sell their software to schools for tracking sensitive data about children in a school's safeguarding capacity, and these also are used to feed into other public sector data systems, in the NHS, social care and policing.

The use of algorithmic decision making and its ethics in children's social care are flawed.

In the report on the ethics of machine learning in children's social care (Leslie et al, 2020) researchers found that "models will potentially contain dangerous blind-spots" and that "these issues related to the safe and ethical functioning of a predictive ML (machine learning) model are magnified in high impact and safety-critical domains such as children's social care, for system errors, unreliable performance, and lurking biases may have life and death consequences."

It is one thing for a child to miss a place at university through an unreliable statistical model, it is another for them to be missed as at risk of mistreatment or be wrongly removed from their family where the computer said so. 2020 should be the year that starts the end of such predictive algorithms in the children's social care sector. They are not fit for purpose.

The foreseeable failings of such predictive systems in children's justice and child protection were extensively documented by Anderson et al. in 2006. Their work documented the databases that are first necessary in order to use other tools on top of the data at speed and scale.

How data were being built and used in 2006 were indicators of the direction of travel towards the position we have today. Excessive, unreliable and inaccurate data used to try and turn hindsight into foresight, using historical data to predict the future not only of populations but at individual child level. The assumption that this information provides knowledge is dangerous. That knowledge is now acted on with effects on the most vulnerable children who are least able to be able to understand its effects or have routes of redress when those effects are detrimental; in crime prevention, child protection, and as FIPR wrote in 2006 – the notion that computerisation can be used to drive changes in public-service organisation and professional working practices' has only grown, enhanced by commercial providers who profit from that misconception.

2.8.1 Case study | Ryogens

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Rosamunde van Brakel in her essay, The Rise of Pre-emptive Surveillance, (Surveillance Futures, 2017) draws attention to comments made by Simon Wessely, in the House of Commons Home Affairs Committee fifth report (2008) that the problem in predictive systems is poor accuracy. In the same session the then Information Commissioner warned that automatic compiling and searching across databases to detect patterns of behaviour and predict future behaviour could "build up images of people which may take you in the wrong direction".

> *"If you are trying to identify children who will commit crimes later in life—I understand that the Cabinet Office is doing a lot in this sort of area—I understand their motivations and I understand what they are trying to achieve, but if they get it wrong—if they label that youngster as someone who is going to be a criminal in 10 or 15 or 20 years' time or that family as a problem family—it needs our intervention. Technology can take you a long way but it is not going to be 100% effective. When we raised concerns about profiling we raised concerns about social sorting. It is to signal the risks involved without the human intervention. Machines can do a lot to gather and to help you inform your decisions but without the human intervention I think there are grave dangers."*

Risk factor research is characterised by numerous methodological flaws such as oversimplifications, imputation, determinism, psychosocial bias and a scant evidence base. As a consequence ShareCare, which is based on RYOGENS, which is based on ONSET, which is based on ASSET, has 'updated broadened and further engrained the misapplication of risk factor research within the youth justice process (Case and Haines, 2013). (Van Brakel, 2017)

2.8.2 Case study |eCAF

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eCAFis a web based IT system to support the CAF process. The Common Assessment Framework is a shared assessment and planning framework for use across all children's services and all local areas in England.

The CAF process is not for a child or young person about whom staff have concerns that they might be suffering, or may be at risk of suffering harm. It is aimed at children and young people with additional needs that are not being met by their current service provision. The CAF can be used for unborn children and children and young people up to the age of 18, but its use can be extended beyond 18 where appropriate to enable the young person to have a smooth transition to adult services.

It can be accessed from any work PC and will allow users to store assessments, Team Around the Child (TAC) members details, TAC meeting notes, actions and service provisions. Tools such as Holistix eCAF are another assessment tool to support the local early intervention agenda. The solution is a re-creation of the de-commissioned National eCAF system with additional functionality and accessed by multi agencies.

2.8.3 Case study | CPOMS platform

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CPOMS currently supports just under 12,000 schools across the UK and in 23 countries worldwide from its Skipton office, and children's data is securely held in tier 3 data centres offsite. [265]

The company securely processes some of the most sensitive data about children one can imagine.

Many schools use the system for recording behaviour and SEND but it is also a go-to system of choice for many schools in England to record more serious child protection incidents. The potential for scope creep of who can access what information clearly demands strong local governance processes and contextual understanding, that should be overseen by Local Authority or school management policies. Not only might a child's record include an outline body diagram on which staff have recorded the sites of injury or suspected abuse, their subjective opinions can include 'Professional Disagreement/Reconsideration' and this may be important to note when staff reading the information, may not have created it.

Information on children's records can be provided, where appropriate within legislative requirements, to other agencies' from a school designated safeguarding lead (DSL), for example, to 'The Forced Marriage Unit' or police.

The programme can transfer files between schools, if a child moves school and carries across a child's life where a record is relevant for child protection for example. CPOMS contains secure granular data transfer control and a data retention control. Such control is the responsibility of the relevant Head Teacher.

In order to facilitate an immediate response to an urgent incident, all children's details are transferred across to the company in the initial set up, which similarly to many software in the education sector, means the company receives a relevant subset of data about every child at a school, including those who may never have data subsequently processed about them in CPOMS.

2.8.4 Case study | My Concern platform

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MyConcern is a safeguarding software used by schools, colleges and other organisations in the UK and worldwide. As a brand of the company One Team Logic, created by former Senior Police Officers, and part owned by the Octopus Investments Group, MyConcern is designed to capture and distribute information about child safeguarding and child protection to enable staff to record, report and manage all safeguarding, well-being and pastoral concerns. Linked profiles of siblings and other pupils can feature in one record.

MyConcern supports 'working together' with other safeguarding colleagues and trusted external partners such as social care and police.

During an initial set up with a new school using MyConcern for the first time, a record for each child may be exported from the school into management system export for *every* child from a school. Similarly to other safeguarding systems, this means children who may never need a record processed through MyConcern, are still sent to the company.

2.9 Looked after Children and Data Management in Virtual Learning Areas

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In 2017 there were around 150 Virtual Learning Areas[266] each with a Virtual School Head.

Virtual school heads promote the education and well being of children who are looked after by the local authority. The heads also manage pupil premium plus funding. It is an extra payment that schools receive for each looked-after child, and previously looked-after child, on their roll.[267]

We interviewed a Virtual School Head about the role data plays in their job and where they think it should be improved in policy and practice:

We walk a very narrow tightrope with the data gathered, used, and held on looked-after learners: what do we need to know and keep vs when is it right to share? All data used for the sole purpose of providing targeted support to meet their exacting and often multitudinous, complex needs.

RP is a Yr 8 learner who has recently come into care. The Designated Safeguarding Lead (DSL) as well as key staff within her mainstream school were instrumental in gathering evidence to support their concerns that RP was a victim of severe abuse by her father. RP had built a strong, secure attachment to the DSL whom she disclosed her abuse to. The DSL actioned a social care (SC) referral.

The Local Authority sought and was awarded a full care order for RP. RP remained at her school. It swiftly became apparent to her however, that it was not just the trusted DSL that knew about her but also her teachers who began asking 'are you okay?'. One went as far as to have an open conversation with RP about being in care within earshot of other students.

Next, her peers learn she's in care too! She only told one friend she thought she could trust.

RP has to come out of lessons for her Personal Education Plan (PEP) meeting with her SW, carer and a whole team of other professionals (CAMHS, SENCo, someone from the Virtual School who tracks and monitors the attainment of looked-after children; drives-up standards in educational settings; and champions their voice)), all in school to talk about her and her education: good and bad. She feels shame, she feels uncomfortable that she's made to feel different.

In the meeting, how RP behaves at school and placement, is spoken about. How well she is achieving...or not. SMART targets were set to drive up her attainment and a discussion on how pupil premium would be used to assist RP in achieving her target(s), was held and agreed.

The following term, her PEP meeting is synchronised with the Annual Review of her Education, Health and Care Plan (EHCP). She looks sad and uneasy as she and others in the room read information about her life before and during care.

News that RP is in care and speculation as to why, spreads far and wide through her year group. The school that was once a safe and stable sanctuary for her is no longer. She begins to get bullied, children talking about her dad and what he did to her. Her behaviour swiftly deteriorates-she gets into fights. She is referred to external services to manage her behaviour. She wants to leave the school, wants a fresh start. Now with nothing to lose she begins to abscond from placement, there's concern she may be a CSE (child sexual exploitation) risk. Fixed term exclusions build and she is on the cusp of a permanent exclusion. She needs to be moved before this happens. However, professionals tread cautiously in handling her as she's already twice tried to commit suicide... in school. Application is made to another school. Information is shared with the new school that she is in care and her vulnerabilities and risks. They received her school file.

Home was tricky too. Her carer has given notice and wants her out as soon as possible. RP receives this as yet another rejection: from parents, school and now her carer. She is fast becoming numb to change. Her 'story' is shared with all along the way only to provide the very best ways in which to support her. She is numb to everything, losing more and more control of her life: decisions made for her. Does she know or care to know who her information is being shared with and how it is being managed?

Potential carers read her profile (unsure if anonymised), decide whether or not to show interest in her. One does, but it is a carer in Wales, at least no-one will know about her there and she will have the fresh start she craves. Application is made into a new school, she gets accepted falling into the 'excepted group' as a looked-after child. First day, her class teacher, wanting to be helpful and supportive, reveals she is in care in front of others and the whole cycle of shame begins again.

Issues:

School had to share her 'story' with SC to safeguard RP. At this point, RP lost all control over where her data goes, why it goes and how it is stored.

Four questions:
1) What should we know?
2) Who should know?
3) When it is right to share information
4) How do we protect the highly sensitive data with the respect that it deserves?

It is true that children in care do not want to have to repeat their 'story' over and again to the multitude of professionals that are in their lives, supporting them on the frontline and behind the scenes.

Yet, more transparency is needed with young people. An audit trail of where her data has been and how it is being held and by whom. Information is shared securely via email, in both the written and oral word and via referrals to agencies who offer alternative targeted support to make a difference to RP's life.

2.10 Youth support services (formerly Connexions)

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Once pupils reach the age of 13, schools pass pupil information to the Local Authority and / or provider of youth support services, described as required to meet responsibilities in relation to the education or training of 13-19 year olds under section 507B of the Education Act 1996. The Department for Education model privacy notice says nothing about how this information may be used at national level, so it is not passed on to schools, pupils or parents.

There is no opt out but which data items are processed can be limited on request. A parent or guardian can ask that only their child's name, address and date of birth is passed to their local authority or provider of youth support services by informing the school and this right rests with the child from age 16 and up.

> Funding streams that had in the past gone to "Connexions" and youth services were brought together and focused on targeted support for young people (Aged 13 to 19) through the early intervention grant ('EiG'). The term 'youth support services' is generally used to reflect the combined service but local authorities are free to brand the service as they wish.
>
> This data item should be returned for all pupils who are aged 12 and above (as at 31 August 2016). If it is not completed the system will default to 'unsought'. The census mechanism is used to transfer this data item from schools to their local authorities who pass on the data to the youth support service. The codeset is located in section 8. The department uses data collected by local authorities for destination measures and therefore it is important for schools to inform the local authority if a student drops out of the sixth form.
>
> There is a legal requirement under the Education and Skills Act 2008 for schools to pass information on request to the youth support service for pupils in or approaching the age of 13. The information which schools are required to provide consists of:
>
> a) the names and addresses of pupils and their parents - which must be provided to the youth support service in any event
> b) the date of birth of the pupil
> c) other information relevant to the provision of youth support services. Parents - or pupils themselves if aged 16 or over - have the right to instruct the school not to provide information (over and above name, address and date of birth) to the youth support service
>
> The provision under (c) is for an opt-out. Until and unless the parent or pupil gives an instruction, the school remains under a statutory duty to provide information to the youth support service on request.
>
> Privacy notices need to be issued to parents advising them of their (or their child's) right to instruct the school not to provide information beyond name, address and date of birth. If the values of 'No', 'SNR' (Sought, no reply) or 'UNS' (Unsought) are recorded then information beyond name, address and date of birth cannot be shared with the youth support service. A privacy notice template for issue by local authorities and schools is available on the department's website.

2.11 Ofsted and data gathering

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Inspectors may analyse pupil-level and group-level pupil data before an inspection and on-site, collected, created and ascribed during the course of a child's education.

Inspectors access parents' personal data and opinions submitted for the purpose of inspections.

In March 2017, Schools Week reported that the education watchdog planned tracking Facebook and Twitter to check on schools in its "innovation and regulation plan". It said Ofsted is engaging with the Department for Education in a "data science project" to "explore the possibility of using near real-time data and information from social media and other sources to predict and prevent decline in school performance".

The School Inspection Handbook, updated March 2018[268] section on Outcomes for pupils emphasises the importance of progress, especially of pupils currently in the school:

> *"In judging achievement, inspectors will give most weight to pupils' progress. They will take account of pupils' starting points in terms of their prior attainment and age when evaluating progress. Within this, they will give most weight to the progress of pupils currently in the school, taking account of how this compares with the progress of recent cohorts, where there is any. Inspectors will consider the progress of pupils in all year groups, not just those who have taken or are about to take examinations or national tests. As part of pupils' progress, inspectors will consider the growth in pupils' security, breadth and depth of knowledge, understanding and skills." (Para. 175)*

There is a growing use of the Ofsted brand as a carrot-and-stick in marketing third-party software by private companies.

"Always be prepared for Ofsted with seating plans ready to print as beautiful PDFs in seconds and successfully demonstrate why students are seated together."

Part three | Mapping the local data landscape

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3. Local data collections

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When a family registers a child for school, some personal details are passed over from the Admissions Process to the school. Name, home address, and date of birth for example. This forms the core of the child's school record.

Legal guardians then provide additional factual information directly to the school during the admissions process for local purposes, such as immunisation history or planned method of transport to school, and first language at home.

This data is also stored in the school Management Information Systems (MIS), a software decision made by the setting, Multi Academy Trust or Local Authority.

This core record linked to a child's unique pupil number is then built on in the course of a lifetime of education by a wide range of administrators, staff, and the write-function of any permitted third-party software.

3.1.1 Opinion data

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Information is created by the school staff and stored in the MIS for administrative purposes that parents may or may not see, such as behaviour and attendance data.

The vast majority of a child's record that grows over time, is not seen by them or their families.

There is rarely differentiation in MIS, which data were provided by the child, by their family, created by staff, or created by a system. Some that were problematic such as ethnicity 'ascribed by school' has been shut down. But there is far more opinion based just like it, which is given undue weight not only at local level, but in transfers between schools, and as soon as the data leaves the school it loses the context in which it was created and becomes perceived fact. Whether this is information collected from a child's facebook record, attending an environmental protest and added to their permanent school record, or machine created suggestions of being at risk of suicide, these data can have discrete but lasting consequences.

The weight it is then given by researchers is compounded in policy making.

The feedback loops of fake data become fact, are the greatest argument for rethinking the entire data collection design process in England, to reduce it to the bare minimum, as required under the data minimisation principle of data protection law, to get back to a stronger if narrower set of sound data. That could then be better managed by families, kept accurate and offer tools to view what is held, where it has been processed, any for what purposes better enabling families own oversight, rather than relying on entirely absent national mechanisms.

3.1.2 Repurposing data in breach of the purpose limitation principle

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Certain fields of school information management systems' data are only collected and used for local administrative purposes, and are not sent to the Department for Education in the School Census. For example, parents' email addresses.

But where the same data item may be collected for both national and local purposes, there is a problem by design in a MIS that does not allow any permissions to be recorded that data has.

School Information Management Provider Systems tell us it would be too expensive for them to manage granular data permissions. For example, the family may be content for a school to know and retain information about nationality or adopted-from-care, but not want those same data to be sent to the Department for Education in the school census. Right now, nationality is either present in the MIS field, or it is refused. It cannot be both at the same time.

But MIS providers seem content to allow children instead of them to pay the costs of poor system limitations. Schools cannot honour their data protection law obligations to restrict distribution, where the system design extracts all or nothing. Similarly, these core MIS records are the data lakes from which third party software extract records to create core records in their further apps and platforms that schools choose to use in a child's daily administration, learning or safeguarding. The results for the child are excessive data processing by too many people which could have other knock on effects in terms of increased risk of exposure, loss and misuse. It's most basic problem is it is a breach of law that fails to protect children's data by design and default.

A child has no choice over whether their name is provided to a school for the admissions process, but they should have a choice over whether it can be processed to facilitate the research linkage of various data sets, that each of themselves have less data in them, but once joined up create a new set of knowledge and insights (otherwise why bother linking it to start with) and the purposes of that new dataset could be far less beneficial for the child, than enjoying the right to their school place. Most children's data is handed over by adults who have no idea where it goes and who uses it, and are not given any way to manage the child's rights on their behalf.

Before looking at the wide range of third parties and their software that extract data about a child through their school, we'll first consider the system infrastructure that enables this.

It is also important to consider another layer of the problem of multi-purposing the same data when that data is subjective and in different people's different best interests.

"Using data for multiple purposes is a problem, and surely everyone can see the risks of using teacher assessment to measure school performance. Teacher assessment is a vital component of school data but it is essentially human opinion, which is unavoidably broad and subjective at best. And using human opinion to measure the performance of humans is probably not going to work out well. This is the paradox of accountability in education: the high stakes undermine the very thing the system relies on to function.

To put it bluntly, you can have reliable teacher assessment or you can use it to measure performance. That's the choice. So, what should the DfE do?

The answer is not to increase the use of standardised tests in primary schools or even to reduce the number of statutory assessments. The answer is to reduce the amount of data that is collected and reduce what is done with it." (Pembroke, 2020a)

3.2 The local infrastructure | hardware issues

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3.2.1 ChromeBooks for Education

Chrome Sync enables Google Account holders to log in to any Chromebook or Chrome browser and find all of their apps, extensions, bookmarks and frequently visited web pages. It is one of the reasons why Chromebooks have become popular in classrooms, especially for schools that can't afford a device for every child.

Syncing works with Chrome OS version 18 and later, and is on by default when you sign. Personally identifiable Chrome Sync data in G Suite accounts is used to power features in Chrome for each account user, for example allowing students to access their own browsing data and settings across devices.

In addition, the systems compile data aggregated from millions of users of Chrome Sync, and, after completely removing information about individual users, use this data to holistically improve the services that we provide. For example, if data shows that millions of people are visiting a web page that is broken, that site would be moved lower in the search results. This is not connected to any specific person, nor is it used to analyse student behaviours. If they choose to, administrative staff can disable Chrome Sync and users can choose what information to sync.[269] Google says that G Suite users' Chrome Sync data is not used to target ads to individual students.

Just as commonly, social logins are being used by children as a single sign-on that employs a child's login information from a social-networking service such as Facebook, Twitter, or Google+ to sign in to a third-party website instead of the user creating a new login specifically for that website. It is designed to simplify the login process.

3.2.2 Social media and social log-ins required?

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Some educational settings ask pupils to use Facebook, for getting access to a shared project for example, but this cannot be reasonably or lawfully 'required' by staff, as there are easy alternatives that do not infringe on their fundamental rights the same way that requiring a pupil to create a Facebook Account they don't otherwise already have.

Schools in creating Google log-ins for children under the age of 13, also create social log-ins which are used on sites such as school related apps. Schools we know also require students to use YouTube when recording team performance projects in drama for example. Such third-party processing is cheap or free and convenient, but schools cannot require children to do so, and should remember that 'consent' in these circumstances can only be considered freely given and therefore lawfully obtained, if there is another alternative offer available. Contrary to widespread media belief, not every child uses TikTok or is happy to post their face to social media platforms. If a less intrusive tool is available, it should be used for all students.

At university some ask students to use Facebook as an identity manager. Edwin, an AI-powered English tutor, requires students to sign into Facebook Messenger to use it for example.

An additional problem in asking school staff and children to use a Social Media platform for a school purpose, is that the use conflates the personal account, with 'professional' / educational purposes. It means that content that you look at as a single user, is all tracked and stored associated with the one account — this is especially problematic for school staff when it comes to Subject Access Requests.

For staff, as much as for pupils, use of single sign on can be poorly understood and Google encourages users to link accounts, in order to esly see stored files, or shared documents for example. It can mean that staff, having merged accounts, accessing content from a personal account but now linked and recorded under their professional school Google ID, ask questions of the school IT admin such as when schools need to purchase more account space.

Unless we know what is collected, why it is collected, how it is used and we can understand how a company uses that knowledge about us to target ads or influence our actions on a page, we cannot properly mitigate harmful effects of discrimination, influence, or bias.

Lack of training often leads to less than optimal practice. When using YouTube on a Google domain, it is possible to restrict[270] the video to educational content or if it has been pre-approved by teachers who approve video by logging into YouTube. But from case studies we hear, this approach requires a little knowledge how to do so, and is applied inconsistently.

3.2.3 iPads and Laptops | parent lease-to-buy / purchase schemes

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1-2-1 parent purchase and leasing schemes are increasingly routine, and yet we question whether these meet the lawful[271] or ethical requirements on charging for school activities especially where the purchase is in installments and devices remain the property of a school, until all payments have been made, and ownership has been handed over to the parent. While at the same time, parents are denied complete control of the device, and must subject its use to school filtering and monitoring.

While not all school iPad schemes are extortionate, there does seem to be a huge discrepancy in terms of how much parents are being asked to pay. This is perhaps linked to how much of the school budget has been allocated to subsidise the scheme, as well as which models and payment plans are on offer.

While some schools will offer loan schemes for pupils with pupil premium, but still require "a small charge to support the idea of ownership of the programme" or may offer others 'financial help' it is a significant move away from state education providing the minimum required provision and some schools demand families buy iPads, ChromeBooks or Laptops under Bring-Your-Own-Device schemes and across multiple year groups, which can have cumulative financial effect for families with multiple children, and stigmatising effect on parents that raise concerns and those that would prefer not to use them but are not given a choice.

> *"Sandringham School operates a Bring Your Own Device (BYOD) policy where all students from Years 7 – 11 are required to have a tablet device in school for use in lessons and at home. Sixth Form students require a laptop dependent on their subject choices."*[272]

Many policies we have seen prohibit children from bringing an existing personal device from home. The hardware must be purchased fresh from schools, and commonly come with insurance, warranty and a case. If one of the more convincing arguments in favour of using these tools for learning is that it encourages more out of hours pupil practice, it seems unnecessary to require the exclusive use of newly purchased hardware, when the same apps could be installed on an existing personal device.

Some that do enable students who already have an iPad to use them only do so if under a year old, whereas others accept the use of an existing iPad Air 2 or better, purchased within the last 3 years.

Due to safeguarding procedures schools may insist that these iPads are factory reset and set up fresh by the school.[273]

But generally parents/carers are constrained in what may be downloaded by the filtering system that is imposed. Schools generally require that access to the Internet be via their filtered WiFi some of which will require software installation. All iPads generally also have school tracking systems installed, using Mobile Device Management Systems (such as Casper/Jamf) and "Find my iPad" (Apple) functionality will be set to active.

Some case studies suggest that schools that try to bolt iPads onto a Windows infrastructure, "had never quite worked seamlessly" and that the lack of interoperability is problematic. (Jigsaw24, 2020)

Schemes may rely on the backbone of Google for Education suite of tools, and / or Apple apps. This again embeds the powerful market positions of two key players in the sector and supports the procurement models and distributors of both hardware and software, such as the Grids for Learning.

Whether there is a conflict of interest in any recommender schemes offering edTech demonstrator training to sell its benefits to prospective schools, and also delivering its infrastructure underpinned by Google, Microsoft and Apple,[274] may depend on your political or ethical standpoint.

3.3 Biometric data used in UK education

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The use of biometrics in schools began in 2001 with fingerprint technology as a means to identify children taking out library books from a school library. The company, MicroLibrarian Systems, approached the Information Commissioner's Office (ICO) in 2001 to see if using biometric technology would breach the Data Protection Act. The ICO's reply indicated it would not. In fact, their reply from 2001 suggests limited knowledge of the technology at that time and little thought given to the implications for long-term maturity and application of the technology.

"It is understandable that concerns will be raised over the use of such technology if it is believed that it involves the holding of a database of pupils' fingerprints."
Letter from ICO to MicroLibrarian Systems, July 2001.

The technology takes points from a fingerprint, known as loops, curves and swirls, and stores the 'map' of those salient points of the fingerprint as a number string or algorithm. Children may be asked to provide three of the same fingerprints to the machine, all potentially slightly similar. Then parameters are set for that fingerprint algorithm when it is next presented to the machine. The database stores a number code in effect of a child's fingerprint referencing their name, photograph, and associated personal data.

"However, from what I understood of our discussions although theoretically possible to use the information obtained from this system to match fingerprints taken from the scene of a crime, the resources this would require make this highly impractical."

Letter from ICO to MicroLibrarian Systems, July 2001

Pippa King reports that it is possible to transfer biometric (numeric) data from one database to another, there are interoperable programmes that can do this established by National Institute of Standards and Technology (NIST). Therefore, she believes the UK police have potential access to school fingerprint biometric databases, potentially confirmed by David Smith, the Deputy Information Commissioner giving evidence to the Home Affair Committee enquiry 'A Surveillance Society' in May 2007 (See Q50 and Q51). David Smith's answers revealed that police potentially could have access to a school biometric [fingerprint] database without the child or parent's knowledge.

In May 2013 King sent every police force in the UK a Freedom of Information request asking if that force had ever accessed a school biometric database.

4 forces failed to answer the request (8%)

2 forces answered stating they had no information (5%)

4 forces stated no they had not accessed a school biometric database (8%)

38 forces refused to answer citing cost (79%).

It is therefore unknown if school pupils' biometric data has been transferred from a school database to another biometric database or whether data has been scanned from a school biometric database.

Uniquely Britain was the first country worldwide to introduce biometric technology into schools in 2001. UK schools have used biometric:

- fingerprint
- iris scanning
- facial recognition
- infrared palm and infrared fingertip scanning

All of which were introduced in schools quite often without the consent or even knowledge of the parents/cares of the pupils. In 2013 the Protection of Freedom Act 2012 was enacted ensuring schools obtained the consent of parents and children under 18 to process and store students biometric data.

Unfortunately the same rights that are afforded to children in England and Wales with regards to consent to educational establishments taking and processing their biometrics do not apply to children in Scotland and Northern Ireland.

3.3.1 The normalisation of biometrics in UK schools: a timeline

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Since 2001 biometric systems in schools have been used to verify children's identity for food, library books, attendance, locker entry and to make payments for school trips.

The biometric of choice that is prevalent in UK education is the fingerprint reader, mainly used in secondary

schools and further education colleges for summer use.

2012: Private limited company that over 200 children from the age of 7 had been 'hyperstalked'

2012 - 2015: Opposition Members of Parliament, from the Conservative and Liberal Democrat parties, voted against government proposals to share data with the US government, arguing that the proposals to share passport data with the US government were over-commercial and lacked adequate safeguards.

Non-statutory guidance was published in 2012 for the government-appointed Interim Chief Surveillance Commissioner and Technology Agency and the Information Commissioner's Office.

May 2015: The Conservative and Liberal Democrat parties formed a coalition after the UK general election.

June 2015: The Home Secretary announced that the Government would bring forward proposals to introduce a requirement for communications companies to maintain records for a period of 12 months, and to provide access to the to the age of 18 Services' duties, as the Protection of Freedoms Act 2012.

October 2015: The Government published its Strategic Defence and Security Review and announced the creation of the National Cyber Security Centre.

December 2015: The following document was published by the Department of Education as guidance, detailing school responsibilities under the Prevent duty introduced in the Act 2015, to encourage terrorism and preventing under 18 year olds terrorism: Data Protection of Biometric Information of Children in Schools and Colleges (governing bodies, head teachers, principals and school staff September 2015)

The Protection of Freedoms Act 2012, Chapter 1, 26, became enforceable.

3.3.2 Prevalence of biometric technology in schools

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Tracking the level of biometrics in schools is problematic due to the fact that there are no requirements for Education or the Information Commissioner's Office does not record, or require, the explicit log of biometrics in schools. The Information Commissioner's Office recommended in their report in December 2012 to their shareholders' meeting that a requirement should be made to parents and pupils for the to opt-in' of biometric data' as the Protection of Freedoms Act 2012.

The Protection of Freedoms Act 2012 and its children consent before processing biometric information. The salient points of the Act are:

- Each parent of the child should be notified by the relevant authority that they are planning to process their child's biometric information.
- If a child has consented to, and not withdrawn their consent to, the processing of their biometric information, the authority must provide reasonable alternative arrangements for pupils who cannot or do not want to use biometrics. This needs to be in writing.
- The child can object to the processing of their biometrics regardless of parents' consent.

However, how this legislation is interpreted by schools is widely open.

Research by Big Brother Watch published in February 2013 found that only 8 per cent of 1178 secondary schools in Northern Ireland, Wales and England:

Just under half, 103 schools answered: (47%)

Based on these responses 85 schools (47%) used a biometric system. 20 of these schools (12% overall) used biometrics for more than one application.

26% of the 85 schools used biometrics for canteens.

13.5% used biometrics for the school library.

12.6% used biometrics for registration

12% used for other purposes (printer, copier, door access, school gates, lockers, school trips)

Whether these figures are an accurate indication of how many schools use biometric systems is unknown as the Protection of Freedoms request response rate was poor.

Big Brother Watch's report also found that the Protection of Freedoms requires under the Freedom of Information Act 2000 (FOIA) 40 % of local authorities were sent FOIAs on the use of biometrics in primary schools covering 85 secondary schools.

A local authorities stated 'Controlling ICT schools among which they said that only 3 schools use biometric systems.

3.3.2.1 Statistics on numbers on the use of fingerprint biometric readers in schools

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Around 2 million children in 50,000+ state schools[1][2] in England and Wales have their fingerprints taken in secondary schools. Approx 70% of secondary schools use fingerprint readers[3][4] for registers by 2012, and 40% of primary schools use fingerprint readers[5] by 2012.

Nadeem [6][7][8] [9] [10] [11] [12] [13] [14] [15] [16] [17] [18] [19] [20] [21] [22] [23] [24] [25] [26] [27] [28] [29] [30] [31] [32] [33] [34] [35] [36] [37] [38] [39] [40] [41] [42] [43] [44] [45] [46] [47] [48]

place in the UK, the legal basis for the processing is based on Article 6, paragraph 1(e) of the GDPR (*"processing is necessary for the performance of a task carried out in the public interest…"*). All other iRead partners collect Users' personal data only under their explicit

(Source: iRead privacy policy)

If they are processing basis of 6(1)(e) 'public task' there is no mention online, of how a setting should explain the Right to Object[314] to the UCL / project consortium data processing, which applies if Early Years settings use this app. Parents must be told that as a result of use, their child is part of a research trial, and must be offered a Right to Object under Article 21, if processing on the basis of 6(1)(e).

It's not necessary for this processing as part of an Early Years setting's public task to take part in trials, so one would expect it could only be processing children's data on the basis of informed and freely given consent 6(1)(a). And that would need to be explicit and not bundled together, for each part of the processing i.e. using the app at the setting, the research by the UCL, or by partners.

> *"If consent is bundled up as a non-negotiable part of terms and conditions it is presumed not to have been freely given." (EDPB Guidelines, 2020)*

Can the parent/child agree to use the app if the Early Years setting wants them to, but decline to participate in the research trial? It appears not.

> *"Objecting to the processing would make NAVIGO non-functional. During registration the user (i.e. via the child's parent) agrees to that processing. In addition, they have the right to delete their account and data."*

The Navigo game was being trialled in schools in the UK, Sweden, Germany, Spain, Romania and Greece. The trials aim to identify how the Navigo app is used by teachers in whole classes and small groups. Feedback from these trials will be used to recommend further enhancements.

Personal data is transferred by default indefinitely to UCL researchers, with anonymisation after 4 years, and may be transferred to the European Office of Horizon 2020 project, according to the privacy policy.

Since the trials aim to identify how the Navigo app is 'used by teachers in whole classes' it suggests that consent may not be valid, if in fact the expectation is that no one declines to use it. You cannot use the app and not be part of the trial. Will children whose families decline to use it in a class be at some detriment and worry that their child will be treated differently from others? The usual problems apply to this question of freely given and informed consent, as outlined elsewhere that freely given consent will also be more difficult to obtain in the context of a relationship where there is an imbalance of power – particularly for public authorities.

Certainly one might wonder if the DfE launch should have presented this app differently; making explicitly clear it was a research trial, rather than as a ready-to-use product among its selected six.

While the Teach your Monster to Read appears by far the most competent and established app of the six, set up by the publishers Usborne, it processes data in similar ways as many children's apps do, for what in our opinion is excessive marketing and adTech purposes, using 10 Cookies (8 First Party & 2 Third Party) and 21 Third Party requests to 13 unique hosts. We set out a comparison of the cookies and tracking across these DfE Early Years accredited apps in a table in the Annex.

3.8.3 The Early Years | biometric data from entry to education

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We have not made any comprehensive study of edTech in nursery provision, partly due to the large number of private providers, and partly because we are focussed on the collection of children's data, rather than staff or parents, however an Internet search for biometric fingerprints and nursery schools will show a noticeable trend, that using biometric readers at the entrance doors appears to have become normalised.

From Edgbaston, to Harrow, Nottingham to Wolverhampton, the first ten Local Authority maintained nursery schools with under 100 children aged 2-4 on roll that we researched, all mentioned their use of CCTV outside and inside settings, as well as biometric door access among their security features.

Educators in the Early Years also commonly use cameras in the classroom to record video and audio of the children to evidence children's activities. Photos and video recordings may be uploaded and stored on a setting's hard drive which may in some cases be backed up at night by County or City Councils.

Many also use cloud-based platforms that collect biometric or special category data for reporting purposes to document a child's time spent at the care provider.

Sometimes this is marketed by supporting technology providers as a time saving tool for staff. "Many childcare professionals struggle under the increasing pressure to complete mountains of paperwork to satisfy Ofsted, but it doesn't have to be such a laborious process", says iConnect on its website.

iConnect is not only used for recording children's observations, "practitioners can carry out all of their admin tasks; from assessments and progress reports to planning and next steps, at the touch of a button on an easy to use childcare app."

iConnect generates Assessment Reports, Child Progress Reports and Cohort Trackers offers data analytics tools and staff can log observations against multiple frameworks. EYFS, SEND, COEL, ECAT, Montessori and many other development frameworks.

Other products are more focussed on setting-home communications and family interactions. For example, Seesaw collects personal data from teachers, family members, and children. This information may be entered by a teacher or the pupil or populated from the pupil's account with a third party sign-in service, such as their Google account.

There are two options on costs. If at the end of a 60-day free trial, teachers decide not to upgrade to the premium model Seesaw for Schools, they can still keep using Seesaw and its core features for free. SeeSaw Premium features include classes "moving up" to the next teacher at the end of the academic year.

Seesaw collects content that is added to a class or child's journal. This content may be photos, drawings, files, notes, hyperlinks, video and children's or adults' voice recordings.

Seesaw collects in-app messages that are sent and received in Seesaw by teachers and family members.

Blogs are not a default part of classes on Seesaw but if settings choose to use them, the Seesaw website says [315] that by default a blog is public on the Internet. That means that anyone who visits the URL will be able to access its content, including children's photos, until it is actively password protected.

There's an option for parents to be able to link and comment on a child's content. Families can view and respond to assignments using the Family app. On the Class app, they receive notifications when assignments are uploaded.

Other parents and adults in your child's class may also be able to access your child's image or work if your child is tagged in a journal entry with their child, such as when your child collaborates with other students on a group project, and vice versa.[316] Parents of children in photos alongside others, cannot directly control this themselves.

Teachers control what is shared and with whom. Teachers can choose to invite family members to see the work their child has added to Seesaw or post some items more publicly. Teachers control who can tag students on items and can choose to only tag one student per photo or piece of work.

Seesaw receives users' log data such as IP address, browser type, operating system, device information, and your mobile carrier. In addition, they may receive or collect additional information such as the referring web page, referring search terms, and pages visited. Last names, email addresses and profile photos are optional for students, but not required. If the account used is as a teacher, parent, or administrator, Seesaw may use your IP address to determine your approximate location for the purposes of sending you customized marketing and other information about our products. Such adult users can opt-out of marketing communications from Seesaw.

Children's data is not used for marketing but may include processing for product development.

To help the company analyze the personal data they process, they use a number of third-party services with a wide range of third-party policies.[317] It is impossible to truly understand where a child or parent's personal data goes from there. 'Launch Darkly'[318] requires opt out not opt in, of receiving third party targeted advertising for example. And on whether it is GDPR compliant it says, "GDPR isn't just a line in the sand, but a continual journey—LaunchDarkly is committed to adapting to the changing landscape of privacy and renewing its practices as the landscape evolves."

To use some of Seesaw's tools, like the video upload tool, you must allow third-party cookies and site data in your browser settings. This consent process is not valid because it is bundled with use.

Educational settings that use Seesaw for Schools (a paid service) have the option to store all data associated with their school in the EU, UK, Canada, or Australia. Seesaw offers a Data Processing Agreement with Standard Contractual Clauses to all schools in the UK or EU to help them comply with GDPR if their data is stored in the US.

A spokesperson for Seesaw confirmed that their, "data processing agreement allows schools to certify that they have either collected consent or have a legitimate interest in performing a public task that permits the school to collect data and transfer it to Seesaw to process to provide the services to facilitate that public task."

The problem here is that a public task is not 'transferable' in that sense. Seesaw needs its own basis in law for all aspects of its data processing where it goes beyond that which is necessary for the school's narrow purposes, and for example processing that involves sub-processors, who also need to meet the condition for processing each child's voice data and other personal data. And public task doesn't reach to the development of "new features for our products."[319]

Currently, "the Seesaw Terms of Service require that schools get parental consent before using Seesaw with students."[320]

Educational settings cannot therefore impose this app on families, or use it lawfully without it. Yet it is a quandary. Since schools operating as a public authority will find a valid consent basis difficult to apply lawfully for required data collections in educational settings.[321] In our opinion, apps like this are processing data in ways incompatible with data protection law in educational settings in England.

3.8.4 A school-day-in-the-datafied-life of a typical state school pupil

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We use this day-in-the-life to begin a better understanding of the variety of types of activity that results in data processing about children in secondary school today, and it is far from exhaustive.

Few schools seem to do as good a job as John Taylor Multi Academy Trust (JTMAT) in Staffordshire, explaining all its third party processing on one webpage.[322] The JTMAT (a school trust) shares information with partners, trusted organizations, vendors and other affiliated organisations to process data on the school's behalf. It lists them including links to what data is shared and the services they provide for JTMAT as well as links to their privacy policies.

From cashless payment providers to apps and platforms, the school photographer, and exam boards it lists over 85 third-parties and sensibly says that although this is an extensive list it is not exhaustive. A range of additional third parties may include

- Officers of the Multi Academy Trust
- The Department for Education (DfE)
- National College of Teaching and Leadership (NCTL)
- County Councils
- Examination boards
- The Education and Skills Funding Agency (ESFA)
- Police & Anti-Terror organisations
- Social Services
- NHS including school nurse service
- Support services such (Catch22, Dove, T3, Pathways, Harvey Girls)
- Work experience providers
- Residential trip organisers (and insurers)
- Schools and colleges that students attend after leaving the school

3.8.4.1 Fig 2. An illustrated day in the life of a datafied child | common school activities

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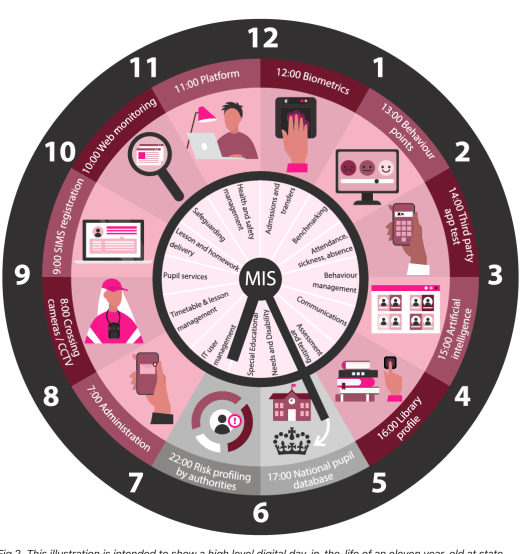

Fig 2. This illustration is intended to show a high level digital day-in-the-life of an eleven year-old at state secondary school. The common core administrative functions in educational settings that are supported by the Management Information System, the digital centre of a school records system. The outer ring are the activities in which children's data most commonly leave the school and are processed or controlled by third-parties for daily interactions. It also includes the processing of hours that children do not see: data transfers to Local Authorities and the Department for Education as part of regional decisions on risk scoring and predictive analytics programs, or for the national census termly for the school census and annually for some others. These functions may entail processing of a child's personal data by dozens of companies in one day, every day, across their entire education.

3.8.4.2 07:00 Case study | Home schools communications | SchoolsComm

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Schoolcomms has been part of the ParentPay group of companies since 2017, and provides a gateway into a wide range of products from cashless catering, to club management and parent evening bookings carried out by an additional third party.[323]

Schools can send out messages to parent groups at no charge. Parents receive these messages in the app. Any parents not using the app will still get a regular text message, so it remains inclusive of parents not using smartphones.

School staff can access Schoolcomms directly in Capita SIMS but the company says normally it is instead carried out by a dedicated client or via web-service.

On its website it calls itself "a sophisticated parent app, integrating our features for messaging, reporting, club management and cashless payments, so that parents can engage from any place at any time. The solution is now trusted by over 3,000 schools across the UK."

They use a range of service providers to perform various processing activities. Types of sub Processors and data processed are listed in the company privacy notice.[324]

ParentPay reserves the right to place promotional content within ParentPay group products e.g. banners within the ParentPay application or website, but as this app is designed for parents it does not target advertising at children.

Schoolcomms does not have a dedicated support channel for parents, and asks that parents raise their query such as to opt out of marketing with the school who can then contact the school support team.

They use "a range of trusted service providers to help deliver our services. All of our suppliers are subject to appropriate safeguards, operating in accordance with our specific instructions and limitations, and in full compliance with Data Protection Law."

These service providers include:

- Payment Processors – to process your bank transfer and card payments (Schoolcomms says they do not see, or store payment card details)
- SMS Providers – to send out SMS notifications or messages sent by Customers using Schoolcomms Products and Services (AQL and Essendex)
- Email Providers – to send out email notifications or messages sent by Customers using Schoolcomms Products and Services (Sendgrid)
- Hosting Providers – to manage secure enterprise datacentres
- Security Providers – to protect systems from attack
- Telephony Providers – to record calls for training, quality and security purposes
- Support Portal (ZenDesk) – help services
- Wonde (Data Integrator) – integration with schools systems
- Feedback Platforms (Optional) – working with SurveyMonkey

As a parent who contacted us concerned about using the site said, "I expect most if not all the places the data ends up are legitimate and necessary (backup sites, etc), but it's the question of what we are told at the point of signing up to these services. Of course, each of those 15 in addition to ParentPay are likely to have their own terms, which may involve sharing - we have no idea about those, and finding out would be quite a task."

3.8.4.3 08:00 Case study | Cameras outside and in | Onvu Lessonvu

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In 2018, Schools Week reported that a university technical college in Birmingham was the first school in the country to install always-on, 360-degree cameras in all of its 28 classrooms. Aston University Engineering Academy, which caters to just over 600 14- to 19-year-olds, officially launched the equipment at an event at the UTC.[325]

ONVU'sLessonvu[326] is described as a "non-intrusive classroom video lesson observation system that is controlled by teachers. Its unique technology allows for the complete recording of 360-degree video and audio, giving a comprehensive view of the entire lesson."

As Lessonvu is set to be always on, every aspect of a lesson will be recorded. Lessons are captured using a high definition 360-degree fisheye camera and via high definition microphone. The recording is then converted using ONVU's proprietary software into a more traditional view. By default all recorded material is stored locally on the school's network, and schools can opt to store video clips to the cloud if required while controlling permissions.

In September 2020 the company reported that in lockdown teachers have been sharing footage from their lessons in internal CPD sessions in order to continue to provide quality effective support and development within COVID-19 restrictions. During an action based research project in 2019 experienced teachers in India securely shared short video clips from their lessons, following their agreed school policies, with an external coach in the UK.

Lessonvu's FAQ states, "Most schools will already have parental approval to photograph students but a school should review its policy on video use. Approval from parents may be required."

In our opinion, because this processing may be of biometric data, the law requires a different approach from static photographs. As such processing this personal data from anyone,—children, staff and visitors on film and including their voice data—falls under not only data protection and privacy laws, but the Protection of Freedoms Act 21012 and Chapter 2(26) 'the requirement to notify and obtain consent before processing biometric information'. That requires active, explicit consent and if either the child or either parent objects, processing must not go ahead.

(3)The relevant authority must ensure that a child's biometric information is not processed unless—

(a) at least one parent of the child consents to the information being processed, and

(b) no parent of the child has withdrawn his or her consent, or otherwise objected, to the information being processed.

(5)But if, at any time, the child—

1. refuses to participate in, or continue to participate in, anything that involves the processing of the child's biometric information, or
2. otherwise objects to the processing of that information, the relevant authority must ensure that the information is not processed, irrespective of any consent given by a parent of the child under subsection (3).

While ONVU may suggest that 'their child is not the subject of the observation' they are the data subject of the data processing. The Data Protection Impact Assessments we have seen, fail to address this[327] and schools fail to ask for consent[328] or even offer any right to object which would be required under the basis that they have [wrongly in our opinion] chosen, processing on the basis of ' public task'.[329] And the DPIA fail to address the additional conditions for such data processing needed in Article 9 of the GDPR.

Given the power imbalance in a school setting, we would expect regardless of the basis chosen, for this processing not to be lawful, in line with the GDPR in Sweden in August 2019.[330] Under Article 6.1 (e) of the General Data Protection Regulation, processing will be lawful if it is necessary in order to perform a task in the public interest or as part of the controller's exercising of public authority. But in our opinion, and certainly since other schools perform the public task of teacher improvement without resorting to always-on cameras, this processing would fail to meet a high bar for sensitive data under the necessity test.

Furthermore, personal data that is processed must be adequate, relevant and limited to what is necessary in relation to the purposes for which they are processed (data minimisation) whereas these cameras can be on all the time so collect excessive data. It follows from recital 39 that personal data from children may only be processed if the purpose of the processing cannot be achieved in a satisfactory manner using other methods.

3.8.4.4 09:00 Case study | School Management Information Systems (MIS)

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When children's attendance is registered by staff this is recorded in the the school's choice of

Management information systems. (see The central pupil record record infrastructure). Each child will have a unique record with a unique pupil number in the system and it forms the core of the school's storage of information for each pupil. Throughout the course of a day, other data may be linked into the core record, such as behavioural data. Third-party systems all work differently and schools can make decisions about what is or is not recorded in the core MIS record. The child's data may be extracted in order to create a record with third-party apps in the course of a day, some of which children or parents may see. What they more rarely see is the data that then gets used to function as business information in helping run the school.

Data analytics tools will often combine with Microsoft technology in PS Financials for example, and connect disparate data held across multiple schools or systems in one setting. These enable linkage between facilities systems to treat them as if a single source of information; budgeting, HR, payroll and finance together with the core Management Information Systems holding pupil data.

These give the view of a school as a business, and will include pupil data processing as part of the overall business intelligence to 'calculate the true cost of individuals to your school' or analyse differences made by experienced teachers over the newly qualified for example.

3.8.4.5 10.00 Case study | Internet monitoring | eSafe

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eSafe monitors approximately one million school children plus staff across the UK (as of August 2018)[331] in approximately 2000 schools and colleges, according to the Salford based company and also exports internationally.[332]

eSafe has provided a cloud based solution to the primary, secondary and further education sectors since 2009 to deliver a monitoring service of online and offline user behaviour and content. Keystrokes are scanned for character patterns to identify the words and phrases held in the Threat Library. The automated detection system identifies what is determined as potentially harmful content and retains data from video, streaming, the webcam and static files. It also monitors multi-lingual keyboard entry (what children type) and screen content from websites, documents and social media applications.

Following capture, and secure transfer to the servers, all incident data, including the screenshot, is reviewed and interpreted by eSafe's team of specialist Behaviour Analysts, who assess them for safeguarding risks.

The purpose of the Service is to provide warning markers of risk affecting the welfare and wellbeing of pupils and staff, to enable school and college leaders to meet their statutory duty of care to safeguard and protect, with a focus on neglect, abuse and other safeguarding issues. They extend across a diverse range of behaviours including: criminal activity (gang crime, child sexual exploitation, trafficking, sexual grooming), anti-social behaviour, physical abuse, FGM, radicalisation and terrorism, substance abuse, mental health issues, self-harm and suicide risk, peer on peer bullying and harassment.

The word strings, euphemisms, slang, terms and code words etc associated with the range of behaviours schools and colleges have a statutory duty to identify, totals tens of thousands per language variant and it is a dynamically changing environment. A localised euphemism or slang term for suicide can disappear and be replaced in relatively short period of time. The critical factor, eSafe told us, is to ensure accuracy rather than volume, but the range of behaviours dictates that the Threat Library is measured in hundreds of thousands.

Detection algorithms are continuously optimised. eSafe claims to have an"unrivalled knowledge bank, from which we are able to take unique advantage of machine learning (ML) and artificial intelligence (AI) techniques."[333]

The following data is captured where the Service identifies a potential safeguarding incident:

- The user login ID
- The date and time stamp an incident occurs
- The ID of the device that the user was logged into at the point the incident occurred (and serial numbers of various components within the device)
- A screenshot of the user's screen at the moment the incident occurred

When a device is used to access the school G-Suite environment, a school owned or personal device, it may be physically outside the school or college site, but is monitored regardless of the user's physical location i.e. sitting at home, because the application sits inside the G-Suite environment, and activity is monitored until the user disconnects from G-Suite.

The location of the user at the time they are using the school or college owned device, or accessing the school/college G-Suite environment, is not known to eSafe says the company.

"We can speculate that a school device which is viewing pornography at 2am is not in school but we cannot be certain, and knowing the location of the user is not part of our safeguarding brief."

Following the Behaviour Analyst's review, interpretation, and assessment of an incident capture, any identified safeguarding concern requiring intervention is reported to nominated contacts at the school/college. The report is escalated either via direct integration with the school/college safeguarding records systems (CPOMS); email, containing an encrypted report; or direct telephone call, supported by an encrypted report, depending on the severity of the risk that has been identified.

This public case study is published in full in eSafe's online marketing materials[334]. We are concerned it may risk exposing information that would cause distress to the individual or those known to her (or readers) so redacted the college name, incident, and full name of the school staff member:

> *"X Sixth Form College has relied on eSafe to protect users for the last 6 years. Mental Health & Deputy Safeguarding Officer X can still recall one of the first serious incidents the service detected. A female student had been writing an emotionally charged letter to her Mum using Microsoft Word, in which she revealed XXXXXXX. Despite the device used being offline, eSafe picked this up and alerted John and his care team who were able to quickly intervene."*

We invited the CEO of e-Safe Systems Limited to take this case study out of his public marketing materials on data privacy and ethical grounds in May 2020. He declined.

Mark Donkersley, told the House of Lords 2016 Communication Committee enquiry on the Children and the Internet[335]

> *"Bearing in mind we are doing this throughout the year, the behaviours we detect are not confined to the school bell starting in the morning and ringing in the afternoon, clearly; it is 24/7 and it is every day of the year. Lots of our incidents are escalated through activity on evenings, weekends and school holidays."*

Although the over 400 school Acceptable Use Policies we have viewed, may mention monitoring applied to the use of a school or college digital environment we are yet to see any that adequately explain that this includes offline documents and out of school hours and the implications. Some only state a single line 'I understand my use of the Internet may be monitored.' The templates at South West Grid For Learning (SWGFL) and Safer Internet Centre do not mention monitoring while a child is at home for example, which is important if one considers remote learning in the context of the current COVID-19 pandemic.

Case studies and anecdotal evidence from school staff and IT network staff that have approached us with questions or concerns, suggest that it has become routinely accepted that there is a high error rate in some products that create automated alerts about individuals.

eSafe's own website says of alternative and software-based solutions, "The problem with software-based monitoring solutions is that the data they report often contains a significant volume of 'false positives', which means the underlying incident baseline can never be a true or accurate representation of the actual situation."[336]

Errors are particularly problematic when schools pass on data onto other people and other systems.

The CEO explained to us that "a high error rate is the case with competing products", but not with eSafe.

"The markers we seek are dynamically updated - on a regular basis by eSafe staff - to take into account developments and trends in the way, for example, risks may be articulated. This includes input from specialist organisations and agencies involved in the welfare of young people, such as mental health, law enforcement, abuse, gangs, youth gambling etc. Our value would be eroded and our business would not survive if we generated high numbers of incidents reports to schools and colleges that proved false or worthless."

Nearly every family indicated in our commissioned Survation 2018 poll[337] of 1,004 parents that they believe children and guardians should be informed how such monitoring works.

Children want to understand how their data are processed and restore power imbalances, outlined for example in, The Internet on our own Terms: how children and young people deliberated about their digital rights (Coleman, S. et al, 2017)

We believe that it is hard for a child to understand how these algorithms work. If a child uses a search term or text or pictures on screen, that the system has decided warrants action by the company, at what point is the child told?

eSafe only passes safeguarding incident information to school contacts nominated by the school headteacher e.g. Designated Safeguarding Lead, as per the Service Overview.

Our concerns include that information might be passed on to the school or by school staff to others, which is misinterpreted. For example, who was actually using the device at the time of the incident. These outcomes may have very serious and significant consequences for a child.

We are concerned that the multi-lingual aspects of all such monitoring systems, that is not specific only to eSafe, and the nature of the topic areas of activity and language that the system has been programmed to deem significant, may build-in cultural discrimination and bias that is not apparent to the staff in schools or children it affects. Since we are not able to see the lists of content that trigger 'actions' or 'flags' from any of the suppliers we cannot however make a judgement here and it would be a good area for Independent and academic research.

The CEO believes we are wrong. He explained to us that monitoring for safeguarding risk is a specialist function requiring objective review and the interpretation of risk markers, many of which are not obvious, or may be in a foreign language reflecting cultural nuances, requires specialist analysis. Schools and colleges neither possess the time nor the specialist resources to conduct such analysis. "We employ behaviour specialists from varied cultural backgrounds and with specific language skills to ensure that the markers we employ accurately identify the safeguarding risk our school and college customers need to be aware of. To suggest cultural discrimination or bias is employed by eSafe is wholly incorrect."

The risks created by the practices in reality behind some of these policies however have been ignored from a child rights perspective and gone without debate while the blanket-term of safeguarding is hard to be seen to address critically, as Sandra Leaton Gray and Andy Phippen set out in their book Invisibly Blighted (UCL IOE Press, 2017).

We would like to see all of the companies that operate in this field to have a duty of transparency, to publish error rates and how errors are defined, the keywords that would trigger action from a past year for example, the full sources of input, and for companies to offer a standard subject access report template that would enable a school to print annually, and on demand, the information created about a child from monitoring. This would also need to ensure that any shorter data retention periods still have adequate audit functions to be able to meet requests.

In our opinion there should also be a review of lawfulness across all of the sector suppliers, from the perspectives of human rights, privacy, and communications law.

The public should have a much better understanding of how all of this works, and as a parent it shouldn't be difficult to find this information, or for children to have fully foreseeable consequences of every one of their actions.

3.8.4.6 11:00 Case study | The big platform club | PiXL (Partners in Excellence)

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Founded by Sir John Rowling, PiXL (Partners in Excellence) emerged in 2005 from the school improvement programme, the London Challenge. When government funding for the initiative ceased, the 50 member schools at that time decided voluntarily to continue with its model of collaboration around leadership and shared resources. PiXL has since grown to become the largest network of schools in England and Wales.

PiXL is a not-for-profit partnership of over 1,700 secondary schools, 600 sixth forms, 500 primary schools, and 75 providers of alternative education. It operates PiXL Edge "a systematic framework to enable schools to develop and capture the student attitudes, attributes and skills which are so important for employment and life beyond school."

PiXL processes pupil data at the request of Member Schools. The types of student personal data processed will be dependent on the selection of applications that member schools choose to implement in their settings. Usually it will include names, login information, school email addresses. For some applications, should the Member School wish, year, class, and attainment data are processed. In some limited circumstances (classroom management apps), special categories of data may be processed such as Special Educational Needs.

The website says that "being a member of the PiXL family includes access to a wide range of resources and experienced subject specialists to help support your school." School membership fees range from primary through to secondary school with sixth form, between £2,600-6,600. PiXL Edge membership is a further one-off £500 fee plus an annual administration fee which is £100+VAT.

It delivers ,"A responsive programme, which receives guidance and strategic direction, not only from educationalists at a national level, but also from industry" and in 2014 it launched its character development programme, The Edge and the Them and Us project in 2017, "driven by a deep moral purpose."

It is based on four areas of work with the LORIC framework: (Leadership, organisation, resilience, initiative, communication); Oracy, Well being, and Careers, apprenticeship and Higher Education. The programme is for students from ages 4 to 18 and they progress through 7 levels (Foundation, Contender, Champion, Apprentice, Graduate, Master).

PiXL notes 14 partners on their website, including ClassCharts, GCSE Pod, ALPS and more.

"A small element of PiXLs offer to its member schools is the provision of a number of tools to assist in student learning and providing teachers with visibility of the challenges and success for their students. The personal data for these tools is controlled by the schools and is not shared with other parties. Some anonymised aggregate data is used to help inform member schools of wider patterns and provide direction for areas of focus across member schools both in terms of PiXLs strategies and the content produced to assist its members in the education of students."

3.8.4.7 12:00 Case study | The global giant G Suite for Education[338]

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At the same time as Google has become a verb in classrooms across the country, the company products have proliferated in UK schools. Low-cost laptops called Chromebooks, have become commonplace in classrooms from age 2 and up, sometimes bought through parent-school lease partnerships or parent-purchase schemes and offering free classroom apps and administrator single console management log-in, which can be operated remotely and round the clock.

G Suite for Education offers two categories of Google services:

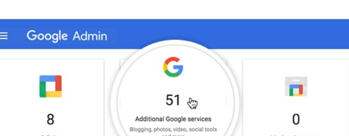
1. G Suite Core Services (like Gmail, Calendar, and Classroom) are the heart of Google's educational offering to schools.
2. Additional Services (like YouTube, Maps, and Blogger).

Additional Services were originally primarily designed for consumer users but can be used with G Suite for Education accounts if allowed for educational purposes by a school's domain administrator.

G Suite for Education administrators determine which Google services their users can access, and are required to provide or obtain consent for the use of the services by their minor users. When a school obtains appropriate consent, Additional Services that allow it, such as YouTube, Maps, and Blogger, may be used without age restrictions by G Suite for Education users.

The reality is that few schools appear to ask for consent and in any case it would be invalid due to the power imbalance and because it cannot be freely refused without detriment.

Terms may state it is expected the customer [school] will obtain parental consent for the collection and use of personal information in the Additional Services or before allowing any End Users under the age of 18 to use those services.



Reality in practice, is that at best consent is not valid and is instead manufactured as a tick-box exercise. Better school policies can contain a permissions page at the child's elementary booklet which lists the tools and services the school uses, and ask for parents to either opt-out or provide informed consent for a considered future group.

Where parents and pupils are required to sign off acceptance of all online terms and conditions set out by a school's IT provider, this is unacceptable. Even if a school has a good policy, the contract between the third party which includes a wide range of provisions in the interests of the third party, is not valid if signed by the school into disclosure in public form.

There is not a clear way for a child to understand which data are collected, processed or transferred to third parties. Google's recent amendment to the processing of its Classroom service[1] and agreement for schools to keep[2][3] and the 4 Suits for Education Privacy Notice[4][5] describes how Google Classroom, Google Apps for Education and its G Suite for Education accounts may be operated as either a for-schools Controller or Processor.

In the 2020 COVID-19 lockdown, schools that were teaching remotely used edtech tools to make themselves about a child's learning engagement. Google Classroom automatically tracks interactions including such as creating new documents, opening instruction documents, registering and using notifications, and so on. Google Classroom also tracks whether a student has or has not engaged in their own group. It is not a perfect science but it can provide a lot of information about a child's engagement.

We believe that a range of transparency interfaces about how a requirement made of companies with access to children's data, and that the GDPR's Article 12 requires that information be provided in a way that a child can access. Google could have been working when we asked to talk about its interfaces for any future business model for education for example.

In 2017 Natasha Singer wrote in the New York Times, How Google took over the Classroom[6][7]:

"In the space of just five years, Google has helped upend the sales methods companies use to place their products in classrooms. It has enlisted teachers and administrators to promote Google products among their colleagues. And it has begun to dominate the realm of educational data mining. Google's real genius was to persuade school districts, which have overburdened pupils and decimated staff, to present it as a benefactor. Google has proved that it can make free products that are so deeply integrated into students' lives and routines, like Gmail and Docs, the company said, that it'll immediately. Google seemed always that nobody could ever pry them away. Now it's doing the same to education schools. Today they're the ones that can't live without Google Classroom."

"Unlike Apple or Microsoft, which make money primarily by selling devices or software services, Google has long been known for giving away its products in exchange for access to people's personal data. That business model doesn't work in education, Google might now have gained their students' entire profiles that they shaped the company for years."[6]

While no rule are dissuaded to children using Core Services, and no Customer Data from Core Services are used for advertising purposes, Google's Privacy Notice[8] and Privacy Policy[9] do not make clear that data are processed for advertising under Google's G Suite accounts. Additional the Google Privacy Notice for G Suite for Education users is Primary/Secondary schools, Google does not use any user personal information (or any information associated with a Google Account) to target ads, whether in Core Services or other Google services. Children only will see ads, but data about web activity or individual will not be used to tailor which ads they see. The targeting uses broad location data or class of product but not personal data for this purpose.

Google's Privacy Notice for Google Data Protection Services for Apps[10] describes how Google collects and processes personal data.

And the UK state of play Education Data Lab[11] for 2020, which says that the use of Google Classroom is widespread, "schools at a very real cost to their Google account[12][13]

We have asked Google for comment and how many UK teachers it has trained as Google ambassadors and would welcome any transparency of its UK Education model and its reach.

3.8.4.8 13:00 Case study | The communication platform Class Dojo

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ClassDojo is a communication platform and app for the classroom and home. Teachers, parents and children use it to share photos, videos, and messages through the school day. They use ClassDojo to "build a happy culture in a team, share in the classroom experience, and bring big ideas to life in their classrooms and homes".

Teachers use ClassDojo to create a schedule of activities based on a points, a Dojo or a class, and to assign points for behaviour. Teachers can award points to individual students or the whole class for good behaviour and primary or videos to parents showing off a child's latest work or participation in activities.

It is one of the most well-known educational technology startups with approximately 35 million of teachers and families worldwide, and significant venture capital backing. Its investors include over 20 venture capital and angel investors, including Reach Capital, NewSchools Venture Fund, Kapor Capital, Social Capital, Advancement Courses Partners, GSV Capital and Learn Capital.[14]

The child, the parents, and the pupil's teachers' or school leaders can see the child's profile and student work. Parents can see their child's Class Stream, which is a collection of photos, videos, and messages from the child's teacher. Parents can also see messages from their child's teacher, and can communicate with ClassDojo or the child's teacher separately for ClassDojo that they have observed any 'necessary parental consent' for the collection, use or disclosure of the information, to the extent that such consent is required and approved the pupil's parental consent. The company website states that "1.2 COPPA Safe Harbor. We learned about Growth Mindset and Empathy with ClassDojo!"

The company is certified under the EU-US Privacy Shield Framework (PSF) and the expansion of ClassDojo has been rapid in the US and internationally.

On its business model Lim Don, ClassDojo co-founder and chief technology officer set out in an interview to Inc. in 2018, the Class Dojo plans to make money after its freemium is distributed to children through schools. "We're not interested in selling ads, selling user data, or charging schools," Lim said. "Our model is educational content. With access to our many teachers and students, the startup is leveraging its distribution to create educational content that can be sold to companies that want to reach parents and children."[15]

It's a huge distribution platform to reach parents," Lim said. "But we're, in the long term, enable parents to be consumers to the kid's education."

It is a "freemium" model, in which users are given the basic tools to use the service.

There is also a separate paid offering that has no impact on the free user experience, including the ability to stay connected with school. And, it keeps the school-based expenses free for all teachers, Lim said. Premium services include ClassDojo Plus, which offers parents access to a library of premium lessons from educational partners, like Sesame Workshop and Learning Without Tears.[15]

From a data perspective, children's personal data is processed in the US. This is a lesser risk factor for processors of UK children's personal data, and particularly where a company has self-certified under the Privacy Shield the Installation of Privacy Shield, many businesses are working more outward to collected under GDPR. Under the Privacy Shield, ClassDojo is required to provide parents with access to the personal data that it processes and the mechanism of Commission and the mechanism of compliance. In the meantime, ClassDojo continues to operate in full compliance with GDPR. This includes drafting standard contractual clauses for their users, as well as for schools and districts that require them to enter into a data processing addendum. The company also offers various mechanisms for international transfers, including consent.

ClassDojo's Privacy Policy[16] explains that ClassDojo uses Google Analytics and other third-party tracking services which use cookies or other tools to collect information about your use of ClassDojo and other sites and services. ClassDojo may also use these third-party tools to send you ads on other sites and services. Any information collected by third-party tools is subject to their own privacy policies.

Current[17][18] ClassDojo's acceptable lawful basis for data processing, it looks like a clear indication of agreement between a public body and the individual, so consent cannot be considered freely given if it is detrimental to the individual if they refuse consent or withdraw consent previously given.[19]

As Class Dojo founder, Sam says, however as long as it "submits everything to the school" and doesn't advertise to schools. This is mostly true because site also shares platforms schools purchase and then reuses said that families have used, by March 2020, ClassDojo is entirely ordering for use.

Where parents choose not to join ClassDojo, schools can simply connect with parents through other means, including by email, text message, phone call, or in person. Parents who do not join Class Dojo do not receive school updates. All of these mechanisms are less convenient than ClassDojo, and so parents who do not join ClassDojo may be less connected to their child's community in communication and school.

3.8.4.9 13:00 Case study | Ads, breach and buy out | Edmodo

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Edmodo was founded in 2008 by Nic Borg and Jeff O'Hara, who met while working at Facebook. Edmodo is a free learning management service and an ed-tech platform for the classroom.

Edmodo's business model is to offer free services to schools and districts and to generate revenue from premium services, online content and ads. Edmodo's ads are served to users on both the desktop and mobile versions of the platform. Edmodo's ads are targeted based on the user's profile information, such as their age, gender, and location, and their activity on the platform.

Edmodo has 78 million users in 192 countries, and is used by 90% of K-12 school districts in the US.[20] In 2017 Edmodo faced a security breach of personal data of 77 million[21] unique users, more than 2 million of the UK, at home 500,000 schools worldwide.

In August 2019 Edmodo suffered a hacked company based in Turkey. China Dan bought Edmodo for a reported $123 in a deal.[22]

Edmodo's new partnership with IBM Watson Education in 2018 that we wondered if we'll see UK families whose children use the app will choose to opt-out of Edmodo's new AI-powered features, such as personalizing, of the lessons and partnership.

In August 2020 eMediaReports added IBM's Chief Privacy Officer for an update on the Edmodo partnership and the ethical monitoring of children's data in its collaboration.[23] Edmodo's partnership with IBM Watson Education Learning Lab[24] and the Watson Education Learning Lab[25] and the Watson Education Learning Lab[26].

Edmodo may display ads today for its own products and services on their Platform. Outside of this, their Privacy Policy[27] says that they do not share personal data with third parties. They do not share personal data with third parties, unless written parental consent will Edmodo when third party will be one under 13 years old. Edmodo may share the Personal Information of those 13 years or over with our advertising partners. Edmodo does not share Personal Information with any third party for that third party's own direct marketing purposes.

3.8.4.10 15:00 Case study | Product AI claims | Classcharts Edukey

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Classcharts is described as a school introduction of ClassCharts in 2018 brought their concerns to us. They have also written to the Information Commissioner's Office.

The data sharing agreement we have seen set out a list of the child's personal data transferred in the initial account set-up and then ongoing use concerned not only about what was passed on but also a list of behavioural data after the initial set-up – the Real-time Dream system, behavioural comments, and the use of Artificial Intelligence.

In 2020 the company received embarrassing attention from its website[28] that its terms of AI intelligence was for a shape-selling point. That website and marketing[29][30] had previously stated that ClassCharts used AI to assess data.

The Edthemba management is driven by Artificial Intelligence. Everyone needs a unique safety point and ours is that we are the only people who can accurately identify how pupils influence each other in the classroom. Our AI algorithms are combined with real time use of engine and behavioural data to offer personalised learning & behaviour.

"Our Artificial Intelligence Engine learns about how pupils influence each other in the classroom and working peers can be optimised for learning" – Edthemba[31]

The AI engine also suggested seating plans optimised for learning – 'physarring or clustering pupils for ability to use the teacher's approach to differentiation.'

Profiling is integral to the product to determine 'normal behaviour for each pupil', including the 'Artificial Intelligence engine, and identify the likelihood of a pupil exhibiting negative behaviour.

We contacted the company to ask for clarification and they responded with the letter that we include in full.

Statement on the Data Protection Position on Edukey's Class Charts

Edthemba Limited, the Developers/processors of Edukey's products/software, which are also known as Class Charts, Class Charts Premium, Class Charts Premium Plus, Class Charts Premium Plus Pro, Class Charts Premium Plus Pro Plus, Class Charts Premium Plus Pro Plus Plus and Class Charts Premium Plus Pro Plus Plus Plus.

Edthemba Limited, the Developers/processors of Edukey's products/software, which are also known as Class Charts, Class Charts Premium, Class Charts Premium Plus, Class Charts Premium Plus Pro, Class Charts Premium Plus Pro Plus, Class Charts Premium Plus Pro Plus Plus and Class Charts Premium Plus Pro Plus Plus Plus.

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3.8.4.11 16:00 Case study | The reading monitor | Accelerated Reader

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Accelerated Reader is widely used in UK schools, through its reading incentive Renaissance Learning's "Founded over 30 years ago in the USA, Renaissance has become a leader in pre-K–12, serving 20 million students in more than 90 countries worldwide."[32]

And it's got a lot of data about school children.

"Throughout the past three decades, we've answered more than 2.5 billion real-world data points that offer clues as exactly how students build skills and achieve mastery in core subjects. These data points help educators and parents understand what students know, what they're ready to learn next, and how to help students—data so continually refine and improve our solutions."[33]

After investment in 2014[34][35] from Capitalist, Diversity Growth Capital Partners who own part of alphabet Inc, Renaissance was bought by Cayman Island registered Private Equity firm Francisco Partners.[36][37]

Accelerated Reader[38] is a computer software program that helps teachers and librarians manage and monitor students' independent reading practice. Students read books at their own level and take short, low-stakes quizzes on the books they've read. Accelerated Reader then generates reports that show student progress. Accelerated Reader is based on the theory that students learn to read by reading, and that they will read more and learn more when they're reading books that are at their own level and interest them.

Accelerated Reader was developed by Judi Paul, a teacher in Wisconsin, in the 1980s. It was originally a paper-based system, but it was later converted to a computer-based system. Accelerated Reader is now used in thousands of schools around the world.

Accelerated Reader has been criticized for its emphasis on extrinsic motivation, its narrow focus on reading comprehension, and its potential to discourage students from reading for pleasure. Some critics argue that Accelerated Reader can turn reading into a chore, rather than a source of enjoyment and learning.

Despite these criticisms, Accelerated Reader remains a popular tool for many schools. It is often used in conjunction with other reading programs and strategies.

Here are some of the pros and cons of Accelerated Reader:

Pros:

- Accelerated Reader can help students improve their reading skills.
- It can motivate students to read more.
- It can provide teachers with valuable data about their students' reading progress.

Cons:

- Accelerated Reader can be expensive.
- It can be time-consuming to implement and manage.
- It can be criticized for its emphasis on extrinsic motivation and its narrow focus on reading comprehension.

Ultimately, the decision of whether or not to use Accelerated Reader is up to each individual school. Schools should carefully consider the pros and cons of the program before making a decision.

In the words of its developing Paths in 2016, "its formula could possibly identify all the variables involved in reaching the right books with the right students."[39]

In an updated 2020 Renaissance released a list of books to AR researchers, including a "dual-ID" reference that can internal Renaissance purposes only a date of text, includes age and text, and the book number. In all, around 160,000 data points were provided for the period September 2019 through mid March 2020.

It is an opinion and corresponding and distribution was not backed. The company's website[40] says that it accesses the children's personal data in this way to make it statistical data by passing it on, so that makes it anonymous. Renaissance's Privacy Policy[41] says that it does not share personal data with third parties, but it does record the processed for these purposes or offer them any choice about it.

The privacy notice for Europe updated on August 31, 2020 confirms that the company may store Personal Data in or access it from jurisdictions providing varying levels of protection or recognition of the rights of data subjects, including the United States. Renaissance's Privacy Policy[42] says that it does not share personal data with third parties, National Literacy Trust, a charities working under their authority to support alignment studies and educational research projects.

The questions we've asked ourselves as parents is what scope is there for the algorithm to create a personalised reading plan for a child? Is there any room for serendipity in the system? Is there room for a child to choose a book that they like, but which is not at their level? Is there room for a child to read a book that is not on the list? Is there room for a child to read a book that is not approved by their parents? Is there room for a child to read a book that is not approved by their teachers? Is there room for a child to read a book that is not approved by their librarians?

Renaissance Learning was awarded a DfE contract in September 2020 for Understand Progress During the COVID-19 Pandemic.[43]

A company spokesman said: "Renaissance has not and does not 'monetise' or sell access to pupil data. Data privacy informs all of the decisions we make at Renaissance and is why we recently launched Privacy Hub[44][45] to enhance our privacy practices are transparent and accessible."

3.8.4.12 17:00 Case study | Reuse for research | Times Tables Rockstars

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Ian Pearson founded the code-cracker as a result of the child produced at school. In 2020 I made it Subject: Access Reuse to find out what data they processed, asked to receive a copy of the data, and to delete the data. The company's response was as follows:

Times Tables Rockstars, owned by Maths-Circle, describes itself as a website and app for children to learn their times tables practice. Maths-Circle also owns Numbots.

Flash cards concentrates on a different times table, with a recommended consolidation week for rehearsing the tables that have recently been practised every third week or so. This format has very successfully encouraged children to practise frequently and regularly, and to master their times tables. It is also a very simple – but primary and necessary – worksheet.

In 2020 my research found that the company has shared data with the University of Cambridge in psychological who are carrying out studies into the learning of times tables. I was surprised to learn both that the company had shared data and that it had collected data in this way.

In psychological University spokesperson told me, "We are satisfied that Maths-Circle put in place appropriate technical and organisational measures to keep the data secure, in accordance with the University as part of its GDPR. Indeed study, the data shared with the University was limited to only that which was necessary to achieve the research purposes. The data was pseudonymised, meaning that it was not possible to identify the children, either directly or indirectly."

Although I later read that the company retains states we may share your data with, "Government education bodies and regulators, our professional advisers and service providers". The company's Privacy Policy[46] also says that they may share the pseudonymised or statistical reports and data with research or aggregated in de-personalised data," I had not known this prior to doing the research to make a Subject Access Request.

The company's spokesman said, "We use Actimize to de-personalise any data we share with third parties, for example for research purposes. This process removes any personally identifiable information, such as a child's name, date of birth or address, and replaces it with a unique number. This means that we can provide third parties with data that is completely anonymised, so that they cannot identify any children from the data, thus applying the appropriate protections at personal data. We also ensure that any third parties that we share data with are subject to strict contractual terms limiting any personal data, (if it is shared at all), to what is necessary to perform their services on our behalf. We do not sell your data to anyone, and at no point do we allow any third party, including an individual child, to re-engage with them directly using the data that we supply to them. These points have all been confirmed by the University's independent data protection specialist."

Leaving aside questions over the degree of depersonalisation versus anonymous data, we disagree.

By going beyond the minimum of schools and teachers to communicate with parents with the University personal data for the purposes of broader to researchers, Maths-Circle determined the "purposes and means" of processing personal data and is therefore a data controller under the GDPR. We do not believe that took the decision to share. As such, they need a legal basis for the processing they have carried out to this. personalise the data (which appears to be absent in this case because the schools have not given them the right to share the data with the University). Maths-Circle should have obtained consent from the parents for the transmission and for the processing. Working Actimize.

A spokesperson for Maths-Circle clarified an important question we had, that the company received any "Special Category" data, such as ethnicity, as defined by the GDPR's psychological University. This is a brief statement from the University's dealings:

"It is our understanding that we can be both a data processor and also a data controller of the same personal data, depending on the circumstances. In relation to the personal data we share with the University, we are the data controller. We have entered into a contract with the University which governs how they can use the data we share with them. We are relying on legitimate interest as our lawful basis, having carried out the necessary legitimate interest assessment to ensure that we have a lawful basis to share the data with the University. We have also informed all of this to us and to all our Privacy Notice which schools communicate to you as the parent or teacher."

The data shared with the CAM at Loughborough University is limited to a selection of multiplication and division questions answered by children in school. The selection of the answers is not considered to be personal data, as it is not possible to identify individuals from this information. The University does not receive any information about children's names, dates of birth, addresses or other information about the pupil's identity.

"We de-personalised data does not directly or indirectly identify an individual child and so has been can be processed by the University. In the GDPR, research is set out in Recital 159 and Article 89(1). Article 89(1) states that the processing must be subject to safeguards, in accordance with the GDPR, ensuring that technical and organisational measures are in place to ensure respect for the principle of data minimisation. We are comfortable that the University has put in place appropriate safeguards to protect the data."

The core processing activity for which Math Circle is Controller is the processing to de-identify data for the purpose of onward research. That needs a lawful basis, disclosure, and subject rights.

We carefully welcome Maths-Circle's unbalanced assumption on this, and to discuss going forwards how the Subject Access Request may be resolved for children and parents.

3.8.4.13 18:00 Case study: Advertising | Read Theory

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Read Theory is a U.S. based app, owned by Pymetrix a private equity firm based in Israel, that offers reading comprehension exercises for students. The app is free to use, but it does contain ads. It is also used by students' Reading Comprehension. It's free" It also claims to be adaptive and appears to use some sort of machine learning. The solution automatically recognizes the student's reading level and teaches them with appropriate difficulty materials.

A parent submitted a data log with its screenshot underneath.

"My son agent to a setup was that timed, was recommended by the school, but seems like windows seems for literacy keep popping up and he cannot stop himself from watching them. He seems to spend more time watching the adverts than he does on the work."

On its privacy policy,[47] Read Theory says that it does not use specific advertising for under 13s.

"When we Website includes third-party advertising, Read Theory ensures that any such third-party advertising complies with applicable laws and regulations. Read Theory may use information about your interest speed and time by Keyboard only for those users who have been randomly flagged as being over the age of 13.

It says as it claims in the privacy policy, not serve "targeted advertising" that it does not use a particular child's tracked behaviours, to target ads and to interact in an online environment. As a result, it actively shows third parties of adverts and children or its contents policy is not consent based.

Cookies are also used to help ensure that the advertisements you see, if any, are relevant to you and your interests. Read Theory may also use third-party cookies to help track and improve the performance of our cookies by following the instructions of your device preferences, however, if you choose to disable cookies, you may still use our Website though your access to some functionality and areas of our Website may be inconsistent. Read Theory does not have access to or control over these third-party cookies or their advertising partners. Such cookies may be used to serve you personalized advertisements. Website such cookies may be used to serve you personalized advertisements. Website such cookies may be used to serve you personalized advertisements. Website such cookies may be used to serve you personalized advertisements.

Read Theory uses cookies to collect information in connection with content on the services like to collect information about your browsing activities over time and across different websites following your use of the Website.

Read Theory does not respond to Do Not Track signals.

In terms of disclosure, "We may transfer or disclose Pii to our affiliated companies, subsidiaries and to other trusted third party service providers or partners who may be located in different jurisdictions across the world.

We may disclose your Personal Information in any circumstance we're authorized to do so with the consent of the individual to whom it pertains to.

A third parties in our business's transaction with providing services we may offer you (including advertising partners, business consultants, or professional advisors), of subject to confidentiality undertakings to visit third parties in accordance with this Privacy Policy.

At the time of writing, we have requested from Read Theory any information they have about our child's personal data, and we have asked for it to be deleted. We have not received a response to either request.

3.8.4.14 19:00 Case study | The contract question | Show My Homework (Team Satchel)

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Show My Homework (Team Satchel) is a service used in 7 to 9 secondary schools in the UK and in 12 countries across the world, making a difference to the lives of millions of students and parents.

Show My Homework (Team Satchel) Performance's privacy policy, online in September 2020, suggests a misunderstanding of UK Data Protection law that allows a business to claim that it is not a controller and that having a contract in place with a child processor that claims its terms of data processing for having a legal basis. The company's privacy policy says that it is not a controller of personal data, but that it is a processor that has no control over the data it collects, or why it collects it. The company's privacy policy says that it is a processor that has no control over the data it collects, or why it collects it.

"Our legal basis for processing your data is consent. Consent may be withdrawn at any time."

Team Satchel's privacy policy also says that they disclose personal information to any partner of Satchelmember(s) and/or a member of the group, which means subsidiaries, holding companies and companies that are under common control with us.

In the event that we sell or buy any business or assets;

- If we become or substantially all of its assets are acquired by a third party;
- If we are under a duty to disclose or share your personal data in order to comply with any legal obligation, or in order to enforce or apply our terms of use or terms and conditions of supply or to protect the rights, property, or safety of our customers, or others.

Another UK school provided us with the screenshot that we have been asked to redact but that we have not redacted. It is a screenshot of the Show My Homework (Team Satchel) Terms of Use that the school wrote and between sites when using social media for any record to be made.

Under the UK's contract law, a contract is only valid if it is agreed to. Data provided as a gift is a is created

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Then how is affirmed legal basis for sharing the data with a third party?

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Privacy Policy

The wording you refer to in the link provided was part of our old privacy policy which should not still be publicly viewable. When we last updated the policy we changed the name of the URL from Privacy Policy to the more appropriate Privacy Notice. Regrettably, we did not remove the link to the old privacy policy after the transition and therefore it may still show up in search engine results. We have now removed that link and can confirm our privacy notice is at the following:

https://www.teamsatchel.com/legals/privacy_notice.html. If you are aware of any links within our site pointing to the old policy please let us know and we will change those ASAP. Your readers may also be interested to see, after a review of our international transfers, we have amended the Privacy Notice to reflect the recent CJEU decision in "Schrems II".

Lawful Basis for Processing

"Even though your article refers to old privacy notice content, we have reviewed our current wording and agree it could be worded better. We have now updated the privacy notice to better convey our relationship as a Data Processor working for Education Providers (the Controllers). It was not our intention to infer the lawful basis we rely upon is "performance of a contract" but that we have a contract in place with each of our Education Providers - as should be the case in any Processor-Controller relationship. We really appreciate you bringing this to our attention so we could make the wording clearer.

"Ultimately, we are a company that respects and upholds our users' data protection rights and freedoms. As I am sure you can understand, data protection law is still evolving (such as the recent Privacy Shield ruling) and so where we don't get it quite right, we will quickly work to fix the issue."

3.8.4.15 20:00 Case study | The winners' table | Mathletics

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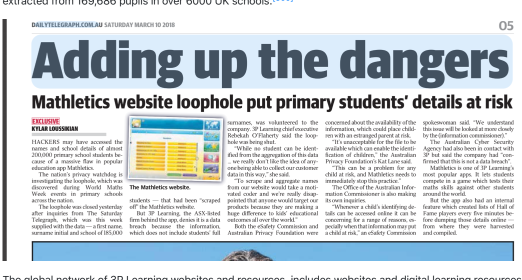
It is not uncommon for apps to publicly post 'winners' tables of user performance.

In February 2018, a researcher in Australia found that children's identifiable data were publicly available to download from the app Mathletics. The configuration of the leaderboard allowed pupil level data to be extracted from 169,686 pupils in over 6000 UK schools.[369]



DAILYTELEGRAPH.COM.AU SATURDAY MARCH 10 2018 05

Adding up the dangers

Mathletics website loophole put primary students' details at risk

EXCLUSIVE
KYLAR LOUSSIKIAN

HACKERS may have accessed the names and school details of almost 200,000 primary school students because of a massive flaw in popular education app Mathletics.

The nation's privacy watchdog is investigating the loophole, which was discovered during World Maths Week events in primary schools across the nation.

The loophole was closed yesterday after inquiries from The Saturday Telegraph, which was this week supplied with the data — a first name, surname initial and school of 185,000 students — that had been "scraped off" the Mathletics website.

But 3P Learning, the ASX-listed firm behind the app, denies it is a data breach because the information, which does not include students' full surnames, was volunteered to the company. 3P Learning chief executive Rebekah O'Flaherty said the loophole was being shut.

"While no student can be identified from the aggregation of this data ... we really don't like the idea of anyone being able to collect our customer data in this way," she said.

"To scrape and aggregate names from our website would take a motivated coder and we're really disappointed that anyone would target our products because they are making a huge difference to kids' educational outcomes all over the world."

Both the eSafety Commission and Australian Privacy Foundation were concerned about the availability of the information, which could place children with an estranged parent at risk.

"It's unacceptable for the file to be available which can enable the identification of children," the Australian Privacy Foundation's Kat Lane said.

"This can be a problem for any child at risk, and Mathletics needs to immediately stop this practice."

The Office of the Australian Information Commissioner is also making its own inquiries.

"Whenever a child's identifying details can be accessed online it can be concerning for a range of reasons, especially when that information may put a child at risk," an eSafety Commission spokeswoman said. "We understand this issue will be looked at more closely by the (information commissioner)."

The Australian Cyber Security Agency had also been in contact with 3P but said the company had "confirmed that this is not a data breach".

Mathletics is one of 3P Learning's most popular apps. It lets students compete in a game which tests their maths skills against other students around the world.

But the app also had an internal feature which created lists of Hall of Fame players every five minutes before dumping those details online — from where they were harvested and compiled.

The Mathletics website.

The global network of 3P Learning websites and resources, includes websites and digital learning resources for the Mathletics, Spellodrome,Readiwriter, Reading Eggs,Mathseeds,WordFlyers,World Maths Day and World Education Games brands, together with challenge websites for national and regional events, as well as 3P Learning Uservoice and feedback forums are owned and operated by 3P Learning Ltd and/or its subsidiaries and/or licensors.

3P Learning – Mathletics was the BETT Show 2019 International Digital Education Resource winner.[370]

The company was contacted for comment and we are grateful for their review input.

> *"As you see from our privacy policy, we do take the protection of student and teacher data very seriously, and we continually strive to adapt to changing legislation and the needs of our customers. Our approach to student data is very simple: we collect the absolute minimum amount of data required for a teacher to identify one of their students in our product. This could be as little as the student's first and last initials, although typically students like to see at least their first name when they are using our product, or when they receive a certificate of achievement.*
>
> *"In the past, our Hall of Fame feature has been in great demand, especially during events such as World Maths Day. When a student appeared in the Hall of Fame, they often wanted the whole world to know, so the Hall of Fame was published on our website. However, customer needs change, and several years ago we made the decision to only display the Hall of Fame to authenticated users of our product, and we have implemented privacy settings to allow teachers to control how and when student information is displayed.*
>
> *"We also make a strict delineation between product information and marketing information, keeping the data in different systems, and capturing communications preferences so that only teachers who have provided their consent will receive marketing communications from us. We never use students' personally identifiable information for advertising or marketing, and in fact we only ever communicate with adults - teachers or school administrators."*

3.8.4.16 21:00 Case study | Health data processing permissions | CareMonkey*

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In 2019 parents contacted us concerned about school asking them to use this app and the way that the school implemented it.

John's** parents were willing to share the details of his medical condition — asthma — with the school administrators, for in-school and school-trip safeguarding and wellbeing. They trust the school to give this information to those who need to know in school in case of necessary care. But they were not happy to use the app that the school asked parents to use to record his condition. The first they knew of the new process was an email home that contained a link for his parents to accept the account. John was 15. The school had created a parent and child record with the company already without their parental consent.

"The family declined our consent, and offered to continue with the school's existing paper-based system. This has not gone down well: we've been told there's no choice but to consent and sign up".

Personal details such as an individual's name, date of birth, nationality, family details and other information defined as "Personal Information" had been extracted from the School Information Management system and sent to the app company to set up an account for every child.

Operoo integrates as an extension to the school's management information system, with both software applications working as an integrated solution to help schools manage processes in a paperless manner. The school, as Data Controller, is obligated under the Data Protection Act 2018 and the GDPR to have communicated the legal basis under which it is processing the personal data of the data subjects to the parents and students via their privacy policy and other documentation which may be shared with parents.

The company address is in Australia but its data servers and a third-party DPO are based in Ireland, inside the EU. It also has a number of partners[371] to provide integrated solutions. The system uses third-party products to send messages such as profile requests and eForms. To support the delivery of the Services, the company also engages third party sub-processors to provide certain infrastructure services. These currently consist of Amazon Web Services for hosting services, Twilio for SMS messaging, Google for language translation services, and Zoho for customer support live chat services.

The app may process information to create a record about the health, disability, health services, medical histories, prescriptions, allergies and other information about an individual as defined by the school as "health information". Forms may process photographic copies of a child's passport where requested for a school trip.

This app shares much in common with others of a similar nature. Children's data are processed by adults about them and on their behalf, and assuming their consent, for data they never see.

Operoo says:

"as a Data Processor, it is neither our responsibility nor our prerogative to obtain the consent of the Data Subjects (whether parents or students). As a rule, schools have in place methods to communicate with parents regarding the use of the various software applications that they use to manage school operations. We coach our customers that it is best practice to provide information to parents about our system before implementation, and we make templates available to schools to facilitate that communication. In the vast majority of cases, schools inform parents of the school's plan to use Operoo well before parents receive a link to activate their accounts. Parents can - and sometimes do - opt out of inputting their child's information into the Operoo system."

"Operoo maintains data processing agreements with each of its sub-processors that include legally valid data transfer mechanisms."

"The school, as Data Controller, is obligated under the Data Protection Act 2018 and the GDPR to have communicated the legal basis under which it is processing the personal data of the data subjects to the parents and students via their privacy policy and other documentation which may be shared with parents."

"More broadly, for John in the Case Study, the far greater risk is that important information will not be available when and where it is needed."

*From Monday 10th August 2020, the CareMonkey product and company rebranded to Operoo.

**we changed the pupil's name.

3.9 Web and digital activity monitoring | findings

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A single paragraph in 2016 Statutory Guidance created rapid growth in the use of computer activity monitoring services imposed by schools in — and outside — the classroom, without independent oversight or guidance on what was acceptable policy. Compare the volume of just one popular UK schools provider in November 2016 in the research report carried out by Big Brother Watch[372] in which they believed a product was used by 403 schools; and today it is used in over 1,400 UK schools.[373]

Another service is provided by Smoothwall and the CEO explained some of how their product works in a panel discussion[374] as part of the launch of this report.

Another service in this area but that has different functionality again, is set out in our case studies in the day-in-the-life, that is a service that monitors not only online but offline computer activity.

While web filtering software was routine in schools for years, there has been a marked increase in the use of individualised monitoring which scans and may capture screen content as compared with only filtering and blocking access to inappropriate websites since the introduction of revised guidance in September 2015-16 Revised Prevent Duty Guidance: for England and Wales[375].

Schools (and registered childcare providers) in England and Wales are required "to ensure children are safe from terrorist and extremist material when accessing the internet in school, including by establishing appropriate levels of filtering".

It expects that they "assess the risk of [their] children being drawn into terrorism, including support for extremist ideas that are part of terrorist ideology". There are a number of self review systems (eg www.360safe.org.uk[376]) that will support a school in assessing their wider online safety policy and practice.

All school traffic may typically be forced through such services, and run against mandatory lists of content which are considered to be blocked, illegal or seen in some way as harmful. School administrators, pupils and parents do not know which sites are 'flagged' and blocked. The content of the keyword library lists is not published either. School staff and even the help centre staff for the software may not know what words trigger a reaction. When we talked to one company in 2019, we were told that the watchword lists came encrypted from the IWF and are installed and 'shipped out' to schools even without the company knowing exactly what its update contains.

The Department for Education's statutory guidance 'Keeping Children Safe in Education'[377] obliges schools and colleges in England to "ensure appropriate filters and appropriate monitoring systems are in place. Children should not be able to access harmful or inappropriate material from the school or colleges IT system" however, schools will need to "be careful that "over blocking" does not lead to unreasonable restrictions as to what children can be taught with regards to online teaching and safeguarding." But what happens in practice does not seem to meet these broad aspirations.

The UK Safer Internet Centre, says, recognising that no monitoring can guarantee to be 100% effective, schools should be satisfied that their monitoring strategy or system (including keywords if using technical monitoring services) at least covers the following content:

- **Illegal:** content that is illegal, for example child abuse images and terrorist content
- **Bullying:** Involve the repeated use of force, threat or coercion to abuse, intimidate or aggressively dominate others
- **Child Sexual Exploitation:** Is encouraging the child into a coercive/manipulative sexual relationship. This may include encouragement to meet.
- **Discrimination:** Promotes the unjust or prejudicial treatment of people on the grounds of race, religion, age, sex, disability or gender identity.
- **Drugs / Substance abuse:** displays or promotes the illegal use of drugs or substances
- **Extremism:** promotes terrorism and terrorist ideologies, violence or intolerance
- **Pornography:** displays sexual acts or explicit images
- **Self Harm:** promotes or displays deliberate self harm
- **Violence:** Displays or promotes the use of physical force intended to hurt or kill
- **Suicide:** Suggest the user is considering suicide

The UK Safer Internet Centre guidance states, Monitoring systems require capable and competent staff to sufficiently manage them, together with the support and knowledge of the entire staff. Monitoring systems are there to safeguard children and the responsibility therefore lies with the school leadership/governors and Designated Safeguarding Lead.

But the UK Safer Internet Centre guidance takes no position on the monitoring beyond the school hours and location. No clear legal basis is given, no mention of privacy rights and data protection law or communications law. Everyone knows it happens but few want to talk about it.

84% of 1,004 parents we polled through Survation in 2018[378] agreed that children and guardians should be informed how this monitoring activity works. (We didn't ask if it should happen at all or not.)

Children want to understand how their data is processed and restore power imbalances, outlined for example in, The Internet on our own Terms: how children and young people deliberated about their digital rights (Jan 2017) (Research by Coleman, S., Pothong, K., Vallejos Perez, E., and Koene, A. supported by 5Rights, ESRC, Horizon, University of Leeds and University of Nottingham).

We believe some providers' current practices breach current Data Protection Directive (Article 15), the Human Rights Act 1998, the Charter of Fundamental Rights Articles 7 and 8, and the UNCRC Article 16 (children have a right to privacy, and the law should protect them from attack on their way of life, reputation, families and home). It shows contempt for the balance between children's dignity and rights, and legitimate interest to process children's sensitive personal data. This is particularly applicable outside school hours and premises and in lockdown.

Article 5 of Directive 2002/58 is devoted to the confidentiality of communications; Article

5(1) provides: 'Member States shall ensure the confidentiality of communications and the related traffic data [...] shall prohibit listening, tapping, storage or other kinds of interception or surveillance of communications and the related traffic data by persons other than users, without the consent of the users concerned...' and, that the 'law' must, in effect, be 'adequately accessible and foreseeable, that is, formulated with sufficient precision to enable the individual – if need be with appropriate advice – to regulate his conduct', to 'foresee its consequences for him[379]', 'to foresee, to a degree that is reasonable in the circumstances, the consequences which a given action may entail'.[380]

Interception of communications transmitted via a private telecommunications system was

found not in accordance with the law in Taylor-Sabori v the United Kingdom. In Rotaru v. Romania the ECtHR found a violation of Article 8 of the ECHR due to the lack of limitation on collection and archiving surveillance information. The depth of privacy invasion caused by current policy is not proportionate to the aim pursued, it is not necessary in a democratic society, (Leander v Sweden, ECtHR March 1987) or proportionate to a school's responsibility of personal time outside school hours. The Internet screen recording and disclosure to an unnamed list of third parties at provider companies, inside a Multi Academy Trust, or to outside authorities including police without transparency to the child is disproportionate and without any limitation or safeguards, similar to Peck vs United Kingdom when video disclosures by the Council were not accompanied by sufficient safeguards and they therefore constituted a disproportionate interference with rights under Article 8.

There is further interference with Article 11 of the Charter of Fundamental Rights on Freedom of Expression, "to hold opinions and to receive and impart information and ideas without interference by public authority and regardless of frontiers."

The Children's Commissioner for England believes we are failing in our fundamental responsibility as adults to give children the tools to be agents of their own lives.[381] This processing is a gross example of this, despite packaging the surveillance of their activity as in a child's best interest because not all of their actions may have foreseeable consequences, especially if any misinterpretation is made.

David Meyer writing Control Shift: How technology affects you and your rights in 2017, quoted Ray Corrigan's criticism of mass surveillance and false positives; "It is statistically impossible for total population surveillance to be an effective tool for catching terrorists. Even if your magic terrorist-catching machine has a false positive rate of 1 in 1,000 – and no security technology comes anywhere near this – every time you asked kit for suspects in the UK it would flag 60,000 innocent people."

The limitations of filtering technology are clearly set out by Professor Phippen in the 2017 book, Invisibly Blighted, The Digital Erosion of Childhood,[382] including the inability to prevent or identify embedded imagery (for example of a social media page), peer-to-peer systems, personal networks, and simply those who are determined wto work around them. But lack of guidance and democratic discussion of monitoring children is even more concerning when it comes to interference with privacy, rights, and harm.

> *"The recent draft statutory guidance on safeguarding by the Department for Education (2015) defines an expectation that schools have monitoring in place and governing body is responsible for it to be 'appropriate.'*
>
> *[Schools] need to have appropriate filters and monitoring systems, so that no child can access harmful content via the school's IT systems and concerns can be spotted quickly. [Department for Education, 2015]*
>
> *However there seems to be no guidance on what appropriate means aside from further guidance to ensure 'unreasonable restrictions' are not placed on what can be taught."*

The UN Special Rapporteur's 2014 report on children's rights and freedom of expression stated: "The result of vague and broad definitions of harmful information, for example in determining how to set Internet filters, can prevent children from gaining access to information that can support them to make informed choices, including honest, objective and age-appropriate information about issues such as sex education and drug use. This may exacerbate rather than diminish children's vulnerability to risk.

We have taken a lot of time to research and understand the nuances of different company systems and policies by talking to the providers, asking 400 schools for their policies, and we have collected anecdotal evidence from parents and school staff who have contacted us or spoken to us at events with their concerns. We are grateful to the companies that took time to engage with us as each functions differently.

Safeguarding purposes can be wrapped into one label, but perceived by some parents and staff as a mixture of safeguarding in the best interests of the child, and as surveillance designed to be punitive, in an environment where children are seen as potentially suspicious at all times and conflated with the Prevent programme.

In the case of Digital Rights Ireland (2014) the court ruling underpinned the importance of respecting the essence of fundamental rights and freedoms in online activity. The ECJ deemed the directive, requiring Internet Service Providers (ISPs) to store telecommunications data in order to facilitate the prevention and prosecution of crime, was legitimate in its aims of fighting serious crime, but did not pass the proportionality test applied to evaluate the appropriateness of the measures undertaken to achieve the goal.

We believe the same necessity and proportionality tests are not met in this mass monitoring. There is no clear legal basis for the everyday level of intrusion into private and family life that is made possible for a school, for third party providers, and authorities through some of these services, and their use in practice with children and young people in particular outside school hours. The chilling effect[383] of constant surveillance is already documented.

Questions need to be asked by regulators how any AI profiling children or that is used to identify content to raise, is accountable and to whom? How do staff know whether it is inappropriately censoring content? Who is training the system and underpinned by whose ethics? Why are there no reports in the public domain about how and what types of content it automatically filters or information available to children and parents? Further it matters where companies process sensitive data abroad such as in the U.S. especially since the Privacy Shield is now invalid.

National standards should document at minimum how a school monitoring strategy meets the following as regards data protection principles, of Data protection by design-and-default, Data minimisation, Accuracy, Age appropriate design, BYOD (Bring Your Own Device), Data retention, Multi language support, Profiling, Reporting, Transparency and Fair processing to families including all of the purposes such as Prevent.

3.9.1 Areas of concern

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1. Monitoring outside school premises and school hours in private time and spaces should be consensual. Whether this includes services that flag after words and phrases are used, or keylogging, or screen content or webcam remote access, private space and time must be private, and is beyond the remit of school. This monitoring of individuals and tagging their activity with labels suggesting individual characteristics, should be separate from filtering and blocking or monitoring activiliy online to ensure security inside a firewall.
2. Errors do not get removed because schools are risk averse. Teachers concerned enough to contact us have said that they have children who search for something uncontroversial, the system flags it, and the system only allows to make a 'note', that it was an error, but not delete the error. And that a move from one system to another creates a sudden spike in the volume of flagged words, which are all nothing to be concerned about — so the system should not be flagging them.
3. Technical error rates are opaque and system providers are not transparent.
4. Security researchers have found serious flaws in some companies' software. These need independently assessed to ensure they are fit for purpose for schools.
5. Inaccurate permanent records. Collecting someone else's web searches and content in-and outside school hours and assigning the results of monitoring to the child's record (i.e. a parent or older brother or classmate prank)
6. Opaque direct contact with police without trusted teacher intermediary. (applies to some companies and not others)
7. Behavioural effects are under researched but there's qualitative feedback that it has a chilling effect on safe searches for sexuality, health, teenage development questions.
8. There is no necessity and proportionality of webcam access to take photos of the child; and significant risk of abuse of such capability.
9. 50% of schools that have responded to us impose a Bring-your-own-device which is opaque level of surveillance of personal property, active wherever logged in to the school network and some at all times regardless of network, even caching triggers offline.
10. Lack of transparency to parents and children of the consequences of the web content monitoring and keylogging. 84% of parents polled in 2018 said they believe they should be informed which keywords get flagged, and 86% want to know what the consequences are — but do not currently know.

3.9.2 Parents views

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Responses from 1,004 parents surveyed by Survation online between February 17-20, 2018[384]

Parents were asked about getting consent for this process. They were not asked *if* they support the use of Internet Monitoring software. Parents were asked only, if their school uses it to the best of their knowledge and if so, if parents should be asked for consent to do this and whether they believe they, and children, should be informed what the watchlists contain.

Given the low levels of trust indicated in the question of third-parties parents felt they would trust to use their child's data appropriately, and the high percentages that want to be informed of the consequences of keywords being searched for, then we think numbers on consent probably indicate some who disagree it should happen at all. **i.e some parents did not agree that consent should be required for Internet web monitoring, because they do not agree it should happen at all — with or without — consent. More research needs done. It is clear is that parents believe the keywords and consequences should be transparent and foreseeable. This amendment prejudices that, embedding current practice.**

Would you say that the current amount of control you have over which apps and online services your child is signed up to by the school (your child's digital footprint) is:	
Sufficient	50%
Insufficient	28%
Don't know	22%

Parents were asked, does your child's school use Internet Monitoring and keylogging software (software that records children's Internet use at school)? Many do not know.

The school uses this	The school does not use this	Don't know
46%	17%	37%

To your knowledge, is the Internet Monitoring software used by the school able to do any of the following? Please select all that apply.	
Record children's images through a webcam	14 %
Capture the screen as seen by the child	25 %
Log children's Internet search terms and create flags based on keywords	55%
None of the above	5%
Don't know	28%

Key logging software at school captures children's Internet search terms. Some systems flag

up to 20,000 different words and phrases. To what extent do you agree or disagree with the following statements? Today's opaque practices are considered to be unacceptable.

	Agree	Neither agree nor disagree	Disagree	Don't know
Parents should be informed of which keywords get flagged	84%	11%	4%	1%
Parents should be informed of what the consequences are if these keywords are searched for	86%	11%	2%	1%
Children should be informed of which keywords get flagged	69%	18%	12%	2%
Children should be informed of what the consequences are if these keywords are searched for	86%	11%	2%	1%

On a scale from 0 to 10, to what extent do you agree or disagree that **schools should get parental consent to be able to use each of the following? We believe this 'disagree that consent should be asked for' hides some who feel monitoring should not happen at all.**

	0-4 (disagree)	5	6-10 (agree)
Internet Monitoring software that can be run remotely at home in the evenings or during school holidays	32%	15%	53%
Internet Monitoring software that can record children's Internet screen use in school at all times	22%	14%	64%
Internet Monitoring software that can record children's images through the webcam	34%	13%	53%

46% were not offered any choice at all to have these technologies imposed on their

children. And while 54% said they were asked for consent we know that this is not a valid

consent process, because there is no age-appropriate explanation given how it works, what data is collected, viewed or sent to whom and its consequences, and parents and children are often required to agree or feel compelled to accept, because there is no choice.

3.9.3 IT school staff views

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Freedom-of-Information requests collected between December 2016 and April 2017 from 190 schools in England and 30 schools in Northern ireland by Biometrics-in-Schools founder, Pippa King,show 50% of schools that replied, enable web monitoring on BYOD (Bring your own [private mobile] device).

Evidence from 4,507 of 6,950 schools using the SWGfL tools who carried out e-safety self-reviews, using the 360 Degree Safe tool in analysis carried out by Andy Phippen, Plymouth University[385], shows that school staff are not equipped to deal with or challenge the outcomes from these technologies.

"However perhaps even more concerning is that the two weakest aspects are those upon which a school would be most reliant on understanding the nature of data protection and safeguarding within the school setting. If both staff and governor knowledge are poor (and in both cases averages are below 'basic' practice, indicating that a large number of establishments do not have either in place) there is little likelihood that the complex issues around data protection or safeguarding are well understood, and an effective challenge to senior management on these matters certainly cannot exist."

For the preparation of this Report we also asked IT staff in 35 schools about the use of these systems and the home-school agreements used. These are school-pupil-parent agreements which are ostensibly "consensual" contracts on how the child will use the Internet in and often outside school, with regards acceptable behaviours. They often contain a single line which says, 'I understand my online use will be monitored.' There is rarely an explanation given what this means, how much personal data will be collected, or the surveillance that ensues. There is no explanation given of the consequences of these policies in an age-appropriate way for a child. Any consent based processing is invalid.

Parents and children sign them as part of school admissions, with some who may prefer not to, not wanting to be seen as "difficult" before their child has even begun attending the school.

3.9.4 The Politics in Children Online | The Prevent strategy

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The information available about the way children's data is collected and shared under the Prevent programme is opaque. The lack of transparency undermines any attempt to justify the way the programme operates in line with human rights standards.

We made Freedom of Information requests to Safeguarding Boards at Local Authority level and each denied any information on the statistics of volume of data processed about children citing security exemptions. We saw no bespoke privacy notice for the Channel referrals, those that offered us a privacy notice pointed us to their generic Local Authority notice which is not about Prevent. We asked to what extent data may be passed on to others including NHS staff, Social care staff, Directors of Children's and Adults' Services, Schools, further education colleges and universities Youth Offending Services, Chairs of Local Safeguarding Children Boards and Safeguarding Adults Boards Local Authority Safeguarding Managers and Home Office Immigration, Border Force, Housing, Prisons, or Probation?

But we were told in each case, "the Council holds the information and believes that this information is exempt under section 24 (1) – on grounds of National Security. Section 24(1) of the Act states:

24(1) Information which does not fall within section 23(1) is exempt information if exemption from section 1(1)(b) is required for the purpose of safeguarding national security."

Not one wanted to be transparently accountable for Prevent programme child referrals.

According to CRIN (Child Rights International Network) , "Since 2015, schools, child-care services, local government, police and health and social care have had a legal obligation to "have due regard to the need to prevent people from being drawn into terrorism". This obligation requires teachers and professionals working with children to "identify children at risk" and "intervene as appropriate". This broad and ill-defined duty leaves open what might be "an appropriate intervention", but one option open to schools is to refer children they are concerned about to the Channel programme, which screens individuals referred to it and, where it considers appropriate, intervenes to prevent the individual being drawn into terrorism."

In 2015/16 according to the Prevent Programme statistical bulletin[386] a total of 7,631 individuals were subject to a referral due to concerns that they were vulnerable to being drawn into terrorism. The education sector made the most referrals (2,539) accounting for 33%, followed by the police (2,377) accounting for 31% of referrals.

In 2015/16, of 7,631 individuals referred, the majority (4,274; 56%) were aged 20 years or under. Individuals 2015/16 from the education sector had the youngest median age (14).

Of the 7,631 individuals referred in 2015/16: 2,766 (36%) left the process requiring no further action 3,793 (50 %) were signposted to alternative services, 1,072 (14%) were deemed suitable, through preliminary assessment, to be discussed at a Channel panel.

Published information is relatively clear about which groups of children are most affected by Prevent according to CRIN (Child Rights International Network)

"Between March 2014 and March 2016, 3,105 people under the age of 18 were referred to Channel across England and Wales - accounting for 48 percent of all referrals during the period. Among these children, certain minority religious and ethnic groups have been disproportionately targeted by these measures. Nearly 40 percent of the children referred to Channel were recorded as Muslim in the figures and more than a quarter were recorded as being ethnically Asian."

Rights Watch (UK) and Liberty are concerned that, despite broad policy statements of compliance with data protection and privacy rights, the operation of the Prevent strategy and the Channel programme on the ground does not demonstrate due respect for personal information and privacy.

"From the case studies considered by RW(UK) in its 2016 report, 'Preventing Education?', it appears local authorities, schools, and police authorities may be operating some system of data collection and sharing which records a child's interaction with the Prevent strategy or the Channel programme. This could include formal referrals, informal information and events such as a police visit to a child's home. RW(UK) and Liberty have significant concerns about the rigour and compliance of such a system of data collection with both the specific requirements of current data protection laws and the Human Rights Act".

Preventing terrorism is of vital importance to our society, but the Prevent strategy is not fit for purpose. It has led to discrimination and infringement of the human rights of children. Cautiousness amongst teaching staff and other professionals - who do not have experience of counter-terror policing - has led to over-referral in practice. This is exacerbated by concerns about failure to meet Ofsted's standards.

Ofsted inspections are tasked with monitoring a school's compliance with the Prevent Duty. Criticism of Prevent increased following the introduction of this top-down statutory duty, with former MI6 Chief, Baroness Manningham-Buller arguing "I cannot see how legislation can really govern hearts, minds and free speech".

CRIN (Child Rights International Network) told us, "The Channel programme operates through panels, led by a representative of the police (the Channel Police Practitioner) and can include professionals from education, social work, immigration, housing and health services. Each panel is formed at the discretion of individual local authorities, and so their size and make up vary significantly across the country. Yet despite a certain degree of clarity about who might be involved in this process, there is a chronic lack of transparency about the way that information is collected and fed into this process, including within schools."

CRIN has used freedom of information requests in an attempt to find out the ways that

schools are using filtering and monitoring programs to detect signs of "radicalisation" in students. "CRIN submitted 61 requests to schools across a London Borough to ask what filtering and monitoring programs were installed on school ICT equipment for the purposes of detecting signs of "radicalisation", information about how the software worked and how many students had been flagged up by the software. None of the schools provided detailed information and a common response was that their filtering software was operated by a public-private partnership that is not subject to the Freedom of Information Act."

CRIN also told us that, "without a clear picture of what information schools, or private companies working on behalf of schools, are collecting and where it is held, it is impossible to assess the adequacy of mechanisms to protect the data of children. The outsourcing of services to the private sector has also has extended the number of bodies holding children's data, while limiting the potential for independent scrutiny."

Rights Watch UK and Liberty, say there is a lack of reliable information about the rules public authorities follow (if any) in collecting, collating, and sharing personal information relating to Prevent. The absence of a clear statutory basis in the law which created the Prevent duty means that public authorities may be relying on other powers to carry out data collection, collation, and sharing. But there is minimal publicly-available information about the scale and scope of data collection activities carried out by educational institutions, local authorities, and how those activities are constrained.

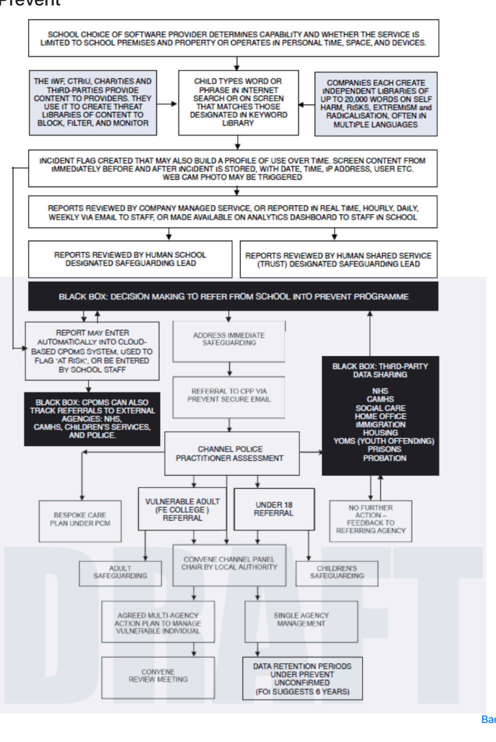
The Government has not produced any evidence to support the 'conveyor belt' theory that the expression of extreme or radical view leads to violent criminality. This is a concern drawn out by Parliament's Joint Committee on Human Rights which concluded in its July 2016 report that: "it is by no means proven or agreed that religious conservatism, in itself, correlates with support for violent jihadism."

The extension of the programme to cover "non-violent extremism" means that the strategy takes the government far away from responding to criminal behaviour. Sir David Omand, architect of the original Prevent strategy, argues that "[o]nce you get into being accused of policing different ways of living and 'thought crime' over controversial areas such as foreign policy you enter a difficult area." Shutting down a vague notion of non-violent debate – particularly in schools – risks pushing contentious, difficult, or even

merely awkward discussion underground, away from moderate voices or challenging questions.

Labelling certain cultural, social, religious or political subjects "extreme" can also create conflict and mistrust between schools and pupils. The Muslim Council of Britain, following extensive engagement with communities across the UK, reports: "a widespread concern that Muslims are singled out as potential extremists", with particular concerns expressed about the requirement for Muslims to pass "subjective and discriminatory counter-extremism litmus tests, as a condition of engagement".

3.9.4.1 Data flows from children's Internet use web monitoring to Prevent



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3.9.4.2 Prevent records passed from Further to Higher Education: Salford University

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In July 2020, work by Rights Watch UK exposed a secret data sharing agreement between further education colleges, Salford University of Manchester, the Department for Education and Greater Manchester Police. to tip off universities when an incoming student had been referred to Channel, part of the Prevent programme. Although the university claimed the data would not be shared to inform admissions decisions, it had no plans to publish these agreements or have independent oversight of this process agreed with the Department for Education.

Under the data sharing agreement[387] information would be sent from the further education college to the university with details of the Channel referral, ethnicity, religious belief, information concerning the individual's health, wellbeing and mental health and any support provided by the college and other agencies including the police and social services.

Documents show that it is the colleges working group that pressed to be able to share such information between them, and the GMP had reservations about the legal basis. The ICO also raised concerns about its lawfulness where the necessity test was not met. The Data Protection Impact Assessment failed to include any assessment of the risks to rights and freedoms of the individuals affected, focussing instead entirely on data security.

This data sharing arrangement appears to be unusual practice, and further research via FOI has not found similar arrangements elsewhere.

The university is also unusual in its Prevent duty guidance compared with other universities in that it explicits associates 'the rule of law' with an obligation to wear an ID badge. (Salford University, 2020)[388]

At the time of writing we await further information on the role of the Department for Education in this agreement.

3.10 Emerging technologies and emerging challenges

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"The world in thirty years is going to be unrecognizably datamined and it's going to be really fun to watch. What does that mean for education?" asked then CEO of Knewton, Jose Ferreira at the White House US Datapalooza in 2012.

School staff are rarely qualified to understand the due diligence needed in emerging technologies and fail to carry out even the most basic of data protection impact assessments when using children's sensitive data at scale with new technologies. Some schools have received very little training on even the basic standards of data protection and privacy law, and it is hard for them to further understand the further laws that apply to the processing for example of biometric data or communications data.

While there is often debate on the risks to AI product development in education from privacy and ethics, there must be much more time for understanding given to the risks to children whose classroom experience, interactions, learning pathways, development and how they are perceived by staff as a result is all shaped by the expansion of computer-driven decision making and big data analytics that turn the human development in all its complexity and uniqueness of individuals, into simplified dashboards for comparison of norms and outliers.

> *"In educational systems that emphasize development and, for example, social competences, formative assessment might be higher on the list. As a result, there is a risk that AI might be used to scale up bad pedagogical practices." (Tuomi, 2018)*
>
> *"AI is also used to diagnose student attention. emotion, and conversation dynamics in computer supported learning environments, for example for course development and management/ in an attempt to generate optimal groups for collaborative tasks, and to recognise patterns that predict student drop out. (Nkambou at al, 2018; Rose et al 2018)." "It is often assumed that AI systems enable new levels of personalisation and diversity for information systems. Much of this personalisation however, results from fine-grained categorisation that puts users into predefined classes. Although these systems may be able to efficiently simulate personalisation, they do not necessarily support deeper levels of diversity. AI systems can be excellent predictive machines, but this strength may be an important weakness in domains where learning and development are important." (Craglia. Ed. et al, 2018)*

Where AI learning algorithms are based on historical data, they see the world as a repetition of the past but do not see its biases, outdated cultural norms and the consequences of modelling the world as it was for the development of the people who will shape the world as they want it to be, and one that may be better freed from the discrimination; racism, ableism, sexism embodied in that past data as well as the design of its decision making based on it.

It is ironic that those who seem themselves as tech evangelists and may be most vocal about bringing about a better world through tech solutions, are in fact supporting the protection of the status quo and its existing power structures, built on data not fit for purpose.

AI algorithms have limitations. The platform Edgenuity responded to stories[389] in the summer of 2020 that students in the US could game the automated scoring system and get top marks, by simply including lots of keywords in nonsense-style written online answers, by saying that "does not use algorithms to supplant teacher scoring, only to provide scoring guidance to teachers. Teachers have the ability to accept or overrule suggested scores. Tests are never scored by AI and a student's course grade is never determined by AI."

The Edgenuity website states that if activities include keywords that are used for determining a system-assigned score, the student will earn a 0% if none of the keywords are included in the response, and will earn 100% if at least one keyword is included in the response.

While it also says 'Educators can always override system grades by manually assigning a grade to the activity' that would seem to rather defeat the purpose of asking the machine to do it.

The counterpoint should not be however, that each of us must accept constant surveillance in order to donate our fresh or highly accurate data for the public good or for the growth of new tech products based on data from the real time users.

If the product cannot offer safe, tested, pedagogically proven support without using children's activity, their human labour, as part of its product development process, should we not question whether it is suitable for use in education at all?

3.10.1 Artificial intelligence and product development | Case study CENTURY Tech

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Products that use artificial intelligence and require the continuous or ongoing processing pupil data for their own company purposes, to continue to train the machine learning algorithms for example,[390] cannot legitimately do so on the basis of a school's public task. The school does not require that the company keep training its product or develop a new product, that's a decision for the company. That choice makes a company a data controller.

Where school children have no genuinely freely given choice whether to use a product in the classroom or for homework, in particular where schools make it compulsory, or simply due to the coercive nature of the power imbalance between the school as a public authority and a child, consent cannot be a freely given choice, so consent[391] will rarely be available as a valid lawful basis for such pupil data processing either.

Our research shows that schools are not qualified to understand the due diligence needed in some of these emerging technologies. For example, one academy trust using the product CENTURYTech replied in response to our research in 2019[392] that, "No personal (pupil or staff) data is used to train CENTURY's artificially intelligent algorithms. All personal data is wholly and entirely owned by the data subject and CENTURY uses this data only to create secure logins for each user and to display students' learning data to educators," clearly contradicting how the product works.

The school had not carried out any data protection impact assessment before the product introduction despite the company collecting sensitive, and special category data such as pupil premium, ethnicity, English as an additional language and special educational needs[393], and made it compulsory to use by all pupils.[394]

Another academy trust that had similarly carried out no impact assessment[395] stated in response to a freedom of information request that, "CENTURY uses anonymised (and not personal) data generated through use of its platform to improve its recommendation algorithms which seek to improve students' learning outcomes."

When a child uses the platform the company collects personal data, including IP address, name and date of birth, gender, and special category data together with behavioural data collected from the interactions with the tool every two seconds. The separation and anonymisation process is of itself processing personal data. While the company sets out consent in the company terms and conditions as its legal basis for processing, as we have found, and as found in recent regulatory enforcement[396] and court rulings in Sweden and France regards schools and the legal basis of consent, using the basis of consent in a school for such routine tasks is invalid due to the nature of the relationship between a school and pupils.

The question is whether a product that is still in development or using children's data for its ongoing, or new product development, regardless of whether it is AI or any other development can do so lawfully at all, other than for minor and non-substantive tasks or security enhancement; in particular where where the school, not the individual, makes the decision to use the product.

In the 2020 COVID-19 the CEO said at the Cog-X event, she had "onboarded hundreds of thousands" more children and she explained how their data is used to train the AI. So we have asked the company to explain how its AI training, past and present, was and is done lawfully.

"You have to train an AI. And you use teachers and parents and schools to do that. It takes years to train an AI. That work's been done. [...] ongoing every second of every single day you're taking teacher, parent, and student interactions, taking their feedback, you're AB testing" "refining the AI".... "the AI doesn't learn about ethnicity by itself."[397]

We asked Century for comment, and quote their reply in full.

> *To clarify, we don't use any private data in the AI.*
>
> *Best wishes,*
>
> *CENTURY*

3.10.2 Facial detection | Case study consent failure of biometric data processing

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The University Technical College in Leeds used a biometric entry system with a touch reader to identify each student pre-Covid. Students used their fingerprint to enter the building, pay for their lunches and to register themselves in classes. It was compulsory for all students. (See Protection of Freedoms Act 2012 why this was unlawful.)

During COVID-19 the college suspended the use of fingerprint readers, switching instead to a card system, but in addition it introduced facial detection, combined with thermal cameras as part of its COVID-19 measures. If at the building entrance, the camera detects a person and measures a higher than set temperature, the system takes a photograph and sends that to the Headteacher to unambiguously identify them.

On June 26, 2020 the French Supreme Court[398] ruled that thermal cameras processing body temperature in schools was without a lawful basis under Article 9 of the GDPR. They ordered the removal of the cameras and to suspend the processing of these sensitive data. We are aware that this ruling does not apply within the UK jurisdiction, but it demonstrates an assessment made on the basis of the GDPR which does apply to the UK, and any UK assessment should find similarly.

As regards fingerprinting for registration, and access, having achieved the same purpose through an alternative means demonstrates that the use of biometric data is overly invasive in practice at the UTC Leeds, and such processing does not meet the tests of necessity and proportionality.

In any case, consent is an unlawful basis for the processing of biometric data from children and even any adult learners at the point of collection, due to the power imbalance in a school or employment setting, and in this case of fingerprints a clear breach of the Protection of Freedoms Act 2012 Ch2. which requires consent, and consent cannot be a tick box exercise but genuine freely informed choice, with an available alternative to use without detriment.

In August 2019, the Swedish Data Protection Authority, found that attendance verification is an obligation governed by public law about school operations (similarly to the UK), and attendance reporting is of significant importance for a pupil. There is therefore a legal basis for administering pupils' attendance at school, but the use of facial recognition technology lacked an explicit law to support carrying out the task through the processing of sensitive personal data, or in any other way that violates privacy, and using a new facial recognition technology to do so.

For attendance verification, the pupil is in such a state of dependence upon the school, that there is a significant imbalance of power. Therefore, any UK practice should find similarly as the Swedish DPA, that consent cannot constitute a lawful basis for the processing of biometric data such as this for the purposes of attendance registration in UK schools.

3.10.3 Immersive VR and AR | Practical, ethical, safety and gender concerns

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In 2019 Southgate et al. set out a simple explanation of immersive virtual reality (IVR) in a report by the University of Newcastle commissioned by the Australian Department of Education and noted most literature on immersive virtual reality in schools is primarily descriptive.

"The technology using a head mounted display (HMD) has only been widely available since 2014. IVR replaces the world with an artificial or simulated reality. The head mounted display blocks out the world so that the user can be immersed in the artificial world. Different IVR technology create different levels of immersion and feelings of 'being there' in the artificial/simulated environment. Experiences range from looking around, to those where the user has limited navigation and interaction, to highly immersive environments where a user can freely manipulate, navigate, interact and create a customised experience.

Southgate points out that, "early findings from the Australian VR School Study, which involved embedding highly IVR (networked Oculus Rifts) in STEM high school classrooms, highlighted a number of practical, ethical, safety and gender concerns. The research team, which included teachers, developed a health and safety screening protocol for parents/carers and students and produced resources to educate students on cybersickness."

Dr. Zoetanya Sujon, Programme Director, Communications and Media programme at LCC, University of the Arts London presented some of the current state of the use of VR headsets in her research explained in Playful dataveillance: Unpacking Google's Edtech strategy through the Pioneer project.[399]

3.10.4 Socio-emotional mental health tracking | Case study STEER AS Tracking

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AS Tracking was launched in 2015 as a pioneering pastoral care tool.[400] AS Tracking claims to work by tracking the steering biases which are developing in the mind of a student.

> *"By tracking a student's steering biases, we are able to identify when a student is developing a pattern of thinking which increases their mental health risks. Crucially, we can do this at a much earlier point in time than waiting for the mental health problem to develop and become visible. By identifying these risks earlier, we can then guide schools to act earlier and more precisely. By acting earlier and more precisely, schools can make smaller, targeted, responses, which cost less but which have a significant impact on reducing the risks for the student."[401]*

AS Tracking may be used to track whole school populations twice a year from the age of 8-18. AS Tracking costs a school with 1,200 pupils up to £25,500 a year. STEER have also launched AST Detect, for which a secondary school of any size can track all pupils for £5,600, and a primary for £2,400.

According to STEER's own figures, the psychological biases it tests for are linked to risks of self-harm, bullying and not coping with pressure in 82% of cases. (Manthorpe, 2019)[402]

The company co-founder Dr Walker is a reviewer for UNESCO's forthcoming publication chapter, Policies for AI in Education. In addition to his extensive psychological training and qualifications, Dr Walker was ordained as an Anglican priest in 1997 and has also set out the implications of steering cognition for Christian spirituality.[403]

The company claims that "AS Tracking is able to identify pupils' hidden risks without asking intrusive or suggestive questions. Often these risks may be undetected even by teachers' expert professional judgment, or by parent or pupil feedback."[404]

Our concerns include that there is no transparent way that children, staff or parents can therefore independently validate these company claims, and that it is excessive for a school to "curate a unique 10 year record of a child's social-emotional development, monitoring their wellbeing through adolescence." We feel that there are risks that such a test twice a year is inadequate for supporting children's welfare needs while schools may feel lulled into the sense of security that using such a tool as a tangible measure is appropriate, as being seen to do something outwardly visible. Children's needs may be over or under identified and it would be hard to control for that.

The company disagrees, and responded:

> *It's not correct to infer that schools may overly rely on AS Tracking and therefore be lulled into a false sense of security and miss pupil concerns for three reasons.*
>
> *- First, throughout our training and documentation to schools, we make absolutely explicit that our data provides one ADDITIONAL piece of their jigsaw of information about a pupil. It must not replace their wider data collection, teacher observations and professional judgement.*
>
> *- Second, all teachers using AS Tracking will complete a 1 day training course to understand the data and how to use it appropriately alongside their professional judgement. Additionally, there are numerous tutorials to guide school staff to interpret the data and over 100 guidance resources in the platform library covering all aspects of AS Tracking.*
>
> *- Third, the school is then supervised over the next one or two years by a trained STEER consultant to reach high standards of practice and ethical implementation, before we will accredit the school as a STEER AS Tracking accredited school. One standard is data privacy; a second is integration with their wider welfare systems.*
>
> *We are, therefore, robustly committed to improving the quality of school pastoral care through a responsible, rigorous training and accreditation programme which enhances the school's overall evidence-based pastoral tracking allowing a school to demonstrate compliance with key inspection criteria. AS Tracking does not reduce pupil social emotional assessment to two assessments per year as you imply.*
>
> *(We'd also note that schools are schools: pupils cannot be 'tested' on any measure, academic or emotional, too frequently as it would hinder the time they have to learn. Twice/yearly AS Tracking assessments is a balance. Steering biases have been shown to be relatively stable over the short/medium term, and do not need to be measured every month.)*

Some of the data that the software collects from the school information management system suggest increased risk factors for additional care of mental health without any further processing, and any school using such systems would need to have a good grasp of how the systems interpreted such data above and beyond their own staff, to know how it worked.

The Academies Enterprise Trust told us that their trial with 835 pupils, was a pilot for potential roll-out to all 34,000 students and 4,000 staff[405] in 2019. As regards data processed, the school provided the following information:

> *"The AS Tracking assessment will not run without the essential data fields. Our essential fields are as follows: date of birth, anon_name code, gender, school year, MIS_pupil_ID, passwords*
>
> *Our optional additional data fields are as follows: NEW Pupil, boarding status, house name, form group, form tutor, campus, SEND_ flag or status, AEN_flag or status EAL, Pupil Premium, Looked after child, MidYIS_Band, CAT_Band, Bursary_Funded, passport, nationality, top academic or gifted, heavily committed, Safeguarding_Flag, current welfare plan, recently bereaved, anon_usernames. Additionally, school may choose up to three custom data fields to look at any culturally relevant trends for the setting.*
>
> *The optional data fields provide vital data for the analysis of trends within specific cohorts from the assessment results." [filters for the cohort trend analysis of the assessment results —AS Steer]*

While the company is keen to recruit children in schools it might also be seen by some as inappropriate to seek to continue a private relationship with a child when they leave school, particularly with those it has identified as vulnerable.

The Operations Director at STEER told us,

> *"we curate students' tracking data over several years in order to pass it to them as an asset they own at the age of 16. Indeed, this is the very core of STEER's mission to empower young people. Psychological literature has shown that resilience in later life is strongly dependent on understanding your own personal psychological developmental journey.*
>
> *We invest heavily in training them to understand it so they can benefit with increased self awareness entering adult life. In this regard, we are highly unusual amongst tech companies, who typically mine user data to sell it with zero transparency. In fact, STEER is fully transparent about the nature of its data, our data model, use and, ultimately, the data itself, at the age students themselves will be trained to understand it.*
>
> *We are, as far as we know it, the only company in the UK attempting to curate and pass a personal developmental narrative to each young person, and we are proud to be attempting to support young people at a time of huge strain and fragility in our post-school mental health systems."*

At the time of writing the privacy policy is unavailable to access from either the Google Play Store[406] or Apple Store, to the company website[407] so we are unable to analyse it.

It states on the STEER website information for parents, that 'Data is not presented in a format suitable for parents or pupils. Where parents or pupils request to see their data, it must be in the context of dialogue, and not released without context."[408]

We were grateful to STEER for clarifying this statement.

> *"The only question is around the timing by which we give access to this data to students. All students can request their data via a SAR at any time, but widely accepted professional guidance would hold that psychological data should be shared with a subject only when they are mature enough to understand it. As an accredited member of the British Psychological Society, STEER's co-founder Dr Simon Walker, and Dr Jo Walker a specialist in adolescent self-regulation, have used informed judgement, in conversation with teachers, parents, and wider psychological professionals, to decide the appropriate age for this."*

We contacted the company with an invitation to its governance board[409] for comment and appreciate the time taken for their input. They also asked us to include this statement which we are happy to do:

Statement

"Data privacy and security are STEER's absolute priority. STEER technologies seek to empower young people, teachers and parents by providing precise insights into pupils' well being, which complement the existing pastoral tools schools already have at their disposal. STEER has significant concerns about the use of AI in profiling students and rejects its use in our live tools for that reason. Our researchers only used machine learning to analyse historic scientific research study data as a form of statistical analysis, which is an accepted technique used often by scientists to understand data patterns.

3.11 School research data users | sample case studies

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By far the most common failed presumption of edTech companies is the definition that anonymous data is information that is not linked to the name or identity of a user. When agreeing to the Term and Conditions, companies may claim that registrants 'grant us the right to use this anonymous information for our own purposes, such as the preparation of statistical reports or to improve and change the content of our products.'[410] The companies fail to grasp that a lawful basis for such anonymisation of itself must first exist, and that means between the data subjects (about whom the data are) and the company, not the school. For this reason such processing often appears to lack a lawful basis.

The GDPR also sets out the rules (at Article 6(4)) on factors a controller must take into account to assess whether a new processing purpose is compatible with the purpose for which the data were initially collected. Where such processing is not based on consent, or on Union or Member State law relating to matters specified in Article 23 (general article on restrictions relating to the protection of national security, criminal investigations etc.), the following factors should be taken into account in order to determine compatibility:

any link between the original and proposed new purposes;the context in which data have been collected (in particular the relationship between subjects and the controller);

the nature of the data (particularly whether they are sensitive data or criminal offence data);the possible consequences of the proposed processing; andthe existence of safeguards (including encryption or pseudonymisation).

Recital 50 indicates that further processing for archiving purposes in the public interest, for scientific and historical research purposes or for statistical purposes should be

considered as compatible processing, and while research per se is not defined, it is clear what it is not; used for individual interventions.

This throws into question use of national pupil data, where the data is used as a direct and obvious intervention such as Home Office use for immigration enforcement.

We suggest that the number of growing uses in which identifying data is used to profile and identity sets of characteristics, to profile and predict with a view to intervention again with flawed concepts of anonymity is a bad thing.

Under s66 of the Digital Economy Act it is a criminal offence to disclose any personal information from administrative data for research purposes. Such activity would already be an offence under s.55 Data Protection Act 1998 if undertaken without the data controller's consent. (Mourby at al. 2018)[411]

3.11.1 Case study | Nesta | The EEF | Visible Classroom

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Since 2013 the Visible Classroom project used audio recordings from UK schools' lesson, "As part of our [Nesta] technology in education programme trialing different types of digital technology in schools and exploring its potential for learning".[412]

The pilot evaluation involved ten primary schools in London and the West Midlands. Participating schools received training and followed the approach over two terms in the school year 2013–14. Further funding was awarded to proceed with further projects in 2015. The children were from years 3 to 6 in primary schools[413] generally aged 7-11.

Recruitment began in Summer 2016 for the trial stage, and the intervention started in late 2017

> *"After the study completes in August 2018, schools in the control group will be offered the choice of either the intervention (at no cost) or a £1,000 payment from the EEF."*

The intervention was delivered in collaboration by three partners. SSAT responsible for recruiting schools, checking that schools are using the technology, and supporting them to do so. AiMedia which provides the technological platform for the captioning of lessons, provides the verbatim lesson transcripts recorded on a teacher's phone, and populates the data dashboard with teaching analytics.

Staff at the University of Melbourne, Australia, deliver the training package to participating teachers and mentors, conducts the in-depth coding of lesson transcripts, and generates the tailored feedback reports. Assessment of the project was carried out by a further two partners, NatCen and later, the Behavioural Insights Unit.

> *"The program was first piloted across mainstream schools in the United Kingdom in 10 schools covering 35 primary teachers, serving primarily disadvantaged students, and was funded by the Education Endowment Foundation. In addition to the live captioning and transcripts, a range of tools were developed to provide teachers with feedback about their practice and impact on students, including a dashboard showing, in real-time, the proportion of teacher talk to student talk, number and type of questions, and their talk speed. The pilot study concluded that the Visible Classroom approach is feasible and has the potential to make a significant impact on teacher practice and benefiting student learning. Following the successful UK trial, Visible Classroom was launched commercially worldwide".*

As Nesta described in 2015[414]:

> *"Based on this work with teachers and students, Ai-Media UK have been able to develop 'The Visible Classroom' further into a refined product for supporting teacher professional development. What was a new technology not tried in schools in this format before, has become a product that can be rolled out to schools."*

The project also extracted data from the Department for Education National Pupil Database in order to examine the impact of the programme on reading and mathematics attainment, measured using KS2 SAT performance in Reading and Maths. The initial intervention was designed as a two-armed randomised controlled trial, involving 140 primary schools:

> *"Though some individual pupils within those schools may have left the school, we will still be able to collect their data via the NPD."[415]*

Some pupils "were randomised into the trial prior to confirmation that opt-out forms had been distributed", and where it was too late to offer families opt out, since, "the Year 6 cohort had by this point already moved on to secondary."[416]

None of the significant bodies involved in the project appear to identify this in the report as problematic for the lawful basis for their own activities or for the protection of the rights of the child.

They do not appear to have published any ethical concerns about whether trialling "what was a new technology not tried in schools in this format before," was something they should do at all.

However at the time of writing we are still trying to obtain the ethics review from the University of Melbourne which was refused in a Freedom of Information request made in the summer of 2019. At the time of writing one year later, the appeal is pending a response from the Office of the Victorian Information Commissioner (Australia).

The commercial product is now used by UK schools, and others around the world.

3.11.2 Case study | The ADR | Linkage of education administrative data

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Linking together existing data gives more opportunities to research areas of interest that may not otherwise be possible. Researchers say that it allows more sophisticated research questions to be tackled to give a greater depth of understanding. It also poses greater risks to privacy. The ADR addresses this by using a trusted third party centre to do the data linkage and then only giving the researchers access to deidentified linked data, not the original datasets and in safe settings..

The ADR enables education data access to public interest researchers only, unlike the DfE that gives access to commercial businesses for private purposes, think tanks and others. And again, in contrast with DfE the ADR does not distribute data to the user location but requires that all research is undertaken in its safe setting facilities which is secure, data is deidentified after linkage and is checked before researchers can take information away from the safe setting following the 5-safes model.[417]

Access to de-identified administrative data is sought after by researchers, facilitating a more comprehensive picture of UK society than is possible without it. Unlike survey data, for example, which is limited to those who choose to take part, administrative datasets include information on everyone who comes into contact with government and public services.

The All Years Dataset: Linking children's health and education data for England. This 18-month programme of work aims to create a de-identified, research-ready dataset that links longitudinal education records for all children in England with NHS hospitalisation records from 2001 onwards

The Predicting school readiness using linked data project is funded by ADR Wales via its core grant from the Economic & Social Research Council (ESRC) as an ADR UK partner.[418]

Growing Up in England[419]: Linking Census and education data for children. Around two million records have been matched, producing a significant sample size for analysis. ONS has linked 2011 Census records to pupil attainment data from a bespoke extract of DfE data named the All Education Dataset for England (AEDE) to create a useful resource for research. Five years of attainment information for a cohort of children who were in Key Stage 4 and Key Stage 5 in the 2010/2011 academic year is included in the data, up to the year 2014/2015, from local-authority maintained schools in England.

No other data source has this level of insight they say on their website, as the The Growing up in England (GUIE) dataset has, on children who are vulnerable or of concern by virtue of their circumstances; for example, children caring for others, children with a disability or ill-health and children from workless families.[420]

The Administrative Data Research UK network is a partnership run by the Economic and Social Research Council (ESRC), part of UK Research and Innovation.ADR UK is made up of three national partnerships – ADR Scotland, ADR Wales, and ADR Northern Ireland – coordinated by a UK-wide Strategic Hub, and the Office for National Statistics (ONS).

The one thing that the ADR and the Department for Education have in common while distributing access to pupil adta, is that neither has ensured the people who the data are about, have been told.

3.11.3 Case study | Research incentives for access to pupil data

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A number of initiatives incentivise schools to provide their pupil's data for research purposes. These may or may not include direct classroom interventions. In our research both academics and government arms length bodies have refused to provide copies of data protection impact assessments, ethics approvals or balancing tests when legally required. There is a parental assumption that where children will be affected directly, parents should be asked for consent to participate however this is not always the case, and opt out may be offered instead. In some projects although data may not be processed, the child will not be removed from the intervention.

Programmes such as the Department for Education led Maths Hubs coordinated by the National Centre for Excellence in the Teaching of Mathematics (NCTEM) enable match funding of up to £2000 for schools in a Teacher Research Group linked to one of 35 Maths Hubs and maths mastery specialists. Power Maths from Pearson has been especially designed to fit its curriculum.

The NCTEM is funded by the Department for Education (DfE) and managed by Tribal Education in partnership with Mathematics in Education and Industry (MEI). Tribal Group was awarded the contract, initially in partnership with the University of Plymouth, and now managed by a consortium. It was initially

initially in partnership with the University of Plymouth, and now managed by a consortium. It was initially asked to deliver the NCETM with Government funding of £15 million until 2009, extended to 2011, to 2016, to 2019, and again to 2022.

3.11.4 Case study | Research trial negative or no effects and what about the ethics

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The results of a new Institute for Effective Education study have just been published, involving a West Sussex school.[421] Approximately 90 Year 8 pupils participated in the study (in the intervention group there were 44 pupils and in the control group 46 pupils).

The report introduction says that, "it is important [to] remember that these are small-scale projects, often carried out in one school, so it is not possible to generalise their findings. In fact, the main benefit of the Innovation Evaluation projects may be in the process, rather than the findings."

What oversight is there of trials that have no or a negative effect? How when trials are carried out during regular lesson hours, is the impact of these non-standard curriculum interventions measured and how is the ethics of a non-equitable education justifiable to children and their families? As the research protocol says, 'no curricular choice is innocent'. "In an ideal world all participating groups should read the same book at the same time to ensure that there is equity. This may, however, be cost prohibitive, since a single set of class texts is approximately £180-£200."

The results of the study showed an effect size of -0.49, suggesting that the intervention had a medium negative impact overall. Contrary to expectations the lowest attaining pupils (those who had a reading age lower than their actual age) actually made greater progress in the control group than in the intervention group, with ten pupils in the control group moving to their expected reading age while only one in the intervention group did. Two classes in the study did seem to make greater progress. One was an intervention class and one was a control class. Both were taught by more experienced reading teachers, and, if measured in this way (against the less experienced reading teachers) had a positive effect size of +0.69.

There were a number of limitations to the study. Given the complexity of reading as a process, the report suggests that it is possible that there may be a delayed effect on the pupils who were 'word rich'. A twenty-minute multiple choice test involving only single sentences is a blunt tool for the measurement of complex reading and comprehension skills and may provide at best only a snapshot. The cognitive benefits of extended narrative reading may not be so easily measured.

Costs per pupil were approximately £28 (additional books and testing).

3.11.5 Case study | Interventions without consent | The Behavioural Insights Team

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Jen Persson includes this case study as a parent whose child was involved in this randomised controlled trial. After trying initially to resolve my concerns through the school and directly with the Behavioural Insights Team in 2019, I submitted a complaint to the ICO of which we gave the BIT advance notice. I am grateful for their contributions to this study.

The spokesperson for BIT told me that following an assessment by the ICO, in which it reviewed various documents including the privacy notice and data protection impact assessment, the ICO determined that there had been no contravention of data protection law, and no further action was required.

So to be clear from the outset of this case study: the ICO did not carry out a formal investigation, but its assessment of the evidence provided was that there was no contravention of Data Protection law. One purpose of this case study is therefore to illustrate why Data Protection law alone can be inadequate to protect children's rights and freedoms.

Can it be right, that an organisation, no matter how ethical or well-intentioned, can carry out a trial involving a child, without explicit parental consent? Research ethics alone would appear to prohibit any behavioural intervention study being carried out on children during regular lesson time without their or their parent's informed consent, or at the very least, a choice to opt-out of the intervention —in addition to opt out of its data sharing. That organisations can also therefore extract children's personal confidential data including religion from schools, at scale, without parental consent is of secondary concern.

The background

The Behavioural Insights Team (or BIT) as it is sometimes referred to, commonly known as "the Nudge Unit" is jointly owned by the UK Cabinet Office, Nesta, and its own employees.

It has been carrying out an interventional 'Social Cohesion' study involving some sixty UK schools since 2018, using school children's personal data— including special category data —directly involving the children themselves. This is just one such project being carried out by BIT in normal school lesson time, as part of Personal, Social, Health and Economic (PSHE) education.

"The Social Cohesion Project aims to increase social cohesion and boost integration through a reduction in prejudice and increased openness in schools. BIT designed an evidence-

based curriculum that is delivered through PSHE classes in secondary schools to students

aged 11-16 which covers topics such as empathy and constructive disagreement. BIT is conducting an evaluation of the impact of the curriculum and personal data is required to be able to do this (e.g. by way of the collection of survey data and data held by school information management systems). A rigorous evaluation is a crucial aspect of BIT's work in order to be able to determine what works. The project was commissioned by the Ministry of Housing, Communities, and Local Government (MHCLG). Schools were offered up to £1,000 for participation to cover administrative costs which most schools taking part did not take up."

The personal data to be collected in addition to the special category data of religion and ethnicity, included other data that are not special category classifications in data protection terms, but may be considered sensitive such as information about Free School Meals and behaviour data on exclusions.

Opt out of 'data sharing', but not from the study itself

A spokesperson for BIT explained to me, "Pupil names and contact information were not collected as a deliberate data minimisation control and in accordance with good research ethics. Parents and students were permitted to opt-out of all [data] processing in respect of which BIT was the controller at any time during the Study. Any other processing was undertaken by the school as an independent controller. In relation to the intervention itself, this was an evidence-based curriculum delivered as part of participating schools' PSHE lessons. It is not generally possible for students to opt out of school lessons as far as we understand. However, they could at all times opt out of data processing in connection with the evaluation of the curriculum."

The project involved transfers of three different types of personal data about children from schools to BIT:

- pre-existing personal data held by the school about individual children from the school information management system (SIMS) which has been provided in the past for the purposes of the child's education;
- data created by the school about the child and their relationship to the school, such as year group and class name, extracted from the SIMS; and
- subsequent collection of new data from each child, linking their survey responses three times across the project life cycle to their personal data. (BIT also notes it was not mandatory for any pupil to take any survey as part of the evaluation. Where pupils chose not to undertake surveys, they were automatically considered to be opted out of the whole project and their data was deleted.)

Behavioural Insights Ltd (the legal name of BIT) became the data controller of this data after it was collected from schools. The Behavioural Insights Team is an organisation that was set up to apply 'nudge theory' (i.e. behavioural economics and psychology) in public policy.

In the case of my child, who was in a class in one of the 60 schools involved in the Social Cohesion study – and despite my objection – we were not permitted to opt out of the intervention. We were offered only an opt-out from the data sharing aspects of the trial, in line with BIT's instructions to schools not to collect consent.

In practice, what this means is that if the family of any child did not get the notice – or if they did not respond with an objection – their child's personal data was extracted by default.

Lack of transparency

The project was "reviewed by the Ethics Committee of the University of Lisbon's School of Economics and Management, which is our research partner in this project". Since it was not stated in the privacy notice, I wanted to know whether data was being processed by the research partner, or by the U.S. research group OpenMind, on which the study's classroom materials appeared to be based.

I therefore asked the school for a copy of the study's Data Protection Impact Assessment, Legitimate Interests Balancing Test, and Research Ethics paperwork. The school did not have copies of these itself and couldn't give me a copy, even though they had agreed to the trial.

I next asked the BIT for copies, but they refused to provide me with them.

The BIT's response at this time in 2019, was less cooperative than I hoped for or would have expected. "We understand that you still have concerns about the study. However, BIT's position has been explained in our previous emails with you and we don't have anything to add over and above what we have already explained. Therefore, we do not think that a meeting or call would be productive."

Given that it is in part owned by the Cabinet Office, I again asked for the documents via FOI, but the BIT again declined saying,

"Behavioural Insights Ltd is a private company and therefore the FOIA 2000 does not apply to us. We are not a "public authority" as defined in section 3 of the FOIA 2000."

I asked the U.S. based OpenMind project more about what the intervention would entail, and they responded, "BIT has adapted OpenMind's materials for use in its social cohesion project. BIT's materials are based on OpenMind's ideas, but they are original and distinct works. Please direct further inquiries to BIT regarding this project."

So I was back to square one. While there is no explicit requirement in law to publish these specific documents, there are broad Data Protection obligations on fairness and transparency – and one might have expected that faced with an explicit request for more information, that both research and psychological ethical standards would have suggested more openness would be appropriate to promote parental and public trust.

Why should any legal guardian or competent child be refused all of the facts? That any such project could involve thousands of children, be designed to attempt to modify their behaviour or beliefs and parents have no choice over their children's participation, still astounds me.

The legal basis for data processing

The ICO did not carry out an investigation but their assessment found, "that there had been no contravention of data protection law, and no further action was required."

Processing of special categories of personal data requires a lawful basis under Article 6 of the GDPR and a condition for processing under Article 9. The BIT says they are using 6(f) "legitimate interests"

Article 6(f) processing is necessary for the purposes of the legitimate interests pursued by the controller or by a third party, except where such interests are overridden by the interests or fundamental rights and freedoms of the data subject which require protection of personal data, in particular where the data subject is a child.

and relying on Article 9(j).

(j) processing is necessary for archiving purposes in the public interest, scientific or historical research purposes or statistical purposes in accordance with Article 89(1) based on Union or Member State law which shall be proportionate to the aim pursued, respect the essence of the right to data protection and provide for suitable and specific measures to safeguard the fundamental rights and the interests of the data subject.

In my opinion this condition is not met, because this is not a remote research project but a live intervention, over weeks of activity and surveys, in particular where the data subject is a child. In my opinion this data processing does not meet a necessity test for processing special category data which is a high bar.

It appears to confuse processing that is necessary for their stated purpose with processing which is only necessary because of their chosen method of pursuing that purpose.

In my opinion it does not 'respect the essence of the right to data protection' because that essence is that special category data should generally be processed with consent except for reasons that make it impossible (like life and death situations of 'vital interests') or for statistical research where there is no direct contact with the data subjects. Whereas in these circumstances it should have been perfectly possible to ask parents for consent.

The BIT's response to this was, "It may have been possible, but not desirable. We did not consider consent to be an appropriate lawful basis to rely on for this project as relying on consent (which has a standard of affirmative action i.e. opt-in) would be very likely to threaten BIT's ability to carry out a proper evaluation of the PSHE curriculum as sample sizes would be too low and may be unrepresentative, meaning that we would be unable to provide robust evidence to MHCLG about what works. This is standard research practice."

If this is standard research practice, I suggest the standards need raised. I also wondered if they could have done the research in a less invasive way, and not at individual level.

BIT's response was, "the robust evaluation of this type of project requires collection of individual level data in order to compare the impact on individuals who received the new curriculum with individuals who didn't receive it. This was done in a way to minimise the privacy impact on children (for example, names and contact details were not collected and the completion of surveys in PSHE lessons was not mandatory for any child)."

The BIT has no relationship with families at all. Most families are unlikely to know what the BIT is as an organisation or have heard of the University of Lisbon's School of Economics and Management, "our research partner in this project". (There is no information in the public domain what this partnership entails but this month the BIT spokesperson confirmed that as only the research ethics partner, it was not involved in data sharing.)

It was not clear at the time because the Privacy Notice says, "BIT may disclose your information to third parties in connection with the purposes of processing your personal data to deliver a randomised controlled trial (RCT) to test evidence-based interventions relating to social cohesion and integration; and to evaluate the impact and effectiveness of the interventions.These third parties may include suppliers, research assistants and subcontractors helping us to administer the study."

In my opinion such processing by any of these outside third-parties is not "reasonably expected" by parents when they send their child to school.

And children with uninterested parents will have had their rights to privacy and family life less protected than they may have expected, and in a way that was lower than my children have.

Insert Fig 1. What kind of information do we collect?

In summary

The spokesperson suggested to me that it was, "not appropriate for you to make findings in your summary as to whether BIT's procedures and documentation (e.g. BIT's privacy notice and how this was communicated with parents and children) were "adequate" or not."

In my experience as a parent, the entire process has been inadequate —not least because my child and classmates were subjected to a psychological study designed to influence behaviour, that was carried out during their regular lesson time —and I and my fellow parents were not asked for our explicit and freely given consent, nor were we permitted to withdraw them from the study.

The complaint procedure was also inadequate and provided no remedy from either an ethical or data protection perspective. Other parents in other schools may not have had the same experience, and be of a different opinion.

The ICO's initial assessment determined there had been no contravention of data protection law, and no further action was required, without taking into account other relevant factors. I believe it is wholly unsatisfactory that third party organisations can carry out trials in schools, from which we cannot opt out, and we are not able to fully understand what the expected "impact on individuals who received the new curriculum" would be.

I would welcome further discussion with established research bodies on this point. The Behavioural Insights Unit spokesperson expressed an "objection to [you] including it in your report in its current form, or at all, and it should be removed from the report before publication." However, I believe it is in the public interest to raise questions of research ethics that impose interventions on children in state education without parental consent.

And I believe it is equally in the public interest to raise questions of whether all children's rights are adequately protected in state education subject to trials, through current data protection enforcement practice.

I am grateful to the BIT spokesperson who reviewed this case study several times and based on whose input I made significant changes to include their contributions. I would still like to see a copy of the research ethics approval.

3.12 Systemic data risks and harms

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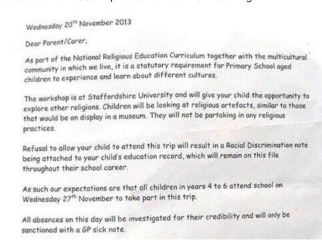
Poor practice can be systemic and supported by poor technology design or legacy fields. It can also be unique to a school's own policy and practice.

For every child however, anything which is attached to their record "throughout their school career" and sent to national pupil databases, now means labelled for life. Children can be labelled by data ascribed by an administrator that reflects a parent's not a child's choice.

We believe these decisions are not given the due weight they require and could have severe unintended consequences, where data is now used in predictive machine modelling.



Wednesday 20th November 2013

Dear Parent/Carer,

As part of the National Religious Education Curriculum together with the multicultural community in which we live, it is a statutory requirement for Primary School aged children to experience and learn about different cultures.

The workshop is at Staffordshire University and will give your child the opportunity to explore other religions. Children will be looking at religious artefacts, similar to those that would be on display in a museum. They will not be partaking in any religious practices.

Refusal to allow your child to attend this trip will result in a Racial Discrimination note being attached to your child's education record, which will remain on this file throughout their school career.

As such our expectations are that all children in years 4 to 6 attend school on Wednesday 27th November to take part in this trip.

All absences on this day will be investigated for their credibility and will only be sanctioned with a GP sick note.

3.12.1 Ascribing errors | making data fit

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Ethnicity was found in 2016 to have been ascribed by school staff in some counties, even to the point of overriding parental and pupil choices to refuse to provide the optional information as recommended to schools by Brighton and Hove City Council ahead of the autumn school census. This option was changed in system providers' design to remove fields 'ascribed by' as a result.

In autumn 2016, during the debacle over collection of country of birth and nationality school staff raised concerns[422], that Heads in the Brighton and Hove area had been told by the council to ascribe ethnicity where it was not provided by the parents.

As school had sent out the message to parents, saying, **"Where an ethnicity has not been stated or refused, the Head teacher has the right to 'ascribe' an ethnicity to your child."**

In reply to FOI sent to the council, we were told[423], "the local authority did include a model letter as part of recent guidance sent to schools about ethnicity data collection. The letter did explain that the Head teacher could ascribe ethnicity under certain circumstances. The guidance we gave to schools about ascription was based on that provided by Kent County Council. There is a category in SIMS where schools can identify if ethnicity is ascribed and so this guidance supports schools to do this appropri ately."

This Kent guidance in turn, referenced 15 year old Department for Education recommendations as its own source.

"4) Ascription of an ethnic background by the school In some cases, a school may anticipate that the response from a parent will not be forthcoming. The school may consider whether it would be appropriate to undertake ascription of an ethnic background. Ascription by the school should only be undertaken as a last resort."

A number of safeguards were suggested, such as sending a letter asking for the data and that the letter must tell parents that they have the right to refuse to provide this information but that they must formally notify the school of this refusal.

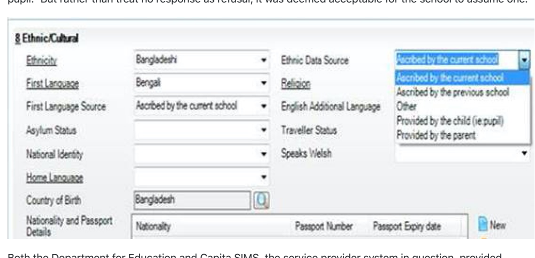
Schools should "record the appropriate value of the "source code" in addition to the new ethnic category. The "source code" can take the following values:

- Provided by the parent(s)/Guardian
- Provided by the pupil
- Ascribed by this school
- Ascribed by a former school
- Other or not known

(Guidance **For Local Authorities** on schools' collection and recording data on pupils' ethnic background (in compliance with the Data Protection Act and the 2001 national population Census January 2003)"

Despite its acknowledgement "as a last resort" it is unclear why or for what purpose such practice would be necessary at all. Ethnicity should always be optional in the school census.

The Kent guidance acknowledged and was at lengths to emphasis that, "Ethnic background data is regarded as sensitive personal data and any parent or pupil has the right to refuse to provide this information. If a parent or pupil has refused to provide this information schools must not record an ethnic background for that pupil." But rather than treat no response as refusal, it was deemed acceptable for the school to assume one.



Both the Department for Education and Capita SIMS, the service provider system in question, provided defenddigitalme the assurance that this field drop down choice had been removed from the system, and that it was no longer possible for "ascribed by" school options to be indicated in the information management system.

How many may have been ascribed incorrectly across England since 2000 is unknown.

Pupils that are unaware a national pupil record exists about them, are unable to verify the accuracy of their own data or get corrections.

As Ben Williamson, wrote in 2018, data about a child can have significant effects on their life. Schools are responsible for ensuring the use of edTech today does not negatively impact their future. To rush tech solutions, is a reaction, not a response.

> *"Of course, the ethical issues of datafication of education are considerable and fairly well rehearsed. An interesting one is the ethics of data quality–a topic discussed by Neil Selwyn at the recent Learning Analytics and Knowledge (LAK) conference. There are significant potential consequences of poor data in learning analytics platforms. In other spaces, such as healthcare and military drones, the consequences of poor data quality can lead to disastrous, even fatal, effects. Poor quality datafication of education may not be quite so drastic, but it has the potential to significantly disrupt students' education by leading to mismeasurement of their progress, misdiagnosis of their problems, or by diverting them on to the 'wrong' personalized pathways."*

3.12.2 Errors and right to correction

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There has never been any data audit of England's National Pupil Data released in the public domain. In 2015 the author made a Subject Access Request to The Department for Education to see a copy of her own children's national pupil record. It was declined.[424] A summary SAR was met in 2018 but the Department failed to provide all information held and could not confirm the third parties to whom personal data had been distributed since 2012.

How can errors be identified or corrected?

By comparison in Wales, the government permits and fulfils subject access requests.

In the 2017-18 Welsh Government guidance on the school census in Wales pointed out that the default setting for school census data, would indicate that a child had in the past been a Looked After Child. The error had been identified because a parent made a Subject Access Request about their child which the Welsh government fulfilled, revealing that every child in 2010 had been wrongly recorded as having been in-care at some point in the past.

> Our wider investigation has revealed that in 2010 the software used by schools in Isle of Anglesey incorrectly used the code 'XXX' as the default value for this field, leading to all pupils having this code whether they were in care or not. Our validation rules for this field

3.12.3 Data leaks that expose personal data

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In February 2018, Infosecurity Magazine[425] reported that the ICO has launched an investigation after it emerged that CCTV camera feeds from several Blackpool schools ended up on a US website.The live streams from Highfield Leadership Academy, St Mary's Catholic Academy and Christ the King Catholic Academy were broadcast publicly after an apparent security blunder by Eric Wright Facilities Management, which serves all three schools. They were reportedly taken offline within an hour, but question marks remain as to how the video images ended up being broadcast in the first place.

3.12.4 Data corruption

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Capita the major supplier of MIS systems to21,000+ schools had a repeated problem in 2017 and 2018 but seemed to carry on business as usual. Its after effects was a significant imposition on schools IT staff time and capacity without any redress.[426] The error had apparently happened in late 2017 and wasn't fixed in July 2018.

The problem affected the common transfer files (CTF) – which are used to transfer children's information between primary and secondary schools for moving pupils and other ad-hoc transfers. Where schools had imported a CTF for pupils joining the school that included parents or other contacts with a name that matched exactly to a contact record already in the database, the applicant may have been linked incorrectly to this person and some data may have been incorrectly changed.

One school had identified 100 records that had been affected and, although Capita have released patches for schools to install to stop the problem happening again and to identify which files have been corrupted, it appeared that all infected files had to be fixed manually.

The data protection issues engaged included data (in)accuracy (linking the wrong child/family to the wrong pre-existing child/family records), data retention, and any potential breach from sharing the wrong record with the wrong individual, due to the mix up of different families' records.

In the words of one school IT manager,[427]"Just got this notification. Are they kidding? From the new "Customer Success Team"(!) The same bug that they introduced over a year ago is still being shipped? Or reheated in some way? Is this some sort of celebration of the introduction of GDPR by "spaffing all their customers up the wall"? We hold off every release till the last possible moment, but now they've got us. And this at the time of year when we are importing hundreds of new pupils. Absolutely incredible. They should be facing a class action now. And their decrepit cash cow "product" should be booted out of every school. Unbelievable."

Capita basically got to shrug its shoulders and say, oops, we did it again, without impunity. And then landed another major government contract. Local government reporting of contract spending is not granular enough to enable us to have researched how much is spent by academy schools, and maintained schools and other educational settings what the spend is from the public purse. But schools are powerless to refuse to pay for costs incurred even by Capita's mistakes.

There was speculation in the sector that the problem and fix had been withheld until after Capita was awarded a further Department for Education contract, announced on the same day as the problem in July 2018[428].

Capita was selected by the Department for Education's Standards and Testing Agency (STA) to manage the administration, processing and support for all primary school national curriculum assessment (NCA) tests in England. The new six-year contract, covering the 2020 to 2024 test cycles, was worth approximately £109 million.

3.12.5 Data misuse

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A former local authority education worker who illegally shared personal information about schoolchildren and their parents was prosecuted by the Information Commissioner's Office in February 2018.[429] The staff member was employed at the time as an apprentice in the schools admissions department of Southwark Council and prosecuted for taking a screenshot of a council spreadsheet concerning children and their eligibility for free school meals before sending it to the estranged parent of one of the pupils via Snapchat. The image included the names, addresses, dates of birth and National Insurance numbers of 37 pupils and their parents. She also sent a copy of a school admission record relating to another child.

3.12.6 Data abuse

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Personal data created and collected for the purposes of a child's education should not be used for non-educational and punitive purposes. The most egregious example of this that the Schools Minister and successive Secretaries of State have found acceptable since 2015 is the abuse of public and professional trust of school records for Home Office immigration enforcement and its strategic aim to 'create a hostile environment' for migrant children and their families in schools. We await clarification from the Home Office of the outcomes from data processed for these purposes.[430]

3.12.7 Data attribution and loss of context

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The data don't tell you what you think they tell you. Linkage of data is deeply problematic in ways that most policymakers fail to see or seem to have accepted. The harm this can cause should be apparent from the exams 2020 fiasco. If you don't understand the historic input data, and the decision choices made using that data, you are highly likely to be creating a 'mutant'. The data that are being put together about children from their education records simply do not carry the accuracy or significance that they are attributed, when linked to other data or viewed out of context whether by other government departments or by local government.

The linkage of Key Stage scores in Kent, with data broker data is an example of data that do not fit together and yet are being used to create even larger local datasets for decision making.[431]

We are not only at risk of overfitting data to a model statistically to make it appear to fit more of the data than we should, but in how we are fitting our expectations of what the outcomes should be from using data that policy makers have made up and taken out of context.

Part four | Mapping the transition to Higher Education

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4.1 Higher Education

We mention Higher Education only insofar as applicants are often still children aged under 18, or on its cusp, when much of their personal data is collected by institutions as part of the applications process, and is then combined with data collected and created during their time in Higher Education.

We have mapped only some of the key activities that require data processing from applicants and students in the transition year between compulsory education at age 18 and Higher Education.

The data industry that now operates in the Higher Education sector is vast and includes student surveillance 24/7, across campus, across the student whole experience from academic attainment and predictive analytics assessing 'risk factors' for drop out, to a lifetime of alumni fundraiser calls. Everyday data collections sit behind the infrastructure for building access and attendance registration and administration using fingerprint readers for the interface with printer and cashless payment systems. Universities surveil social media for reputational risk, online activity for the Prevent programme and the Student Loans Company scans every social media for signs of fraud. Learning and attendance data are repurposed for tasks the data were never designed for in predictive analytics and even mental health risk indicators. Voice activated support services [432] may take an inadequate approach to biometric data.

We did not research the widespread use of plagiarism software in Universities, its data processing or effects. However this area of work needs addressed from various rights' angles not least to respect cultural norms. A diverse student population will inevitably reflect different approaches to research and reference to others' work may and written work without appropriate credit, may not be intentionally submitted to be misleading, signal guilt or lack of integrity. What automated systems may pick up as plagiarism may also reflect poor referencing, diverse learning approaches, respect for the authority of others' work, unfamiliarity with the boundaries of collaboration versus intentional 'cheating' by sharing work, and limited writing experience or experience in English as an additional language.

Students are treated by default as potential essay cheats by its plagiarism detection algorithm. The psychological and stress implications of being under constant surveillance deserves more attention. Contract cheating services and getting others to write your work in 'essay mills' are not new, but the speed and scale of services thanks to online access has changed universities' approach to dealing with them and investing in services to combat rather than solve the issues.

"Universities are investing in Turnitin to automate plagiarism and ghostwriting detection as a way of combating academic fraud. The problem of essay mills that politicians are now fixated upon is the ideal market opportunity for Turnitin to grow its business and its authority over student writing even further. In so doing, it also risks standardizing students' writing practices to conform to the rules of the algorithm–ultimately contributing to the algorithmic governance, and even 'robotization', of academic writing.

"The real problem is that universities are being motivated to invest in these robotized, data-crunching edtech products for multiple complex reasons. As universities have to seek larger student enrolments for their financial security, algorithmic services become efficient ways of handling huge numbers of student assignments. They satisfy government demands for action to be taken to raise standards, boost student performance, and preserve academic integrity. But automated software is a weak, robotic, and error-prone substitute for the long-term development of trusting pedagogic relationships between teachers and students." (Williamson 2019)

4.2 Higher Education | five areas to address

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Here we consider only five separate areas of data collection and processing within Higher Education

1. Direct data collection from young people in the admissions and clearing process to obtain a place in Higher Education (Admissions)
2. Secondary data distribution and processing from HE institutions to national state data bodies such as HESA an HEFCE, national government departments and Public Bodies beyond direct education (LEO data)
3. The learning environment and for the administration of an individual education by the institution (Learning analytics and predictive algorithms)
4. Personal data surveillance (social media) beyond reasonable expectations. (Dataveillance by the Student Loans Company and universities)
5. Student mental health (Predictive analytics).

Sarah Chesney, Director of Flourish Learning Ltd, spoke to us in 2019 about the challenges of digital coercion and implications for the datafication of young people, often without consent, in Higher Education. There are two areas within higher education need scrutiny first in her view:

1. Learning analytics: the use of student data collected and aggregated by or on behalf of the HEI to provide information about the study habits and ongoing performance of individual students and cohorts of students.
2. Social media platforms: and other third party tools & technologies, hosted external to the Higher Education organisation, to engage students and/or to enhance learning.

Activities in both the above areas offer potential benefits to students and their institutions and have been discussed within the sector. For students and financially challenged institutions it's anticipated that learning analytics will be of value:

- For identifying at risk students who may be in danger of dropping out of university (Blackboard 2017, Jisc 2016)

And

- As a tool for quality assurance and quality improvement (potentially providing evidence for exercises such as the Teaching Excellence Framework)
- For engaging students in their learning through self regulated tests, comparisons with their peers' achievements, apps which track their progress
- For enhancing student learning through monitoring progress and achievement (Jisc, 2016)

Within the sector, data-gathering has become a default, habitual process. There is, however, an urgent need to examine the cost of the benefits, not just financially, but also cost in terms of individual privacy and data security. This is important because, at the time of publication, there is a 'dearth' of evidence 'in the literature and rigorous, empirical, replicable studies' making 'it difficult yet to justify any grand claims for the impact of learning analytics' (Jisc, 2016). This is concerning given talk of utilising the 'fine grained details of the students' clickstream' (Jisc, 2016) and the quantity and granularity of student data currently being collected and stored.

This collection and storage is happening through:

- Virtual learning environments (e.g. Blackboard, Canvas, Moodle) in which the areas assessed, contributions made, and time spent on task can all be monitored. Blackboard promote their 'Blackboard Analytics' system to universities.
- Student information systems (e.g. Tribal, Banner, Texuna). Tribal are promoting learning analytics and business intelligence solutions.
- Library systems, where records of e-journals accessed and annotations made can be recorded (e.g. EBSCO, Insignia),
- Lecture recording where lectures are automatically recorded, shared with students and stored for a period e.g. 2 years (e.g.Panopto)
  Course e-textbooks (e.g. Kortext)
- Assessment and plagiarism detection systems (e.g. Turnitin). Blackburn (2017) raises the question of 'whether Turnitin 'originality reports' are seen as student data in the same way as attendance records, Learning Management System access reports and other common 'big data' sources.' A small number of academics have raised the issue of the ethics of using Turnitin for reviewing student work.

"There is enormous potential for accident and abuse in the creation of a permanent, central data-minable repository of everything that every student ever writes. Moreover, this database is completely outside the ownership of [the university] and that magnifies the problem." (Cochrane, 2006 in Blackburn, 2017)

These are all areas which need robust regulation and oversight, something which is currently lacking. A small number of universities are piloting information and consent procedures to comply with the impending EU GDPR, trying to be more transparent about what happens to student data. However, these don't address the

GDPR, trying to be more transparent about what happens to student data. However, these don't address the challenge of 'digital coercion' at the point of enrolment at university.

We need to consider: 'Should students have the ability to opt-out of having their data collected?' (Stiles, 2012, p33).

The student population must start to challenge whether the smart campus serves them well, or serves them up as data mining repositories and who this benefits most.

4.3 Admissions | The Higher Education Statistics Agency Limited (HESA) The Office for Students (OFS) and The Funding Bodies

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At national level, the launch of the Office for Students, has been followed by new legislation and data management and distribution systems used in the collection and analysis of applicant and student data, as far as administration by HESA and introduction of analytics.

The Higher Education Statistics Agency Limited (HESA) is the body responsible for collecting and disseminating information about higher education in the UK and the Designated Data Body for England (see www.hesa.ac.uk/about for more information). HESA is a Controller of your information.[433] HESA also acts as an information hub to provide information on higher education.

It has a vast set of purposes for re-use which go far beyond what students would expect. Your HESA information may be used for example to audit claims to public funding and student finance, and to detect and prevent fraud. This may include sharing your information with other Controllers (for example the Student Loans Company, and Pearson Education).

Where HESA and organisations use HESA information this may include linking named or pseudonymised HESA information to other information for research purposes. Examples include linking to:

- National Student Survey data – to place the results of this survey in context
- School and Further Education data – to research progression to higher education
- Student Loans Company data – to research the use of student finance
- Qualification awarding bodies data – to research the value and outcomes of qualifications
- Employment, tax, and benefits data – to research the earnings of graduates and to better understand the outcomes of education (Guidance on the use of HESA records matched to tax, benefits and employment data is available at:www.gov.uk/government/publications/longitudinal-education-outcomes-study-how-we-use-and-share-data)
- UCAS data – to understand entry rates to higher education
- If you are a medical student your HESA information may be included in the UKMED research database (www.ukmed.ac.uk). The General Medical Council is the Controller for this database used for researching doctors' progression through their education and training.
- UCAS and Higher Education Career Services Unit (HECSU) data – to deliver an information service to support students and prospective students make informed and effective study and career choices.
- Higher Education Access Tracker (HEAT)

Where HESA provides information from your HESA information to third parties, the permitted uses of the information by a third party may include linking HESA information to other information held by the third party. Permission for such use is considered on a case by case basis.

If you attended a school or college in England or Wales linked data may be disclosed to the last school or college you attended (or its successor body) and to Ofsted or Estyn in the exercise of their official authority to enable them to assess the outcomes of secondary education.

4.4 LEO | The Graduate Outcomes Survey

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The Graduate Outcomes survey is a national survey capturing information about the activities and perspectives of graduates 15 months after they finish their studies. All eligible graduates who complete a higher education course are asked to take part in the survey and your HESA information may be transferred to countries outside the European Union.

UCAS's survey of their 2015 UK applicants, with 37,000 responses, showed the majority of respondents were happy for their data to be shared for research purposes where there is a clear public benefit. The majority of applicants (90 per cent) however agreed with the statement that they should be asked before their personal data was provided, over twenty times more than disagreed with that statement (4 per cent). Interestingly a further 8% suggested that they would rather share no data at all with UCAS and not apply, than have it shared. In our own discussions with under 35s on the use of their data, it is often those who already feel most marginalised, the BAME and stigmatised, who are in the group most likely to want to maintain control over their data and may be the very minority that 'inclusion data' seeks to understand but will exclude as a side effect of the way it is collected.

The Higher Education and Research Act created a legislative gateway for secure access to students' data for public interest research But also overrides the consent process and applicants autonomy over their own privacy they had to choose who else can access it.

Esteemed academic researchers seem oblivious or willingly to want ignore that they override young people's dignity and self-will in doing so, and with limited safeguards.

Trust in use of their confidential health data was affected by understanding data security, anonymisation , having autonomy and control, knowing who will have access, maintaining records accuracy, how will people be kept informed of changes, who will regulate the database, and how people will be protected from prejudice and discrimination.

The report concluded: "These questions and concerns must be addressed by policy makers, regulators, developers and engineers before progressing with the design, development and implementation [...]and linking of any databases."

A risk of the metrics based data focus is a loss of contextual nuance that experienced researchers identify and communicate, but will be lost in its practical transfer to prospective students.

When BEIS talks about destinations data it is rare to hear thought given to the data that shows a range of jobs that students take straight from Uni with unknown purpose. For many the desire to start to pay back student debt means jobs that have little to do with their course skills or future earning potential. First jobs can be a reflection of the cost of student debt rather than 'course' value measurement. They can bring huge satisfaction, but they are short term. For how long into the future may HMRC data be fed back to their universities? At what point is post-graduate employment seen to be caused or correlated to their course and worth the cost of collection?

Under these arrangements there seems to be no time limit on transfers over time. So whether you start work at Centrica or the Central Escorts Service it seems more than likely HMRC will know, even if you opted to leave it off the 'name of employer' question in the Destination of Leavers from Higher Education (DLHE) survey. A further survey, the Longitudinal DLHE, follows up a sample of respondents three and a half years later. The response rate to this is about 40%. There is a massive market of outsourced insight companies supporting its collection. It appears to offer zero benefit for the post graduate themselves.

The risk of this ever increasing focus on destinations data drives the concept of which students not only do which courses, but which students "should" do which courses. A focus on the marketisation of education, treats people only as a human resource for the economic productivity of the State, discouraging curious but broke thinkers and artists who will challenge it, including the creatives, the humanities students, and the poets. A lifetime of educational achievement is now measured through the lens of the Treasury. What kind of world will they grow up in, if all of education and aspirations are only given value measured by what LEO says?

4.5 Data analytics | Local Student Information

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4.5.1 Learning and predictive analytics | Local Student Information

Local Student Information Analytics at Higher Education institutions, may use student characteristics and behaviours in dashboards, business intelligence and key performance indicators. The types of data these analytics software may include, range from[434] applicants and students' personal data from general registration, use of Virtual Learning Environment interactions, processing financial data, alumni data, course data and interactions with facilities, such as libraries and e-books. It may also be used for analysis of workforce data held by the university.

"The rise of education data science as an infrastructure for big data analytics in education", wrote Ben Williamson in Big Data in Education (2017)[435], "raises significant issues about data privacy, protection and the responsible use of student data. In a recent news article it was reported that the company Blackboard had conducted a massive data mining exercise on student data from 70,000 courses hosted on its learning management platform."

Jisc are seeking[436] to 'make the market' for UK learning analytics, working with Civitas Learning.

Jisc[437] considers this an example where solely automated profiling [of young adults and other students] is positive, and would be "a breach of privacy if all such notifications were reported to tutors for review; students have expressed a fear that such reports might influence their marks" and assumes that human intervention is rare and therefore a good thing.

In 2017 Jisc reported that it was, "currently working with 50 universities in the UK to set up a national learning analytics service for higher and further education. This is the first time learning analytics has been deployed at a national level anywhere in the world, creating a unique opportunity for the UK to lead the world in the development of learning analytics."[438]

The learning analytics solution was being developed, "in collaboration with commercial suppliers and the sector."

There is little information on university websites, who these commercial suppliers are. The JISC R&D project[439] run over 4 years and one month is due to end in August 2018, has had a budget of over £1 million.

The most commonly used commercial products in UK universities from our research, include Blackboard, Civitas, and JISC, or Qlic, stREAM, Starfish, and Xray.

Statistics and statements that are given as measures of success, would seem self-evident in some analytics systems and it is hard to assess the value add independently. "Strong link with retention: less than a quarter of students with a low average engagement progressed to the second year, whereas over 90% of students with good or high average engagement did so."[440]

Academics at three universities have approached us at defenddigitalme in 2019, independently, concerned about data accuracy, bias, and security, because hundreds of academic staff can have access to students' personal data.There is concern over the risk of discrimination through the racial profiling of the entire student population, with weak 'consent' model that students feel pressured to accept but little understand or simply see as the norm and do not question.

The analytics system may profile university students' using the previous five years of attainment data to 'predict' vulnerability to future 'low achievement' using factors that range from failing a module to country of birth, gender, age, ethnicity - and many other factors recorded and available to all academic staff to see. Staff can use filters to pull up 'at risk' students by ethnicity or country of birth for example, and see student names, personal email, student ID, and have the ability to edit. Staff are told to tailor their approach to students accordingly.

"In one of the most prominent learning analytics initiatives in the UK, Nottingham Trent University (NTU) has implemented an institution-wide dashboard to enhance the academic experience of its 28,000 students by facilitating dialogue between students and staff. The specific goals were: to enhance retention, to increase a sense of belonging to a community, and to improve attainment. In a survey of first year students, 27% said that they had changed their behaviour in response to data on the dashboard. Some students did more academic activities, e.g. independent learning, although this is not measured in the dashboard. Others competed to have the highest engagement score. There is a possibility of bias however here, because the dashboard may help those students who are already articulate and engaged".[441]

The proposed new TEF was accompanied by an Open Data competition[442] for tech companies and coders to create apps to help prospective students decide where to apply. The practical reality appears however that there is now access given to staff to very personal and in-depth automated profiles than would previously have been available.

The JISC response to the Article 29 Working Party guidance on profiling, called for softer restrictions on automated profiling than the GDPR and guidance suggest, saying, "the technology also enables a wide range of lesser interventions (personalised reading lists, reminders when a student is falling behind their peers, etc.). We would consider it a breach of privacy if all such notifications were reported to tutors for review; students have expressed a fear that such reports might influence their marks.

"Nonetheless, by failing to explain which automated decisions have "significant effect", the draft guidelines are likely to result in universities, concerned about data protection compliance, inserting human inspection into even these low-risk processes and decisions.

Jisc has recommended that learning analytics be carried out under the Article 6(1)(f) legitimate interests regime, ensuring that such activities always protect students' individual rights and freedoms."

The question then becomes how do institutions protect students' individual rights and freedoms?

While these analytics systems may function within the law, they certainly overstep privacy boundaries that were once clearer between student and staff. Where once a member of staff would have known that student A needed reasonable adjustments of extra time for assignments or exams, now the staff member can know exactly why, for what condition or circumstances, and there is no explicit consent process to share details with an indefinite number of staff.

Processes could and should include this during the admissions process. But they should first review whether the depth of detail today is necessary and proportionate, or whether a return to more data minimisation, higher level information, would meet the student's needs. More detail can always be entrusted on request or on a need-to-know circumstances. Policies and practices need adjusted to meet data privacy and data protection by design and default.

We have not tried to do UK-wide analysis, but can offer case studies of some universities that replied to Freedom of Information requests.

There is no publicly published transparency how such software works, what balancing test is done between the legitimate interests of a university and individual rights, or how the university assesses whether or not the impact of the automated decisions have "significant effect".

The methods behind this data mining and purposes to which it is put, need further scrutiny and a judgement made whether or not the analytics methods, "behind Knewton including their "sophisticated algorithms to recommend the perfect activity for each student constantly" combined with psychometric information and social media traces to produce a cloud of data on each individual used as a quantitative record for data mining and predictive analytics – constitutes profiling and automated decision making, which should not routinely concern a child. As a parent with some understanding of data mining and predictive analytics I believe it is unlikely that their complexity will be transparent to teachers and truly open to human review, for error and implications. On this basis, these software are not suitable for use with children in schools, yet that is the direct of travel.

"Though much of its activity has previously been confined to Higher education, by partnering with Pearson, the two companies aspire to take learning analytics and adaptive learning systems into the schools market." [Williamson]

Young adults must have a right to obscurity, and not feel obliged to be surveilled simply by participating in education or find that their personal data are repurposed for other uses by default, such as general monitoring to infer mental health[443].

Many people voiced concerns on Twitter when 2019 Office for Students' projects were announced that their plans were invasive, and in particular people were critical JISC's social media post on the plan talked of 'data harvesting.''[444] In June 2019, Paul Feldman the CEO of Jisc said during a talk on Higher Education data analytics at the University of Buckingham, that the extent of the Jisc data surveillance, tracking and profiling of students meant that,

"we [JISC] can track them around campus, though that gets quite freaky and they object to some of that."(end quote)

4.5.2 Data analytics in practice | university use

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1. Whether they were using any data analytics software at all and if so, which ones?
2. Whether they were using any predictive analytics software such as used in but not only, Blackboard, Xray and JISC supported Civitas.
3. We asked to see a copy of any contract terms on using the data by the provider company including
   a) the data items feeding analytics, any profiling, and/or used in prediction

   b) what the prediction purposes / aims are

   c) training the software (such as AI and machine learning) by the provider using the data provided via your organisation.
4. We also asked whether the University was using its own student or staff population data for machine learning for purposes not included in 1-3 above? (ie but not only, within the university computing department for any project or with another third-party)
5. And from which time periods were the student or staff data collected which are processed in any of the above (ie not only, retrospective student data from the last ten years / only current intake which began in autumn term 2018)?
6. And finally, how many people/user accounts have access to the whole population student data in any of the above in this calendar year?

4.5.3 Are universities using their student or staff population data for AI?

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The University of Bath responded "Only within the Technology Enhanced Learning (TEL) this year, for University staff, there will be a link for basic TEL help desk information from Computer Services into Powerbi to determine faqs and trends in support needs. This information is for University use only and not provided to third parties."

Derby university is using student data to investigate if machine learning can assist in learning analytics - individual student data is anonymised. 30–40k students' data are at the time of receipt used in the project, data from the last 3 years, however this is not at an individual level.

The University of Gloucestershire had done some exploratory work as part of Jisc's Labs but using anonymised data and without leading to any operational system. The datasets held in the Jisc Data Learning hub go from 2015 until the present.

And at Winchester they were trialling the use of machine learning for photo upload approval in 2019. "Currently we are training the system to learn from previous rejected photos and then we will move onto testing the handling of photo upload approvals within the next 3 months."

4.5.4 How commonly is university data analytics using student personal data?

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In 2019, while not exhaustive as some universities did not reply or failed to provide yes or no, Brunel, Chichester, Durham, the Institute of Education University of London, Leicester, Leeds Trinity University, Oxford Brookes University, Portsmouth, Roehampton, University and the University of Winchester and University of Wales Trinity St David looked like the places to go in 2019 if you valued privacy. They all said they were not using any data analytics software.

Of sixty universities, thirty two said they are using data analytics software, and 14 were not; while a further 14 are unknown because they did not respond, rejected the request or was an unclear reply.

4.5.5 Case study | Student predictive algorithms — Northumbria University

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Northumbria University[445] provided 97 pages about their pilot use of learning analytics software from Civitas Learning International in 2017. That material did not include information about the use of algorithms because, "Northumbria University does not hold a copy of any algorithms being used in this pilot." They also withheld some information, applying an exemption because the University considers that the release of such information at this stage of the pilot could prejudice its own commercial interests.

Phase one of the pilot in summer 2017 involved 'ingesting sources into Civitas system' (SITS and Blackboard) to train the models, and then training on the predictive variables.

From the start of Phase 2, November 2017, live data were 'to be ingested nightly'.[446]

A privacy impact assessment was not carried out.

> The UK Government has stated that the Higher education sector should be a highly competitive market where Universities are in competition with each other to offer the best possible 'product' to existing and potential students and the wider public.
>
> Emerging technologies are one of the means by which such competition can be achieved, meaning that the requested information is considered sensitive because it currently being used to evaluate whether such a technology should be adopted.
>
> Learning Analytics is an emerging technology within the UK Higher Education Sector and we know that as many as 20 other Universities are currently looking at how it can be used to gain a competitive advantage through utilising this technology.
>
> As there are no defined 'must have' data fields in a Learning Analytics system, Northumbria University has selected the data fields that we think will best inform the effectiveness of Learning Analytics. These field may or may not deliver a successful pilot.
>
> Other Universities will or will have chosen their own data fields which may or may not match those used by Northumbria.
>
> To publicise what data Northumbria believes might be used to deliver a successful learning analytics system could give competitors an insight into any potential enterprise deployment of a system, meaning that it would not be in Northumbria's interest for the information to be publically reported at this time.

4.6 Data standards in Higher Education | Ben Williamson

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Dr Ben Williamson, a Lecturer in Education in the faculty of Social Science, at Stirling University, contributed his views about data standards in Higher Education, and why there needs to be more transparency of their purpose.

"Although it is not yet clear how ISO 21001 will be enacted, the fact that 44 member countries are participating in development of the standard suggests it is likely to have wide international impact in years to come. It could become a 'recipe for reality' in education that will shape organizations and practices to conform to its rules and prescriptions. It could have the effect of further standardizing schools, universities and even education ministries. It could configure people into standard form, with practices and behaviours shaped as much as possible to 'deliver' standardized services and standardized learning outcomes. As such, it is an important example of why invisible standards need to be brought into public visibility.

"As an adaptation of ISO 9000 standards, then, ISO 21001 makes data gathering on customer satisfaction into an essential requirement of educational organizations. Of course, there is nothing especially unique about this. In the UK, a new Higher Education infrastructure for student data collection[447] is already being built that requires universities to comply with ISO 9001 quality management standards. (Williamson, 2018c) As with ISO 21001 prioritizing students' requirements and satisfaction, the UK data infrastructure starts from the principle of putting 'students at the centre of the system.' It will enable data to flow from HE institutions for centralized analysis to produce competitor rankings on many metrics, and is supposed to make Higher Education data more usable for customers (students) as well as for policymakers and institutions themselves."

"However, the dominance within the learning analytics market by corporations and companies like Pearson and Knewton raise significant issues about data ownership and control in education. This further raises the question, who owns big data?"

The concept of ownership of personal data can be particularly unhelpful where data is related to or contributed by more than one person.

Where GDPR is very explicit however, is on the existing principle of data purpose limitation and compatibility and reasonable expectations. Many reuses of student data go well beyond these.

4.7 Legislative changes in Higher Education and Research data

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Baroness Wolf summed up the Higher Education Act 2017 by saying: "The Bill went through the Commons almost unnoticed, in my view, but the turnout today shows that many Lords here feel that it is a very important Bill. A free country needs its higher education institutions to be free, too. Amendments to the Bill are vital and well worth fighting for."

In summary, the Higher Education Act was seen as a power grab but not only as discussed by policy makers, at the institutional level, — but at the individual level. It enabled the compromise of applicants' privacy without permission. And it did so in two ways for two sets of purposes.

The first, was intended for public benefit to enable access by accredited researchers in safe settings to de-identified data for public interest research.

Until 2017 UCAS applicants had a layered consent model to agree who can use their data and for what purposes and can opt out from some purposes. That went.

The Secretary of State is now in charge of the definition of 'approved' users and 'research' which is open to change at will over time without safeguards of transparency or oversight.

Under the umbrella of de-identified data research uses, the aim of using these data is to enable an understanding of the provision and deficit of skills in graduates (and apprentices in the Technical and Further Education Act, which replicates all these weaknesses but ten times over as there is even less wording round its use) and be able to join school records through their further or higher education through to what they earn (and bring in to the Treasury through tax) and what they cost (through what goes out from the Treasury through DWP).

As regards data use it was the Small Business, Enterprise and Employment Act 2015 that included powers to pass back HMRC data to educational establishments about their former students and led to the creation of the LEO dataset. The risks we see include that by telling the alumni offices exactly what people are earning, this process could expose alumni to development offices targeting without any consent or transparency. And it will potentially expose every future generation to whatever use today's or any future Secretary of State's define as 'qualifying research'.

The Higher Education and Research Act, and part 3 of the Technical and Further Education Act removed protective barriers between the different data silos within the sector. The Digital Economy Act removed the vertical protective barrier. These paved the way for the permissive pathway of the Digital Economy to sweep up all applicants and students data for all uses across all departments and beyond.

4.8 Case study | UCAS applicant data and equality monitoring

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According to Jisc, a recent survey claimed that 78% of students would be happy to have learning data collected if it improved their grades. However there needs to be a frank discussion about why 22% did not want their data collected and the nuance of those opinions. The full details of the survey have not been shared so it is difficult to draw a conclusion about whether those 'happy' to have their data collected were made fully aware of the potential consequences.

Currently there seems to be a lack of a meaningful alternative to the contract offered by universities to students. It's a stark case of accepting the university's full data processing terms and conditions, or don't enrol. That's not a consent process.

Since 2013, equality monitoring data from students in Higher Education have been passed on from UCAS and universities to HESA, the Higher Education Statistics Agency Ltd. HESA passes these sensitive and personal confidential information on to other funding bodies. The data now sit on a named basis in multiple national databases, including the National Pupil Database at the Department for Education, where it may be linked with hundreds of other pieces of personal confidential information about each individual, in their lifetime record.

For many worthy reasons, many organisations advocate for the collection of religion or sexual orientation among equality monitoring data. But any risk of loss, theft, leak or misuse could be devastating to individuals and communities. Risk of damage or distress is high.

There can be no justifiable necessity for distribution of named data in this way that is proportionate to the risks to fundamental rights and freedoms.

Students have been misled up and down the country by their universities for nearly a decade through poor privacy notices, and those we interviewed on campus in Brighton in 2018, did not know these databases exist. Organisations make no real effort to tell applicants how their personal data are distributed, and abuse a tick-box consent process to fudge their legal responsibilities and accountability.

There must be robust action taken to make this data, and every use of students' personal data on and off campus, safe, lawful, trusted, and transparent. Collection and distribution like this should be unthinkable. We want to see ten changes in this data management process

1. Students' best interests and rights must remain paramount in policy making, including student trust in equality monitoring.
2. These data collected to date (since 2012) must be removed from the national pupil database and destroyed at named level.
3. There must be anonymisation and aggregation at the point of collection. Only anonymous statistics should be retained by universities, HESA, the Department for Education, or any third parties.
4. Students and former students, must now be told where their sexuality and religion data (and all the rest) are and have been distributed to by HESA, the OfS and other relevant bodies. There is already a legal obligation for accountability from data controllers to be able to meet this obligation to anyone's data they process.
5. Personal confidential data should not be distributed at individual level. Make distributed safe access possible rather than pass around the raw data. (ie following UKSA 5-safes model)
6. The Higher Education and Research Act 2017 legislation should be amended by secondary legislation to ensure:
   - only statistics can be lawfully distributed to third parties without the express knowledge and consent of an individual.
   - a statutory duty on HESA and the OfS (and relevant others) to publish a register of their data access by which third parties and for what purposes.
7. HESA's data collection and processing powers must be reviewed not expanded given their apparent careless attitude to student confidentiality.
8. Personal confidential processing by government departments and their arms length bodies must be independently reviewed as part of a National Data Strategy for safe, fair and lawful policy and practices.
9. Every university as well as any other education bodies sharing data with HESA must review their policies and legal position.
10. Independent oversight is needed for education data to restore any semblance of safeguarding of confidentiality and trust in the sector.

4.9 Students social media monitoring

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Organisations which are monitoring students' social media are currently on the rise but it still appears the exception that universities will monitor individual students for interventions. In 2017, the University of Buckingham began keeping tabs on students' social media posts to check whether they are showing signs of mental health problems, such as anxiety or depression.[448]

Even if aged eighteen and adult, students are in the position of wanting to fit in and meet an institution's expectations. Can consent truly be said to be freely given in these circumstances?

Content on a student's timeline is collaborative, and not only about the student themselves. It is potentially discriminatory too by the dint of inclusion or the inverse, by choosing to not participate. Would a university be able to deny a duty of care by saying a student chose not to participate? While legitimate interests include safeguarding, this processing needs be balanced with necessary and proportionate use of personal data not only of the students but their friends and contacts, which are not provided to a university for this purpose.

Monitoring for the purposes of reputational risk is much more widespread and every university that responded routinely uses commercial social media monitoring software, to look for stories and mentions of the institution. While saying they do not routinely monitor student social media, it is still surveillance and may result in censorship where a student or staff member is found to be critical, even if an institution wants to claim "there are no exceptions to this policy.[449]"

4.9.1 Case studies | Social media monitoring in Higher Education

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At Aberdeen University, "over the past few years monitoring has occurred for mentions of the University on a daily basis. No ongoing data is collated; however, in terms of targeted monitoring of our students the figure would be zero. No individual data has been retained from our use of the Microsoft Social Engagement Tool. During its operation, returned results from keyword searches (e.g. "University of Aberdeen") were capped at 10,000 per month by licence." Between 2017 and 2019 the University made use of the Microsoft Social Engagement Tool service to identify public mentions of the University, and any specific tagging of the University, in public social posts. This was carried out to identify any potential reputational risks and to engage directly with those engaging publicly with the University through mentions rather than direct tagging or messaging. This was conducted on a keyword search (e.g. "University of Aberdeen") with occasional geographical filtering to support marketing of location specific events. Our monitoring included rudimentary sentiment analysis across all our social media posts as well as supporting student recruitment through basic top-level reporting. In addition, public discussion around University events were monitored for improvement purposes. This work in now done manually. No reporting to third parties has taken place. The University does not specifically target student accounts when conducting monitoring exercises. As an institution we conduct very basic monitoring of public brand mentions across the primary social media platforms. In addition, we respond to comments posted in our feed in response to posts we publish. There is no specific targeted monitoring of any user or user group. Platforms monitored are Facebook, twitter, Instagram, LinkedIn."

Anglia Ruskin use Pulsar "for social media monitoring of ARU content and public competitor content and sentiment towards ARU. Social media monitoring is also used by the Risk & Compliance Team and Corporate Marketing. In Reactive Fraud investigations, the Risk and Compliance Team may use any social media which are publicly accessible."[450]

Bath University "does not carry out specific monitoring of students' social media and does not use social media monitoring for investigations or for the purpose of Prevent." However, "The University of Bath's Communications department monitors Twitter, Facebook and Instagram for mention of the University and uses a list of predetermined keywords to monitor any reference to the University made by users of Twitter and Instagram. This is carried out by the University's Social Media Manager [and using Sprout Social] on an ad hoc basis during the working day." "The Department of Communications has not passed social media information to a third-party."

Birmingham commercial sensitivity

Brunel University London "do not monitor students' social media." They have a comprehensive policy for staff. "The policy is to outline the acceptable use of Social Media within Brunel University London. It should be clear that policy is not immutable: in particular, in a field such as this, where emerging technology is interwoven with emerging law, we must be able to react to changes. In the formulation and continuous reformulation of policy, we must be guided by advice from within Brunel University London and beyond, taking due consideration of legal precedent, and having due regard to the practices and experiences of our colleagues in other institutions. Social networking in both a business and personal environment can have detrimental effects if not used correctly. This document outlines how the use of social networking should be carried out to safeguard the University."[451]

Cranfield University does general brand tracking through a social media listening platform (Sprout Social) and monitoring of closed student Facebook groups created by the University for each student cohort. "General brand tracking means monitoring public social media of mentions of the University and related themes (such as digital aviation)." The social media that may be in scope include any public ones; "Facebook, Instagram, Twitter, Youtube accounts or channels; public blog sites and forums." "The University does not routinely retain data from social media monitoring. Any data, such as cookies, will be deleted in line with Cranfield University retention schedule, which for the most part, means data will be deleted after seven years in line with the statute of limitations. Cranfield University does not have a specific policy on the deletion of data obtained from social networking sites. If a request is received from an individual for the deletion of their data, then it will be considered as a potential right to be forgotten request and the content reviewed and removed as appropriate." There is no data protection impact assessment; or privacy impact assessment relating to intelligence gathered from social media platforms.

The University of East Anglia similarly monitors Twitter, Facebook, Instagram, LinkedIn, YouTube and Reddit, in Admissions, Communications and Marketing departments for reputational risk. There are no policies on data protection, and data is retained indefinitely.

> The University uses a third-party platform called Talkwalker, which gathers social media intelligence daily. This identifies posts that include the phrases 'UEA' and/or 'University of East Anglia', or any post which directly tags the University's social media accounts. Our use of the Talkwalker platform only gathers public social media information that includes the above phrases.
>
> Social media monitoring and access to our social listening platform is authorised by the Social Media Officer.
>
> It is used on a daily (weekday) basis by our Social Media Officer and we have an allowance of 100,000 monthly mentions of the use of 'UEA', 'University of East Anglia' or mentions of the University social accounts in public social posts. This does not target students on the network and does not target individual students.

Glasgow University also uses TalkWalker. "Social listening is used in the Communications and Public Affairs Office to monitor the performance of the University's social media channels, to help manage 'crisis' situations and to identify stories from a variety of media or social media outlets that we might then share on our channels."[452]

Greenwich[453] like others, "uses a media monitoring software to monitor mentions of the University of Greenwich in the media", and say, "this is not intelligence gathering about individuals." [454] "We would however investigate complaints which are made to us in relation to social media accounts, either our own or other people's accounts." "As part of the University's broad monitoring of media mentions of the University of Greenwich we use a software tool – Cision." "The Communications & Recruitment Directorate undertakes media monitoring

of mentions of the University of Greenwich." But we note that unlike others the monitoring ap[ears to go further, "We have firewall software which conducts web filtering and monitoring against a range of concerns, not exclusively Prevent."

Heriot Watt in Scotland complies with the Good practice guide for Scottish Higher Education Institutions which was prepared by the Higher Education Prevent Working Group in June 2015.

The University of Hertfordshire does not specifically monitor students' social media output. But does use "Orlo, a social management platform, which monitors and reports on inbox sentiment (messages and posts that we have been tagged in)" and "Pulsar for general online engagement with our brand."

Huddersfiled also use the social media listening tool, Pulsar, to look for stories and mentions of the institution on social media, we do not routinely monitor student social media.

Leeds Trinity University monitors its own social media accounts in order to check for general mentions/tags of the University and answer questions from applicants, parents, students etc in relation to University services.

Liverpool John Moore's took a neither confirm nor deny approach to the question, Does your University conduct social media monitoring exclusively for the purposes of the Prevent programme? LJMU can neither confirm nor deny the operational scope of tasks carried out in compliance with the Prevent duty. No inference can be taken from this refusal that the information you have requested does or does not exist. Section 24 provides refusal of information in relation to the safeguarding of national security and allows public authorities exemption from the requirements of Section 1(1)a if confirming or denying would have an undesirable effect on national security. Section 24 is a qualified exemption and this requires the University to apply the Public Interest Test. The University acknowledges that the public has a legitimate interest in being aware of and understanding any possible terrorist activities within Higher Education Institutions, and what actions are being taken to combat such activity. It also recognises that disclosure of the information could provide the general public with reassurances that the monitoring of criminals is conducted appropriately. It has, however, taken the decision to provide a neither confirm nor deny response in relation to your request, as to provide a response could indicate the effectiveness of the University's monitoring activities and prejudice any possible investigation. If a terrorist group were aware of the effectiveness of LJMU's strategy under the Prevent Duty, or that an investigation was under way, it could lead them to alter their activity and, as a result, impede any monitoring or investigation."

Oxford Brookes University policy states, "although the University respects and appreciates the value of personal privacy, its IT systems are provided for academic and business purposes and users should have no expectation of privacy when using the University's IT facilities." "The University has the right to monitor all usage of the IT, communications and computer systems at any time and without notice. The University may inspect, lock, block, scan, clone or remove any computer or drive or information at any time at its sole discretion. Examples of specific circumstances where the University may choose to monitor are:

- to ensure the proper working of the systems or to assist troubleshooting
- to ensure that all users comply with University policies, practices and procedures (including but not limited to this policy)
- to investigate or detect the unauthorised use of Oxford Brookes University's systems."[455]

Manchester Metropolitan University uses Hootsuite specifically for social media. Their media monitoring system, supplied by Meltwater, also monitors public social media channels

(including blogs and forums) for mention of the University. Social media monitoring is used by the Social Media Team, via Hootsuite to keep a track and respond to direct queries; and when the university's social media accounts are tagged in posts. The Meltwater media monitoring

system is used to supplement Hootsuite as it also scans public blogs and forums. Social media monitoring is also used for community management purposes, to respond and engage with key stakeholders."

Manchester University has also, "since June 2018, used Hootsuite Enterprise to conduct social media monitoring, publishing and reporting tasks. Monitoring activities take the form of analysing the performance of and audience engagement attached to University content, including organic activity and paid advertising. Also, since 2018, the University has used software called Brandwatch to monitor social media sentiment attached to the University brand and online content. The contract for the software expires in June 2020. There is no specific policy re. social media in the context of Prevent. There is reference in the IT Acceptable Use Policy to the Counter-Terrorism & Security Act (2015), which enables us to investigate where there is evidence of misuse, but we do not monitor per se. No member of staff is permitted as a matter of routine to monitor or investigate an individual's use of social media. However, where there are legitimate grounds to suspect unacceptable use, the University may monitor or investigate the use of social media where that information is in the public domain. Where excessive or inappropriate use of social media is suspected, the University may take further action, such as commence a formal investigation in accordance with its disciplinary policies and procedures.When concerns are raised in any context, we may check social media (e.g. welfare concerns), as we might with any safeguarding issue, most commonly Facebook and Twitter."

Nottingham University does not have a specific policy on the monitoring or use of social media in investigations for the purposes of the Prevent programme. Instead, the University requires students to adhere to the Social Media Policy for Students (https://www.nottingham.ac.uk/governance/...), educates students on responsible use of social media, and expects them to be personally responsible for what they communicate. Where complaints of alleged misuse of social media are received, the University will view material as part of a disciplinary investigation, where this is publicly available and the security settings of the individual permit the viewing of the material.

Queen Margaret University in Edinburgh "subscribes to a media monitoring service provided by Kantar Media. This service provides a summary of instances that refer to the University across print, broadcast and online news sources. This service also provides a summary of comments made via Twitter that include the University's Twitter handle, and as such only returns comments where the person tweeting has intended for their comment to be visible to the University. Members of staff may investigate comments made on social media where such comments have been specifically drawn to the attention of the University as part of the complaints procedure or relevant disciplinary procedure." There are no available policies.

At the Royal Agricultural University, There is no specific guidance on social media monitoring as part of the RAU's PREVENT policy. The University will investigate as appropriate where a complaint is raised, particularly if the complaint is around online behaviours. The Royal Agricultural University does not conduct social media intelligence gathering oruse software and/or hardware to conduct social network / social media monitoring and/or in relation to sentiment analysis on social media.

At St. Andrews,[456]in limited circumstances, University regulation (the ICT Regulations) provides that if a student is suspected of making inappropriate use of University ICT facilities then an investigation to establish if University facilities were/were not misused could take place. Inappropriate use includes any activity that would breach legislation and/or activities connected with bringing harm towards others such as bullying and harassment. In such instances, social media accounts would not be monitored – any investigation would look to verify the claims made. In the event that the University was notified of a complaint or concerns under the Prevent programme, where social media may be involved, then this would be dealt with accordingly on a case by case basis. No records are held of such an activity being carried out.

At the University of Stirling where 20% of 14,000+ students are from overseas[457] with 120+ nationalities represented on campus, social media monitoring is carried out on a daily basis using Hootsuite around general keywords related to the university brand and for reputational/PR/brand management purposes. Social media in scope, include Facebook, Twitter, LinkedIn, Instagram, and Weibo. "Social media monitoring is carried out by the central social media team on a daily basis around general keywords related to the university brand and for reputational/PR/brand management purpose. We do not monitor individuals so there is no need to have this activity authorised. If any content is gathered which includes social media account names, then this is deleted as soon as the data is no longer needed. There is no process for deletion, as we do not monitor individuals personal data and information."

Sussex University[458] "does not undertake routine, pro-active monitoring of students' use of social media. However, the University has Regulations governing matters such as acceptable use of the University's IT systems and conduct which may be considered as major misconduct such as offensive, harassing and abusive behaviour. As such, a student's use of social media may form part of student discipline cases if inappropriate use is brought to the attention of the Student Discipline Officer. In addition, the University has recently approved a Content Filtering Policy which is due for publication shortly. This policy sets out the principles for support of teaching, research and business activities of University of Sussex whilst protecting users, networks and computers from hostile or unwanted network traffic and illegal or potentially harmful content."

Swansea

> The University does not do any routine or otherwise monitoring of student's private social media accounts, therefore there is no such policy in place.
>
> ***Notes:*** *There have been incidents when what may have been said in a social media posting has been used in a student disciplinary case but this is where it has been brought to the University's attention by way of an urgent matter of concern by another individual or third party and not through its own monitoring of student social media accounts. Additionally, should the University receive concerns of a possible missing or vulnerable student, social media is nearly always a first point of reference as this provides an idea of the reported person's recent activity, however this is not a monitoring event.*

At Warwick, No, the University's Communications team does not gather intelligence on

the University's students over social media, either overtly or covertly. The Communications team monitor theUniversity's social media channels (Twitter, Facebook, Instagram, LinkedIn and YouTube), reviewing the comments and threads that follow the University's posts, and conversations that the University is directly tagged into. The key words and phrases used change frequently and are varied but some examples are COVID-19, Brexit, and the British Science Fair on campus. The team also monitor results that include the University's name – for example,'Warwick Uni' and derivatives of that phrase. This is in line with how most organisations with a social media presence will operate.

University of Worcester "do not monitor social media, we only view it in the context of specific incidents. The University does not undertake either overt or covert gathering of social media. The University only views social media in relation to an incident. It is not ongoing monitoring and we do not store the data. Sometimes we receive a complaint about a students' use of social media, often with a link to a post, this is then discussed with the student and if necessary the Student Disciplinary Code followed." The policy provided was overdue review in 2015.

York University "monitors direct and indirect mentions on social media (e.g. Twitter, Facebook, Instagram and LinkedIn) for media relations purposes. In some cases the University may hold social media data where it has been submitted by a reporting party in relation to a misconduct investigation. The University may seek in these cases to verify the accuracy of submitted information. The University uses Hootsuite to monitor, respond to and schedule social media content." There are no available policies.

While the vast majority of universities would only monitor a student's social media after a triggering event, the existing breadth of general monitoring shows how routine social media surveillance has become. It takes little imagination to see scope creep rapidly transform from reactive reputational management to active monitoring individuals whose actions online may bring the university into disrepute. We have already heard of individual cases where academics will be challenged by University governing bodies for private comments on political matters.

4.9.2 Social Media surveillance by the Student Loans Company

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The role of the Student Loans Company (SLC) is to administer student finance on behalf of the UK Government and the Devolved Administrations. The SLC is issued with an Annual Performance and Resource Agreement for the year setting out priorities, objectives and performance measures for the company. One of the key objectives each year is to minimise, detect and deter fraud.

Social media surveillance across all platforms has been normalised to seek clues that might rightly or wrongly indicate that students are lying who tell universities and the SLC that they are in an estranged family and are without student support.

Counter Fraud Teams have access to a number of social media sites including Facebook, Twitter, LinkedIn, Instagram and My Space. In January 2019 [459]however, there was no definitive list available from the SLC of which platforms may be monitored, even though such sites are used as and when necessary as part of an investigation.

The SLC's Privacy Notice was still being updated to include specific reference to the potential processing of publicly available Open Source information as then CEO called it, for fraud prevention and detection purposes when we enquired.

But more shocking is that the SLC Counter Fraud Service also had no policy covering the processing of social media data of applicants/students, despite doing so routinely and having been heavily criticised five months[460] earlier by the Education Select Committee accused of 'KGB tactics' for assessing eligibility,[461] when the affected populations under scrutiny may be vulnerable and need support.

The charity Stand Alone[462] commonly works with LGBT+ students who have been rejected by family, abuse survivors, students who have been rejected by new step-parents after re-marriage or those who have different morals, values and beliefs to their immigrant parents. All have no entitlement to corporate parenting of any kind from a local authority or other agency. They may have been missed by the care system, or the care system didn't have a remit to intervene. (Bland, 2020)

Without policy, guidance, transparency obligations or oversight perhaps it is little wonder that onlookers in autumn 2018 saw an institution gone rogue, reckless with the implications of its actions on young people's lives.

Social media surveillance fundamentally rides roughshod over Data Protection law, ignores reasonable expectations and purpose limitation, ethics and human rights, and in this case, lacking in any sense of proportion and cost/benefit given the tiny numbers involved. The SLC attitude was rightly condemned by senior MPs as "sinister, KGB knock-on-the-door" tactics. The SLC denied funding to students, and caused harm while their investigations lasted months of the amount in question, as small as a £70 Christmas one-off cash gift from an estranged parent.

Using student / applicants' personal data on social media is not lawful for just any purpose, despite Christian Brodie, the SLC chairman's claims, that it regarded Facebook accounts as a public source of information, and, "they must expect that will be looked at." It is also likely that the SLC not only "looked at" those profiles, but collected data from them, and made inferences from them, creating new data for which they became the data controller.

Against this secretive backdrop the Student Loans Company was given more legislative data powers in 2018.

The negative Statutory Instrument (Higher Education and Research Act (Cooperation and Information sharing) regulations 2018 (SI 607/2018)[463]was rushed in over three weeks in May, and lists the Student Loans Company as a relevant person (body) among the dozen listed, for the purposes of section 63 of the regulations, relevant to the Higher Education and Research Act 2017.

The Explanatory Memorandum of the Regulation had stated that consultation took place widely within DfE and with HEFCE during Autumn 2017 to ascertain the bodies that HEFCE had historically shared information with and any new types of information sharing which would be needed by the OfS in future.

"The purpose of the information sharing, and whether it would be primarily for OfS functions or the functions of the other body was then determined through a further round of consultations within both the Department for Education and the bodies themselves between January and March 2018. "

We asked therefore for the minutes from those meetings. We have since obtained some redacted minutes and notes[464] from the meetings in the lead up to the formulation of the Regulations. The amount of redaction around HMRC and its data sharing purposes, should be cause alone for many more questions to be asked. But what is also revealing, is that the discussion notes clarify "whether it would be primarily for OfS functions or the functions of the other body."

The "KGB tactics" outed in the Student Loans surveillance model demands urgent review for its implications of data sharing and enforcement policy across government for the purposes of fraud detection and that far greater attention is paid than to date, when awarding such bodies additional powers.

4.10 Exam surveillance | proctoring and personal dignity

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Since the Chair of Ofqual suggested to the Education Select Committee that future exam mechanisms as a response to COVID-19 might include "using online tests" if the exams cannot be done, then it is timely to address proctoring.

A number of media reports and social media posts reveal how invasive their use can be including requirements on young people showing their lap/groin area to camera in remote monitoring and students reporting that talking to themselves during the exam, can result in a no grade fail.

We have not researched this area in the English state education system, so we are not aware of systems in use routinely, although we may just be unaware of practice rather than it not happening.

As part of the background research for this report, we did however meet with staff from Proctorio in 2018 and were then quite excited by their product and claims that they were all about preserving privacy while protecting academic integrity.

"Validating student identities, securing exam content, and preventing academic dishonesty are necessary in order to increase the prestige and value of degrees and certificates acquired online. The challenge for institutions and third-party exam monitors is how to protect student privacy and provide data security while protecting academic integrity."

But we have been greatly disappointed since, by their adversarial response to criticism and to students who did not want to be subject to their surveillance product in practice.

Mike Olsen, who is the CEO of the US-based Proctorio, has apologised for publicly posting a student's chat logs during an argument on the website Reddit and has since deleted the posts, saying that he and Proctorio "take privacy very seriously" in July 2020.

An ANU student and a leader of the group No Proctorio at ANU, reported in the Guardian Australia saying that Olsen's posting of support logs was "really, freakishly disrespectful".[465] She said it was hypocritical of Proctorio to say they valued student's privacy when the CEO of the company was posting student chat logs online. "I think it is very concerning and definitely a privacy issue," she said. "It undermines their claims."

There are competing methods of remote proctoring or invigilation that offer contrasting examples of student privacy standards and data security safeguards, and here is what Mike told us in 2018.

"One is online exam monitoring, when a student is watched during a live remote session and personal information is gathered to confirm the identity of the student prior to the exam, credit card information is gathered for payment, and the student is both observed and recorded for the duration of the exam.

"Another method of remote proctoring leverages artificial intelligence and facial detection technology to monitor specific behaviors during the exam session and provide a suspicion rating and exam recording at the conclusion of the exam.

"Live proctoring offers several challenges to student privacy and data security that can be overcome by an automated software solution. As currently practiced, live proctoring relies entirely on personally identifiable information for both identifying the student and proctoring. The data used by live proctoring services is accessible by employees of the third-party vendor. These uncredentialed employees also have access to corresponding financial data and exam recordings. The institutions that rely on third-party proctoring services do not have exclusive control over student data and individual students may be forced to agree to have their data used for commercial purposes when consenting to exam monitoring.

"Automated proctoring using artificial intelligence to monitor student activity does not rely on human proctors to either validate identity or determine academic integrity. Consequently, personally identifiable information is not shared with the third-party monitoring service and remains under the exclusive and proper control of the testing institution. Data security can similarly be assured through zero-knowledge encryption that not only secures data, but also, renders it inaccessible to employees of the third-party proctoring solution. The actual review of exam footage is completed by authorized individuals within the institution such as a teaching assistant or instructor, similar to an in-person testing situation. Institutions already possess personally identifiable information and no further sharing of sensitive information is necessary. Students are validated within the existing institutional learning management system (LMS) using single sign-on technology. Finally, students need not be billed directly for each use of automated proctoring. Institutions that pay for the services and either bill students directly or indirectly through course fees or tuition further remove any personally identifiable information from being shared with third-party vendors."

Dutch students accused universities of violating their privacy in Spring 2020 by using the monitoring software to prevent cheating in exams being conducted online because of the coronavirus.[466]

The Central Student Council of UvA, lost a legal challenge, arguing that UvA students should have the right to refuse to use Proctorio during online exams and that Proctorio infringed on their personal privacy. "The conclusion is that the data processing by the UvA is based on the basis of Article 6 (1) (e) of the GDPR, and that the processing meets the due care requirements set by the GDPR. The UvA's conduct is therefore not unlawful." (Section 4.17 of Summary Proceedings, Case #: C / 13/684665 / KG ZA 20-481 of the Court of Amsterdam).

The case rested on a lawfulness of data processing rather than a human rights basis. It is one thing to operate on a lawful basis, and other on a consensual one. Surely students that do not want to use such software because of how it makes them feel under exam conditions, should be given an alternative so that their performance is not impinged due to the institutional tool of choice?

Separately, in the summer of 2020 aspiring UK barristers claimed they were forced to urinate in bottles and buckets in front of their laptops while taking their online bar exams remotely, when their exams were proctored remotely.[467]

"Bar student Tian Juin See said he had to urinate into a bottle while maintaining eye contact with his laptop screen so he would not be accused of cheating." (BBC, 2020)

This lack of human dignity afforded to individuals when treated as suspicious-by-default is shocking.

And another example of automated data processing with significant harmful effects for exam related processing, was widely reported in 2016, when the government wrongly deported more than 7,000 foreign students after falsely accusing them of cheating in English language tests.

"The foreign students were targeted by the Home Office after an investigation by the BBC's Panorama in 2014 exposed systematic cheating at some colleges where candidates sat the Test of English for International Communication (TOEIC).

"The test is one of several that overseas students can sit to prove their English language proficiency, a visa requirement. After the Panorama broadcast, the government asked the US-based company which runs the test to analyse sound files to investigate whether studies had been enlisting proxies to sit the tests for them. (The Independent)[468]

The Financial Times reported a 2014 accusation against an individual, Rahman, that "rested on a single audio clip that Educational Testing Service, the New Jersey-based company that set the test, turned up in a trawl of its records. ETS said the clip showed that someone other than Rahman took the spoken element of the exam, which also includes reading, writing and listening sections.

"The Home Office forced Anglia Ruskin University, where he had been studying, to throw him off his course. The accusation has cost him a total of £25,000, he says, in wasted tuition fees and in legal fees to fight the Home Office's efforts to send him home in disgrace. "At the time I had the accusation, I was 24," Rahman says. "Now I'm 29. That's the prime time of someone's life to navigate where you go. At that time, I've been struggling to cross my name out of this allegation. At the time we're supposed to make our life, we're struggling with this.""[469]

Automated surveillance and automated decisions without adequate protections for human rights, safeguards from harm or that offer accessible and meaningful routes of redress can have lifelong consequences for young people. Whether lessons have yet been learned from the TOEIC experience by the UK government appears doubtful in the aftermath of the exams 2020 fiasco.

Thousands of students were affected by the TOEIC policy failures and still suffer the every day consequences.

5. Annexe

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5.1 Table of figures and diagrams

5.2 National pupil data

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5.2.1 Table comparison of all UK national pupil databases

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	England June 2016	Northern Ireland Octo
Volume of data	21,230,000[470]	327,122
Year begun	1998	2006
Pupil level	yes	yes
Named	yes	yes
Sensitive data	yes, incl. indicators for children of parents in services, ethnicity, nationality, and looked after children. Not religion.	yes, incl. religion, ethn
Subject Access permitted to your own record	no	TBC
Third party access is restricted to those with accredited training or access only with oversight in safe setting.	no. "Applicants must complete license agreement, terms and conditions."	TBC
Distributed to third parties	yes	yes.
Identifying data distributed to commercial third parties for re-use	yes, including journalists, data analytics companies, charities, for turning into print and online school comparison tools, think tanks.	no
Small number suppression	"There is no suppression applied to data extracts from the NPD before release. Instead, Requesters are required to sign up to strict terms & conditions covering the confidentiality and handling of data, security arrangements, retention and use of the data. These include that no individual will be identified in published data. The Daily Telegraph requested pupil-level data and so suppression was not applicable." [source]	Typically the Departm any data that is deem five can also be "cour figure by subtracting
Audit of recipients	no	no
Typical release length	between 6 months to 3 years depending on the aims of the project, is often extended	not known
Indefinite retention	yes	yes
Data collection sources	School Census is every third Thursday in each term (three times a year) and added to around 20 other data sources to create the National Pupil Database	Information is collecte week in October ever
Public transparency of third party data distribution in any online register that children and parents can view	yes, since 2013. Includes publication of volume of police and Home Office use for immigration enforcement, since Dec.2017.	no
Third party distribution	https://www.gov.uk/government/publications/dfe-external-data-shares	Unknown. "Analytical does not keep a recor that no data has been period." [source: FOI
General school census information	https://en.wikipedia.org/wiki/England_school_census	http://defenddigitalm information.pdf
FOI reference or other sources of fact	https://www.whatdotheyknow.com/request/pupil_data_n_ireland_the_nationa_2	https://www.whatdoth

5.2.2 Table of distribution of pupil level data in Scotland

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Appendix A: Individual level Data Sharing Agreements from 2011 to present by Organisation and Project Aims		
Customer Organisation	Project Aims	Data Sharing Agreement No
Glasgow Centre for Population Health	The data will be used to inform the GCPH programme of work: Moving in the right direction? and to summarise and understand recent trends in travel patterns, current attitudes towards different modes of travel and the impact of strategy/policy on the ground.	EDA0023
University of Glasgow	To allow researchers to link national level data from education and health sectors in order to investigate the impact of guidelines changing the mode of delivery of breech infants and the impact on their education outcomes.	EDA0034
Scottish Centre for Social Research	Education information for pupils who gave permission in Growing Up in Scotland Survey	EDA0037
National Records Scotland	Results from linkage with other administrative sources will contribute towards the development of methods for counting populations without the requirement for a census.	EDA0038
University of Manchester, school of Education	Using longitudinal data to determine links between variables which relate to demographic characteristics, birth and maternity data and socioeconomic variables, and school census data on school outcomes including performance and attainment.	EDA0040
Campbell & Todd IT Limited	Insight is an online benchmarking tool designed for secondary schools and local authorities to identify areas of success and where improvements can be made in the Senior Phase. The developers require the data to make this available.	EDA0053
Aberdeenshire Council	Providing local authorities with their own attainment data back for self-evaluation, benchmarking and statistical and research purposes only.	EDA0059
East Dunbartonshire Council	To provide information on the attainment levels and destinations, and attendance and absence and exclusions, of looked after children. The linked dataset will support the LA to undertake monitoring, benchmarking and improvement of their Social Work Services.	EDA0067a
North Ayrshire Council	Providing local authorities with their own attainment data back for self-evaluation, benchmarking and statistical and research purposes only.	EDA0071
University of Glasgow	To inform a better understanding of educational risk factors for mental illness will help to inform the design of services which aim to identify mental disorder as soon as possible in order to improve long-term outcomes.	EDA0073A
Dundee City Council	Providing attainment and leaver destinations data of looked after children. The linked dataset will support the LA to undertake monitoring, benchmarking and improvement of their Social Work Services.	EDA0084
Shetland Islands Council	To provide information on the attainment levels and destinations, and attendance and absence and exclusions, of looked after children. The linked dataset will support the LA to undertake monitoring, benchmarking and improvement of their Social Work Services.	EDA0092
Education Scotland	To supply statistical information on schools to inspectors to help support their inspections of schools. Additionally, they are also able to use this data for other statistical and research purposes that are part of work of Education Scotland and that are in line with the details set out in this agreement.	EDA0093
National Records of Scotland	This data sharing will allow NRS to undertake quality assurance of population estimates throughout the inter-censal period as well as allowing more detailed analysis of the relationship between two different administrative sources (School Census and NHSCR)	EDA0095
National Records of Scotland	By linking the annual school Census data, attendance and absence data, exclusions data and qualifications data to the Scottish Longitudinal Study (SLS) dataset it is possible for academics, the Scottish Government and other legitimate researchers to undertake a range of different types of analysis.	EDA0096
Angus Council	Providing local authorities with their own attainment data back for self-evaluation, benchmarking and statistical and research purposes only.	EDA0098
Fife Council	Providing local authorities with their own attainment data back for self-evaluation, benchmarking and statistical and research purposes only.	EDA0099
East Renfrewshire Council	Providing local authorities with their own attainment data back for self-evaluation, benchmarking and statistical and research purposes only.	EDA0100
East Lothian Council	Providing local authorities with their own attainment data back for self-evaluation, benchmarking and statistical and research purposes only.	EDA0101
North Ayrshire	Providing local authorities with their own attainment data back for self-evaluation, benchmarking and statistical and research purposes only.	EDA0102
Clackmannanshire Council	To provide information on the attainment levels and destinations, and attendance and absence and exclusions, of looked after children. The linked dataset will support the LA to undertake monitoring, benchmarking and improvement of their Social Work Services.	EDA0103
Stirling Council	To provide information on the attainment levels and destinations, and attendance and absence and exclusions, of looked after children. The linked dataset will support the LA to undertake monitoring, benchmarking and improvement of their Social Work Services.	EDA0104
University of Glasgow, Institute of Health & Wellbeing	Research through linkage of education and health aiming to study the association between health and education. Investigating the impact of various health factors on impaired educational and health outcomes.	EDA0106
Edinburgh City Council	Providing attainment and leaver destinations data of looked after children. The linked dataset will support the LA to undertake monitoring, benchmarking and improvement of their Social Work Services.	EDA0108
Glasgow City Council	Providing local authorities with their own attainment data back for self-evaluation, benchmarking and statistical and research purposes only.	EDA0110
Fife Council	Providing local authorities with their own attainment data back for self-evaluation, benchmarking and statistical and research purposes only.	EDA0112
East Renfrewshire Council	Providing local authorities with their own attainment data back for self-evaluation,	EDA0114

	benchmarking and statistical and research purposes only.	
West Lothian Council	Providing local authorities with their own attainment data back for self-evaluation, benchmarking and statistical and research purposes only.	EDA0115
Jordanhill School	Providing local authorities with their own attainment data back for self-evaluation, benchmarking and statistical and research purposes only.	EDA0116
Renfrewshire Council	To provide info on attainment levels + destinations + attendance and absence + exclusions of LAC to Renfrewshire LA for stats + research purposes	EDA0117
Edinburgh Council	Providing local authorities with their own attainment data back for self-evaluation, benchmarking and statistical and research purposes only.	EDA0118
Perth & Kinross Council	Providing local authorities with their own attainment data back for self-evaluation, benchmarking and statistical and research purposes only.	EDA0119
Falkirk Council	Providing local authorities with their own attainment data back for self-evaluation, benchmarking and statistical and research purposes only.	EDA0120
North Ayrshire Council	Providing local authorities with their own attainment data back for self-evaluation, benchmarking and statistical and research purposes only.	EDA0121
Stirling Council	Providing local authorities with their own attainment data back for self-evaluation, benchmarking and statistical and research purposes only.	EDA0122
Clackmannanshire Council	Providing local authorities with their own attainment data back for self-evaluation, benchmarking and statistical and research purposes only.	EDA0122
Dumfries and Galloway Council	Providing local authorities with their own attainment data back for self-evaluation, benchmarking and statistical and research purposes only.	EDA0123
West Dunbartonshire	Providing local authorities with their own attainment data back for self-evaluation, benchmarking and statistical and research purposes only.	EDA0124
East Lothian Council	Providing local authorities with their own attainment data back for self-evaluation, benchmarking and statistical and research purposes only.	EDA0125
Highland Council	Providing local authorities with their own attainment data back for self-evaluation, benchmarking and statistical and research purposes only.	EDA0126
East Dunbartonshire Council	Providing local authorities with their own attainment data back for self-evaluation, benchmarking and statistical and research purposes only.	EDA0127
Aberdeen City Council	Providing local authorities with their own attainment data back for self-evaluation, benchmarking and statistical and research purposes only.	EDA0128
Aberdeenshire Council	Providing local authorities with their own attainment data back for self-evaluation, benchmarking and statistical and research purposes only.	EDA0130
Dundee City Council	Providing local authorities with their own exam attainment data back for self-evaluation, benchmarking and statistical and research purposes only.	EDA0131
Institute of Health and Wellbeing University of Glasgow	To investigate the association between being born out of hours and: the later development of ASN due to disability/health at school age and subsequent educational attainment.	EDA0132
Scottish Qualifications Authority	To supply pupil identifiers to allow for analysis for attainment of pupils in Scottish schools	EDA0138
South Ayrshire	Providing local authorities with their own attainment data back for self-evaluation, benchmarking and statistical and research purposes only.	EDA0145
North Lanarkshire	Providing local authorities with their own attainment data back for self-evaluation, benchmarking and statistical and research purposes only.	EDA0146
Scottish Government	To create geographical data analysis using pupil numbers by output area for 2013 to 2015 for Scottish Index of Multiple Deprivation 2016 access to services	EDA0148
University of Edinburgh	To determine longer term educational outcomes and survival following twin delivery by gestational stage including record of additional education support need, type of need, examination attainment level and school leaver destination.	EDA0149
East Ayrshire Council	Providing local authorities with their own exam attainment data back for self-evaluation, benchmarking and statistical and research purposes only.	EDA0151
University of Glasgow	They will analyse pupils by Scottish Index of Multiple Deprivation (SIMD) in individual schools against staying on rates, Higher results and HE applications. This analysis will lay the groundwork for considerations on how to practically engage with these pupils during secondary school to promote aspiration, attainment and access to HE.	EDA0152
University of Glasgow	Childsmile is a programme to improve dental health on Children in Scotland. Linkage of Pupil Census, AAE and Looked After Children data to Health and Childsmile specific datasets.	EDA0153
Renfrewshire Council	Providing local authorities with their own exam attainment data back for self-evaluation, benchmarking and statistical and research purposes only.	EDA0158
University of St Andrews	Looking to obtain data from pupil census, attainment data and leavers destination information to investigate how school leavers are patterned by geography, ethnicity and deprivation.	EDA0160
University of Oxford	Aims to use pupil census, leaver destinations and attainment data to understand levels of integration of non-native language speakers in publicly funded secondary schools in Glasgow.	EDA0161
University of Glasgow	The data will be used for statistical and research purposes to inform the information strategy of the Scottish Government Good Places Better Health Initiative. It will allow analysis of school-level data on active travel and the sustainability of school buildings by the average deprivation of pupils and distance travelled to school.	EDA0162
South Lanarkshire Council	Providing local authorities with their own attainment data back for self-evaluation, benchmarking and statistical and research purposes only.	EDA0163
Note - Each row indicates a separate data sharing agreement		

5.2.3 Table of NPD data distribution by the DfE outside the DSAP approvals process

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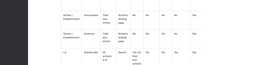
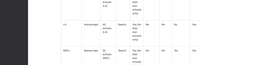
These distributions are as published by the Department for Education for the first time in December 2017. They are supported by Memorandum of Understandings, Data Sharing Agreements and Service Level Agreements and not listed in the National Pupil Database third party register.

Reference	Data Asset(s)	Where	Purpose	What is shared
R0001	Oxford Cambridge RSA provide the examination centre details to Standards & Testing Agency (STA); the participating Awarding Organisations provide their examinations entry data to STA; Parcelforce provide their depot postcode allocation list to STA. Our GQLA system process the data to create a list of active centres per examination series (contact details, examination days) and an estimated collections profile.	Parcelforce Worldwide	To plan and manage the logistics for the 5 annual General Qualifications examinations series with our supplier, Parcelforce. The data is not made available to the general public.	The following information goes to Parcelforce only: 1) List of examination centres active for a series including their contact details and days on which they have examinations. 2) The estimated script collection profile, i.e. estimated number of packages to collected each day of a series.
R0002	Pupil Census	Schools via Trialling Agency (contracted to administer trials of test questions in schools to ascertain their quality and suitability to be included in national curriculum tests)	To verify pupil data of schools participating in trials of national curriculum tests.	Can include: Full Name, Date of Birth, Unique Pupil Number, Special Education Needs and English as an Additional Language status.
R0003	Standards & Testing Agency - coder (marker info)	Trialling Agency (contracted to administer trials of test questions in schools to ascertain their quality and suitability to be included in national curriculum tests)	To aid the recruitment of coders (markers) for trials of national curriculum tests.	Name and email address.
R0004	Anonymised pupil responses to test questions	National curriculum tests marking agency	Sharing the responses enables the marking agency to develop marker training materials based on actual pupil responses which contributes to the quality of marking for national curriculum tests.	Anonymised pupil responses to test questions and the codes associated with the responses.
R0005	Standards & Testing Agency - Key Stage test data	Schools/Local Authorities	For Standards & Testing Agency to inform schools of pupils at their schools that are expected to be taking the National Curriculum Assessments at Key Stage 2. This list of pupils is then amended, if required, and confirmed by schools.	Pupil details (Names, Date of Birth, Gender and Unique Pupil Numbers) and Registration Status (i.e. whether they are registered to participate in tests)
R0006	Standards & Testing Agency - Key Stage test data	Schools/Local Authorities, printing suppliers	For Standards & Testing Agency to confirm the final list of pupils at each school that are expected to be taking the National Curriculum Assessments at Key Stage 2. This information is also used to print attendance registers for schools to complete following each test.	Pupil details (Names, Unique Pupil Number and pupil test participation status)
R0007	Standards & Testing Agency - Key Stage test data	Schools/Local Authorities	To support question level analysis at Key Stage 2. This allows schools to view information about how individual pupils answered each test item.	Pupil details (Names, Date of Birth, Gender and Unique Pupil Numbers) and test item data (marks awarded for individual questions).
R0008	Standards & Testing Agency - Key Stage test data	Schools/Local Authorities	To return a complete set of Key Stage 2 test and teacher assessment results for each pupil to schools.	Pupil details (Names, Date of Birth, Gender and Unique Pupil Numbers), test results and teacher assessment data
R0009	Standards & Testing Agency - Key Stage test data	Schools/Local Authorities	To return Key Stage 2 marking review outcomes to schools. Informs schools of whether their request for a review into the marking of a particular child's test paper resulted in a change in test result.	Pupil details (Names, Date of Birth, Gender and Unique Pupil Numbers) and test results, including outcomes of marking reviews
R0010	Standards & Testing Agency - Key Stage test data	Schools/Local Authorities	To inform schools of the outcome of applications for special consideration. Special consideration is granted if a pupil's performance in a Key Stage 2 test has been affected by extremely distressing circumstances around the time of the tests. If an application is successful, additional scaled score marks are awarded for the purpose of performance tables progress measures.	Approval status of special considerations applications.
R0011	Pupil Census	National Foundation for Educational Research (NFER) and local authorities	To provide the test delivery supplier with the names of pupils and schools selected to take part in the statutory, biennial Key Stage 2 science sample test. This enables the supplier to engage with selected schools in order to administer the tests.	Pupil: Surname, Forename, Middle Name, Date of Birth, Gender, English as an Additional Language status, Special Education Needs status and any requirement for modified test materials. School: school name, characteristics and contact details
R0012	Standards & Testing Agency coder (marker) info	National Foundation for Educational Research (NFER) and their sub-contractors	To provide the test delivery supplier with a register of science markers (coders) to recruit to mark the statutory, biennial Key Stage 2 science sample test. The marker register is maintained for future years and markers must give their permission for their details to be shared in future test cycles.	Marker Name, contact details and record of participation and performance in previous test cycles
R0013	Anonymised pupil responses from trialled test papers from previous years	Standards and Testing Agency (STA)	To provide the test delivery supplier with example pupil responses in completed test papers to inform the writing of mark schemes and marker training materials, in order to assure marking quality for the statutory, biennial Key Stage 2 science sample tests.	Anonymised pupil responses from trialled test papers from previous years
R0014	Candidate details	Learndirect	To let Initial Teacher Training (ITT) providers verify whether provisional applicants have passed their professional skills test and therefore be accepted onto the ITT training course.	Surname, Forename, Date of Birth, Teacher Reference Number, Skills Test Status
R0015	Individualised Learner Record (ILR) data matched to responses from Community Learning Mental Health Research Survey	Ipsos MORI	To find out if non-formal adult education can help people with mental health problems to learn.	Following oral and written consent, personal characteristics (Name, Address, Date of Birth and a range of equalities information), social mobility information and qualifications as well as a range of wellbeing and other measures.
R0016	Student Income and Expenditure Survey	UK Data Archive	To provide access to researchers via the National Archive.	De-identified responses to the survey
R0017	Student Income and Expenditure Survey	Office for National Statistics virtual microdata lab	To provide access to trusted researchers via the Virtual Microdata Laboratory.	De-identified responses to the survey.
R0018	Longitudinal Education Outcomes (LEO)	Higher Education Funding Council for England (HEFCE)	In the higher education White Paper 'Success as a Knowledge Economy', the Government committed to using LEO data to support quality assessment processes for higher education providers including the Teaching Excellence Framework (TEF) awards and to enable better benchmarking of institutions against their peers. The data is shared with HEFCE to enable them to make a quality assessment of higher education providers through TEF awards and for inclusion in Unistats to inform student choice.	Data on employment and earnings outcomes of graduates from LEO.
R0019	Alternative Provider's own student records	Student Loans Company/Pearson	As part of investigations to confirm the status of students and the accurate payment of student support and tuition fees.	Information about students - Name, Date of Birth, Course Number, Student Number, course start date
R0020	Student Loans Company	HM Revenue & Customs (HMRC)	Identifying error and fraud relating to the dual provision of childcare support from the Student Loans Company and HMRC.	Personal and childcare information of Childcare Grant recipients.
R0021	Learner Records Service (LRS)	Department for Education Northern Ireland	To support ongoing operational activities for the LRS system (e.g. monitor usage of the service, and supporting data quality activities).	Names, Date of Birth, Sex, Postcode and any details of their achievements/ qualifications held in LRS.
R0022	Learner Records Service (LRS)	Welsh Government's Education & Public Services	To support ongoing operational activities for the LRS system (e.g. monitor usage of the service, and supporting data quality activities).	Names, Date of Birth, Sex, Postcode and any details of their achievements/ qualifications held in LRS.
R0023	Learner Records Service (LRS)	The Universities and Colleges Admission Service (UCAS) (postgrad team)	To enable UCAS to verify the achievements of postgraduate applicants online through the LRS portal. This reduces fraud / error, and removes the reliance on paper certificates being produced (therefore improving efficiency).	Names, Date Of Birth, Sex, Postcode and any details of their achievements/qualifications held in LRS
R0024	Learner Records Service (LRS)	Federation for Industry Sector Skills & Standards (FISSS)	To allow FISSS to verify the components of apprenticeship frameworks that a learner has completed automatically through the LRS web services. This removes the reliance on paper certificates being produced (therefore improving efficiency).	Personal details; Unique Learner Number, First Name, Family Name, Date of Birth. Gender, Postcode. Achievement details; Qualification Name, Award date, Grade, Learning provider name.
R0025	Individualised Learner Record (ILR)	Local Enterprise Partnerships (LEP) & Combined Authorities	To inform the continued development and implementation of the LEP Local Growth and Strategic Economic Plans. The data is also used to support the process of addressing priority skills issues by providing LEPS with a range of information about learners in their geographical region and by Combined Authorities to support Secretary of State in transition of devolved funding arrangements.	The data provided includes the characteristics of learners within the appropriate LEP / combined authority from a variety of sources including the ILR, Apprenticeship Vacancies and the National Careers Service.
R0026	Individualised Learner Record (ILR)	Combined Authorities	For Combined Authorities to support Secretary of State in transition of devolved funding arrangements. The 16-24 grant for employers aims to support small businesses (<50 employees) recruit individuals aged 16-24 into employment through the apprenticeship programme. This data supports the effective administration of the grant and provides the ability to check eligibility for the devolved Apprenticeship Grant for Employers (AGE). It allows monitoring of the take up of the learners within specific priority groups. Data is also used to verify and administer employer eligibility.	Details of Learners eligible to receive the Apprenticeship Grant for Employers (AGE)
R0027	Individualised Learner Record (ILR) Apprenticeship data	Local Authorities (LA)	Data is provided on a monthly basis between the National Apprenticeship Service and the LA's . This is to allow LA's to have more detailed access to data to enable them to fulfil their legal responsibilities for 16-18 and also 19-25 learners with a learning difficulty.	ILR Apprenticeship data for learners aged 16-18 and also 19-25 for learners with a learning difficulty. Also successful and unsuccessful reports.
R0028	Individualised Learner Record (ILR)	Local Authorities (LA)	LA's are required to maintain a record of the education/employment activity of all post 16-students in their area. The production of this data allows the LA's to identify and correct any anomalies within their records.	ILR Apprenticeship data for learners aged 16-19 and also 16-26 for learners with a learning difficulty.
R0029	Individualised Learner Record (ILR)	Quality Assurance Agency, Aim Awards, Ascentis, Cambridge Access Validating Agency, Laser Learning, Open Awards, Open College Network London, One Awards, Open College Network West Midlands Region	The data is used to monitor learner registration, achievement and awards across Access to Higher Education programmes.	Learner Data which includes number of learners based on Gender, Ethnicity, Learner's Learning Disability or Difficulty.
R0030	Individualised Learner Record (ILR) Pre-inspection data Guardian view data	Ofsted	The data is provided in order to fulfil Ofsted Statutory functions set in in Section 118 of the Education and Inspections Act 2006. This data assists in the analysis of the impact of inspection and how learners are affected. It is also used to inform Ofsted's Annual Report to the Secretary of State informing of the state of the nation in terms of education, care and participation in learning activities and qualifications.	Learner Data on an anonymised basis but to include Age, Gender, Ethnicity, Learner's Learning Disability or Difficulty.
R0031	Personal Development Career Loans	Banks who manage the Personal Career Development Loans (currently only Co-Operative Bank)	To support learner in the process of acquiring a loan.	Pupil Name and Address and loan details
R0032	Student Income & Expenditure Survey	Capita	Capita collect student data on behalf of the Education and Skills Funding Agency, to administer the Care to Learn financial support scheme.	Pupil Name, Address and other details. Child Name and Date of Birth. Details of education institution and childcare provider are also collected.
R0033	Customer Relationships Management datasets	Ipsos MORI	Independent intelligence about customer satisfaction and progression as a result of engagement with the National Careers Service.	Names, Contact details, Equality information, Qualifications and employment information.
R0034	Individualised Learner Record (ILR)	Ofsted	The ILR datasets are required in order for Ofsted to fulfil its obligations to inspect provision under the Common Inspection Framework for further education and skills and early years. It sets out the judgements the inspectors will make during inspections and the principles that apply.	Anonymised data is provided which includes details of Age, Gender, Ethnicity but will not allow identification of any individual.
R0035	Individualised Learner Record (ILR)	MLR (Research company)	The National Apprenticeship Awards challenge top apprenticeship employers and apprentices across England to come forward and show how apprenticeships have made a real difference to their organisation and careers. This data is used to validate data supplied by apprentices, champions and employers within the National Apprenticeship Awards.	Learner Data to include Names and Contact details
R0036	Individualised Learner Record (ILR)	Institute for Apprenticeships	To enable the Institute for Apprenticeships to carry out their primary functions (through monitoring and analysing apprenticeship data returned via the ILR).	Learner and achievement data from the ILR returns.
R0037	Individualised Learner Record (ILR)	Other training providers	To transfer learners from a failing provider to alternative provision.	Unique Learner Number; Apprenticeship Framework; Funding remaining.
R0038	Individualised Learner Record (ILR)	Other training providers	To transfer learners from a failing provider to alternative provision.	Unique Learner Number, Learning programme; Funding remaining.
R0039	Individualised Learner Record (ILR)	Department for Work & Pensions (DWP)	Management Information for European Social Fund (ESF) Programme.	Learners' attributes such as Sex, Date of Birth, Learning Difficulty Disability, Household Status, Learning Aim, Employment Status, Skill Level, Employment Status before and after ESF intervention.
R0040	Individualised Learner Record (ILR)	Department for Work & Pensions (DWP)	For follow up survey conducted by DWP as part of Evaluation of the European Social Fund (ESF) Programme.	Learners' Names and Contact details, telephone number and/or e-mail of those supported through the ESF Programme, including those funded by ESF and those used as Match funding.
R0041	Individualised Learner Record (ILR)	Combined Authorities	For Combined Authorities to support Secretary of State in transition of devolved funding arrangements.	Details of Learning Aims and demographic information.
R0042	Individualised Learner Record (ILR)	KPMG (financial audit)	Work on behalf of Department for Education - 1. Funding audits in Adult Skills Colleges 2. Building and testing	Learners Names, Contact details, Date of Birth, Learner characteristics, National Insurance Number, Employment status, Learning Delivery and

65243	Individualised Learner Record 2018	RSM Chairman audit	Work on behalf of Department for Education to audit Sixth Form Colleges.	Leanne Stefania, Contact details: Work of ESFA, Responsible for the National Insurance Number, Unique Learner Number, Learning Delivery and Learner's Learning Difficulty, Postcode
65244	Individualised Learner Record 2018	Price Waterhouse Coopers	Work on behalf of Department for Education to audit Sixth Form Colleges.	Leanne Stefania, Contact details: Work of ESFA, Responsible for the National Insurance Number, Unique Learner Number, Learning Delivery and Learner's Learning Difficulty or Difficulty, Postcode
66240	Individualised Learner Record 2018	Higher Education Statistics Agency (HESA)	To carry out statutory duties relating to post-16 education and training (ESA) and to develop HESES13. Information is used to review the fee bands of providers.	Leanne Stefania, including Contact details, Responsible for the National Insurance Number, Unique Learner Number, Learning Delivery, Postcode
66348	Individualised Learner Record 2018	RCU (click, Consultancy to provide evidence based for Individualised Learner Record Intelligence Consultancy)	To meet the needs of the Department for Education to ensure the successful of the Individualised Learner Record and to ensure the success of the Individualised Learner Record.	Leanne Stefania, including Contact details, Responsible for the National Insurance Number, Unique Learner Number, Learning Delivery and Learner's Learning Difficulty, Postcode
66347	Individualised Learner Record 2018	Hot Weapon Private and Confidential (HWPC)	To assist with the management of the Individualised Learner Record Effective. Learning and Skills Improvement Service wants to be transformed and effective from 01/08/2018.	Leanne Stefania, Contact details, Responsible for the National Insurance Number, Unique Learner Number, Learning Delivery and Learner's Learning Difficulty, Postcode
66348	Individualised Learner Record 2018	UKC Analytics Limited	To carry out work for Department for Education (DfE) ESA/EFA Lots with Hiranna, this Assistance and Consultancy Service is also sources for insights, analysis and data to support. Used for Tableau Consultancy Service to support Hiranna and Hiranna and/or Contractor.	All full data.
66348	Longitudinal Education Study (LEO)	Department for Work and Pensions (DWP)	To enable matching to Individualised Learner Record data to be undertaken. Matching is also used to be undertaken to help to inform the Department for Education's (DfE) outcomes from education.	Forename, Surname, Date of birth, Gender, Unique Learner Number, National Insurance Number, Stage 4, Key Stage 5, Learning Aim Reference, Name, Higher Education Provider, Level of study, teacher Training, Participation Profiles.
66350	Key Stage 4 and Key Stage 5 Additional measures	Schools and Colleges	Key Stage 4 and 16 to 19 Additional measures are collected and collated via our contractor DfE Statistics Consultancy as an input and data will be used to help to inform and increase their knowledge and confidence in data. How to help to inform and increase the effectiveness of the Department's statistical publications. Such research and publications will help inform Ofsted's value and policy development, to inform parents and the public about the performance of the schools in public care whose children are looked after, parents to transfer to independent schools and to test hypothesis relating to school choice, school admission and school performance. Also to help to inform inspection and school improvement and for use by Ofsted Inspectors to evaluate the performance of schools and of their management of the education of children in their institutions and policy.	Pupil and student level characteristics and information about the school or college they attend, including unique pupil number and name. Detailed information about pupil characteristics, including ethnicity, language, special educational needs (SEN), free school meals eligibility, mobility and deprivation and detailed information about attainment.
66351	Pupil Census	Ofsted	To carry out research and statistical work relating to the purposes for which the Department for Education (DfE) maintains the Schools Database, and its statistical publications. Such research and statistical work will inform Ofsted's value and policy development, to inform parents and the public about the performance of the schools in public care whose children are looked after, parents to transfer to independent schools and to test hypothesis relating to school choice, school admission and school performance. Also to help to inform inspection and school improvement and for use by Ofsted Inspectors to evaluate the performance of schools and of their management of the education of children in their institutions and policy.	Data from the National Pupil Database about pupil characteristics and attainment.
66352	Pupil Census	Office for National Statistics	To support ongoing research on the future sustainability of the population statistics in England and Wales, including associated with public sector finance and population estimates.	Data from the National Pupil Database about pupil characteristics.
66353	Pupil Census	Specialist Schools and Academies Trust (SSAT)	The SSAT (The Schools Network) will may use the data provided to undertake research and analysis that will help to inform the Department for Education's (DfE) work to contribute to the development of policy and where they produce about the effectiveness of the education system and to help to inform parents and the public can be assessed how the data and how well they are being used.	Data from the National Pupil Database about pupil characteristics and attainment.
66354	Pupil Census	Home Office	In order to support home office in the management of immigration control. We are required to provide the Home Office with information about individuals who are not legally resident in the UK and for this purpose only. Such information will be provided upon a request made by the Home Office in accordance with the following exemption: - data are in connection with the UK and the HO has no reasonable alternative to obtain the information - the HO believes the individual will not be able to or will be prevented from exercising their rights.	Where the child can be identified from the pupil level data: name, address and date of birth may be provided back to Home Office to trace the home address of failed returns each month.
66357	Pupil Census	UK Data Archive (University of Essex)	Department for Education (DfE) has commissioned the Data Archive to act as their data processor in order to undertake research and analysis, including linking the data to other datasets for research, from UK Government Departments, to help inform policy. The Pupil Database data in the Data Archive is available to researchers and wider access of the data is via the authorised user system.	Data from the National Pupil Database about pupil characteristics and attainment. Pupil level data is provided back to Data Archive for the full cohort of data shared each month.
66358	Key Stage 2 Key Stage 4 and 16 to 19 performance data	Schools and Colleges	Key Stage 2, Key Stage 4 and 16 to 19 data is used by schools and colleges to help to inform their self-evaluation. Schools and colleges tracking new to help to inform their self-evaluation so to refine their practice. Data is also used to be held accountable and to help to inform judgements in Ofsted's inspections.	Data about pupils, their characteristics and their performance in assessments.
66359	Data is shared from a number of sources, including: Database and Testing Agency (DfE) and Ofsted assessment. School Census, Individualised Learner Record, National Pupil Database. Children Looked After data sources.	RM Education Ltd	Data is shared with RM Education Ltd under contract with the Department for Education for them to support the delivery of the Analyse School Performance service. RM Education Ltd is the data processor and is required to hold accountable and to help to inform judgements in Ofsted's inspections.	Student level information about pupil characteristics, including ethnicity, language, special educational needs.





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5.2.4 Samples of FFT benchmarking data processing.

5.2.5 Table of Department for Education controlled Big Datasets

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Name of Dataset, Purpose of Dataset, Number of Data Held, Data Source, Data Destination, Method of Destruction

Name of Dataset	Purpose of Dataset	Number of Data Held Up to 1st June 2018	Data Source	Data Destination	Method of Destruction
1	Oracle Right2Know Cloud Service	Customer Relationship Management database for case management	Only 180,000 personal records		
2	Enterprise Management Information System for Management Information (EMIS)	Management information Database for the purposes of reporting of key performance indicators	2.2 TB of data		
3	Information Work Place (IWP)	Electronic Documents and Records Management System	3.97% of data		
4	Education Funding Agency (EFA) Information Exchange	System for transmission and receipt of information with education providers	Only 8,000 personal records		
5	Department of Work Pensions Questions Database	Department of Work Pensions & Parliamentary Questions Database used to support responses for Ministers	Only 8,000 personal records		
6	EFA Sharepoint	Portal for the collection and sharing of information between schools and the Department.	1.4 Tb data		
7	EFA Online Response (ASK) & (ASP Database)	Consolidated capability for business intelligence and information management.	Only 8,000 personal records		
8	Teachers' Pension Scheme (TPS)	Scanned to the Cloud to manage pensions rights and payments	Circa 1,500,000 personal records.		
9	COLLECT	Intranet system to acquire pupil and workforce data from schools	500 Tb data.		
10	Office Exchange (Outlook)	Departmental email system	50Tb data.		
11	MICS 6, Tr Consultancy and Abundance Services	Mandatory Enterprise Server.	Circa 2,500 personal records.		
12	The Grove and Mi	System for Data Modelling and Funding Modelling	Circa 8,000,000 personal records.		
13	Tribepe for Teachers	Used to collect data on armed forces personnel who become teachers.	Small volume unknown.		
14	Navision 1	Legacy financial system for managing schools Capital funding.	Circa 10,000 personal records.		
15	Navision 2	New financial system for managing schools' expenditure.	Circa 100,000 personal records.		
16	Payments & Validation Service 1	NHS ID transfer system.	Circa 10,000 personal records.		
17	Student Bursary Support Service	System for collecting and processing student bursary applications, managed by third party.	Exact volume unknown.		
18	Lexis 360 Intelligence	Manages information about files for children in care. Service provided by third party.	Exact volume unknown.		
19	School to School (S2S)	Used to exchange pupil records when school and need Details database.	Processes approximately 1000 personal records per month. Up to 2 TB of storage.		
20	Edubase	Web application and database of schools, addresses and headteachers used for correspondence and some aspects of performance tables.	Circa 60,000 personal records, with over 30,000 in the public domain.		
21	Key to Success 2005	System providing all schools and post-16 institutions with their performance data and Ofsted data, and assessing a website for parents.	Circa 16,000,000 personal records.		
22	National Pupil Database Ambassador and Ambassador Tables	Construct and ICT systems operated by third parties for recording and maintaining pupil academic achievements.	Circa 21,000,000 personal records.		
23	Analyse Performance Software Service (APSS)	Website software for processing school & FE data for assessing schools and Ofsted data.	5,000 data.		
24	Adaption Register	Online Adaption Website.	Exact volume unknown.		
25	Hosn 16	Analysis and reporting of information relating to pupils Post 16 education data.	Exact volume unknown.		
26	National Client Management System for Connexions (NCMS)	Collates and stores Local Authority data on pupil Post-16 participation.	Exact volume unknown.		
27	GRIndeBS	Email Data System.	Exact volume unknown.		
28	Honeos	Data related to the Honeos system.	Exact volume unknown.		
29	Learner Support Programme	Administration of educational support grants.	Exact volume unknown.		
30	Redshot	Contract management / procurement system.	Circa 2,000 personal records.		
31	e-Consultations	System for policy consultations - suffered breaches.	Exact volume unknown.		
32	NCA Tools - P 36 systems	A group of 4 systems called NCA Tools operated by third party.	40,000 personal records processed annually.		
33	Skills hub	Online skills data repository for Qualified Teacher Status	Circa 800,000 personal records.		
34	Digital Asset Management	Photograph Images of Department staff.	Exact volume unknown.		
35	EMITTAM	Initial teacher training data management system	Circa 150,000 personal records.		
36	FTTIMS	NCTL teacher training data management system	Circa 150,000 personal records.		
37	Microsoft Dynamics CRM	Customer Relationship Management.	100 Gb data.		
38	ECHO	Legacy Contact Centre Office for public enquiries, administrative questions and whistle blowing.	Circa 10,000,000 personal records.		
39	Secure Access	Identity provider service.	Circa 10,000 personal records.		
40	CAMS: The Pure/Secure Work Portal	Collects and processes personal data about social workers.	Circa 4,000 personal records.		
41	National Pupil Database - DQ_scores	Personal information relating to all pupils in the state education.	Circa 20,000,000 personal records.		
42	School Resource Tables	Public domain data about all schools.	Exact volume unknown.		
43	ASSETS	CRC IT Service data.	500Gb.		
44	Ex FCO Workforce Database Development	Finance, commercial and workforce HR reporting.	Circa 1,000 personal records.		
45	Free School Meals eligibility checking service	Free School Meals, early years and pupil premium eligibility service	11Gb data.		
46	Childrn Looked After Data	Personal sensitive information relating to children Looked.	Circa 2.5 million personal records.		
47	Child Protection Database	Child Protection Database.	Circa 2,000 personal records.		
48	Consultant Financial Data Collection & Auditable Finance Reporting (AFR)	Collects and processes financial reporting data from schools.	40,000 personal records.		
49	Education Data Division CRM	CRM for collection, processing and reporting on education services for the purposes of service improvement.	40,000 personal records.		
50	eFS	Data Transformation service.	Exact volume unknown.		
51	CRM	System receives data from the LEO and the National Pupil Database before data processing.	1Tb data.		
52	Customer Relationship Management (CRM) Dynamics Application	CRM for processing and managing the inter-departmental enquiries.	Exact volume unknown.		
53	EFA Area Programme Meetings Design Framework	Consolidated capability for business intelligence and information management used by the EFA.	8TB Db data.		

5.2.6 Table of Analyse School Performance access by user type

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Analyse School Performance[1][2] is a system for which users must have a valid role within the department's Active Directory Domain (Forest) environment, or AAT, Devices Ofsted in the Environment or Education Access to Access. Access to the secure storage of entry, system used by the Department for Education (DfE) and its partners in the education and children's services sector in England. Department IT systems. Levels of access to record data are based upon the role and function held by data. Organisations can only see pupil level about the pupils relevant to their organisation.

The system is maintained by the Administrator, which provided similar functionality from July 2017.

User Type	Access Level	Number of users
School Owner	Named users can view pupil names, download and upload data for their school	10,000
School User	Same users cannot view pupil names, download or upload data	9,457
School Governor	Common view pupil names, download or upload data	10,000
MAT owner	Named users can view pupil names, download and upload data for their MAT	1,000
MAT User	Same users cannot view pupil names, download or upload data	211
MAT Governor	Named users can view pupil names, download and upload data for their MAT	141
Diocese Named	Named users can view pupil names, download and upload data for their Diocese	125
Diocese User	Same users cannot view pupil names, download or upload data	76
Local Authority Named	Named users can view pupil names, download and upload data for their LA	1,787
Local Authority Users	Same users cannot view pupil names, download or upload data	3057
Department for Education Named	Named users can view pupil names for all schools	0
Department for Education User	Common view pupil names, download or upload data	700
Super user	Super users can view pupil names for all schools and can upload data for MAT where project team only	4
Training area	For training purposes only. It is a training environment that is not tied to any particular school, allowing	101
	familiarisation/training events to take place without creating disclosure	
	risk	
Ofsted Area	NEC	
Total number of users	43,785	

5.2.7 Table of Analyse School Performance access by access type

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Organisation Type	Group	Access	Logging into the system	Search	Download	Can see pupil names	Can see pupil level data	Can edit data
School / Establishment	Named data user	Their school only	Schools's existing login	No	No	Yes	Yes	Yes
School / Establishment	Anonymised data user	Their school only	Schools's existing login	No	No	No	Yes	No
School / Establishment	Governor	Their school only	Schools's existing login	No	No	Yes	Yes	No
LA	Named data user	All schools in LA's area	Search for the school	No	No	Yes	Yes	Yes
LA	Anonymised data user	All schools in LA's area	Search for the school	No	No	No	Yes	No
MATs	Named data user	All schools in MAT	Search for the school	No	No	Yes	Yes	Yes
MINISTA	Anonymised data user	All schools in MAT	Search for the school	No	No	No	Yes	No

				only)				
MATs	Governor	All schools (MAT)	Search	Yes (for their own schools only)	No	No	No	Yes
Diocese	Named data	All schools (Diocese)	Search	Yes (for their own schools only)	No	No	Yes	Yes
Diocese	Anonymised	All schools (Diocese)	Search	Yes (for their own schools only)	No	No	No	Yes
DfE	Anonymised	All schools	Search	Yes	No	No	No	Yes
DfE	Named data	All schools	Search	Yes	No	No	Yes	Yes
DfE	Super user	All schools	Search	Yes	No	Yes	Yes	Yes
Ofsted	Anonymised	All schools	Search	Yes	No	No	No	Yes
Training Provider	DfE Training Site only	Training Site School landing page	No	No	No	No	Yes	No

5.2.8 Table of Analyse School Performance headline reports available[472]

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Phase\Are	Report	Showing	By
Secondary KS4	Progress 8 Pupil Group	Breakdown of: • School and • National benchmark P8 scores for: • Overall P8 score • English element • Maths element • EBACC element • Open element	• All pupils • Male • Female • Disadvantaged • Other • Ever 6FSM • Children looked after • SEN with statement or EHC plan • SEN support • No SEN • On roll in years 10 and 11 • English first language • English additional language • Low overall prior attainment • Middle overall prior attainment • High overall prior attainment • English low prior attainment • English middle prior attainment • English high prior attainment • Maths low prior attainment • Maths middle prior attainment • Maths high prior attainment
Secondary KS4	Pupil Progress 8 scatterplot	Pupils plotted against an x axis of • KS2 prior attainment overall and a y axis of: • P8 overall, or • P8 English element, or • P8 Maths element, or • P8 EBacc element, or • P8 Open element	• Disadvantaged • Gender • SEN • First language
Secondary KS4	Attainment 8 Pupil Group	Breakdown of: • School and • National benchmark A8 scores for: • Overall A8 score • English element • Maths element • EBACC element • Open element	• All pupils • Male • Female • Disadvantaged • Other • Ever 6FSM • Children looked after • SEN with statement or EHC plan • SEN support • No SEN • On roll in years 10 and 11 • English first language • English additional language • Low overall prior attainment • Middle overall attainment • High overall prior attainment • English low prior attainment • English middle prior attainment • English high prior attainment • Maths low prior attainment • Maths middle prior attainment • Maths high prior attainment
Secondary KS4	Pupil Attainment 8 scatterplot	Pupils plotted against an x axis of • KS2 prior attainment overall or • KS2 prior attainment in English or • KS2 prior attainment in Maths And a y axis of: • A8 overall, or • A8 English element, or • A8 Maths element, or • A8 EBacc element, or • A8 Open element	• Disadvantaged • Gender • SEN • First language
Secondary KS4	Percentage achieving grade 5 or above in English and maths by pupil group	Breakdown of: • Pupils in cohort • School percent achieving • National percentage benchmark	• All pupils • Male • Female • Disadvantaged • Other • Ever 6FSM • Children looked after • SEN with statement or EHC plan • SEN support • No SEN • On roll in years 10 and 11 • English first language • English additional language • Low overall prior attainment • Middle overall prior attainment • High overall prior attainment • English low prior attainment • English middle prior attainment • English high prior attainment • Maths low prior attainment • Maths middle prior attainment • Maths high prior attainment
Secondary KS4	Percentage achieving the English Baccalaureate at grade 5/C or above by pupil group	Breakdown of: • Cohort • School entries number • School entries percentage • National benchmark percentage entries of cohort • School English entries number • School English entries percentage of cohort • National benchmark English entries percentage of cohort • School Maths entries number • School Maths entries percentage of cohort • National benchmark Maths entries percentage of cohort • School Science entries number • School Science percentage entries of cohort • National benchmark Science entries percentage • School Language entries number • School Language entries percentage • National benchmark Language entries percentage • School Humanities entries number • School Humanities entries percentage • National benchmark Humanities entries percentage	• All pupils • Male • Female • Disadvantaged • Other • Ever 6FSM • Children looked after • SEN with statement or EHC plan • SEN support • No SEN • On roll in years 10 and 11 • English first language • English additional language • Low overall prior attainment • Middle overall prior attainment • High overall prior attainment • English low prior attainment • English middle prior attainment • English high prior attainment • Maths low prior attainment • Maths middle prior attainment • Maths high prior attainment
Secondary KS4	Percentage entering the English Baccalaureate by pupil group	Breakdown of: • Cohort number • School EBAcc entries number • School EBacc entries percentage • National benchmark EBacc benchmark percentage entries • School EBacc English entries number • School EBAcc English entries percentage • National benchmark EBacc English entries percentage • School EBacc Maths entries number • School EBacc Maths entries percentage • National benchmark Maths entries percentage • School EBacc Science entries number • School EBacc Science entries percentage • National benchmark EBacc Science entries percentage • School EBacc Language entries number • School EBacc Language entries percentage • National benchmark EBacc Language entries percentage • School EBacc Humanities entries number • School EBacc Humanities entries percentage • National benchmark EBacc Humanities entries percentage	• All pupils • Male • Female • Disadvantaged • Other • Ever 6FSM • Children looked after • SEN with statement or EHC plan • SEN support • No SEN • On roll in years 10 and 11 • English first language • English additional language • Low overall prior attainment • Middle overall prior attainment • High overall prior attainment • English low prior attainment • English middle prior attainment • English high prior attainment • Maths low prior attainment • Maths middle prior attainment • Maths high prior attainment
Secondary KS4	Percentage of pupils staying in education or entering employment after key stage 4 by pupil group	Table 1: Percentage of pupils staying in education or entering employment after key stage 4 by pupil group: • Cohort number • School Overall % going on to sustained education or employment \ training • National benchmark Overall % going on to sustained education or employment \ training • School Education % • National benchmark Education % • School Employment % • National benchmark Employment %	• All pupils • Male • Female • Disadvantaged • Other
Secondary KS4	Percentage of pupils staying in education or entering employment after key stage 4 by pupil group	Table 2: Staying in education and apprenticeships • Cohort number • School Further education college or other FE provider School % • National benchmark Further education college or other FE provider % • School sixth form School % • National benchmark sixth form % • School Sixth form college % • National benchmark Sixth form college % • School Other education destinations % • National benchmark Other education destinations % • School Apprenticeships % • National benchmark Apprenticeships %	• All pupils • Male • Female • Disadvantaged • Other
Secondary KS4	Percentage of pupils staying in education or entering employment after key stage 4 by pupil group	Table 3: Destination not recorded or captured: • Cohort • Not recorded in a sustained destination school % • Not recorded in a sustained destination National benchmark % • Activity not captured School % • Activity not captured National benchmark %	• All pupils • Male • Female • Disadvantaged • Other
Primary KS2	Key stage 2 reading, writing and maths combined attainment by pupil group	Breakdown of: • Cohort number • School Achieving the expected standard % • National benchmark Achieving the expected standard % • School Achieving at a higher standard % • National benchmark Achieving at a higher standard %	• All pupils • Male • Female • Disadvantaged • Other • Ever 6FSM • Children looked after • SEN with statement or EHC plan • SEN support • No SEN • On roll in years 5 and 6 • English first language • English additional language • Low overall prior attainment • Middle overall prior attainment • High overall prior attainment • Reading low prior attainment • Reading middle prior attainment • Reading high prior attainment • Writing low prior attainment • Writing middle prior attainment • Writing high prior attainment • Maths low prior attainment • Maths middle prior attainment • Maths high prior attainment
Primary KS2	Key stage 2 reading progress and attainment by pupil group	Breakdown of: • Reading progress cohort number • Reading progress average score • Reading attainment cohort number • School Reading attainment achieving the expected standard % • National benchmark Reading attainment achieving the expected standard % • School Reading attainment achieving the higher standard % • National benchmark Reading attainment achieving the higher standard % • School Reading attainment average score • National benchmark Reading attainment average score	• All pupils • Male • Female • Disadvantaged • Other • Ever 6FSM • Children looked after • SEN with statement or EHC plan • SEN support • No SEN • On roll in years 5 and 6 • English first language • English additional language • Low overall prior attainment • Middle overall prior attainment • High overall prior attainment • Reading low prior attainment • Reading middle prior attainment • Reading high prior attainment • Writing low prior attainment • Writing middle prior attainment • Writing high prior attainment • Maths low prior attainment • Maths middle prior attainment • Maths high prior attainment
Primary KS2	Key stage 2 writing progress and attainment by pupil group	Breakdown of: • Writing progress cohort number • Writing progress average score • Writing attainment cohort number • School Writing attainment achieving the expected standard % • National benchmark Writing attainment achieving the expected standard % • School Writing attainment achieving greater depth % • National benchmark Writing attainment achieving greater depth %	• All pupils • Male • Female • Disadvantaged • Other • Ever 6FSM • Children looked after • SEN with statement or EHC plan • SEN support • No SEN • On roll in years 5 and 6 • English first language • English additional language • Low overall prior attainment • Middle overall prior attainment • High overall prior attainment • Reading low prior attainment • Reading middle prior attainment • Reading high prior attainment • Writing low prior attainment • Writing middle prior attainment • Writing high prior attainment • Maths low prior attainment • Maths middle prior attainment • Maths high prior attainment
Primary KS2	Key stage 2 Maths progress and attainment by pupil group	Breakdown of: • Maths progress cohort number • Maths progress average score • Maths attainment cohort number • School Maths attainment achieving the expected standard % • National benchmark Maths attainment achieving the expected standard % • School Maths attainment exceeding the expected standard % • National benchmark Maths attainment exceeding the expected standard % • School Maths attainment average score school • National benchmark Maths attainment average score	• All pupils • Male • Female • Disadvantaged • Other • Ever 6FSM • Children looked after • SEN with statement or EHC plan • SEN support • No SEN • On roll in years 5 and 6 • English first language • English additional language • Low overall prior attainment • Middle overall prior attainment • High overall prior attainment • Reading low prior attainment • Reading middle prior attainment • Reading high prior attainment • Writing low prior attainment • Writing middle prior attainment • Writing high prior attainment • Maths low prior attainment • Maths middle prior attainment • Maths high prior attainment
Primary KS2	Pupil key stage 2 progress scatterplot	Pupils plotted against an x axis of • KS1 prior attainment overall And a y axis of: • KS2 progress in reading, or • KS2 progress in writing, or • KS2 progress in maths	• Disadvantaged • Gender • SEN • First language
Primary KS2	Pupil key stage 2 attainment scatterplot	Pupils plotted against an x axis of • KS1 prior attainment overall, or • KS1 prior attainment reading, or • KS1 prior attainment writing, or • KS1 prior attainment maths And a y axis of: • KS2 reading score, or • KS2 writing score, or • KS2 maths score	• Disadvantaged • Gender • SEN • First language
Primary KS1	Key stage 1 reading attainment by pupil group	Breakdown of: • Cohort number • School reading achieving the expected standard % • National benchmark Reading achieving the expected standard % • School Reading achieved greater depth % • National benchmark Reading achieved greater depth % • School Reading below pre-KS1 % • National benchmark Reading below pre-KS1 • School Reading foundations % • National benchmark Reading foundations % • School Reading working towards % • National benchmark Reading working towards %	• All pupils • Male • Female • Disadvantaged • Other • Ever 6FSM • Children looked after • SEN with statement or EHC plan • SEN support • No SEN • English first language • English additional language
Primary KS1	Key stage 1 writing attainment by pupil group	Breakdown of: • Cohort number • School Writing achieving the expected standard % • National benchmark Writing achieving the expected standard % • School Writing achieved greater depth % • National benchmark Writing achieved greater depth % • School Writing below pre-KS1 % • National benchmark Writing below pre-KS1 % • School Writing foundations % • National benchmark Writing foundations % • School Writing working towards % • National benchmark Writing	• All pupils • Male • Female • Disadvantaged • Other • Ever 6FSM • Children looked after • SEN with statement or EHC plan • SEN support • No SEN • English first language • English additional language

		learning towards %	
Primary KS1	Key stage 1 name's attainment by pupil group	Breakdown of: • Cohort number • School Name achieving the expected standard % • National benchmark Maths working towards % • National benchmark Reading working towards % • National benchmark Writing working towards % • National benchmark Maths expected standard % • National benchmark Reading expected standard % • National benchmark Writing expected standard %	• All pupils • Male • Female • Disadvantaged • Other • Free school meal (Ever 6 year) • SEN (pupil identified as having a special educational need) • No SEN • EAL (pupil's first language believed not to be English) • Non EAL (pupil's first language believed to be English)
Primary KS2	Key stage 2 name's attainment by pupil group	Breakdown of: • Cohort number • School Name achieving the expected standard % • National benchmark %	• All pupils • Male • Female • Disadvantaged • Other • Free school meal (Ever 6 year) • SEN (pupil identified as having a special educational need) • No SEN • EAL (pupil's first language believed not to be English) • Non EAL (pupil's first language believed to be English)
Primary Phonics	Phonics year 1 attainment by pupil group	Breakdown of: • Cohort number • Number who didn't take the test • Number achieving the expected standard • School % achieving the expected standard • National benchmark % • Average mark national benchmark	• All pupils • Male • Female • Disadvantaged • Other • Free school meal (Ever 6 year) • SEN (pupil identified as having a special educational need) • No SEN • EAL (pupil's first language believed not to be English) • Non EAL (pupil's first language believed to be English)
Primary Phonics	Phonics year 1 attainment by pupil group	Breakdown of: • Cohort number • Number who didn't take the test • Number achieving the expected standard • School % achieving the expected standard • National benchmark % • Average mark national benchmark	• All pupils • Male • Female • Disadvantaged • Other • Free school meal (Ever 6 year) • SEN (pupil identified as having a special educational need) • No SEN • EAL (pupil's first language believed not to be English) • Non EAL (pupil's first language believed to be English)
Primary EYFS	EYFS pupil group	Table 1 - % of pupils achieving a good level of development at end of Reception year Breakdown of: • Cohort • School % • National benchmark %	• All pupils • Male • Female • Free School Meals • Non Free School Meals • Other
Primary EYFS	EYFS pupil group	Table 2 - % of pupils achieving at least expected level within each of the 17 learning goals Breakdown of: • Cohort and language, Listening, attention & control % • Comms and language, Listening, attention & control, Understanding % • Comms and language, Speaking, Speaking % • Physical development, Health and self-care, Moving and handling % • Physical development, health and self-care, Health % • Personal social and emotional development, Self-confidence and self-awareness, School % • Personal social and emotional development, Managing feelings and behaviour, National % • Literacy, Reading, school % • Literacy, Reading, National % • Literacy, Writing, school % • Literacy, Writing, National % • Maths, Numbers, school % • Maths, Numbers, National % • Maths, Shape, space and measurement, school % • Maths, Shape, space and measurement, National % • Understanding the world, People and communities, school % • Understanding the world, People and communities, National % • Understanding the world, The world, school % • Understanding the world, The world, National % • Understanding the world, Technology, school % • Understanding the world, Technology, National % • Expressive arts and design, Exploring and using media and materials, school % • Expressive arts and design, Exploring and using media and materials, National % • Expressive arts and design, Being imaginative, school % • Expressive arts and design, Being imaginative, National % • Not Due 6 Year	• All pupils • Male • Female • Free School Meals • Non Free School Meals • Other

5.2.9 Table of behaviour data groups and subgroups in the national pupil database

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Pupil exclusion: category [Not for: Nursery schools]

Code	Description
PEXP	Fixed period
PERM	Permanent
UNCH	Lunchtime

Pupil exclusion: reason [Not for: Nursery schools]

Code	Description
1A	Physical assault against a pupil
1B	Verbal abuse / threatening behaviour against a pupil
1C	Verbal abuse / threatening behaviour against an adult
1D	Bullying
1E	Racial abuse
1F	Sexual misconduct
1G	Drug and substance related
1H	Damage
1I	Theft
1J	Persistent disruptive behaviour

Exclusion Reason	Description
Bullying	Bullying Physical Cyberbullies bullying Cyber bullying Theft Graffiti Vandalism Racial vandalism Drug dealing Possession of prescribed drugs Possession of illegal drugs Alcohol Substance abuse Challenging behaviour Disruptive behaviour Persistent violation of school rules
Physical assault against adult	Obstruction and jostling

Exclusion Reason	Description
Physical assault against pupil	Fighting Wounding Violence Obstruction and jostling Violent behaviour Violent incident
Racial abuse	Derogatory racial statements Racial bullying Racial violence Racial taunting and harassment Racially motivated or fan attributed to racial characteristics
Sexual misconduct	Sexual harassment Sexual abuse Sexual assault Sexual violence Sexual graffiti Sexual harassment
Theft	Stealing and stealing in stolen property Stealing from local shops on a school trip Theft Stealing personal property (adult or pupil) Theft of personal property
Verbal abuse/threatening behaviour against adult	Aggressive behaviour Carrying an offensive weapon Homophobic abuse and harassment Swearing Threatening behaviour Verbal intimidation Verbal abuse / intimidation
Verbal abuse/threatening behaviour against pupil	Carrying an offensive weapon Homophobic abuse and harassment Swearing Threatened violence Verbal intimidation

5.2.10 Case studies of NPD data linked to policing data and prediction

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5.3 The Education (Individual Pupil Information) (Prescribed Persons) Regulations 2009

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Prescribed persons

Under the Education (Individual pupil information) (Prescribed persons) regulations 2009 section 537A(4) of the Act, the following are prescribed as persons to whom the Secretary of State may provide individual pupil information:-

(a)any person referred to in paragraph 32 below;

(b)any person holding data of the categories referred to in paragraph 30 below, (c)any person having access to a database established and operated by the Secretary of State under section 537A of the Act for the purpose of

(i)any local authority which has reasonable grounds to believe that it is a relevant area for the purposes of the Crime and Disorder Act 1998 (c.37); and

(ii) For the purposes of section 537A(5)(a) of the Act, the Secretary of State prescribes as a person to whom an information collation may provide individual pupil information

(a)any person referred to in paragraph 32 below and referred to in paragraph 35 below.

(b) The individual pupil information which an information collator may so provide in accordance with section 537A(5)(a) of the Act, is any such information:-

(i)which is held by the Secretary of State for the purposes of the Education (Individual Pupil Information) (Prescribed Persons) Regulations 2009;

(ii)relating to the educational achievements of pupils in any National Curriculum assessment carried out before the end of the academic year in which the pupil attains the age of 16 years (including any such assessment relating to the educational achievements of pupils in any external qualifications which are within Wales of the Learning and Skills Act 2000(8), for the purposes of section 96 of that Act.

(c) For the purposes of section 537A(5)(a) of the Act, the Secretary of State prescribes as a person to whom an information collator may provide individual pupil information

(a)any person referred to in paragraph 32 below, and

(b)any person referred to in paragraph 35 below, and

(c)any person referred to in paragraph 36 below.

(d) The persons referred to in paragraphs 32(a), (32b) and (32c) are:-

(a)the Joint Council for Qualifications;

(b)the Qualifications, Curriculum and Assessment Authority for Wales(9);

(c)the Higher Education Funding Council for England(10);

(d)a relevant local authority;

(e)the Learning and Skills Council for England(11);

(f)the management committee of a pupil referral unit at which the relevant pupil is or was registered;

(g)the Training and Development Agency;

(h)the Qualifications and Curriculum Authority;

(i)the Director of Library Education Department;

(j)the Art Mark Department of Education;

(k)the Sutton Trust;

(l)the Universities and Colleges Admissions Service;

(m)the University and Colleges Admissions Service(12);

(n)the Higher Education Statistics Agency;

(o)HE Careers Ltd;

(p)the British Educational Communications and Technology Agency (Becta);

(q)any person with whom a body listed in paragraphs (a) to (p) above has made arrangements under section 537A of section 15 of the Education and Skills Act 2008(13);

(r)any person who, either alone or jointly with others, awards or authenticates any qualification accredited by the Qualifications and Curriculum Authority;

(s)the Further Education Funding Council for England(14);

(t)the Qualifications and Curriculum Authority(15);

(u)any person who is a party to a contract with the DCSF, DIUS and QCDA and—

(i)undertakes within the contract the provision of—

(A)Primary Care Trusts(16);

(B)local authority social services;

(C)persons conducting research into the educational achievements of pupils and who require individual pupil information for that purpose;

(D)persons exercising functions under the HE Register of Learning Providers(17);

(E)contractors within the higher education sector.

Paragraph 6 (b) was amended in 2010 from:

persons conducting research into the educational achievements of pupils and who require individual pupil information for that purpose;

to

persons who, for the purpose of promoting the education or well-being of children in England are—

(i) conducting research or analysis,

(ii) producing statistics, or

(iii) providing information, advice or guidance,

and who require individual pupil information for that purpose

5.4 Table comparison of six Early Years apps accredited by the DfE

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	Famly	Tapestry	Parentzone	Kinderpedia	Nursery Manager	Childcare Manager
Can you create a unique login for each parent?	✔	✔	✔	✔	✔	✔
Can you create a unique login for each member of staff?	✔	✔	✔	✔	✔	✔
Can you create a unique login for each child

Google Takeout	Back up and download the data in your Google Account.	Terms
Google Translator Toolkit	Get tools for translators to translate your pages and documents faster.	Terms
Google Trips	Includes all trip details from your email, combined with a destination guide and day planner. Provided on your phone, independent of connectivity.	Terms
Google Voice	One number for multiple phones, online voicemail, and less expensive calling.	Terms
Individual Storage	Allow end users to purchase additional storage for Google Drive.	Terms
Location History	Control location history and reporting.	Terms
Merchant Center	Upload your product data to Google and make it available to Google Product Search.	Terms
Mobile Test Tools	Test your URL for compatibility on mobile displays.	Terms
Panoramio	Geolocate, store, and organize your photographs.	Terms
Partner Dash	Quickly access applications hosted by Google partners.	Terms
Play Books Partner Center	Promote your books online through Google Books.	Requires sign-up
Project Fi	A wireless service that helps you get a high-quality connection wherever you are—at home, on-the-go, or even abroad. Available only to people who live in the U.S in eligible locations. Not available for work profiles. Learn more about Work Profiles	Terms
Web and App Activity	Save and manage your search activity and enable customized experiences in Search, Maps, and Google Assistant.	Terms
YouTube	Watch, upload, and share videos. Not available in all regions. Learn more	Terms
YouTube CMS	Identify and manage your content with Content ID.	Terms
YouTube Promoted Videos	Promote your videos on YouTube search result pages.	

5.8 Template: Make a Subject Access Request for your own data or child

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[Name and address of the school]
"The school"

[Your name and contact details]

[The date]

Dear [Insert name of the School Data Protection Officer]

Subject access request

I write to you as the legal guardian of [Include your child's full name and other relevant details to help identify them and you, such as date(s) of birth and school class/year group].

Please supply the personal data you control and process about [me and] my child, which I am entitled to receive under data protection law, processed by the school. I would also like to ask for further details about third parties with whom you may have shared this information.

[Give specific details of what you want. For example]

- A copy of my child's educational record;
- emails between 'person A' and 'person B' (from X date to Y date) about X topic;
- personal data passed on to Youth Services and/or Connexions;
- personal data passed on to the Department for Education National Pupil Database;
- the CCTV camera footage situated at ('where') on which date and time;
- any apps, platforms and other third parties by whom personal data is processed. Please ensure this includes the data that the company or third party organisation may create and infer, their third party processors and any third parties with whom they may have further shared the data.

If you need any more information, please let me know as soon as possible.

[If relevant, state whether you would prefer to receive the data in a particular electronic format, or printed out].

As you will know, data protection law requires you to respond to a request for personal data within one calendar month.

If you need advice on dealing with this request, the Information Commissioner's Office can assist you. Its website is ico.org.uk, or it can be contacted on 0303 123 1113.

Yours sincerely,

[Signature]

5.9 Survey of school IT staff GDPR Readiness (February 2018)

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5.9.1 The methodology

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Defenddigitalme collected informal views from a small sample of IT and data protection staff in schools accessible via Survey Monkey, in a survey "Are we ready for GDPR?" posted on the GDPR thread of the popular IT forum "EduGeek," between February 7-14, 2018.

35 staff with responsibility in a state-funded educational organisation for any children age 2-19 in the UK completed 25 questions on GDPR preparation and current data processing. 79% were in secondary education of which 9% was further education, plus 20% primary.

Respondents were asked questions about their school's collection and processing of personal data and its use in various common technologies either in school, by staff, or by the school and contracted third parties; as well as overarching questions about their attitudes over data protection and GDPR preparations.

This does not set out to be statistically robust, but is a simple spot-check and should be seen as a pilot for further research. The results align with what we have heard from across the sector in the course of the last year, and from discussions at a wide range of trade shows including BETT 2018, the Academies Show Birmingham, the Academies Show London, and at the EdTech UK conference in November 2017 organised by the Education Foundation.

Defenddigitalme recommendations for GDPR Readiness in Schools (2018)

1. Short term: support for schools' preparation and GDPR readiness.

Funding and experienced and trained (legal / DP) support must be made available to schools. Without this, they cannot meet their new standards and many have fallen behind since Local Authority services were reduced or withdrawn due to lack of funding. Guidance will not offer legal advice, and it is in trickier areas that the most serious mistakes are made.

2. Medium term: improve oversight of handling children's most sensitive data.

We recommend statutory registration of processing biometric data as a special category with the Office of the Information Commissioner. This would be similar to registration as done today, but with a requirement to mention biometrics explicitly.

3. Long term: improved policy and practice needs structured support and oversight.

A UK-wide statutory code for the education sector for pupils age 2-19 (and 25 with SEND / EHC plans) should be developed by the Information Commissioner in consultation.

This would offer required clarity and guidance on standards to be followed by suppliers and an official and trusted interpretation of expected standards are. There is a deficit to catch up and companies with established practices will not change without a push to do so. Clearly set out expectations are needed in relation to the collection, processing, publication and other dissemination of personal data concerning children and pupils in connection with the provision of education services, which relates to the rights of data subjects, appropriate to their capacity and stage of education.

This would help staff in schools implement the GDPR to deliver

1. Clarity in schools and suppliers what can and cannot be done, especially on the boundaries of public and legitimate interests, and consent, and where GDPR requires changes compared with today.
2. Confidence in schools own responsibilities to handle data well when sharing with for direct care. for indirect use in research. or buying and using trusted edTech safely. Standards that apply to systems providers would be able to be regulated against.
3. Consistency and fairness how children. parents and carers are informed of their rights about privacy. use and retention. and the use of personal data by third-parties. at local. regional and national levels. incl. national pupil data distributed by the Department for Education.

What do schools say is missing that they need for GDPR?

Highlights

- 66% have not yet completed a data audit as part of GDPR preparation.
- Only 29% agree their current data protection policies and practice meet good data protection standards. and that they are GDPR ready. 49% disagree and 20% strongly disagree they do.
- 69% are not confident that the school knows the legal basis for all their data processing.

Comments include. "Whilst there is a high level understanding and they have governance expertise in this area. there is not direct legal support available at the operational level." and "we are unsure whether we need explicit consent or if it can come under the legal processing basis."

What is missing for your school to be ready for GDPR in May 2018 and to meet the expected standard ongoing in future?		
Clear guidance	77.14 %	27
An assigned DPO role	77.14 %	27
Clarity on changes	71.43 %	25
Understanding legal basis for holding data	65.71 %	23
Expected standards	62.86 %	22
Funding	60.00 %	21
Senior leadership support	51.43 %	18
Third-party support	45.71 %	16
Third-party data audit functions	34.29 %	12
Nothing missing. we are confident that our policies are compliant	0 %	0
Other (please specify)	11.43 %	4
Answered	35	

Comments on what is needed included:

"Staff understanding of the change impact.

"We have bought advice from our solicitors. but not implemented it. mostly due to cost and no one leading it.

"Compliance data from third parties. policies edited. staff training and Suppliers (such as Capita) having amended products to facilitate compliance with GDPR. Other suppliers fobbing off customers when quizzed about their GDPR prep. A government that (according to the guys on the DfE stand at BETT) are only now providing GDPR training to DfE staff."

Support

71% disagree or strongly disagree that they have the support in school they need. in order to be ready to meet the data protection standards expected under the General Data Protection regulation (GDPR) by May 2018.

Third party school information management systems commonly appear inadequate by design. When asked if their school performs any regular data audit from your pupil information management system to have oversight and traceability of pupil data. only 11 said yes. and 40% they did not because the pupil information management system does not offer this functionality. in addition to the other 40% that simply replied no.

Of these 35 schools. 63% are managing their own third-party support contracts. both software and hardware. rather than through a local IT company / maintenance firm or Learning Grid for example. They appear to do this with very little support.

Clear accountability of data protection responsibilities today

20% currently have do not have Data Protection duties assigned to anyone at all. and there are no plans to do so. a further 6% did not know if they would.

At least 66% have no standard process before a new app technology is introduced. with any form of "risk assessment / privacy impact assessment. and approval process.". Decisions to use a new app sit independently with each member of staff. A further 9% did not know.

75% do not ask for parents permission. or offer a choice to refuse consent. when a teacher signs up a child for a new app or technology used in the classroom or homework tools which use a child's personal data.

When a teacher signs up a child for a new app or technology used in the classroom or tools which use a child's personal data. at least 60% (21/35) say that parents are not informed what personal data about the child has been shared with the third party.

Processes that are sensitive and need special care under GDPR

Almost all use software that creates automated decisions or profiling of children. (ie that track data over time and store or present or use a cumulative picture of activity or behaviours). Only 20 of 35 considered that Attainment and monitoring progress were measured in this way. 37% use software for profiling behaviour and 32% for creating seating plans. 32% perceive web monitoring software in this category. and 26% have software that profiles food consumption. with 23% doing so using biometrics. But 23% weren't sure.

We believe this is an area that needs better detailed understanding by policy makers. and in practice. how children's personal data is being used. and to what degree a human that reads the data and responds to it has any understanding of its algorithmic decision making or possible flaws and could spot errors. and therefore whether it is in fact. "automated".

Will schools meet new requirements if they do not meet today's in subject access. on retention. and data security?

There is no way for a child or parent to track their digital footprint when a child leaves school.

94% have no communication policy today for school leavers to tell them how their personal data will be retained. Its legal storage requirements and retention periods. or when it will be destroyed. (eg. deleted from apps used in learning. platform providers. from school records. other third-parties).

Only 20% (7 out of 35) have communicated a Subject Access policy to pupils and parents.

Only 49% agree they have informed processing. and are able to tell a child or parent today. where all their personal data goes when it leaves school (For example. used in classroom apps. third party apps. SIMS. census. LA or MAT etc. Ofsted. research. other).

Under 20% in England tells parents/pupils explicitly which organisations may use identifying personal data submitted to the Department for Education in the termly or annual school census. 23% say they do not inform pupils and parents what the Department for Education does with pupil data. and **an additional 23% said they were not themselves aware** of individual-level pupil data third-party distribution of national pupil data.

When asked **how pupil level data can be accessed,** 60% said that all staff can access all data across the school information management system. In 43% school staff use their own personal phones. hand-held devices. or laptops to access pupil level data; and in 34% of those schools who responded. there is use of USB sticks to access pupil level data.

Free comments reveal a wide range of inconsistent practices and approach to and level of security.

Oversight or audit process in place when teachers leave the school to retract children's data they hold or gave out to others varies enormously. One replied that "Wherever possible. all authentication is linked to a single source. Access is automatically removed at 17:00 on the last day."

But only 20/35 responded that there was any automatic revocation of staff rights to the Information Management System on leaving. and only 9% have a process to retract and restrict access to the children's personal data staff may have had on their own personal devices. whilst employed.

And still lower. only 1 in 35 there was any policy regards oversight of the personal data a teacher may have given out to third party app providers during their tenure.

Free comments included that. "it's largely controlled very well. but individual behaviour leads to risk. Staff education is key to minimise risk." and "Some data held in network and/or Google Drive - both secured." Another ensures that. "File shares have granular permissions applied. Remote access to pupil data requires two-factor authentication. Staff are strongly discouraged from having data about people on USB sticks and any USB sticks in use must be encrypted (technical measures in place to reject unencrypted sticks)."

A case study on USB stick use

"The head has just given out memory sticks to all teaching staff - and announced it in an email to the whole school - with a report template on for them to use to create all their reports with the child's full name on the stick to give back to the Head. The sticks are not encrypted in any way at all. I went to the DH who is IT savvy. They said they were horrified when [the sticks] were handed them out (knew they had done it before but thought that this year they wouldn't) and has tried to speak to Head about it. Head thinks that schools won't be chased up for GDPR."

5.9.2 IT staff survey questions and answers

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Question 1. We have the support in school we need. in order to be ready to meet the data protection standards expected under the General Data Protection regulation (GDPR) by May 2018.				
Strongly agree	Agree	Disagree	Strongly Disagree	Don't know
2.86 % (1)	22.86 % (8)	20 % (7)	51.43 % (18)	2.86 % (1)

Question 2. Who holds responsibility for data protection today in your organisation?		
Assigned dedicated Data Protection Officer	2.86 %	1
Assigned Data Protection duties to someone with another role	31.43 %	11
Contractor / external	2.86 %	1
Governor	5.71 %	2
Head	17.14 %	6
Member of IT staff	28.57 %	10
MAT supported	2.86 %	1
Local Authority support only on demand	0.00 %	0
Other staff	5.71 %	2
None. We do not currently have Data Protection duties assigned to anyone.	20.00 %	7
Other (please specify)	11.43 %	4
Answered	35	

Question 3. Has your organisation assigned a Data Protection Officer yet?		
Yes	20.00 %	7
No. but we will by end of May 2018	54.29 %	19
No and no plans to do so	20.00 %	7
Don't know	5.71 %	2
Answered	35	

Question 4: Has your organisation completed a data audit as part of GDPR preparation yet?		
Yes	34.29 %	12
No	65.71 %	23
Answered	35	

Question 5: Our current data protection policies and practice meet good data protection standards. we are confident of our data retention policy. and are GDPR ready.											
Strongly agree		Agree		Disagree		Strongly disagree		Don't know		Total	Weighted Average
0 %	0	28.6 %	10	48.6 %	17	20 %	7	2.9 %	1	35	2.97
4											
Answered	35										

Question 6: Our school is confident that we know the legal basis for all our dat a processing.											
Strongly agree		Agree		Disagree		Strongly disagree		Don't know		Total	Weighted Average
0 %	0	28.57 %	10	48.57 %	17	20.00 %	7	2.86 %	1	35	2.97
4											
Answered	35										

Question 7: Does school have a pupil / parent technology contract with school? (ie. an agreement between home and school on child's online activity in school that may include use of own mobile phone. web monitoring and filtering policy. use of social media / comments about school)		
Yes	60.00 %	21
No	28.57 %	10
Don't know	11.43 %	4
Answered	35	

Question 8: Can pupil / parents refuse to sign the child-school contract and with what consequences? (please state consequences in comments)		
Yes	31.43 %	11
No	5.71 %	2
Don't know	51.43 %	18
Answered	35	

Comments to question 8 include:

"I don't think anyone has refused to sign. but I'm sure some never have."

"No signature = no access to computer systems."

"In theory they could. but then we'd have to block them from the network. I don't think it's ever happened."

Question 9: Can you tell a child or parent today. where all their personal data goes when it leaves school (Classroom apps. third party apps. SIMS. census. LA or MAT etc. Ofsted. research. other).		
Yes	48.57 %	17
No	40.00 %	14
Don't know	11.43 %	4
Answered	35	

Question 10. Our school staff may access pupil data in the following ways		
All data in MIS have a general access for all teaching staff	60 %	21
Role-based access models (ie Head can see all pupils. class teacher only their class pupils)	51.43 %	18
USB sticks	34.29 %	12
Staff can use own phones. hand held devices or laptops	42.86 %	15
School governors can access pupil level data	2.86 %	1
Free comment	11.43 %	4
Answered	35	

Question 11: Have you got a Subject Access policy communicated to pupils and parents?		
Answer Choices	Responses	
Yes	20 %	7
No	60 %	21
Don't know	17.1 %	6
Free comment	2.9 %	1
Answered	35	

Question 12: Does your school use any apps that send data abroad?		
Yes. outside UK but within EU	45.71 %	16
Yes. outside EU	8.57 %	3
No	20.00 %	7
Don't know	22.86 %	8
Answered	35	

Question 13: Does your school perform any regular data audit from your pupil information management system to have oversight and traceability of pupil data?		
Yes	11.43 %	4
No	40 %	14
No. our information management system does not offer this functionality	40 %	14
Don't Know	8.57 %	3
Answered	35	

Question 14: Before a new app technology is introduced. does the school have any form of "risk assessment / privacy impact assessment. and approval process." or do decisions to use a new app sit only with each member of staff?		
Yes. we have a standard risk assessment / privacy impact assessment and approval process	20 %	7
No. we have no process. A decision to use a new app is made by staff independently	65.71 %	23
Our children / staff do not use any apps in our classroom settings	0 %	0
Don't know	8.57 %	3
Answered	35	

Question 15: When a teacher signs up a child for a new app or technology used in the classroom or homework tools which use a child's personal data. how often are parents asked for permission. with a choice to refuse consent.		
Always	5.71 %	2
Sometimes	17.14 %	6
Never	62.86 %	22
Don't Know	11.43 %	4
Other (please specify)	2.86 %	1
Answer given under other: If use falls under "necessary to provide education". no. If the child is old enough (13 > 16 depending on what they consenting to) and competent to give consent themselves. probably not.	Answered	35

Question 16: When a teacher signs up a child for a new app or technology used in the classroom or homework tools which use a child's personal data. how often are parents informed what personal data has been shared with the tool company / developer / used in creation of user account etc?		
Always	5.71 %	2
Sometimes	22.86 %	8
Never	60.00 %	21
Don't Know	8.57 %	3
Other (please specify)	2.86 %	1
Other detail: "This information is available on request."	Answered	35

Question 17: **England only** Does your school tell parents/pupils explicitly which organisations may use identifying personal data submitted to the Department for Education in the termly or annual school census (not anonymised). including commercial companies. charities. journalists. other govt. departments and university researchers?		
Yes. we tell pupils and parents each term when the census is submitted.	5.71 %	2
Yes. but only third-parties 'more in general' is listed on our fair processing notice.	14.29 %	5
No. we do not inform pupils and parents what the Department for Education does with pupil data	22.86 %	8
No. we were not aware of this level of data released by the Department for Education	22.86 %	8
Don't know	17.14 %	6
Not applicable - our organisation is not in England.	17.14 %	6
Answered	35	

Question 18: When did the school last revise its data privacy policy/ fair processing notices or privacy notice and make it available to all parents / children		
2018	17.14 %	6
2017	20.00 %	7
2016	11.43 %	4
2015	5.71 %	2
2014	2.86 %	1
2013	0.00 %	0
2012	2.86 %	1
2011 or earlier	2.86 %	1
Don't Know	31.43 %	11
Amended in the year above. and published to our website.	5.71 %	2
Amended in year above. and gave copy to children /parents / carers.	5.71 %	2
We do not issue any data processing notice to children or parents.	5.71 %	2
Answered	35	

Question 19: Do you use a Chromebook parent-purchase model?		
Yes	2.86 %	1
No	97.14 %	34
Don't know	0.00 %	0
Answered	35	

Question 20: Does your school mainly manage individual third-party support contracts. both software and hardware. or are they mainly procured and managed through a local IT company / maintenance firm or Learning Grid for example.		
IT third-party company	11.43 %	4
WONDE	0.00 %	0
Learning Grid	2.86 %	1
School managed	62.86 %	22
Don't know	5.71 %	2
Other (please specify)	17.14 %	6
Answered	35	

Question 21. Our school uses software that creates automated decisions or profiling of children. (ie that track data over time and store or present or use a cumulative picture of activity or behaviours)		
Attainment and monitoring progress	57.14 %	20
Behaviour	37.14 %	13
Classroom seating plans	31.43 %	11
Biometrics	22.86 %	8
Food purchased	25.71 %	9
Web monitoring	31.43 %	11
No profiling and no automated decision-making of the above or others	8.57 %	3
Don't know	22.86 %	8
Other (Free comment)	8.57 %	3
Answered	35	

Question 22: Does the school have a communication policy for school leavers to tell them how their personal data will be retained. its legal storage requirements and retention periods. or when it will be destroyed? (eg. deleted from apps used in learning. platform providers. from school records. other third-parties).		
yes	5.71 %	2
no	94.29 %	33
Answered	35	

Question 23: Does the school have an oversight or audit process in place when teachers leave the school to retract children's data they hold or gave out to others?		
school information management system access is revoked automatically	57.14 %	20
third-party agreements including apps they assigned to children	2.86 %	1
from their own devices	8.57 %	3
none	17.14 %	6
Don't 'know	8.57 %	3
Other (please specify)	17.14 %	6
Answered	35	

Question 24: What is missing for your school to be ready for GDPR in May 2018 and to meet the expected standard ongoing in future?		
Clear guidance	77.14 %	27
An assigned DPO role	77.14 %	27
Clarity on changes	71.43 %	25
Understanding legal basis for holding data	65.71 %	23
Expected standards	62.86 %	22
Funding	60.00 %	21
Senior leadership support	51.43 %	18
Third-party support	45.71 %	16
Third-party data audit functions	34.29 %	12
Nothing missing. we are confident that our policies are compliant	0 %	0
Other (please specify)	11.43 %	4
Answered	35	

Question 25: Which of these providers have you in school. (Please select all those that are relevant. One is the minimum possible selection.)		
4Matrix Data analysis	22.86 %	8
Abacus	0.00 %	0
Abacus Nursery Management Software	0.00 %	0
Absence Insurance Scheme system	2.86 %	1
Acer Classroom Manager	0.00 %	0
ALPS	20.00 %	7
Animatron	0.00 %	0
App Shed	5.71 %	2
Apple	48.57 %	17
ArcGIS online mapping	5.71 %	2
Biostore	25.71 %	9
Bloomly (Nursery Management)	0.00 %	0
BlueSky	8.57 %	3
Bug Club. Science Bug. Phonics Bug	2.86 %	1
Callparents/Truancycall/Payments/Datacall/OurSchoolsapp/Lookedaftercall/tellbytext/clubconnect	8.57 %	3
CareMonkey	2.86 %	1
Cashless catering	62.86 %	22
CATs tests	31.43 %	11
Class Dojo	0.00 %	0
Classcharts (behavioural and seating plan tool)	17.14 %	6
Classroom Monitor	5.71 %	2
Cloud Hosted filtering. firewall and broadband connection	14.29 %	5
Collins Connect	2.86 %	1
CPOMS	11.43 %	4
Cunninghams	31.43 %	11
Diagnostic Questions	5.71 %	2
Do It Profiler	2.86 %	1
Doddle Lelearn	17.14 %	6
Dynamic Learning	20.00 %	7
Eclipse library software	37.14 %	13
eDays (absence)	0.00 %	0
Education City	5.71 %	2
EduLink One	5.71 %	2
Entree Visitor Management (Pupils)	0.00 %	0
EPraise	5.71 %	2
Eschools	0.00 %	0
EVOLVE	31.43 %	11
Exam awarding body	17.14 %	6
Exam Revision	0.00 %	0
Facility CMIS. ePortal. Progresso	5.71 %	2
Facebook (that pupils/students use as collaborative tool. not PTA or staff tool)	0.00 %	0
Fastrak	2.86 %	1
FFT Aspire	17.14 %	6
Firefly	5.71 %	2
Flex Cloud Printing Platform	0.00 %	0
Fortinet wireless equipment	5.71 %	2
Free resources for Maths but requires logins for full functionality	2.86 %	1
Future Digital	0.00 %	0
Gamification Platform	0.00 %	0
GCSE Pod	22.86 %	8
Go4Schools	2.86 %	1
Google Apps for Education. including any data captured from browsers and devices logged in as a GAFE user	40.00 %	14
Helpdesk	22.86 %	8
Heritage 4	5.71 %	2
HR. H&S. Payroll outsourcing	14.29 %	5
IAM Cloud	0.00 %	0
Identity Management	2.86 %	1
Impero	37.14 %	13
Instagram	8.57 %	3
Interactive Learning Diary	0.00 %	0
Inventry	14.29 %	5
Iris	17.14 %	6
iSAMS	0.00 %	0
iTrent	8.57 %	3
Junior LIbrarian.Net/Reading Cloud	5.71 %	2
Kerboodle	40.00 %	14
Kidblog	0.00 %	0
KtS. COLLECT. EduBase. ASP. etc etc etc	0.00 %	0
Lightspeed Rocket content filtering	17.14 %	6
Live Register/Cashless Catering	0.00 %	0
many things	0.00 %	0
Mathletics	8.57 %	3
Maths	0.00 %	0
Maths Watch	20.00 %	7
MDM software	17.14 %	6
Meraki MDM system	34.29 %	12
Microsoft	82.86 %	29
MINT Class (Seating planner)	5.71 %	2
Mosyle Apple MDM	0.00 %	0
Multiple - Accelerated Reader. Accelerated Maths	5.71 %	2
My Maths	11.43 %	4
My School Portal	0.00 %	0
MyConcern	17.14 %	6
MyMaths	60.00 %	21
NHS services (National Child Measurement Programme - if Other please state in "other" field)	8.57 %	3
NetSupport DNA / NetSupport School	5.71 %	2
Office 365 and lots of other things!	80.00 %	28
Oliver / Scout	0.00 %	0
On-Line Health and Safety Management Suite	2.86 %	1
Online Maths Platform	5.71 %	2
OP Smart Backup	0.00 %	0
OTrack	0.00 %	0
Parago Asset Management	5.71 %	2
Parent Evening System	2.86 %	1
ParentMail	8.57 %	3

ParentMail Pilot	5000 N/A	2
ParentPay	40,000 N/A	10
Parents Evening Booking System	20,71 N/A	6
Pearl Interactive	2,500 N/A	1
Payment software (below as Schoolcomms?)	2,500 N/A	1
Payment System for cafeteria/trips etc	10,000 N/A	6
Payroll	20,000 N/A	7
Payroll outsourcing	28,71 N/A	8
Pearson Active Learn	28,71 N/A	8
PGL	20,000 N/A	8
Police	0,71 N/A	3
Pronote Timetabler	2,500 N/A	1
PS Cloud, PS Engage (what was these Kirfis fees. My list for schools says 4p per unit of the KHS range, School Asset Manager	16,07 N/A	2
Pupil Learning Journey Platform	5,000 N/A	3
Puzzle Maths - (Rudy's Profile	2,500 N/A	1
Quizlet	11,42 N/A	4
Reading Cloud	5,71 N/A	3
Realtime/Smartlinx/smartlinx/Kirfis/Skills/Smarts/Smartlyn/Smartlinx	2,500 N/A	1
redundant IT equipment recycling	40,000 N/A	10
RM Education (KS4) & Futures Cloud (Classroom monitoring)	2,500 N/A	1
Rubix Connect and Classroom	5,71 N/A	3
Salamander (ID, MIS, Sharepoint integration)	17,14 N/A	6
SAM learning	5,71 N/A	3
SchoolsPoint	4,000 N/A	2
School Cash Office	28,000 N/A	7
School Jotter, Moodle	5,71 N/A	3
School photographer (external third party)	27,14 N/A	10
School pupil photos (internal, for lockers etc - separate from the school photographer pictures)	11,42 N/A	4
School Pupil Trainer	2,500 N/A	1
School Seating Planner	11,42 N/A	4
Schoolcomms	28,57 N/A	7
Show My Homework, Edenred	17,14 N/A	6
Skoliy	5,00 N/A	4
Sign in App	2,500 N/A	1
SIMS	40,00 N/A	28
SIMS hosting	11,42 N/A	4
Sims Analytics	11,000 N/A	6
SOCS CMS	2,500 N/A	1
Sophos XG/UTM	1,40,07 N/A	10
Spanning Backup for Google Apps	5,71 N/A	3
Spotswoods Helpdesk, Anywhere & Network Monitoring	22,000 N/A	8
STAR Payroll	5,71 N/A	3
Surveilog	11,42 N/A	4
Tapestry Online Learning Journal	5,71 N/A	3
Target Tracker	2,500 N/A	1
TASC magic	5,07 N/A	2
Teachers.parentpay.survey service	5,42 N/A	4
Tech Future	2,500 N/A	1
Testing for Schools	2,500 N/A	1
Text Anywhere MAN messaging	5,00 N/A	4
The Duke of Edinburgh's Award	28,71 N/A	8
Times tables rock stars	5,71 N/A	3
Tutorial centre.com tutoring/mentoring service	5,71 N/A	3
Twitter (school account not, children's data or photos)	40,000 N/A	10
Uniflow printing management	5,07 N/A	3
Unifrog	5,07 N/A	3
Vocab Express	5,71 N/A	3
Vocational Qualifications Online	2,500 N/A	2
Websites: Photography, Sail Ah	28,29 N/A	12
Wisepay	2,500 N/A	1
Wonde Sync	14,29 N/A	5
YouTube	22,14 N/A	10
Zipvibe: Orange, Messenger, Dash (Snapchat)	10,14 N/A	10
Other: Bring Your Own Device policy in school (pupils can use devices at home that we used to install Chrome Music, but now allow to bring)	10,14 N/A	10
Other external email provider	5,00 N/A	3
Other social media provider	2,500 N/A	1
Other (please specify)	5,00 N/A	4
Answered	28	

5.10 Parent survey of children's data used in school

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Wednesday

School Data

Information we collect about children in the school

Legal Basis

Data Collected About Children

Data Collected About Parents

Data Sharing

Data Retention

Data Protection Officer

Contact Form

Parental permission

Parental permission

Parental permission

Parental permission

		made of the potential effect on the privacy of young people of the Learning Records Service's provision of access to their data by gambling firms.			
Nationality	HL17038	To ask Her Majesty's Government how nationality and country-of-birth data have been used by (1) the Department for Education, and (2) any other third party, since their collection from schoolchildren between October 2016 and June 2018.	9.07.2019	19.07.2019	The Earl of Clancarty
Nationality	HL17037	To ask Her Majesty's Government what criteria are used when reaching decisions on the monthly matching and handovers of school census data about children by the Department for Education (DfE) to the Home Office for immigration enforcement purposes; what algorithms are used by the DfE to process such data; and what is the role of the Secretary of State for Education in making such decisions.	9.07.2019	22.07.2019	The Earl of Clancarty
N, HO, police	201097	To ask the Secretary of State for Education, what assurance his Department provides to parents that data on children collected for educational purposes will not subsequently be used for immigration enforcement.	11.12.2018	19. 12. 2018	David Lammy
N, HO, police	201095	To ask the Secretary of State for Education, whether his Department shares national pupil data with the Home Office for purposes related to immigration; and how many records have been shared by his Department since May 2010	11.12.2018	19. 12. 2018	David Lammy
N, HO, police	201096	To ask the Secretary of State for Education, by what process may schools retract nationality data submitted to his Department between October 2016 and June 2018.	11.12.2018	19. 12. 2018	David Lammy
N, HO, police	HL12166	To ask Her Majesty's Government, further to the Written Answer by Lord Nash on 6 March 2017 (HL5596) and following the subsequent ending of the nationality and country of birth data collection from school children in autumn 2018, how schools and families can now retract such data submitted to the Department for Education.	10.12.2018	20. 12. 2018	Lord Scriven
Baseline	185123	To ask the Secretary of State for Education, whether his Department has received representations on the legality of a child's data being collected through baseline assessment testing but not accessible to (a) the child, (b) the parents of the child and (c) education staff; and if he will make a statement.	29.10.2018	01. 11. 2018	Tracy Brabin
AP census	162136	To ask the Secretary of State for Education, whether it is the Government's policy that schools will be required to request children's nationality and country of birth through the termly school census for the academic year 2018-19.	09.07.2018	12.07.208	Darren Jones
AP census	141035	To ask the Secretary of State for Education, what comparative estimate he has made of the number of school children with autism who were subject to (a) education, health and care plans and (b) statements under the previous SEN and learning difficulties assessments in each of the last five years.	03.05.2018	14.05.2018	Mrs Emma Lewell-Buck (South Shields)
N, HO, police	147486	To ask the Secretary of State for Education, whether any pupil nationality data collected by schools has been shared with the Home Office for immigration enforcement purposes since September 2016.	23.05.2018	04.06.2018	Jo Stevens (Cardiff)
AP census	149911	To ask the Secretary of State for Education, what assessment he has made of the availability of alternative education provision for pupils excluded from mainstream schools.	05.06.2018	11.06.2018	Jim Cunningham
Social media / phones in schools	149714	To ask the Secretary of State for Education, what guidance his Department provides to schools on the use and possession by pupils of smartphones and tablets (a) in schools and (b) during classes.	04.06.2018	12.06.2018	Neil O'Brien
N, HO, police	HL8380	To ask Her Majesty's Government when they intend to inform schools that they no longer need to collect data on pupils' nationality and to remove any such information from their records.	05.06.2018	21.06.2018	Lord Storey
Higher Education	156350	To ask the Secretary of State for Education, whether confidential personal information relating to (a) Higher Education personnel and (b) students may be provided by the Office for Students to (i) Pearson Limited, (ii) the HMRC, (iii) student loans company and (iv) other persons prescribed the Higher Education and Research Act 2017 (Cooperation and Information Sharing) Regulations 2018	21.06.2018	21.06.2018	Gordon Marsden MP
Higher Education	156351	To ask the Secretary of State for Education, with reference to the Higher Education and Research Act 2017 (Cooperation and Information Sharing) Regulations 2018, what data the Office for Students will be able to pass on to trading standards (weights and measures); and for what purpose that data will be used.	21.06.2018	21.06.2018	Gordon Marsden MP
Higher Education	156352	To ask the Secretary of State for Education, what conditions of use have been agreed with Pearson Ltd in relation to personal confidential data that company will receive under the Higher Education and Research Act 2017 (Cooperation and Information Sharing) Regulations 2018.	21.06.2018	21.06.2018	Gordon Marsden MP
Higher Education	156353	To ask the Secretary of State for Education, whether his Department consulted (a) universities (b) student bodies or (c) UCAS on the powers relating to personal confidential data awarded to the Office for Students under the Higher Education and Research Act 2017 (Cooperation and Information Sharing) Regulations 2018.	21.06.2018	21.06.2018	Gordon Marsden MP
AP census	120141	To ask the Secretary of State for Education, how many requests for releases of children's sensitive personal confidential data at pupil-level from the National Pupil Database have been approved since March 2012.	18.12.2017	22.12.2017	Layla Moran
AP census	120138	To ask the Secretary of State for Education, what steps she is taking to inform (a) parents and (b) children about the transfer of personal data from local authorities to her Department in the Alternative Provision census from 18 January 2018; and if she will make a statement	18.12.2017	22.12.2017	Layla Moran
AP census	HL4236	To ask Her Majesty's Government whether data transferred from local authorities to the Department for Education (DfE) in the Alternative Provision census is named data; and if so, what regions in the UK such transfers to the DfE applies to; and why the transfer of such data to the DfE is considered to be necessary.	15.12.2017	22.12.2017 grouped	The Earl of Clancarty
AP census	HL4235	To ask Her Majesty's Government what data items will be transferred from local authorities to the Department for Education in the 2018 Alternative Provision census; and of those data items which (1) are optional and may be refused by parents, and (2) may not be refused by parents.	15.12.2017	22.12.2017 grouped	The Earl of Clancarty
AP census	HL4234	To ask Her Majesty's Government whether parents and children will be personally informed of the transfer of personal data from local authorities to the Department for Education in the Alternative Provision census from 18 January 2018.	15.12.2017	22.12.2017 grouped	The Earl of Clancarty
AP census	HL4233	To ask Her Majesty's Government whether parents and children have been asked for personal written consent for the transfer of personal data from local authorities to the Department for Education in the Alternative Provision census; or will be asked for such consent regarding data items to be included in the extension to the census for 18 January 2018.	15.12.2017	22.12.2017 grouped	The Earl of Clancarty
N, HO, police	HCWS272	Correction made by: Nick Gibb (Minister of State for School Standards). Information supplied by the Data Modernisation Division of the Department for Education has been identified as containing incorrect facts in the response provided to three Parliamentary Questions from the Honourable Member for Brighton Pavilion concerning the volume of children's records passed onto the police and the Home Office (PQ48634, PQ48635 and PQ52645) and in figures quoted during a House of Lords Debate on the 31 of October 2016 on the Education (Pupil Information) (England) (Miscellaneous Amendments) Regulations 2016.	27.11.2017	Correction made by: Nick Gibb (Minister of State for School Standards).	
Data Exchange new system 2018	112861	To ask the Secretary of State for Education, if she will publish impact and risk assessments undertaken on schools for the Data Exchange project.	1411,2017	20.11.2017	Mike Kane
Data Exchange new system 2018	112860	To ask the Secretary of State for Education, when the Data Exchange project began; and what progress has been made in achieving the aims of that project.	1411,2017	20.11.2017	Mike Kane
NPD general	HL2783	To ask Her Majesty's Government what specific information schools are legally required to collect regarding pupils.	1.11.2017	14.11.2017	Asked by Lord Browne of Belmont
NPD formal pupils	109014	To ask the Secretary of State for Education, what legal advice her Department has received on meeting data protection requirements for data held on the national pupil database that relates to former pupils with whom schools have no contact.	23.10.2017	10.11.2017	Darren Jones
NPD communications	109015	To ask the SoS for Education, what legal advice her Department has received on meeting data protection requirements to provide information to parents and children about the collection of children's data for the national pupils database.	23.10.2017	10.11.2017	Darren Jones
N, HO, police	109114	To ask the Secretary of State for Education, on what basis journalists can access identifying and sensitive health data about children's special educational needs from the national pupil database; and if she will make a statement.	23.10.2017	20.11.2017	Darren Jones
press, does not know which data has gone where, track historic extracts	109065	To ask the Secretary of State for Education, how many children's personal confidential identifying data from the national pupil database was given to journalists working for the Telegraph in 2013; and if she will make a statement.	23.10.2017	31.10.2017	Darren Jones
press	109113	To ask the Secretary of State for Education, how many children's personal, confidential identifying data from the national pupil database was given to BBC Newsnight in 2014; and if she will make a statement.	23.10.2017	31.10.2017	Darren Jones
AP census	109024	To ask the Secretary of State for Education, what the legal basis is for her Department's collection of data on pregnancy, health and mental health from January 2018 to inform the Alternative Provision Census.	23.10.2017	30.10.2017	Darren Jones
AP census	108559	To ask the Secretary of State for Education, what guidance and advice her Department plans to provide for data subjects and parents on alternative provision collection of pregnancy, health and mental health data from Jan 2018; and to whom those data will be shared/ made accessible.	18.10.2017	26.10.2017	Darren Jones
AP census	108574	To ask the Secretary of State for Education, what discussion she has had with (a) school leaders, (b) teachers and (c) the public on the expansion of the Alternative Provision school census to collect schoolchildren's (i) pregnancy, (ii) health and (iii) mental health data from January 2018.	18.10.2017	26.10.2017	Darren Jones
Subject Access rights	108573	To ask the Secretary of State for Education, what the criteria is for refusing current and former school pupils subject access requests for personal confidential data in the National Pupil Database; and what steps she is taking to ensure that criteria complies with the General Data Protection Regulation.	18.10.2017	26.10.2017	Darren Jones
AP census	108570	To ask the Secretary of State for Education, whether her Department conducted a privacy impact assessment about the collection of data on pregnancy, health and mental health for the Alternative Provision Census 2018.	18.10.2017	26.10.2017	Darren Jones
N, HO, police	108062	To ask the Secretary of State for Education, when her Department plans to publish the data sharing agreement with the Home Office, used in monthly transfer of national pupil data, for purposes including immigration enforcement.	16.10.2017	24.10.2017	Mike Kane
N, HO, police	108061	To ask the Secretary of State for Education, how many pupils' data has been (a) requested by and (b) given to the Home Office under the data sharing agreement with her Department for purposes including immigration enforcement in each month in 2017; and when those numbers will be published.	16.10.2017	24.10.2017	Mike Kane
N, HO, police	108863	To ask the Secretary of State for Education, whether pupil nationality data is used to match pupil or family records in order to process data requests by the Home Office, for purposes including immigration enforcement as part of the ongoing monthly data transfers to the Home Office; and if she will make a statement.	20.10.2017	30.10.2017	Caroline Lucas
N, HO, police	108864	To ask the Secretary of State for Education, if she will place a copy in the Library of any current Memorandum of Understanding between her Department and the Home Office on the use or sharing of pupil data.	20.10.2017	Caroline Lucas	
NPD general income	106645	To ask the Secretary of State for Education, how much income her Department derived from allowing third-party organisations to access the national pupil database.	09.10.2017	17.10.2017	Darren Jones (Bristol North West)
NPD general onward sharing	106644	To ask the Secretary of State for Education, whether any data extracted from the national pupil database has been transferred from an approved third-party organisation to any other organisation.	09.10.2017	17.10.2017	Darren Jones (Bristol North West)
NPD general access	106877	To ask the Secretary of State for Education, whether third party organisations have access to data on the National Pupil Database; and if she will make a statement.	10.10.2017	18.10.2017	Darren Jones (Bristol North West)
NPD general access	106878	To ask the Secretary of State for Education, what audit processes her Department has implemented to ensure that third-party organisations which access the National Pupil Database store and process that data in compliance with their original agreements with the Government.	10.10.2017	18.10.2017	Darren Jones (Bristol North West)
N, HO, police	HL5596	Why schools were not informed by the Department for Education of parents' right to retract data submitted in the autumn school census in October 2016, until 19 January	23.02.2017	06.03.2017	Lord Scriven
N, HO, police	HL5597	Why the communication on 10 January direct from the Department for Education to all state-funded school heads in England about the expanded school census collection did not mention the Home Office's access to pre-existing or new school census pupil data in national databases.	23.02.2017	06.03.2017	Lord Scriven
HL5598	Will former pupils who provided their personal data before 2010 for the purposes of their own education and who are now older than 19 be informed of the new broader uses of their individual personal data by third parties since 2011?	23.02.2017	06.03.2017	Lord Scriven	
N, HO, police	62925	School census autumn data returns. Counts of cob/nationality return rate. Minister declined.	02.02.2017	09.02.2017	Caroline Lucas
NPD general numbers	61932	National Pupil Database identifiable data shared with journalists Counts per year > 2010	26.01.2017	02.02.2017	Steve McCabe
NPD general free of charge	61684	National Pupil Database: costs/ free of charge.	25.01.2017	31.01.2017	Steve McCabe
N, HO, police	HL4514	School census sharing with Home Office	10.1.2017	20.1.2017	Lord Ouseley
NPD general numbers	59403	National Pupil Database volume of identifiable pupil data releases (internal and external requests).	10.1.2017	23.1.2017	Jim Cunningham
N, HO, police	HL4486	National Pupil Database: which government departments have access	10.1.2017	19.1.2017	Lord Storey
N, HO, police	HL4568	Home Office specifically for immigration enforcement purpose, stigmatisation, racial profiling	11.1.2017	19.1.2017	Lord Judd
N, HO, police	57640	National Pupil Database applications made by the Home Office in each of the last five years; and how many such requests were approved. (volume per release not detailed i.e. poss 1, 500 names per req)	14.12.2016	11.1.2017	Jim Cunningham

N, HO, police	56640	National Pupil Database volume shared with (a) the Home Office for immigration purposes, (b) media bodies and (c) other parties	07.12.2016	10.01.2017	Steve McCabe
NPD general numbers	57722	National Pupil Database how many applications were refused in each of the last five years	14.12.2016	10.1.2017	Jim Cunningham
N, HO, police	57723	National Pupil Database: what it holds on the (a) nationality and (b) ethnic background of pupils	14.12.2016	10.1.2017	Jim Cunningham
NPD general numbers	57724	National Pupil Database: how many applications were approved in each of the last five years	14.12.2016	10.1.2017	Jim Cunningham
N, HO, police	HL4331	National Pupil Database: which data are shared with Home Office and for which purpose	20.12.2016	10.1.2017	Lord Storey
N, HO, police	HL4240	What information was given to those completing the school census regarding the sharing of details with the Home Office for immigration purposes.	19.12.2016	06.1.2017	Lord Scriven
N, HO, police	HL3424	Will HMG be collecting data on birthplace and nationality for the early years census in January 2017; and if not, whether relevant regulations will be amended accordingly.	22.11.2016	02.12.2016	Lord Clancarty
N, HO, police	49953	Request to publish Memorandum of Understanding	24.10.2016	14.12.2016	Angela Rayner
N, HO, police	52548	Whether any Home Office requests were (a) made and (b) granted between April 2012 and July 2015 for the purpose of immigration control.	11.11.2016	22.11.2016	Caroline Lucas
N, HO, police	50659	If data collected by schools on pupils' country of birth and nationality are to be made accessible to (a) the Home Office, (b) media bodies, (c) citizens and (d) other third parties.	27.10.2016	25.11.2016	Steve McCabe
N, HO, police	48635	To ask the Secretary of State for Education, pursuant to the Answer of 26 July 2016 to Question 42842 and with reference to freedom of information requests ref: 2016-0032573 and ref: 2016-0042333, on pupil data sharing with the police and Home Office, how many Home Office requests for information to the National Pupil Database for individual personal confidential data that have been granted were for the purposes of immigration control; and if she will make a statement.	13.10.2016	27.10.2016	Caroline Lucas (Note Ministerial correction 27 Nov 2017)
N, HO, police	48634	To ask the Secretary of State for Education, pursuant to the Answer of 26 July 2016 to Question 42842 and with reference to freedom of information requests ref: 2016-0032573 and ref: 2016-0042333, on pupil data sharing with the police and Home Office, on how many people has data been (a) requested and (b) provided in response to requests for information to the National Pupil Database made by the (i) Home Office and (ii) police; and if she will make a statement.	13.10.2016	27.10.2016	Caroline Lucas (Note Ministerial correction 27 Nov 2017)
N, HO, police	52645	To ask the Secretary of State for Education, pursuant to the Answer of 27 October 2016 to Question 48635, how many of the 520 records sent to the Home Office by her Department related to (a) pupils and (b) parents of pupils	11.11.2016	22.11.2016	Caroline Lucas
N, HO, police	50649	With reference to her Department's training guide video for autumn 2016, whether schools do not need to obtain pupil or parental consent	27.10.2016	10.11.2016	Mike Kane
N, HO, police	HL2513	On the requests made by the Home Office of the National Pupil Database since April 2012 : whether such information will be supplied in future	21.10.2016	04.11.2016	Lord Harris of Haringey
N, HO, police	HL2514	Adverse consequences for schools / parents with non-returns - no sanctions	21.10.2016	04.11.2016	Lord Harris of Haringey
N, HO, police	HL2515	What steps have been taken to inform parents that provision of nationality information is optional	21.10.2016	04.11.2016	Lord Harris of Haringey
N, HO, police	49340	Why Department collects data on pupils' nationality and country of birth; and how that data is used.	19.10.2016	10.11.2016	Roger Godsiff
N, HO, police	HL2691	Passport data not required: steps taken to communicate	26.10.2016	08.11.2016	Lord Scriven
N, HO, police	HL2689	Ethnicity ascribing issues	26.10.2016	08.11.2016	Lord Scriven
N, HO, police	HL2690	Ethnicity ascribing volume, missing data refusals	26.10.2016	08.11.2016	Lord Scriven
N, HO, police	HL2421	What information schools are required by law to collect regarding their pupils.	18.10.2016	07.11.2016	Lord Storey
N, HO, police	42942	For what reasons her Department plans to begin collecting country of birth data on children aged two to 19 from Autumn 2016; what limitations will be placed by her Department on disclosure of such information to (a) other government departments and (b) private third parties; and whether her Department plans to change its protocols or processes for handling and disclosure of confidential information when country of birth data begins to be collected.	15.07.2016	25.07.2016	Charlotte Leslie
N, HO, police	42842	Whether her Department consulted (a) schools and (b) parents on the new requirement to collect country of birth data in the 2016-17 school census; how parents are informed of their right to opt out of providing that information; for what purpose that information will be used; whether that information will be shared with other Government departments	14.07.2016	26.07.2016	Caroline Lucas

5.15 The Information Commissioner's Office Executive Summary of the DfE audit 2020

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"The Information Commissioner's Office (ICO) has published the outcome of a compulsory audit of the Department for Education DFE carried out in February 2020.[473]

The audit found that data protection was not being prioritised and this had severely impacted the DfE's ability to comply with the UK's data protection laws. A total of 139 recommendations for improvement were found, with over 60% classified as urgent or high priority.

The ICO's primary responsibility is to ensure compliance with the law and its policy is to work alongside organisations committed to making the necessary changes to improve data protection practice.

Throughout the audit process the DfE engaged with the ICO and showed a willingness to learn from and address the issues identified. The Department accepted all the audit recommendations and is making the necessary changes.

The ICO continues to monitor the DfE, reviewing improvements against pre agreed timescales. Enforcement action will follow if progress falls behind the schedule.

The ICO carried out the compulsory audit following complaints received in 2019 regarding the National Pupil Database."

The summary is available to download from the ICO website at: https://ico.org.uk/media/action-weve-taken/audits-and-advisory-visits/2618384/department-for-education-audit-executive-summary-v1_0.pdf

5.16 Ofqual Exploring the potential use of AI in marking

https://ofqual.blog.gov.uk/2020/01/09/exploring-the-potential-use-of-ai-in-marking.

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The number of samples that were received and logged to date are 3,813 scripts. A small number of scripts which arrived into our office at the start of the lockdown due to the Coronavirus pandemic, were not logged.

The final number of samples used is 3,217. The final number used was a little over what we had anticipated using at the start of the research project.

All samples were handwritten. In preparation for our research project, samples were copy typed. All samples were converted to typed responses for the first stage of the research project.

The project has currently (October 2020) been placed on hold whilst Ofqual prioritises work to support the secure and reliable awarding of qualifications during the Coronavirus pandemic. We expect to continue to conduct research into the quality of marking in regulated qualifications, including ways in which technology may be able to support and quality assure the marking of examiners and assessors.

Additionally, in relation to the current status of this project we also released a statement to the Times/Times Radio on 18 August 2020 stating that:

"This is a research project that was intended at looking at technology like Artificial Intelligence to catch errors in marking, not to decide grades. It has now been paused. We wanted to investigate if, for example, new technology can spot if a good but inconsistent marker has missed something. We have no plans to use AI to mark high profile qualifications."Ofqual is experimenting with AI to catch errors in marking and using 3,217 handwritten scripts to "quality assure the marking of examiners".

Acknowledgements

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Jen Persson Director, defenddigitalme

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Glossary

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"Child rights" are those rights referred to in the UN Convention on the Rights of the Child.

"Article 12"

1. States Parties shall assure to the child who is capable of forming his or her own views the right to express those views freely in all matters affecting the child, the views of the child being given due weight in accordance with the age and maturity of the child.

"Article 13"

1. The child shall have the right to freedom of expression; this right shall include freedom to seek, receive and impart information and ideas of all kinds, regardless of frontiers, either orally, in writing or in print, in the form of art, or through any other media of the child's choice.

2. The exercise of this right may be subject to certain restrictions, but these shall only be such as are provided by law and are necessary:

(a) For respect of the rights or reputations of others; or

(b) For the protection of national security or of public order (order public), or of public health or morals.

"Article 14"

1. States Parties shall respect the right of the child to freedom of thought, conscience and religion.

2. States Parties shall respect the rights and duties of the parents and, when applicable, legal guardians, to provide direction to the child in the exercise of his or her right in a manner consistent with the evolving capacities of the child.

3. Freedom to manifest one's religion or beliefs may be subject only to such limitations as are prescribed by law and are necessary to protect public safety, order, health or morals, or the fundamental rights and freedoms of others.

"Article 16"

1. No child shall be subjected to arbitrary or unlawful interference with his or her privacy, family, home or correspondence, nor to unlawful attacks on his or her honour and reputation.

2. The child has the right to the protection of the law against such interference or attacks.

"Article 23"

1. States Parties recognize that a mentally or physically disabled child should enjoy a full and decent life, in conditions which ensure dignity, promote self-reliance and facilitate the child's active participation in the community.

"Article 27"

1. States Parties recognize the right of every child to a standard of living adequate for the child's physical, mental, spiritual, moral and social development.

2. The parent(s) or others responsible for the child have the primary responsibility to secure, within their abilities and financial capacities, the conditions of living necessary for the child's development.

"Article 29"

1. States Parties agree that the education of the child shall be directed to:

(a) The development of the child's personality, talents and mental and physical abilities to their fullest potential;

(b) The development of respect for human rights and fundamental freedoms, and for the principles enshrined in the Charter of the United Nations;

(c) The development of respect for the child's parents, his or her own cultural identity, language and values, for the national values of the country in which the child is living, the country from which he or she may originate, and for civilizations different from his or her own;

(d) The preparation of the child for responsible life in a free society, in the spirit of understanding, peace, tolerance, equality of sexes, and friendship among all peoples, ethnic, national and religious groups and persons of indigenous origin;

(e) The development of respect for the natural environment.

2. No part of the present article or article 28 shall be construed so as to interfere with the liberty of individuals and bodies to establish and direct educational institutions, subject always to the observance of the principle set forth in paragraph 1 of the present article and to the requirements that the education given in such institutions shall conform to such minimum standards as may be laid down by the State.

"Early years foundation stage (EYFS)" The EYFS is the statutory framework for the early education and care of children from birth to 31 August following their fifth birthday.

"Further education 16 to 19 academies" These are state-funded, non-fee-paying schools, independent of local authorities, that cater for pupils aged 16 to 19.

"Pupil referral unit" has the meaning given to that expression in section 19(2) of the Education Act 1996. 1996 (c.56.).

"Qualified teacher" means a person who satisfies requirements specified in regulations under section 132 of the Act S.I. 2003/1662 (in relation to England) and S.I. 2012/724 (in relation to Wales).

"Registered teacher" means in relation to England a teacher who has been granted an authorisation to teach in accordance with paragraphs 12 to 18 of Schedule 2 to the Education (Teachers' Qualifications and Health Standards) (England) Regulations 1999 (S.I. 1999/2166) before 1st September 2002 or in relation to Wales in accordance with paragraphs 12 to 18 of Schedule 2 to the Education (Teachers' Qualifications and Health Standards) (Wales) Regulations 1999 before 1 September 2004.

"School" means, except where otherwise stated, any type of educational setting which is state funded, whether a school maintained by an authority, an academy, a free school, studio school, or any other type of state funded or part state funded setting.

"School teachers" is defined for these purposes in section 122(3) to (6) of the Education Act 2002

"School year" means a period of 12 months commencing in autumn term. The start date will vary across the devolved UK states (Scotland is August, England September).

"Secure children's homes" are defined by section 25 of the Children Act 1989. They accommodate children and young people who are remanded or have been sentenced for committing a criminal offence. They also accommodate children and young people who are placed there by a court because their behaviour is deemed to present a significant and immediate threat to their safety or the safety of others. Ofsted carries out inspection in accordance with the Care Standards Act 2000.

"Secure training centres" are defined by section 43(1) (d) of the Prison Act 1952, as amended by section 6(2) of the Criminal Justice and Public Order Act 1994.

"Unique Pupil Number" or "UPN" The unique pupil number is a 13-character code that identifies each pupil in the state school system in England[474] and half a million children (as at 22 November 2019) in or at some time having been in, private education.

"Unique Reference Number " (Linked education URN) This is the education unique reference number (URN) of a school, or school registered as a children's home.

"Working Party 29" We make reference to WP29 guidance and opinions. The Working Party on the Protection of Individuals with regard to the Processing of Personal Data, generally known as Article 29 Working Party (WP29), is the independent European Union Advisory Body on Data Protection and Privacy, composed of representatives from each of the EU Member States, the European Data Protection Supervisor, and the representative of the European Commission. The WP29 was established by Article 29 of Directive 95/46/EC on the protection of individuals with regard to the processing of personal data and on the free movement of such data. Its tasks are laid down in Article 30 of the Directive and Article 15 of the Directive 2002/58/EC on privacy and electronic communications (e-Privacy Directive).[475] The WP29 is composed of a representative of the supervisory authority or authorities designated by each Member State, a representative of the European Data Protection Supervisor and a representative of the European Commission. For the UK this is the Information Commissioner.

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