1. Minderoo Foundation thanks the Committee on the Rights of the Child for leading timely and urgent work on children’s rights in the digital environment. Established by Dr Andrew Forrest AO and Nicola Forrest AO in 2001, Minderoo Foundation is an Australian philanthropic organisation that takes on tough, persistent issues with the potential to drive massive change. As one of Asia’s largest philanthropic organisations, with almost AU$2 billion in funding available for a range of global initiatives, Minderoo Foundation is independent, forward-thinking and seeks effective, scalable solutions. Through the Frontier Technology Initiative, Minderoo Foundation is firmly committed to ensuring the rights and protections of the physical world carry into the digital world. In the spirit of elevating the voices and experiences of cohorts with lifelong digital experience, Minderoo Foundation has worked with three undergraduate students at the Australian National University’s College of Law, who have each focussed on a core area in technology policy. Minderoo Foundation is delighted to help make their voices heard.

*Please note, referencing has been hidden in this document to comply with strict word limits. Please contact the Frontier Technology Initiative for full bibliographic details.*

**SUMMARY**

1. This submission recommends:
2.
3. In order for States to comply with their obligations to ensure the rights of children, the Comment should make it clear that the responsibility for understanding and assessing the function and effects of algorithms on children must not rest solely on the shoulders of children or their parents. States should develop mechanisms that will impose greater responsibility and accountability on those with the greatest capacity to understand and control algorithmic personalisation, that is, data companies themselves. For example, the Comment could reference the United Kingdom’s implementation of a statutory duty of care on social media platforms and recommend a similar regulatory framework be extended to all companies involved in data collection and personalisation.
4. To ensure the protection of children’s rights in the digital world, States must ensure that the processing of children’s data is subject to specific legal restrictions, enhanced responsibility for data controllers, and regular review by independent auditors, specialised agencies or regulatory bodies.
5. The Comment should provide clearer guidance on the type of design standards required to adequately identify and safeguard against content personalisation and its impacts on children’s freedom of thought. For example, the Comment could recommend States include the placement of warning notifications on search results, thus indicating to both children and parents that their search results have been filtered and how to change filtering preferences.
6. The Comment should include a more extensive list of practices which manipulate or interfere with a child’s right to freedom of expression. This list should go beyond ‘automated decision-making’ and should include other practices such as recommender systems, predictive search engines and targeted advertising. In doing so, States will be able to easily identify harmful practices that infringe upon a child’s right to freedom of expression and access to information in the digital world.
7. The Comment should provide more comprehensive guidance to States on how to ensure automated search and recommendation systems do not prioritise paid political or commercial content where children are involved. The Comment could suggest for example that, insofar as children are concerned, States should invest in the development of search platforms for children which prioritise imagination and discovery over profit-maximisation.

**I THE ISSUE**

1. Imagine a child enters a library and selects a book. CCTV cameras track the child’s every action and record each novel borrowed. Librarians follow the child from aisle to aisle, documenting the time they spend perusing each genre. In a week’s time, the child returns to the library.[[1]](#endnote-1) This time, the configuration of the aisles have changed and are carefully tailored to reflect only the genres and authors of books previously chosen. Librarians continue to follow the child, this time instructing the child which novels to read, deliberately hiding others. When the child asks research questions, rather than connect the child with the best resources, librarians provide answers that prioritise paid content containing certain commercial or political motivations, at the cost of the child’s right to information.
2. The scenario above, while unacceptable in real life, reflects a common phenomenon in the digital world, commonly referred to as content personalisation. This process, consisting of recommender systems, search engines, social media feeds and targeted advertising, rely on algorithms to ‘guide’ the user’s media consumption and inform their choices.[[2]](#endnote-2) The system collects a user’s personal information, location and search history. These systems apply without differentiating between whether the end user is a child or an adult. The model can then predict what information will be of relevance to the user and filter out any data that does not coincide with the user’s preferences.[[3]](#endnote-3) The effect of this personalised filtering system is three-fold: the user’s access to divergent information becomes limited and, as a result, an echo chamber emerges wherein the user’s thoughts and beliefs are amplified and reinforced.[[4]](#endnote-4) By reconfiguring the user’s social environment, digital platforms can exploit past behaviour to meet specific goals and interests.[[5]](#endnote-5) In doing so, algorithmic personalisation infringes upon a child’s freedom of thought, expression and access to information.

**II EFFECTS OF CONTENT PERSONALISATION**

1. Despite these undesirable outcomes, content personalisation systems are not only tolerated by users, but are often accepted without warning, notice or explanation from digital platforms.[[6]](#endnote-6) As a result, even experienced users with the ability to think critically and actively seek divergent information are vulnerable to algorithmically-driven feedback loops. For example, in August of this year, millions of American adults were exposed to the #SaveTheChildren movement on Facebook and consequently began sharing what seemed to be anti-human trafficking posts - unknowingly attaching themselves to the right-wing political group, QAnon. As a result, Facebook’s content personalisation system encouraged thousands of unwitting adult users to join a fringe conspiracy movement.[[7]](#endnote-7) This case study is especially common in the digital world, with Facebook revealing that 64% of people who join an extremist Facebook group do so as a result of a Facebook recommendation.[[8]](#endnote-8)
2. Setting aside the issue of algorithmically-driven extremism, the issue of general algorithmic persuasion and filter bubbles becomes increasingly more complex when considering child users. Children are especially unaware of the dangers of digital exploitation and are still developing logic and reasoning skills. Children are inherently more vulnerable and susceptible to content personalisation.[[9]](#endnote-9) Companies’ careful, subconscious and personalised system of filtering content has the potential to significantly impact a child’s cognitive autonomy and their ability to form opinions and make independent decisions.[[10]](#endnote-10) By controlling a child's media consumption and using predictive technology to inform their choices, a child’s right to freedom of thought, expression and access to information under the CRC may be severely limited in many parts of their digital existence.

**III GOOGLE SEARCH ENGINE: A CASE STUDY**

1. In the United States alone, over 30 million children - more than half the nation’s schoolchildren - use Google for educational purposes.[[11]](#endnote-11) While Google search engines and autocomplete algorithms improve web accessibility and efficiency, these personalisation models also pose significant risks to a child’s decision-making capacity. In the following paragraph, I will analyse three severe and separate impacts of the search tool on a child’s cognitive development and their ability to freely form and express opinions.
2. First, by using content personalisation, autocomplete algorithms can predict a user’s search option and thereby suggest a complete word or phrase after the user has typed only a few letters.[[12]](#endnote-12) This creates a form of presentation bias: child-users are influenced to prefer the first of presented options, often prepaid content, and are likely to consider top search results as more credible.[[13]](#endnote-13) Second, autocomplete search options have the ability to create “filter bubbles”, where a user is exposed to results that simply confirm their previously held beliefs and normalise certain opinions or prejudices.[[14]](#endnote-14) Therefore, Google’s search algorithm not only predicts searches, but orients child-users towards particular search options.[[15]](#endnote-15) Finally, Google search engines often reflect the biases and norms of its commercial partners and advertisers and consequently reinforce oppressive ideas and stereotypes among its child-users.[[16]](#endnote-16) For example, in Safiya Noble’s *Algorithms of Oppression*, the top search results for “Black girls” in 2011 displayed highly sexualised, demeaning content. The top search results for “White girls” were mostly innocent in nature.[[17]](#endnote-17) Platform reliance on predictive analytics and advertising-driven systems manipulates a child’s ideas, decisions and beliefs about the world without their awareness or permission. In doing so, search engines such as Google serve as an unacceptable proxy for a public library.

**IV CURRENT LEGAL FRAMEWORKS AND POLICY SUGGESTIONS**

1. Under Articles 13-15 and 22 of the General Data Protection Regulation, children have the right to access their personal data, request rectification, object to processing and erase personal data.[[18]](#endnote-18) These ‘empowerment measures’ seek to increase the transparency of algorithmic profiling by extending the child’s right to control the collection and processing of their personal data.[[19]](#endnote-19) Therefore, by enabling child-users and parents to effectively ‘tune’ their level of personalisation, users can supposedly regain some of their decision-making and cognitive autonomy. However, given the uncertainty and complexity surrounding the function and effects of algorithms, simply being informed or possessing rights does not amount to being protected - particularly where the party involved is a child. The responsibility for understanding and assessing the effects of this practice should not rest solely on the shoulders of the child, nor on those of their parents.[[20]](#endnote-20)
2. Rather, the processing of children’s personal data requires two additional protections. First, digital platforms must be held accountable to their users and should increase their transparency surrounding data collection practices. By opening up their algorithmic ‘black boxes’, data companies could provide clear descriptions on how and what data they collect and project onto users.[[21]](#endnote-21) Second, these obligations should be complemented by specific legal restrictions, enhanced responsibilities for data controllers and a regular review of these practices by independent auditors, specialised agencies or regulatory bodies.[[22]](#endnote-22)
3. This two-tier accountability system was recently introduced in the UK through its Online Harms White Paper.[[23]](#endnote-23) The Paper sets out a new statutory duty of care on digital companies to ensure they take more responsibility for the safety of their users and tackle harm caused by the content and activity on their services.[[24]](#endnote-24) Under this system, compliance is monitored and enforced by an independent regulatory body and a failure to comply with this duty of care may result in sanctions. While this duty of care currently applies to violent or harmful user-generated content, we suggest this duty should extend to harmful personalisation practices and predictive technologies. Such a regulatory framework could generate greater positive obligations on digital platforms to remain transparent about their data collection practices and ensure greater accountability to their users.
4. Effective transparency of content personalisation systems is extremely complicated due to the frequent changes in algorithms used by digital platforms. Google, for example, changes its algorithms up to 600 times a year.[[25]](#endnote-25) Therefore, while increased transparency and regulation is undeniably necessary, the regular review of these practices alone cannot address the effects of algorithmic personalisation on children. Thus to ensure *concrete* protections for children’s information gathering and exploration online, States should invest in the development of new child-specific search platforms that prioritise safety and discovery over profit-maximisation. As an example, Safiya Noble has previously designed a search tool referred to as the ‘Imagine Engine’ (see Appendix A).[[26]](#endnote-26) This interface delivers search results in the form of a colour wheel symbolising a controlled set of categories. Child-users are able to see the entire indexable web and can select categories of interest by clicking a colour. In doing so, child-users are able to safely find nuanced shades of information and identify effective intersections between topics. By reimagining child-specific search engines, the digital community can provide children with a safe, empowering and stimulating digital world of imagination and discovery, rather than a profit-maximising system designed for adult users.
5. Moreover, empirical research on the effects of content personalisation and algorithms have largely focused on adult users with respect to news media or voting behaviour. As such, there remains limited literature on the effects of algorithms on marginalised groups in society, and even fewer studies exist on its effects on children.[[27]](#endnote-27) The Council of Europe has recently acknowledged this issue in its 2019 Declaration, claiming the effects of algorithmic personalisation on children’s cognitive autonomy “remain under-explored but cannot be underestimated”.[[28]](#endnote-28) Therefore, to ensure adequate protection of children in the digital age, both digital platforms and scholars should conduct further empirical research and undertake Children’s Rights Impact Assessments on the effects of content personalisation on children’s cognitive autonomy and freedom of thought and expression.[[29]](#endnote-29)

**V DISCUSSION OF THE DRAFT GENERAL COMMENT**

A *Article 14 Freedom of Thought*

Under Article 14 of the CRC, children have the right to freedom of thought, conscience and religion.[[30]](#endnote-30) This foundational right is similarly enshrined in other international human rights instruments including the ICCPR, UDHR and ECHR and includes the right to think freely, develop beliefs and manifest those beliefs in both the private and public sphere.[[31]](#endnote-31) As such, the right to freedom of thought is inextricably linked to freedom of expression (Article 13) and access to information (Article 13 and 17). The CRC’s right to freedom of thought encourages parents and guardians to offer “direction” to the child, through dialogue and example, in exercising his or her right in accordance with the age and maturity of the child.[[32]](#endnote-32) However, given the opaque and complex nature of data collection and personalisation, most parents are not equipped to provide direction and safeguards against these harmful practices. Therefore, a child’s right to freedom of thought is particularly pertinent to the issue of content personalisation. By using predictive technology to curate the information presented to children, the digital world has the potential to manipulate and interfere with a child’s ability to freely form ideas, opinions and beliefs.

In guiding States on how to ensure the protection of this right in the digital domain, the Comment requires States “introduce or update data protection regulation and design standards” to identify these content personalisation practices. We suggest the Comment provide clearer guidance on the types of design standards required to adequately identify and safeguard against these practices. For example, States should consider enforcing mandatory warning notifications over search results that indicate to both parents and children how their search results have been filtered, and provide options to modify filtering preferences.

B *Article 13 Freedom of Expression*

Freedom of expression is encompassed under Article 13 of the CRC and includes the right to freely seek, receive and impart information and ideas of all kinds.[[33]](#endnote-33) Freedom of expression is subject to certain restrictions under Article 13(2), including for the purposes of respecting the rights and reputations of others and for the protection of national security, public order or public health.[[34]](#endnote-34) While this right is enshrined under Article 19 of the ICCPR, the specific inclusion of freedom of expression in the CRC emphasises the fundamental importance of children’s cognitive autonomy and participation in society.[[35]](#endnote-35) As children make extensive use of search platforms and social media to form their opinions and express themselves, States must ensure children can freely form and express their opinions online. However, without adequate restrictions in place to limit the effects of content personalisation, a child’s ability to freely seek and receive information may be guided by algorithms rather than autonomy.

In protecting a child’s freedom of expression, the Comment identifies and prohibits uses of automated-decision making that “supplant, manipulate or interfere with children’s ability to form and express their opinions” However, given the widespread methods of content personalisation and its significant impact on a child’s cognitive autonomy, we suggest the Comment include a more extensive list of practices which manipulate or interfere with the child’s ability to form and express opinions, including recommender systems, predictive search engines and targeted advertising. Moreover, we believe the Comment should make some reference to Article 13(2) and its applicability in restricting a child’s right to freedom of expression. This caveat is necessary to guide States in balancing this child-specific right against other fundamental rights and freedoms, including matters of public protection and freedom from discrimination.

C *Article 13 & 17 Access to Information*

1. A child’s right of access to information is enshrined under a combination of Article 13 and 17 of the CRC. Within this right, children are afforded the freedom to seek and receive information and material from a diversity of national and international sources.[[36]](#endnote-36) While access to information encompasses all forms of media, particular attention must be given to the digital environment as children are increasingly using social and digital media as their primary means of communicating, receiving and disseminating information.[[37]](#endnote-37) In upholding a child’s right of access to information, States must encourage mass media to disseminate information and material of social and cultural benefit to the child.[[38]](#endnote-38) Despite this requirement, algorithmic personalisation and targeted advertising often guide a child’s media consumption, prioritise paid content and use predictive technology to inform their choices. Therefore, without adequate restrictions and regulations in place, a child’s right of access to information in the digital world is severely limited.
2. To ensure children have access to diverse and quality information online, the Comment recommends States “ensure that automated search and recommendation systems do not prioritise paid content that has… commercial or political motivation”. In making this recommendation, the Comment encourages States to regulate, restrict or tweak the current search engines available. However, considering the myriad of issues associated with content personalisation and the difficulties in regulating it, we suggest a stronger, more concrete change needs to occur in the digital space. Therefore, in addition to increasing government regulation, we recommend States invest in the development of new search platforms for children which prioritise imagination and discovery over profit-maximisation.
3. By implementing the above recommendations, the Draft General Comment will be able to provide clearer and more comprehensive guidance for States to support the protection of children’s rights in the digital world as it relates to Articles 13, 14 and 17 of the CRC.
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