In this short paper, I discuss a range of scholarship and projects pertaining to the U.S-Mexico border and the Uighur population in China. This is a summary of what I teach students about border technologies in my annual graduate seminar, History and Theory of New Media, and will teach in my upcoming undergraduate course, Transforming Tech.

In 2019, a group of University of Arizona researchers published a paper in the Journal of Borderlands Studies discussing SBInet, a high-tech surveillance network that the U.S. installed in some areas along the U.S.-Mexico border in 2006. The authors described how the network, which consists of hi-res imaging, radar, and ground sensors that detect movement was designed to create a “funnel effect” that deters would-be migrants away from “traditional urban crossing areas like El Paso and San Diego and into rural desert areas of southern Arizona.” This technological influence on migrants to use remote, rugged, and often dangerous routes “has the outcome of maximizing the physiological toll imposed by the landscape,” “resulting in a dramatic increase in the number of individuals who have perished attempting the journey north” and contributing to the “crisis of disappearance” on the border involving individuals whose whereabouts or remains are never located or identified.

In 2007, a group called Electronic Disturbance Theater 2.0/b.a.n.g. lab (or “EDT” for short) based at UC San Diego began to develop the “Transborder Immigrant Tool,” which consisted of an inexpensive cell phone with GPS and a custom-built app that directs the phone user to the nearest aid site, such as water caches left by Water Station Inc. or Border Angels. “In 2011, [the tool] was sufficiently tested and ready for distribution in Mexico. However, according to UCSD professor and EDT member Ricardo Dominguez, “By this time however, the Narcos were in control of the informal economies of border crossing. This made the project too dangerous for migrants to use, since the Narcos kill people for just about anything that might alert U.S. border agents that a crossing is happening.” (https://anthology.rhizome.org/transborder-immigrant-tool). Although the tool was never distributed, Fox News commentator Glenn Beck accused the EDT of using taxpayer-funded research grants to support illegal immigration, and called for the professors involved to be fired (Fernanda Duarte, “Rerouting Borders: Politics of Mobility and the Transborder Immigrant Tool”). Beck’s remarks sparked an FBI Cyberdivision investigation and a UCSD internal investigation, both of which found that no funds were used inappropriately (Duarte).
In 2018, an Arizona geography teacher named Scott Warren was arrested by Border Patrol agents for giving humanitarian assistance to two migrant men, Kristian Perez-Villanueva, and José Arnaldo Sacaria-Godoy. After Perez-Villanueva and Sacaria-Godoy walked through the desert for two days and two nights, they made their way to a humanitarian aid station known as “the Barn” forty miles north of the border. At the Barn, Warren gave the men food, water, and shelter for three days. At Warren’s first trial, the federal jury was deadlocked; at his second trial, in November 2019, the jury found him not guilty.

Warren’s case was the topic of social media activism, especially between his first trial and second trial, as human rights groups and individuals amplified the idea that humanitarian aid is never a crime. Amnesty International’s social media campaign for the charges against Warren to be dropped showed activists holding water bottles labeled with signs stating “Stop criminalizing compassion,” “Saving lives is not a crime,” “Compassion knows no borders,” and “Humanitarian aid is never a crime.”

In July 2019, my colleague, Ron Rael, professor and chair of architecture at UC Berkeley, and his partner and wife, Virginia San Fratello, associate professor of architecture at San Jose State University, installed pink seesaws at the border wall dividing Mexico’s Ciudad Juárez and New Mexico’s Sunland Park. The seesaws “use the U.S.-Mexico border wall as a fulcrum to allow people on both sides to play across the divide,” and “the wall’s brown steel slats are spaced wide enough that kids (and some adults) in one country can see the teeter-totters in the other.” Rael said, “There are good relations between the people of Mexico and the United States, and using the seesaw shows that we are equal and we can play together and enjoy ourselves.”

Now I’m going to turn to the case of the surveillance of Uighurs, an ethnic Muslim minority in China, in the Xinjiang region, which I learned about through the research of Shazeda Ahmed, a Ph.D. student in Berkeley’s School of Information. A Human Rights Watch report from 2019 state that Chinese authorities have instituted a massive surveillance system called the IJOP (or “Integrated Joint Operations Platform”), which, according to a government statement, collects data in a “comprehensive manner” from “everyone in every household” in Xinyang. Police and other officials use a mobile IJOP app to communicate with the central IJOP system, and through this network, monitor the everyday actions of millions of people, and investigate people engaged in what the system deems suspicious actions. Some people targeted are sent to detention camps. The threat of human rights violations under this system is very high, and freedom of association and movement are one area of rights that appear to be frequently violated. Xinyang’s residents’ motions are constantly tracked via their phones, ID cards, and vehicles.

According to a 2019 Guardian UK article
De Kosnik

In addition to the technology seeking to prevent or punish virtual or physical travel across borders, the IJOP also serves to create numerous internal borders in Xinyang. A Wall Street Journal article from 2017 (https://www.wsj.com/articles/twelve-days-in-xinjiang-how-chinas-surveillance-state-overwhelms-daily-life-1513700355) states that “It is nearly impossible to move about the region without feeling the unrelenting gaze of the government. Citizens and visitors alike must run a daily gantlet of police checkpoints, surveillance cameras and machines scanning their ID cards, faces, eyeballs and sometimes entire bodies.” “Security checkpoints with identification scanners guard the train station and roads in and out of town. Facial scanners track comings and goings at hotels, shopping malls and banks. To fill up with gas, drivers must first swipe their ID cards and stare into a camera.” It is possible that the type and degree of tech-enabled surveillance implemented in Xinyang may be implemented in the rest of China in the future. Human rights lawyer Zhu Shengwu told the Wall Street Journal, “What happens in Xinjiang has bearing on the fate of all Chinese people.” However, in Xinyang, some are finding ways to evade the comprehensive surveillance system, for example, by keeping two mobile phones, one that they carry whenever they go outside which has “no sensitive content or apps,” and the other that they use only at home (WSJ).

In conclusion:

- Border technologies are being used in racist and oppressive ways by governments.
- Border technologies are being used in anti-racist and humanitarian ways by artists, activists, and scholars.
- Border technologies can range from massive surveillance networks to social media campaigns, playful architecture, and undistributed apps that provoke or invite interactive media-based performance.
- Governments can use border technologies to cause profound harms, including imprisonment, sickness, pain, and death. As they increasingly normalize these technologies, they obfuscate and invisibilize the harms.
- Border tech for anti-racist and humanitarian aims often operates as disturbance, disruption, and raising awareness of governments’ efforts to normalize oppressive tech.
- However, some anti-racist, pro-human rights border tech takes the form of concealment, hiding, doubling and evasion from government tech rather than making-visible.