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The Effects of Biometric Border Systems on Trans Travelers

Introduction

The Canada-United States border is the longest land border in the world, stretching more than five thousand miles. The narrative of the Canada-United States border as the “longest undefended border in the world” was reliant on racist images of Canada as a white state.¹ Following the attack on September 11, 2001, this narrative was disrupted and the border became the site of a massive security reconstruction project. Not in the physical sense, but in the scale of funds allocated and technology implemented to control and monitor the flow of movement across the border. Canada’s 2001 budget allocated \$1.2 billion towards border security initiatives, and the United States’ 2003 national security budget saw a 1,000 percent increase from the pre-9/11 amount.² Additionally, the two countries adopted biometric data into their identification documents and began a system of information sharing to process the information of travelers at the border.³ Biometric surveillance and the linking of identity to documents became a central feature of the securitized border. It is important to recognize that this project did not affect everyone equally. The adoption of biometric technologies at the border tends to reinforce existing hierarchies. Biometric technologies rely on outdated notions of racial and gender differences to link identity to an individual and manage risk at the border. This process of reinforcing outdated notions of gender and identity will be explored by examining how trans people are adversely affected by the deployment of biometric technologies at the Canada-United States border following the terrorist attack on September 11th.

¹ Shoshana Magnet, “Biometrics at the Border,” In *When Biometrics Fail: Gender, Race, and the Technology of Identity*, Durham: Duke University Press, 2011, <https://doi.org/10.1515/9780822394822>, pg. 93

² Magnet, “Biometrics at the Border,” pg. 120

³ “Study of the Government of Canada’s Use of Biometrics in the Border Continuum,” NSIRA, July 19, 2022, <https://nsira-ossnr.gc.ca/study-of-the-government-of-canadas-use-of-biometrics-in-the-border-cotinum>, pg. 15

Background: Borders and 9/11

Borders have long since relied on documentation to track “means of movement,” such as passports, visas, and identity cards, to differentiate between foreigners and nationals and to deem their movement legal or illegal. It wasn’t until after 9/11 that these forms of identification of travelers moved beyond paperwork and passport stamps and into various forms of technologies that computerized this information.⁴ Following the attack on the World Trade Centre, identification technology and surveillance have become the core of security programs in Canada and the United States.⁵ The Canadian exceptionalism that had existed before 9/11 was being reconstructed, shifting the image of Canadians as “white, middle-class, non-threatening visitors from the North” to a “safe-haven for terrorists.”⁶ This racial shift emerged from misinformation following 9/11 that the attackers had entered the United States through Canada and from the arrest of the “Toronto 18.” These situations were both used to justify the biometric policies which came into effect at the border.⁷ Biometrics was now viewed as an essential element of border control and management.

The border between Canada and the United States has become diffuse or deterritorialized, meaning the process of securing the border does not only occur at the exact site of the border but also outside and within that border, for example at airports. With this shift, emphasis was placed on the securitization of identification.⁸ The Smart Border Declaration and 32-Point Action Plan, which Canada and the United States passed in December 2001, called on the two to integrate common biometric identifiers into their documents.⁹ Smart chips were embedded into documents

⁴ Karine Cote-Boucher, “The Diffuse Border: Intelligence-Sharing, Control and Confinement along Canada’s Smart Border,” *Surveillance & Society* 5, no. 2 (2002), <https://doi.org/10.24908/ss.v5i2.3432>, pg. 155

⁵ Ayse Ceyhan, “Technologization of Security: Management of Uncertainty and Risk in the Age of Biometrics,” *Surveillance & Society* 5, no. 2 (2002), <https://doi.org/10.24908/ss.v5i2.3430>, pg. 103

⁶ Magnet, “Biometrics at the Border,” pg 91

⁷ Ibid, pg. 92

⁸ Ceyhan, “Technologization of Security: Management of Uncertainty and Risk in the Age of Biometrics,” pg. 103

⁹ “Study of the Government of Canada’s Use of Biometrics in the Border Continuum,” pg. 15

like passports which allowed them to be “machine-readable.”¹⁰ Biometric control at the border links the “person and document.”¹¹ Ceyhan has argued that in practice biometrics do not operate as a tool of identification, but rather as a tool of authentication, proving that an individual corresponds to their documentation.¹² This is done by matching a document containing biometric data, with the individual traveler through the use of retina scanners, fingerprints, or body scanners. What is critical here is how these technologies and processes participate in the “(re)production of identity.”¹³ Here, the body is becoming the course of identity and identification. Magnet argues the process used in biometric technology renders the body a “thing,” an example of “corporeal fetishism.”¹⁴ This term coined by Haraway is used to demonstrate how “the process of making an object visible is fraught with multiple meanings, contradictions, and errors.”¹⁵ In the context of biometric border control, the body is becoming the site of politics and being tied directly to identity. This is dangerous because it then allows biometrics to connect identity to an individual and then decide whether they should be included or not based on an assessment of the threat they present.¹⁶ Further, these technologies are often inherently designed to view white, cis-gendered males as the default, thus the technology is embedded with differential treatment.

As Magnet argues, biometric technologies have structural failures and due to their widespread use in border management and surveillance, this has serious consequences for inclusivity and equality.¹⁷ Despite some scholars arguing that technology has values and agency

¹⁰ “Study of the Government of Canada's Use of Biometrics in the Border Continuum,” pg. 15

¹¹ Magnet, “Biometrics at the Border,” pg. 111

¹² Ceyhan, “Technologization of Security: Management of Uncertainty and Risk in the Age of Biometrics,” pg. 113

¹³ Ibid, pg. 113

¹⁴ Magnet, “Biometrics at the Border,” pg. 123

¹⁵ Ibid, pg. 112

¹⁶ Ceyhan, “Technologization of Security: Management of Uncertainty and Risk in the Age of Biometrics,” pg. 113

¹⁷ Francisca Grommé, “Review of Magnet's When Biometrics Fail: Gender, Race, and the Technology of Identity,” *Surveillance & Society* 11, no. 1/2 (2013): 208–10, <https://doi.org/10.24908/ss.v11i1/2.4724>, pg. 208

in itself, or arguments that technology is not inherently good or bad, Magnet's argument suggests that technology comes with the biases of its designers. This argument for biometric technology is compelling because there is evidence to prove that systems like facial recognition or fingerprints were designed in ways that "privilege whiteness."¹⁸ Meaning that these technologies were designed to view white features as the norm, often white men. This has serious consequences because biometric systems essentially accept what they see as "normal" and filter out "deviance," which is viewed in border management as a potential threat.¹⁹ Due to the privileging of whiteness, inherent in this technology, people of colour, transgender individuals, and people with disabilities are disproportionately viewed as potential threats and forced to undergo additional screening. In 2010, a woman with a prosthetic leg was told she would need to remove the prosthetic and her sock liners so the TSA agents could check for explosive traces.²⁰ This violated official policies and demonstrates the way that bodies that are seen as deviant are singled out and forced to undergo additional screening.

Despite the inherent flaws in biometric technologies, Muller explains how the use of these technologies often leads to a masking of the discriminatory nature of biometric border control, on the basis that the decisions made using technology are objective or scientific.²¹ In other words, governments can hide behind these technologies, claiming their policies are fair and inclusive because the technology they are using makes decisions more objectively than a border security agent would. Moreover, Magnet argues that these technologies are doomed to fail because they attempt to render bodies that are "lively, situated and enacted in networks of

¹⁸ Grommé, "Review of Magnet's When Biometrics Fail: Gender, Race, and the Technology of Identity," pg. 209

¹⁹ Gregory Feldman, "Biometrics: Where isn't the Security Threat?" In *The Migration Apparatus: Security, Labor, and Policymaking in the European Union*, Redwood City: Stanford University Press, 2011, <https://doi-org.proxy1.lib.uwo.ca/10.1515/9780804779128>, pg. 120

²⁰ Nicholas L. Clarkson, "Incoherent Assemblages: Transgender Conflicts in US Security," *Surveillance and Society* 17, no. 5 (2019): 618–30, <https://doi.org/10.24908/ss.v17i5.12946>, pg. 627

²¹ Ceyhan, "Technologization of Security: Management of Uncertainty and Risk in the Age of Biometrics," pg. 113

relationships” into binary readable codes.²² The way that biometric technologies disproportionately affect people who do not fit the image of an able-bodied cis-gendered white male has consequences for the individual but also as a societal concern as it reinforces hierarchies. The way that biometrics surveillance assesses danger through risk management, identifying what constitutes a threat, replicates and reinforces stereotypes through its repetition and recognition by a central government agency.²³ The next section of this essay will examine the disproportionate and negative effects that these technologies project on trans people.

“Incoherent Assemblages”: The Case of Trans Travelers

The installation of biometrics and the connection to identity documents following 9/11 have had significant consequences for the trans community. The failures of biometric processes to create an inclusive security system are highlighted in the incoherence of how identity is coded in technology and documents, as well as across various government agencies. Clarkson’s use of assemblage theory is useful in understanding how trans people have been affected by border control mechanisms following 9/11. Assemblage theory “draws attention to the relationship between component parts in any system that can be configured and reconfigured under different circumstances for different effects.”²⁴ Diverging from other frameworks, which see structures like an individual’s legal sex or bodies as a whole, whose parts are meaningless without their relation to other parts, this theory allows the parts to be reconstructed and given agency of their own. This is useful for examining the effect of security policies on the trans community because different contexts rely on different meanings of gender and identity. For example, policies for changing one’s sex on identity documents are not standardized and different procedures and

²² Grommé, “Review of Magnet’s *When Biometrics Fail: Gender, Race, and the Technology of Identity*,” pg. 209

²³ Cote-Boucher, “The Diffuse Border: Intelligence-Sharing, Control and Confinement along Canada’s Smart Border,” pg. 150

²⁴ Clarkson, “Incoherent Assemblages: Transgender Conflicts in US Security,” pg. 618

evidence depend on the jurisdiction.²⁵ This can inhibit the ability of trans people to obtain consistent legal documentation. Moreover, as explained before, biometric security systems rely on a norm of a white, cis-gendered, able man to compare other bodies against.²⁶ When a body does not fit this norm, differing parts are viewed as threatening assemblages.²⁷ This creates a danger in traveling for trans individuals who may struggle to obtain documentation that corresponds with the gender identity they present as, and is further complicated by body scanners that recognize “abnormal” body parts as threatening.

In understanding the incoherences of the biometrics and identification system, it is first important to understand the barriers that exist for trans people to obtain identification documents that reflect the gender they present as. Additionally, the barriers to obtain corresponding identification documents, as the policy requirements to change one’s sex differ between government agencies. 2015 surveys in the United States show that only about 21% of trans people who have transitioned have been able to update all of their identification documents, while 33% had updated none.²⁸ In both the United States and Canada, different laws require varying amounts of evidence for people to change the sex indicated on their identification documents. Clarkson lists three general requirements often used for changing sex on documents: a letter from a surgeon, a letter from a physician, or a court order.²⁹ Although each of these forms of evidence has different levels or barriers to access, trans activists identify many problems with requiring any medical diagnosis at all. Requiring any kind of medically certified proof of transition creates a power dynamic in which a healthcare provider can deny the patient the right

²⁵ Clarkson, “Incoherent Assemblages: Transgender Conflicts in US Security,” pg. 619

²⁶ Grommé, “Review of Magnet’s When Biometrics Fail: Gender, Race, and the Technology of Identity,” pg. 209

²⁷ Clarkson, “Incoherent Assemblages: Transgender Conflicts in US Security,” pg. 619

²⁸ “Identity Documents & Privacy,” National Center for Transgender Equality, Accessed November 19, 2022, <https://transequality.org/issues/identity-documents-privacy>.

²⁹ Clarkson, “Incoherent Assemblages: Transgender Conflicts in US Security,” pg. 621

to legal gender recognition.³⁰ This can be considered a form of medical gatekeeping. In addition, some policies require specific medical procedures to have been undergone, while others do not. Creating even further policy incoherencies, individual clerks likely do not have enough nuanced information to understand medical professionals' letters to determine whether or not the right standards have been met.³¹ This leads to many trans people having identification documents with inconsistent sex designations, creating issues with travel in the border security system which is reliant on identity-verifying processes that cross-reference data across various databases.

Travel is further complicated for trans people as many border security systems rely on biometric technologies, like body scanners, to verify the identity of the traveler with their documentation. Thus, when the documentation and biometrics signal different identity markers, the individual is viewed as a threat. The tension between identity documentation and airport security, like body scanners, shows that “the requirements for passing as a proper citizen depend on the context.”³² Additionally, the body scanners originally installed following 9/11 would display on the screen the scanned image of the individual. Then foreign objects would be identified from the scan. This system was replaced with new software in 2011, so that now instead of explicitly showing an image of the person being scanned it showed a generic human body. Under this system the border agent had to select whether the traveler presented as male or female, click a pink or blue button, then the software would indicate where anomalies in the scan lie, using the generic image.³³ While the old system had serious privacy concerns because they “outed” trans travelers, the new software also has serious flaws. Villarreal points out how the

³⁰ “An Essential Legal Right for Trans People,” Open Society Foundations, May 2019, <https://www.opensocietyfoundations.org/explainers/essential-legal-right-trans-people>.

³¹ Clarkson, “Incoherent Assemblages: Transgender Conflicts in US Security,” pg. 621

³² Ibid, pg. 619

³³ “Traveling While Trans: Questions Remain with TSA's New Software,” National Center for Transgender Equality's Blog, December 1, 2014, <https://transgenderequality.wordpress.com/2011/07/25/traveling-while-trans-questions-remain-with-tsa%E2%80%99s-new-software/>.

new body scanner software “could pose a problem for trans people who live as female while still retaining male body parts and vice versa.”³⁴ Using this software and identifying “anomalies” in the body could lead to trans individuals being identified as threats based on their gender-atypical anatomy. Mocking this system, Villarreal suggests that these scanners “may mistake penises for deadly weapons.”³⁵ Now trans people are placed in a potentially dangerous situation where they may be identified as a threat at the border first because their identification documents do not correspond with their presenting gender or there are inconsistencies in their documents. And second, because of the way the documents and biometric technologies are used to authenticate them. TSA body scanners use biometrics that rely on a template that recognizes some bodies as “sufficiently coherent” and others as “threatening assemblages in need of further screening.”³⁶ The discrepancies between biometrics and identification documents show how the states’ approach to attributing identity to bodies varies across contexts.

Biometrics: Norms and Values

The securitization of the border following 9/11 has allowed the Canadian and United States governments to treat every individual who wishes to pass through the border as a potential threat. At each site of the border, the goal of the governments is to reduce uncertainty and risk.³⁷ However, in creating this culture of fear, the government has been able to enact policies that directly contradict existing values and norms. Not only do biometric technologies rely on outdated notions of gender and race when determining what an acceptable body is, but they also rely on threats of imprisonment and violence. Border sites operating at a lower standard than

³⁴ Daniel Villarreal, “The TSA's New Gender-Typed Body Scanner May Mistake Penises for Deadly Weapons,” Queerty, July 26, 2011, <https://www.queerty.com/the-tsas-new-gender-typed-body-scanner-may-mistake-penises-for-deadly-weapons-20110725>.

³⁵ Villarreal, “The TSA's New Gender-Typed Body Scanner May Mistake Penises for Deadly Weapons”

³⁶ Clarkson, “Incoherent Assemblages: Transgender Conflicts in US Security,” pg. 627

³⁷ Ceyhan, “Technologization of Security: Management of Uncertainty and Risk in the Age of Biometrics,” pg. 104

those required for the rule of law. Each border site is also the site of confinement for those who fail to be authenticated and those the states view as threatening.³⁸ Therefore, the securitization of the border has allowed the government to enact practices that contradict standing legal obligations, as well as existing values.

Moreover, information sharing of biometric data has become a large part of Canada-United States border efforts.³⁹ This process of information sharing and the contents of what is shared lacks transparency. The information shared between security agencies and the process which is relied on to assess whether or not a threat exists is concealed from the public.⁴⁰ Thus, the processes used are not opened up to the public eye to allow accountability. Van der Ploeg argues, “the enrolment of body parts in the biometric system and their comparison against criminal databases, makes the body marked with a sign or stigmata ‘written by authorities that turn the individual body into a witness against them.’”⁴¹ This is a process that seems to need great transparency and accountability, rather than none. Manjikian explains that sometimes laws and regulations are unable to keep up with the speed at which technology develops, thus society must rely on values and norms to regulate them.⁴² The lack of transparency in biometric systems calls into question what happens when the system is so unknown to the public that there is no space for norms or values to develop.

According to Max Weber, the modern state is formed and remains a sovereign nation by partaking in three interrelated processes. First, it controls the monopoly on the legitimate use of violence. Second, it is in charge of establishing and maintaining clear-cut borders and managing

³⁸ Cote-Boucher, “The Diffuse Border: Intelligence-Sharing, Control and Confinement along Canada's Smart Border,” pg. 147

³⁹ “Study of the Government of Canada's Use of Biometrics in the Border Continuum,” pg. 18

⁴⁰ Cote-Boucher, “The Diffuse Border: Intelligence-Sharing, Control and Confinement along Canada's Smart Border,” pg. 150

⁴¹ Ceyhan, “Technologization of Security: Management of Uncertainty and Risk in the Age of Biometrics,” pg. 118

⁴² Mary Manjikian, “Ethics, Norms, and Rules,” In *Introduction to Cyber Politics and Policy*, Los Angeles: Sage, 2021, pg. 263

the movement of people inside its territory and across the borders. And finally, it has a monopoly over the control of identification of individuals, through identification documentation, such as passports.⁴³ Today, these practices have been significantly altered due to globalization and new technologies. As a result, these three processes now rely on biometric data and diffuse borders, which were not addressed in the original Weberian model of states. Despite these significant changes, the Weberian model of states is still a prominent fixture of the western liberal international system, with no amendments to how technologies like biometrics may shift these roles. For example, diffuse and biometric borders are reliant on the outsourcing of the border.⁴⁴ Again, this shows how technology and international norms and values are evolving at different rates.

A key debate regarding cyber norms, which is critical to understanding biometrics, is whether or not technology has embedded values or whether these values are created through the use of the technology.⁴⁵ The government tends to back its use of biometric technologies using the argument that these systems are objective and free of bias, thus more reliable than a border agent. The significant data showing that biometrics systems are designed to see white, cis-gendered, and able bodies as the norm, shows that biometric technology is not objective. Instead, it reflects the biases of its designers, which then reinforces a system of hierarchies through its use in border management.

Conclusion

The use of biometric technologies to ensure that travelers correspond with their identification documents and to scan individuals for perceived threats revives outdated notions of gender and race in a project to secure the border. The system of biometric surveillance which

⁴³ Ceyhan, "Technologization of Security: Management of Uncertainty and Risk in the Age of Biometrics," pg. 104

⁴⁴ Magnet, "Biometrics at the Border," pg. 109

⁴⁵ Manjikian, "Ethics, Norms, and Rules," pg. 265

border management has become reliant on following 9/11 poses serious dangers and consequences to trans travelers, especially those with intersectional identities. The implementation of biometrics is reliant on the government's supposed monopoly on border control and identity management, despite the tendency of these technologies to outsource the border. Biometrics represents a clear case study on how the liberal international order's notions of sovereignty and statehood have fallen out of touch with the realities of technology's capabilities. Additionally, the lack of transparency in these processes suggests an inability of the public's norms and values to shape the practices surrounding biometrics. To conclude, biometric border controls rely on the securitization of the border following 9/11 to force binary notions of gender onto society. Resulting in the reinforcement of hierarchies on certain populations which the state has labeled as potentially threatening.

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