Policing sex work online: Sex workers' views on the risks and benefits of using AI to police online ads for sexual services

by

Sydney Brown

B.A. (Hons.), Simon Fraser University, 2020

Thesis Submitted in Partial Fulfillment of the
Requirements for the Degree of
Master of Arts

in the
School of Criminology
Faculty of Arts and Social Sciences

SIMON FRASER UNIVERSITY
Fall 2024

Declaration of Committee

Name:	**Sydney Brown**
Degree:	**Master of Arts**
Title:	**Policing sex work online: Sex workers' views on the risks and benefits of using AI to police online ads for sexual services**
Committee:	**Chair:** **Sheri Fabian** Lecturer, Criminology
	Tamara O'Doherty Co-Supervisor Senior Lecturer, Criminology
	Martin Bouchard Co-Supervisor Professor, Criminology
	Amy Conroy Committee Member Lecturer, Criminology
	Robert Henyen Examiner Associate Professor, Department of Communications and Media Studies York University

Ethics Statement

The author, whose name appears on the title page of this work, has obtained, for the research described in this work, either:

a. human research ethics approval from the Simon Fraser University Office of Research Ethics

or

b. advance approval of the animal care protocol from the University Animal Care Committee of Simon Fraser University

or has conducted the research

c. as a co-investigator, collaborator, or research assistant in a research project approved in advance.

A copy of the approval letter has been filed with the Theses Office of the University Library at the time of submission of this thesis or project.

The original application for approval and letter of approval are filed with the relevant offices. Inquiries may be directed to those authorities.

Simon Fraser University Library
Burnaby, British Columbia, Canada

Update Spring 2016

Abstract

This thesis explored the potential use of artificial intelligence (AI)-based policing models in law enforcement anti-trafficking initiatives and examined potential impacts of expanding state surveillance through police use of AI-based policing models. Computer scientists aspire to develop AI to identify victims of trafficking through websites that host ads for sexual services. Little research has explored sex workers' views on the proposed AI-based policing models and their likely impacts. To fill this gap, I conducted 21 semi-structured interviews with sex workers, academics, and members of sex worker rights organizations to discuss the effects of AI-based policing models. Participants expressed concern that these models will continue a long history of anti-trafficking initiatives causing harm, particularly against racialized, migrant, and transgender sex workers. Findings also suggest developers should be cautious about creating AI-based policing models without input of sex workers and without a firm knowledge base of the sex industry.

Keywords: Algorithmic policing; algorithmic bias; artificial intelligence; human trafficking; sex work; critical criminology

Acknowledgements

To all my participants, thank you for taking the time to speak with me. This project would not have been possible without your openness to share your experiences. I have learned so much from each and every person I spoke to, and I am so thankful for their contributions.

To my collaborators, thank you for the time you put into speaking with me and reviewing my materials. The expertise you shared with me allowed me to incorporate perspectives that would not have been possible without your help.

To my supervisor, Dr. O'Doherty, thank you so much for all the time you spent working with me on this project. I am so appreciative of your support and patience throughout this process. Thank you for always challenging me to do better and showing me how to be a respectful researcher. Thank you to Dr. Conroy for all the encouragement and guidance you have shown me through the years. I will be forever appreciative of the thought and attention to detail that went into your feedback. Thank you to Dr. Bouchard for stepping in and bringing in your perspective. I appreciate all the time, and energy you put into my project. Thank you to Dr. Fabian for taking me under your wing. I greatly appreciated your support and encouragement throughout this process, and I would not have been able to get through the final year without you. To the rest of the SFU community that supported and helped me throughout my degree, thank you!

To my partner, friends, and family, thank you for all your patience and encouragement. I am so incredibly lucky to have so many loving and supportive people around me. Thank you, Payten, for your endless encouragement, inspiring me to do better, and for always putting a smile on my face. Thank you, Mom, Nana, and Courtney, for always being there to listen and for the countless hours you spent editing. Thank you to my Dad and Mitchell for cheering me on throughout the process. Thank you to Joesph, Kenzie, and Emma for answering my endless questions and reassuring me. Liam, thank you for everything you have done over the years to get me to this point. You were always there to listen when I found an interesting research article or needed to talk through a new idea.

Table of Contents

List of Tables

List of Figures

List of Acronyms

AI	Artificial intelligence
CCTV	Closed Circuit Television Cameras
FBI	Federal Bureau of Investigation
FOSTA-SESTA	Fight Online Sex Trafficking Act and Stop Enabling Sex Trafficking Act
IRPA	Immigration and Refugee Protection Act
LLMs	Large language models
Palermo Protocol	Protocol to Prevent, Suppress and Punish Trafficking in Persons Especially Women and Children
PCEPA	Protection of Communities and Exploited Persons Act
RCMP	Royal Canadian Mounted Police
USA	United States of America

Chapter 1.

Introduction

The past decade has seen an explosion in the capabilities of data-driven solutions like neural networks—colloquially referred to as artificial intelligence (AI)—to perform classification tasks accurately. Capitalizing on this success, industries are looking to use this approach to solve societal issues. Anti-trafficking campaigns are currently attempting to integrate AI, highlighting the contemporary use of this novel technology in crime prevention initiatives. Over the past decade, computer scientists have started to create AI-based policing models[1] to help in the fight against human trafficking.[2] In 2013, Google gave $3 million to help three anti-trafficking organizations develop AI-based policing models to fight human trafficking (Maza, 2013). The increase in attention and funding is the result of an emerging moral panic around the idea that human trafficking is increasingly facilitated through online advertising websites, leading governments and anti-trafficking initiatives to look for online solutions (Milivojevic et al., 2020). Since then, more than 50 anti-trafficking organizations, universities and private companies have said they are creating similar AI-based policing models. However, computer scientists are creating these models without the input of those who will be most affected, sex workers.

The advent of AI-based policing models has created a new form of government surveillance. State intervention, without proper evidence and input by those most impacted, has historically caused harm in the communities the intervention was

---

[1] In this thesis, I use the phrase AI-based policing model to encompass the different models that computer scientists use to assist police in classification tasks. These models include neural networks (Aggarwal, 2018), large language models (LLMs; Floridi & Chiriatti, 2020; Radford et al., 2018), random forests (T. Hastie et al., 2009), and unsupervised clustering models (Bishop, 2006).

[2] In the *Protocol to Prevent, Suppress and Punish Trafficking in Persons Especially Women and Children* (*Palermo Protocol*), the United Nations (2000) defines human trafficking as the "the recruitment, transportation, transfer, harbouring or receipt of persons, by means of the threat or use of force or other forms of coercion, of abduction, of fraud, of deception, of the abuse of power or of a position of vulnerability or of the giving or receiving of payments or benefits to achieve the consent of a person having control over another person, for the purpose of exploitation" (Article 3c, para. 1). However, there is no universal definition as each country that has signed on to the *Palermo Protocol* passed their own legislation, leading to varying definitions across signatory countries. I discuss the *Criminal Code of Canada's* definition in Section 2.1.2 of this thesis.

supposed to help (Mears, 2007). The creation of AI-based policing models does not take place in a vacuum. The creation of all new technology is influenced by the social and historical context in which it is created (Ogasawara, 2019). The same issues seen in surveillance-based policing generally—discriminatory practices that increase state surveillance and the criminalization of racialized minorities—are likely to be reproduced by AI-based policing models (Robertson et al., 2020).

In the realm of anti-human trafficking efforts, there is a long history of politicians and other interested parties using human trafficking discourse to continue the criminalization and surveillance of the commercial sex industry, especially against racialized sex workers (Doezema, 1999). Although the focus may be on human trafficking, policies targeted at identifying victims and criminalizing traffickers have had negative impacts on sex workers (Millar & O'Doherty, 2020a). Contemporary discussions on the topic have become highly politicized and are often driven by outdated and flawed myths (Brown, 2020). As a result of Canada's and other government's targeted focus of anti-trafficking efforts on the sex industry, sex workers are now more vulnerable to police interference and surveillance under the guise of protecting human trafficking victims (Roots, 2013; Weitzer, 2015). This is despite research that demonstrates police raids on sex work establishments are rarely successful at finding trafficking victims and decrease sex workers'—and especially migrant sex workers'—access to safe working conditions (Lam & Lepp, 2019).

Introducing AI-based policing models increases police surveillance of online sex work,[3] which until recently, was more difficult to police than more visible forms of sex work like street-based sex work. The world is now reliant on digital media—the sex industry relies on online platforms to operate, making it increasingly difficult for sex workers to avoid using online methods to advertise and communicate with clients (Bruckert & Law, 2014). The increased availability of the internet has also led to new forms of sex work that allow workers to sell sexual services without physical contact (T. Sanders et al., 2018). These changes allowed sex work to be facilitated through websites, removing some risk of police interference. Changing public attitudes towards

[3] For the purposes of this thesis, I define online sex work as the sale of any sexual service that is facilitated through the internet; this includes using the internet to facilitate in-person meetings (i.e., posting classified ads on a website) and the indirect sale of sexual services facilitated through the internet (i.e., webcamming, content-creation (selling photo's and/or videos)).

the sex industry and the narrative that human trafficking is taking place via these online platforms has led to police spending more time and resources reviewing online platforms that facilitate sex work (Milivojevic et al., 2020; T. Sanders et al., 2018). Generally, the increase in policing surveillance of the online platforms that facilitate sex work has been shown to lead to a loss of income and poorer working conditions (Blunt & Wolf, 2020; Tichenor, 2020). The substantial harm this has caused in the sex industry is justified by the few rescues of exploited persons and prosecutions of those deemed to be the exploiters (see Blunt & Wolf, 2020; Sterling, 2018; Tichenor, 2020). Historically, law enforcement involvement in the sex industry has disproportionately harmed Black, Indigenous, and other racialized sex workers as well as migrant and LGBTQIA2S+ sex workers (Kaye, 2017; Lam & Gallant, 2018; Maynard, 2018; Scheim et al., 2023) increasing the risk the AI-based policing models will have a negative impact on these communities.

Although the harms related to policing the sex industry have been well documented (Bruckert & Hannem, 2013; Durisin & Van der Meulen, 2021; Krüsi et al., 2016; Platt et al., 2018; Sterling & van der Meulen, 2018), commercial sex that is facilitated online (T. Sanders et al., 2018) and human trafficking (Millar & O'Doherty, 2020a) have only recently become the subject of research. The lack of foundational knowledge in this area increases the risk of harm that could be caused by the use of AI-based policing interventions. Computer scientists, like many other scientists, are given the authority to speak on certain topics including suggesting policy or solutions to social problems, even if the topic falls outside of their specialties (Whatmore, 2009). On the other hand, people with lived experience are rarely given the same ability to speak on these issues in policy or policing settings even though the policies directly impact their lives. Sex workers have spoken about the traumatizing experience of testifying to members of parliament about their experiences only to then have their experience and suggestions completely ignored in favour of the advice of police and policymakers (see Porth, 2018). The privileging of people and research that policymakers assume to be "objective" or "scientific" means that only specific people have the authority to speak on a topic. Even academics who take community-centered approaches may struggle to gain equal recognition of their work due to their perceived bias resulting from centering participants' expertise (Bowen & O'Doherty, 2014). Although it is unrealistic for

everyone's perspective to be considered in the creation of policy or law, more effort can be made to include those who will be most impacted by the implementation.

AI-based policing models mark the expansion of the surveillance state which could have major implications on the lives of ordinary citizens (Kosta, 2022). Many researchers and scholars warn about how the use of AI-based policing models, without a good foundation of knowledge into its effects, could expand the carceral state,[4] negatively impacting the most marginalized in society (see Babuta et al., 2018; Jensen, 2021; Kosta, 2022; Robertson et al., 2020). The use of AI-based policing models is just the newest iteration of investigative techniques used for surveillance of the sex industry under the guise of protection for the vulnerable. The purpose of this thesis is to engage with sex workers to get their input on the state use of surveillance technologies to explore how AI-based policing models could impact the sex industry. I do not intend for this thesis to evaluate the efficacy of the AI-based policing models, but to understand the implications of expanding the surveillance state to monitor sex work that is facilitated through online advertising websites. Even though I focus on the use of AI-based policing models, my analysis is more broadly about the impacts of increasing surveillance on sex workers so my findings could apply to other surveillance techniques employed by the state. Given the history of harm caused by police interference in the sex industry, I also wanted to set out recommendations on how to better include sex worker voices in the creation of these models. Ideally my findings will provide those making AI-based policing models the ability to consider sex workers' experiences and concerns when creating the models, which may help to mitigate some harms to sex workers. To do this I examined three factors that have been identified by computer scientists as possible indicators of human trafficking (see Cartwright et al., 2022; Lee et al., 2021; Tong et al., 2017): (a) suspicious wording in online ads for sexual services, (b) other suspicious ad activity (e.g., ads with multiple names, ads that are posted, deleted then reposted, etc.), and (c) cryptocurrency transactions used to pay for the ads.

My findings cast doubt on whether the three proposed indicators could feasibly distinguish human trafficking from sex work. Instead, my findings suggest that the introduction of AI-based policing models will likely replicate the harm of any other

[4] The carceral state describes when a government uses the criminal justice system to achieve their goals or address social problems (Bernstein, 2010).

carceral state intervention of groups already experiencing oppression. The inquiry participants were able to think of many plausible explanations for why sex workers would be exhibiting the behaviour the developers are training the AI-based policing models to flag as indicators of trafficking. The sex industry is not a monolith and many factors (e.g., geographic location, socio-economic status, race, gender) impact how someone may advertise their sex work. The developers of the AI ought to consider the diversity of sex work experiences in the creation of their investigative tools. Even if the AI may help to identify victims of trafficking, without structural changes to employment, housing, the social safety network and the criminal laws, exploitation itself remains unaddressed. Further, the AI tools could negatively impact victims of trafficking and sex workers, particularly racialized, LGBTQIA2S+ and migrant sex workers, by increasing their vulnerability to exploitation. Since marginalized groups are unable to access support services and are at risk of criminalization, they may feel forced to work in dangerous situations to continue to support themselves and their families. People with nefarious intentions can take advantage of these vulnerabilities. The participants of this inquiry join the call for sex workers to be involved in identifying the problems facing sex workers and their solutions and highlight the potential harms that may flow from their exclusion from policy making and programs that impact their lives.

This thesis begins with an overview of the literature, including the historical, legal, and social context that has influenced the creation of the AI-based policing models. This section also includes an outline of the theoretical framework that guided this thesis, which includes critical criminology, intersectionality, feminism, and critical race theory. Chapter 3 discusses the inquiry methods and outlines my research objectives, the inspiration I took from the participatory action research framework, the way I conducted the interviews, and how I analyzed the data. I outline my findings in Chapter 4. These include participants' thoughts on the validity and utility of factors considered by police to be indicative of human trafficking, the potential risks and benefits generated by using these indicators, their experiences with policing sex work online, and recommendations on how to better include sex workers' voices into the creation of the models. Chapter 5 discusses how the findings add to the existing literature in this field and offer recommendations for police, computer scientists, and policymakers to consider in the implementation of AI-based policing models to identify human trafficking in online ads for

sexual services, and, more generally, the use of AI-based policing models to increase surveillance of marginalized groups.

Chapter 2.

Literature Review

To begin, I explain what AI-based policing models are and define relevant terms. The addition of this section is to offer context for the remainder of the thesis. As mentioned above, this thesis is not meant to provide an analysis of the efficacy of the AI-based policing models, but rather the impacts of their implementation. AI-based policing models in anti-trafficking initiatives use a form of AI (i.e., the automation of classification tasks using neural networks), and algorithms (i.e., technologically automated mathematical formulas that transform an input to an output; Alpaydin, 2016). The algorithms adjust based on, and therefore reflect, the data used to train them (Alpaydin, 2016). Neural networks originated as an attempt to replicate how the human brain works; therefore, like humans, algorithms learn through trial and error (Aggarwal, 2018). Traditionally, the programmer gives the computer a set of instructions (the algorithm) on how to get from the input to the output. When using AI, the instructions are not given to the computer, instead the purpose is to "construct a program that fits the given data" (Alpaydin, 2016, p. 24). In a more simplified version AI works by the programmers using training data, that the input (e.g., images) and output (e.g., label of wolf or husky) are given to the neural network, the network then determines the likelihood it can correctly predict the output (e.g., probability of a previously unseen object being a wolf; Aggarwal, 2018). When the neural network incorrectly predicts the output, it adjusts so it can more accurately predict moving forward (Aggarwal, 2018). The neural networks need large amounts of data from different categories to train the algorithm to distinguish one category from another (Babuta et al., 2018).

Underlying AI are statistical principles, which means that AI is only able to make predictions; it cannot offer certainties or generalizations. As Alpaydin (2016) mentioned, "There is no guarantee that a machine learning model generalizes correctly—it depends on how suitable the model is for the task, how much training data there is, and how well the model parameters are optimized" (p. 42). AI is also a bit of a black box, meaning that the developer can see the input and output, but not how the classification process takes place. In other words, the developer does not give the AI imperative instructions, instead the AI learns to classify the data through trial and error. As such, it can be unclear

exactly how the AI makes the classifications. In an experiment to show the trustworthiness of AI, Ribeiro et al. (2016) attempted to use AI to differentiate pictures of huskies from pictures of wolves. They found the AI was making the differentiation based on the presence of snow in the background of the image and not on the characteristics of the animal. If it is unclear how the AI is making the prediction, it is difficult to know the accuracy of a prediction. Although images of wolves may be more likely to have snow in the background, that is not a fair indicator that an animal is a wolf. If the programmers only included images of wolves with snow in their training data, this would go on to influence how the AI classifies images in the future. The inability to know how the AI is making a classification would have similar effects when using AI to detect human trafficking; if the training data is based on politicized or limited ideas of human trafficking, then this is likely to impact the output. For example, if the AI is trained using ads by racialized sex workers due to the belief that racialized or migrant women are more likely to be victims of human trafficking, then the AI will be more likely to flag their ads as possible trafficking victims. Disproportionately flagging racialized sex workers ads could mean that racialized sex workers will face increased police surveillance.

In conducting my literature review, I focused on neural networks; however, there are other models being used to create AI-based policing models, including large language models (LLMs; Floridi & Chiriatti, 2020; Radford et al., 2018), random forests (T. Hastie et al., 2009), and unsupervised clustering models (Bishop, 2006). All models automate the classification process, and all models are impacted and biased by the quality of data that programmers use for training. The definitions and examples given above are basic and simplistic understandings of how AI works. AI-based policing models attempt to predict human behaviour, which is often messy and poorly understood. Given the politicized nature of the anti-trafficking movement, there are many myths and misunderstandings that could impact not only the databases used to train AI-based policing models, but also where the AI is designed to look for human trafficking because of assumptions about where human trafficking takes place and who is likely to be involved. In the remainder of this chapter, I discuss how human trafficking is defined by Canadian law, the history of the anti-trafficking movement, the impact the movement has had on sex workers, and the broader implications of expanding the surveillance state to better understand what could potentially bias the creation of these models. I also

include a high-level overview of the various intersecting forms of oppression that could influence the impact of the AI-based policing models on marginalized groups.

Definition of human trafficking

The politicized nature of human trafficking has led to harmful practices and policies, making it important to clarify terms and assumptions at the outset. For the purposes of this study, I define key terms like human trafficking and exploitation in line with the *Criminal Code of Canada.* The *Criminal Code of Canada* defines human trafficking as follows:

> Every person who recruits, transports, transfers, receives, holds, conceals, or harbours a person, or exercises control, direction, or influence over the movements of a person, for the purpose of exploiting them or facilitating their exploitation (s. 279.01[1]).

The *Criminal Code of Canada* defines exploitation as follows:

> For the purposes of sections 279.01 to 279.03, a person exploits another person if they cause them to provide, or offer to provide, labour or a service by engaging in conduct that, in all the circumstances, could reasonably be expected to cause the other person to believe that their safety or the safety of a person known to them would be threatened if they failed to provide, or offer to provide, the labour or service (s. 279.04[1]).

Although human trafficking is distinguishable from sex work, some researchers and many activists and politicians conflate the two legal categories (Clancey et al., 2014; Weitzer, 2005). The definition of sex work[5] I used in my thesis aligns with Amnesty International's as the consensual exchange of sex or sexual services for money or other goods/services (Rennie, 2016). It is not a criminal offence to work in the sex industry; however, Canada has criminalized many activities associated with sex work. In 2014, the Canadian government enacted the *Protection of Communities and Exploited Persons Act* (*PCEPA*, 2014), which criminalizes:

1. The purchase of sexual services under s. 286.1 of the *Criminal Code of Canada.*

[5] Leigh (1997) first introduced the term sex work in 1987 as a contribution to feminism that acknowledges the labour of the service provider, moves away from stigmatized terms, and unites the sex industry (i.e., porn performers, strippers, exotic dancers, etc.).

2. Receiving financial or material benefit from another's sale of sexual services under s. 286.2.

3. Procuring another person to sell sexual services under s. 286.3.

4. Advertising others' sexual services under s. 286.4.

5. Stopping traffic and communicating in public for the purpose of offering or providing sexual services under s. 213.

Sex workers resist this conflation because central to the idea of human trafficking is the need for exploitation, which includes the victim having a fear for their own or another person's safety. People often assume exploitation is present in the sex industry merely due to the presence of third parties. However, having a third party or working collectively with other sex workers to reduce risk, therefore reducing fear for their safety, would not fall under the classification of human trafficking, based on these definitions. If the AI-based policing models are not able to differentiate between human trafficking and organized sex work, then the models will conflate the two, leading to an inappropriate expansion of the surveillance state disrupting sex workers' ability to work.

2.1. Legal framework

2.1.1. International legal framework

The anti-trafficking movement can be traced back to the abolition of the Trans-Atlantic Slave Trade by Britain and its colonies in 1833 (Quirk, 2014). After the abolition of slavery, white women coopted the Abolition movement[6] to focus on what they called the 'white slave trade' (Quirk, 2014, p. 218). Their campaign represented a moral panic that pushed the narrative that foreign men were tricking young white women into working in the sex trade (Doezema, 2002). The movement refocused the discussion of slavery from the tremendous human rights abuses of the Trans-Atlantic Slave Trade to a focus on fearing racialized men and protecting white women. Several countries passed laws

[6] The Abolition movement was the first large-scale, organized political movement to stop the Trans-Atlantic Slave Trade in North America and Western Europe (Quirk, 2014). Although there were earlier movements and slave rebellions, none gained the same political significance (Quirk, 2014). Today, Abolition movements are focused on the prison system and the over-incarceration of Black and other racialized people, often likening the prison system to modern-day forms of chattel slavery (Maynard, 2018). Modern-day feminists and other groups (e.g., conservative and religious organizations) still use abolition to describe their movement to try to eradicate the sex industry, noting the very existence of the industry is violence against women (see Farley, 2004).

that restricted the movement of women and created a criminal offence that prohibited racialized men from being alone with white women (Doezema, 1999). In Canada, groups like the National Council of Women and the Women's Christian Temperance Union identified Asian men as the primary drivers of the 'white slave trade', successfully seeking restrictions to immigration from China and Japan (Maynard, 2018).

During this time there was an international effort to paint women as victims, and depict the sex industry as inherently exploitative, and as another form of slavery (Morcom & Schloenhardt, 2011). Society perceived sex workers as young, naïve, and easily tricked (Doezema, 1999). Prior to this movement, the sex industry was seen as a "necessary evil"[7] (Doezema, 1999, p. 26) and the people who worked in the industry were considered "sexual deviant[s]" (p. 27) or "fallen women" (p. 27). The sex industry moved from something society tolerated to something society aimed to control. At the same time, countries were looking for cheap and disposable labour as an alternative to the Trans-Atlantic Slave Trade (Quirk, 2014). The solution for many countries was to bring in temporary foreign workers, as the employer would not have to pay high wages, pay for healthcare or other social supports and the employer could send the workers back once they were no longer useful (Quirk, 2014). The influx of "foreign" men[8] only fed into the fear about the corruption of young white women.

Across Europe and North America anti-white slavery activists successfully campaigned to protect women from "white slavers, pimps, and profiteers" (Doezema, 2002, p. 24). In 1949, the first international convention—an amalgamation of the 1937 League of Nations draft convention and earlier international agreements—was created to target the 'white slave trade' (Morcom & Schloenhardt, 2011). The *Convention for the Suppression of the Traffic in Persons and the Exploitation of the Prostitution of Others* explicitly linked the sex trade with slavery and formally adopted a definition of slavery that did not require coercion, instead viewing all sex work as "incompatible with the dignity and worth of the human person" (Wijers, 2015, p. 4). The 1949 convention remained in place until 1979 when the United Nations replaced it with the *Convention on*

[7] The idea that sex work is a necessary evil comes from the discourse that men buying sex, although was not ideal, was preferable to masturbation or seducing "pure" woman (Khan, 2018, p. 68). Buying sex was seen as natural way for men to fulfill their sexual needs (Khan, 2018)

[8] Foreign men at this time only included racialized men, white immigrant men from Europe were not included in the moral panic (Doezema, 1999).

the Elimination of All Forms of Discrimination against Women, which reinforced the idea that women were incapable of sexual autonomy and any women who entered the sex industry was a victim (Morcom & Schloenhardt, 2011). The 1990s saw an increased international focus on women being taken across borders for the purpose of sexual exploitation, leading to an influx of immigration laws (Wijers, 2015). Then in 1994, the United Nations passed the *Resolution on Traffic in Women and Girls,* which reintroduced coercion as an element of trafficking and sexual exploitation (Wijers, 2015). The United Nations replaced the resolution only 6 years later when the 2000 *Protocol to Prevent, Suppress and Punish Trafficking in Persons, Especially Women and Girls* (*Palermo Protocol*) was adopted, with Canada ratifying the protocol in 2002 (Matte Guilmain & Hanley, 2020). The *Palermo Protocol* created an internationally recognized definition and criminal offence of human trafficking (Wijers, 2015).

The history of the international anti-trafficking movement affects contemporary conversations about how to respond to human trafficking and the sex industry. Despite the fact that people no longer use terms like, 'white slave trade,' the systemic racism still present in legal institutions creates barriers to justice for racialized victims. Racialized men often bear the brunt of criminalization, facing heavier sentences than their white counterparts (Beutin, 2017). There has also been a clear movement toward a carceral model to deal with human trafficking. Countries have passed criminal and immigration laws to control the movement of people, rather than focusing on social and economic issues that make people vulnerable to trafficking (Global Alliance Against Trafficking in Women, 2007). The *Palermo Protocol*, although bringing uniformity to the international community, created an international obligation for states to pass criminal laws, squarely positioning the issue as criminal and increasing the reach of the carceral state. However, in the 20 years after the United Nations passed the *Palermo Protocol* there have been few successful convictions worldwide (Kangaspunta, 2015). Kangaspunta (2015) argued the lack of convictions is due to problems in detecting victims, a reluctance of victims to report their trafficking due to fear of physical repercussions (i.e., assault) or deportation, and the limited capacity of states to thoroughly investigate and prosecute trafficking cases. The criminal law does not offer protection or support for victims, which makes them even more reluctant to come forward (Gallagher, 2017).

2.1.2. Canadian legal framework

Human trafficking became an offence in Canada in 2001 through amendments to the *Immigration and Refugee Protection Act*[9] that prohibited human trafficking when crossing the border into Canada. The Canadian government did not introduce the criminal offence[10] until 2005. The main behaviours that the government criminalized include trafficking of persons under s. 279.01, receiving a material benefit under s. 279.02, and withholding or destroying travel documents under s. 279.03. However, as has been the case internationally, these provisions were rarely used in the first decade after they were enacted, with only 35 charges between 2006 and 2014 (Millar & O'Doherty, 2020a). In contrast, there was a significant increase in charges under *Criminal Code* human trafficking provisions, with 57[11] charges between 2015 and 2018 (Millar & O'Doherty, 2020a). The increase in charges occurred in the aftermath of the Supreme Court of Canada's decision in *Canada (Attorney General) v. Bedford* (hereafter, *Bedford*), which involved a successful challenge to the prostitution-related *Criminal Code* sections, arguing they were in violation of s. 7 of the *Canadian Charter of Rights and Freedoms*[12] (hereafter, the *Charter*). In *Bedford*, the Supreme Court of Canada found the former prostitution-related offences[13] were over-broad, criminalizing non-exploitative third parties (e.g., security guards) and preventing sex workers from taking steps that could make their work safer. Millar and O'Doherty (2015, 2020a) suggest, over the 20 years of its existence, the police have used the human trafficking legislation to increasingly target behaviour that the police formerly would charge under the prostitution-related law: indeed, human trafficking provisions are now employed even when the accused's behaviour would be better suited for charges under the material benefit or procuring provisions. The use of human trafficking provisions to replace the

---

[9] See *Immigration and Refugee Protection Act*, R.S.C. 2001, c. 27.

[10] See *Criminal Code* ss. 279.01 and 279.011.

[11] Even though there have been successful prosecutions in Canada, these cases may not provide data that can be used to train the AI-based policing models. To be used as training data, the case must include an online advertisement for sexual services.

[12] See *The Constitution Act*, 1982, Schedule B to the *Canada Act* 1982 (UK), 1982, c 11.

[13] The three *Criminal Code* provisions the Supreme Court of Canada struck down were: 1) s. 213(1)(c) - communicating in public for the purpose of prostitution., 2) s. 210 - Living in, owning, leasing, occupying or being inside of a common bawdy house, 3) s. 212(1)(j) – Living off the avails of prostitution (*Canada (Attorney General) v. Bedford,* 2013 SCC 72, [2013] 3 S.C.R. 1101).

prostitution-related charges is one way the concepts of human trafficking and sex work have been conflated. As shown in further detail below, the legal conflation has led to sex workers and their third parties facing serious criminal charges. The bias that leads police to charge individuals with human trafficking for participating in the commercial sex industry is likely to be recreated by the AI-based policing models. Understanding the history of how police have used these provisions, can help to show the possible risks of implementing the AI-based policing models.

The Conservative Party of Canada controlled the House of Commons under the leadership of Stephen Harper when the Supreme Court of Canada released the *Bedford* decision. The Supreme Court of Canada gave the federal government a year to enact a new framework to regulate the industry before the previous *Criminal Code* sections became invalid. The Harper Government was very public about the importance of Christian beliefs and tradition in Canada as well as the need to take a tough-on-crime approach to criminal justice (Gin, 2012). The Conservative Party's decision to regulate the sex industry post-*Bedford* reflects the party's focus on traditional values and tough-on-crime policies. Millar and O'Doherty (2020a) criticized the Harper Government's decision to enact the *PCEPA*, which re-enacted near identical provisions as those that were struck down in *Bedford.* The *PCEPA* was presented as an 'end demand' form of criminalization: it ostensibly only criminalized buyers and third parties (Government of Canada, Department of Justice, 2015). The legislation was supposed to address exploitation in the sex industry and the government said it was not meant to be used to prosecute sex workers (Government of Canada, Department of Justice, 2015). Nonetheless, some sections left sex workers directly vulnerable to criminalization. For example, s. 213 criminalized communicating in public for the purposes of offering or providing sexual services, which could be used to charge street-based sex workers. As well, s. 286.2, criminalized materially benefiting from another person's sex work and left sex workers who work together vulnerable to criminalization.

The *PCEPA* changed how Canada regulates the sex industry, from being seen as a public nuisance to being understood as a form of sexual exploitation (Lam & Lepp, 2019). The Harper Government included in the preamble to the legislation that violence is inherent in the sex industry, taking an ideological stance on the issue—one that conflicted with the evidence brought forward by researchers, sex workers, and the Supreme Court of Canada (van der Meulen & Durisin, 2018). Furthermore, the Harper

Government's inclusion of children in the preamble can be traced to the now debunked myth that most people enter the sex industry as children (Comte, 2014; Weitzer, 2005). Even though some people do enter the sex industry under the age of 18 (and would be considered sexually exploited youth, not sex workers), research has shown the vast majority of sex workers enter the industry as adults (O'Doherty, 2011; T. Sanders et al., 2018). As of 2024, multiple court cases are making their way through Canadian courts arguing that the *PCEPA* is unconstitutional,[14] leaving the legal future of the sex industry uncertain.

The *Criminal Code* sections on human trafficking do not differentiate sex trafficking from other forms of labour trafficking and do not have a specific section to criminalize forced labour (Ricard-Guay, 2016). B. Hastie (2012) argued the way the *Criminal Code* defines exploitation creates barriers for those experiencing labour trafficking to obtain justice. When looking at the parliamentary debates, B. Hastie (2012) found the intention of parliament in using the 'fear of safety' requirement was to limit exploitation to situations in which there are threats of or actual physical violence. Switching the word *safety* to another term like *harm* would create a broader section that includes situations where there is psychological and/or economic coercion (B. Hastie, 2012). The limited definition specifically impacts victims of labour trafficking, especially migrant workers, as traffickers are more likely to use the threat of deportation or debt bondage to maintain their control over their victims (Beatson et al., 2017). The 'fear of safety' requirement also means that the victim must prove the accused actions affected their physical well-being, which shifts the focus away from the offender's actions to the impact on the victims and makes victim cooperation essential to obtaining a conviction (Kaye & Hastie, 2015). Due to the politicized nature of the narrative around human trafficking, prosecutors have found it difficult to convince judges and juries of all elements of the human trafficking offence beyond a reasonable doubt, since the media's depiction of trafficking does not reflect the realities of exploitation (O'Doherty et al., 2018).

The Canadian government changes to the human trafficking legislation and legislation regulating sex work during the 21st century aligns with the narratives that

[14] See *R v. Anwar,* 2020 ONCJ 103 and *Canadian Alliance for Sex Work Law Reform v. Canada (Attorney General),* 2023 ONSC 5197.

'white slave trade' activists advanced in the early 20th century. The introduction of the *PCEPA* purported to protect women and children but instead extinguishes women's autonomy to choose to work in the sex industry. Paradoxically, there is also a lack of acknowledgement of the realities of and need to protect migrant workers who experience labour exploitation. Indeed, a 2018 report released by the federal Standing Committee on Justice and Human Rights acknowledged the disinterest in prioritizing labour exploitation, concluding that increasing protection for migrant workers facing exploitation would negatively affect Canadian corporations and employers (Housefather, 2018). The focus of the anti-trafficking movement on sex trafficking has meant other forms of exploitation have not received the same level of attention or investment in addressing the issue. The lack of full understanding of all forms of human trafficking in the creation of AI could lead to missed opportunities to protect those experiencing other forms of exploitation that falls out of that definition.

Policy effects on sex workers

The historical and contemporary conflation of human trafficking and sex work has led to increased police surveillance of the sex industry under the guise of protection. Operation Northern Spotlight is one example of the ways in which police interference negatively affected sex workers. Operation Northern Spotlight was a Royal Canadian Mounted Police (RCMP) and municipal police outreach effort to try to help people who were, "suspected of being forced into the sex trade, or people believed to be at high risk of being trafficked" (RCMP, 2018, para. 2). To do this, the police went undercover as clients to access sex workers—who they assumed were also victims of human trafficking. The police did not differentiate sex workers from those experiencing exploitation, resulting in the detention and interrogation of everyone who was swept up in the raid (Sorfleet et al., 2017). In total, 351 people were interviewed/detained as a result of the raids; only 10 people (2.8%) were identified as either underage or exploited (RCMP, 2018). Even though it is important that police identify victims so they can receive help, sex workers and many others assert that there are ways to do this that cause less collateral damage. When introducing new AI-based policing models, there is a concern that, without careful consideration of sex worker input, the AI could cause collateral damage by failing to distinguish exploitation from consensual activity.

O'Doherty et al. (2018) interviewed support workers who helped sex workers after these raids and found that the raids forced sex workers into less safe working conditions to avoid future police interference, which reduced their ability to access health services and negatively affected their well-being. After the raids, sex workers were reluctant to seek out health services out of fear medical personnel would report them, thereby potentially increasing police surveillance over their business (O'Doherty et al., 2018). This is just one example of the conflation problem in action; there is more widespread governmental conflation of sex work with human trafficking. A Public Safety Canada report found 57% of people charged with human trafficking offences in 2021 also received a charge for a sex-work-related offence (Conroy, 2022). Further, anti-trafficking organizations that support *PCEPA* use the idea that the legislation provides police an alternative charging option when they are unable to prove human trafficking as a reason for maintaining both *Criminal Code* sections—even if they are used interchangeably concerning the same conduct (Sarai, 2022). The charging pattern clearly denotes the degree of conflation between the sex industry and human trafficking.

While the stated intention of criminalization is protection, there are multiple ways criminalization ends up *reducing* safety for sex workers. The *PCEPA* criminalizes third parties, even though security personnel, drivers, managers and other third parties are often there to provide safety, security, and health resources for sex workers (Bruckert & Law, 2014). Bruckert and Law (2014) and McBride et al. (2021) have shown the mere presence of another person reduces the likelihood of clients becoming violent or refusing to pay. Being independent and working alone is not a viable option for all sex workers and some prefer to work with third parties (Bruckert & Law, 2014). Sterling (2018) found in their research involving interviews with high end independent escorts[15] that they often work and advertise in groups to increase earnings, reduce risks, and provide new sex workers with an opportunity to learn from their peers. In their study, McBride et al. (2021) conducted interviews with individuals working as third parties and/or experience working in the sex industry and found that the majority of third parties in their sample were women and either current or former sex workers, which goes against the assumption of

[15] Sterling (2018) defines high end independent escort as "sex workers who manage all aspects of their business, including banding advertising scheduling and communicating with clients; charge hourly rates ranging from $300 to $600, with an average of $400; and offer extended engagements, most typically dinner dates, with a four-hour dinner date ranging from $1,200 to $1,900 and a twelve-hour overnight engagement starting at $3,500" (p. 95).

“gendered power differentials between sex workers and third parties” (p.1176). McBride et al.’s (2021) findings directly conflict with the *PCEPA* assumption that all third parties in the sex industry are inherently exploitative.

Bruckert and Law (2014) conducted interviews with people who work as third parties as well as facilitated focus groups with sex workers who have hired third parties and found a range of experiences, concluding that there is no generalizable experience of victimization by third parties. McBride et al. (2021) found that criminalizing third parties has only increased the risk of exploitation and reduced the likelihood that third parties will provide safety and security measures out of fear of criminalization (McBride et al., 2021). The safety measures that third parties provide include a safe place to work, help to negotiate when clients refuse to pay, translation services if English is not their first language and many more (McBride et al., 2021). Since taking a fee for these services could result in being charged under the material benefit provision, the third parties McBride et al. (2021) interviewed expressed they were unable to provide a safe workplace without infringing the law. The reality of the legal framework means that perpetrators of violence know there is a reduced risk of repercussions for perpetuating violence against sex workers (Lutnick, 2019).

Police interference in the sex industry also has been found to increase sex workers’ distrust of the police. Krüsi et al. (2016) conducted interviews with street-based sex workers who noted police officers’ misconceptions of the sex industry resulted in the police blaming sex workers and not intervening when they faced violence. Scoular et al. (2019), likewise found, when sex workers did report violence, theft, or fraud to police, they indicated the police did not take them seriously and said they likely would not report again. The reality that sex workers feel like they cannot report to police when experiencing violence is in direct contradiction to the stated objectives of the Government of Canada in the *PCEPA*, which are to “protect those who sell their own sexual services; protect communities, and especially children, from the harms caused by prostitution; and reduce the demand for prostitution and its incidence” (Government of Canada, 2014, para. 3–5). The government cannot protect sex workers if sex workers are unable to come forward when experiencing violence. Research has also shown that surveillance technology used to increase public safety can isolate sex workers. Wright et al. (2015) interviewed sex workers and found that the introduction of Closed-Circuit Television Cameras (CCTV) in public spaces led to their participants feeling less secure

and safe in those spaces. Their participants spoke about how sex workers are seen both as victims and offenders and this precarious status makes public space less comfortable (Wright et al., 2015). The introduction of CCTV means that there is a record if a predatory client picks them up but at the same time the video could be used as evidence of their own criminal behaviour (Wright et al., 2015). Given the history of sex workers being negatively impacted by police surveillance of the sex industry and surveillance measures that are intended to increase public safety, new investigative techniques should be created in collaboration with sex workers to prevent the new techniques from replicating these harms.

The sex industry is moving increasingly online: Bruckert and Law (2014) suggested it is now almost impossible for sex workers to avoid using online marketing strategies. The move to advertise and provide services online offers sex workers new alternatives for improving their safety. T. Sanders et al. (2018) conducted a major in-depth analysis into online sex work which consisted of data from 641 online surveys with sex workers, 62 interviews with sex workers, 56 interviews with police officers, 21 interviews with managers or online moderators, 1,323 online surveys with clients, and 49 online surveys with projects that provide support to sex workers who advertise online. The study concluded advertising in-person services online allows sex workers to take more safety precautions than when meeting clients in person (T. Sanders et al., 2018). Blunt and Wolf (2020) similarly found online safety tools to be effective ways for sex workers to implement safety precautions such as checking digital bad date lists that identify clients who have a history of non-payment, violent behaviour, or other troubling behaviour, as well as checking websites so that sex workers can verify the identity of their clients before meeting them in person. Russo (2020) noted the use of online safety tools is especially important for transgender sex workers who can disclose their trans status to clients online and reduce the likelihood of clients acting out violently in person. The advent of online advertising websites has meant that sex workers can more easily advertise their own services, and do not have to work on the street or with exploitative third parties (Blunt & Wolf, 2020).

Criminalization of advertising and influence of international legislation

Online sex work has previously been unregulated. This segment of the industry has been facing increasing media and police attention (T. Sanders et al., 2018). The

move towards regulating the online advertising of sexual services was partly motivated by the idea that human traffickers are increasingly using the internet to advertise their victims' services, and therefore, the use of the internet to advertise or sell sexual services needs to be stopped (Milivojevic et al., 2020). When the Canadian federal government passed *PCEPA* in 2014, advertising someone else's sexual services became a criminal offence under s. 286.4 of the *Criminal Code.* Although s. 286.5 provides immunity for those advertising their own sexual services, s. 286.4 prevents magazines, newspapers, and websites from being able to host these advertisements, presenting serious barriers for sex workers to effectively and publicly advertise their services (Canadian Alliance for Sex Work Law Reform, 2015). After passing the *PCEPA,* major advertising sites changed their policies, no longer allowing advertising for sex work, and no longer allowing sex workers to link their websites if they contained certain words (Sterling, 2018). The change in websites policies severely limited sex workers' ability to communicate the kind of services they offered, requiring sex workers instead to use vague terms, innuendo, and symbols (e.g., emojis). Blunt and Wolf (2022) found sex workers reported increased violence from clients when they were unable to effectively communicate with clients online.

Tichenor (2020) interviewed sex workers in New Zealand and found that the criminalization and state surveillance of online ads for sexual services can have international implications. The international reach of the internet means that increased state surveillance of online ads for sexual services in one country causes collateral damage in others. In 2018, the Federal Bureau of Investigation (FBI) raided Backpage, a classified ad website located in the USA over fear of Backpage's involvement in child trafficking (Romano, 2018). In the same year, the United States of America (USA) government passed two pieces of legislation, *Fight Online Sex Trafficking Act* and *Stop Enabling Sex Trafficking Act* (*FOSTA-SESTA*, 2018). The legislation does not differentiate between sex trafficking and sex work, allowing the sex industry to be further criminalized under this legislation (Russo, 2020). The raid resulted in the FBI shutting down Backpage (Romano, 2018). In New Zealand, where sex work was decriminalized, sex workers reported losing a safe and cheap place to advertise after Backpage was shut down (Tichenor, 2020). Tichenor (2020) found that other websites increased their fees because they knew that, without alternatives, sex workers had no other option but to pay. Blunt and Wolf (2022) found the removal of Backpage had similar effects on sex

workers located in the USA, leading to financial instability, less safety and poorer access to healthcare and community services, regardless of the legal status of sex work in the state in which the participants were located.

To summarize what has been established in this section, the history of the anti-trafficking movement is based on the idea that the government needs to step in to save children as well as women from their own choices to work in commercial sex. These paternalistic ideas have led to Canada and other countries passing laws and making policy decisions that criminalize the sex industry, specifically third parties—purportedly for the good of women and children, who the state assumes are victimized and exploited. Governments pass these laws despite evidence that criminalizing these groups makes the sex industry and the people who work in it less safe, while removing their autonomy and subjecting them to increased state intervention. Despite the goal of protecting those experiencing exploitation, the policies often make the sex industry less safe for the most vulnerable (Krüsi et al., 2012). The programmers are creating the AI-based policing models in a legal and historical environment where there are competing interests and ideas about sex work and human trafficking that can impact their understanding of the issue. Given the historical impact of the carceral state on sex workers, there are reasons to be cautious about implementing AI-based policing models to monitor online ads for sexual services. Past attempts to protect victims using state surveillance and state intervention have only led sex workers to have reduced access to safe workplaces and health services. Since AI replicates the bias of those creating the models, it is important to understand the historical impact of policing the sex industry to avoid new state surveillance technology just adding to the harms.

2.2. Theoretical Framework

To understand how AI-based policing models could impact society, one must first understand the various factors that lead to the over-policing and over-surveillance of some groups. AI-based policing models are only as good as the data that is used in their creation (Mökander et al., 2021). As shown in Section 2.1 of this thesis, historical ideas about the sex industry have led the Canadian government to pass legislation that harms sex workers, despite the stated purpose of the law being to protect sex workers. Society upholds colonial and capitalist, racist, gendered, and heteronormative structures that affect the criminal justice system and reinforce discriminatory practices. These structures

will also likely impact the implementation of AI-based policing models in similar ways that power structures have impacted marginalized and racialized sex workers. In this section, I use critical criminology as the theoretical framework to discuss how these social and political structures affect the ethics of AI-based policing models and how power and social/political structures (e.g., the reinforcement of white, cis-gender, heterosexual norms) influence how programmers make AI-based policing models. I then discuss the effects of these power structures on the way the police interact with the sex industry.

2.2.1. Critical criminology

Critical Criminologists argue the state uses the law and law enforcement to reinforce power dynamics (Chambliss, 2001; Quinney, 2001; Vold, 1967). Critical theories, including Marxism and other radical theories, started making a resurgence in the 1960s as people began mobilizing in support of the Civil Rights Movement in opposition to the Vietnam War, and demanding fundamental changes to institutions (Chambliss, 2001). There was a shift in perspective that allowed people to see how power and other interests make up social reality (Wozniak et al., 2015). Critical theories that saw crime as a social construction began to gain traction and offered a departure from previous theories where researchers focused on individual characteristics that link a person to crime. Critical scholars view the criminal law as a way for the state to enforce what behaviours they view as acceptable and what behaviours they do not want to see. The state criminalizes some behaviours (e.g., heroin possession), while allowing other activities that cause significant social harm (e.g., environmental practices or corporate activities) to escape state sanction (Brickey & Comack, 1987). The critical view is ideal for looking at the issue of human trafficking and the sex industry as it allows for an understanding of how the law and those in power construct what is criminal, especially in situations where the prohibited activities do not cause harm (and may even prevent certain harms as discussed above in section 2.1.2) or where there is debate about the definition of harm (e.g. the debate about the characterization of sex work as inherently exploitative, also discussed above in section 2.1).

The foundations of critical criminology are in the ideas that the police, courts, and prisons all act on behalf of the state and, through their commitment to the rule of law, wittingly or unwittingly reinforce inequity in society (Vold, 1967). In a democratic society, what kinds of behaviours are defined as criminal are based on the moral judgements of

those in power which is reinforced through the use of the police and court system (Vold, 1967). The ruling class can maintain control over moral norms through the process of hegemony. Hegemony is the term used to describe the process in which social norms are created (DeKeseredy, 2021). Through this process inequality is normalized and becomes the standard cultural practice even though it is at the detriment of most people. By criminalizing behaviours that are associated with poverty (e.g., loitering), restricting access to jobs and social supports, people end up in cycles of poverty, and unable to improve their social standing. In modern day democracies, politicians, stakeholders, and policymakers focus on issues that advance their interests and ensure their continued access to power regardless of the rationality of or empirical basis for a policy (Mears, 2007). The focus on retaining power leads to the implementation of policy simply because it is politically popular, despite not actually addressing the issue it was meant to solve, or in some cases making the issue worse (Mears, 2010).

The use of silver bullet solutions[16] or quippy campaign slogans have normalized the idea that complex social problems, like crime, can be solved through simple solutions (Mears, 2007). Researchers refer to this phenomenon as the politicization of law. Critical criminologists argue institutions that are the most vocal about the issue of crime also tend to be the institutions who most benefit from the exaggeration and distortion of information (Chambliss, 2001). The anti-trafficking movement illustrates this phenomenon. Those who are most vocal about the need to address trafficking are also those who directly benefit from that narrative. Police organizations (Millar et al., 2017), celebrity activists (Haynes, 2014) and non-profit organizations (De Shalit et al., 2014) have all been criticized for benefiting financially from the anti-trafficking narrative. These same organizations have advanced the argument that trafficking is an enormous issue, and they are the only ones who can solve it. Heynen and van der Meulen (2022) in their analysis of popular anti-trafficking campaigns found that they largely focus on sex trafficking, often conflating sex work with trafficking. The campaigns focus on the carceral state as the only solution to fighting trafficking, while ignoring the economic and social causes of exploitation (Heynen & van der Meulen, 2022).

[16] According to Mears (2007) silver bullet solutions have four assumptions, ”First, a particular problem, such as drug use, causes criminal behavior. Second, the problem is widespread, so that any efforts to focus on it will necessarily have a large-scale impact. Third, effective solutions to the problem exist. Fourth, these solutions can appreciably prevent or reduce crime.” (p.672)

In the area of human trafficking, the politicization of law has led to poorly written laws as well as governments and not-for-profit agencies spending substantial amounts of money on “solutions” that have no hope of rectifying a social problem because they do not address its underlying causes. In my 2018 analysis of the federal review of human trafficking laws, I found Canadian government sources made up 37% of citations in the report, even though they comprised only 17% of witnesses and briefs who provided evidence to the review (Brown, 2020). The overrepresentation of government sources contrasts with community organizations which made up 51% of witnesses and briefs and only 37% of citations in the review, showing a preference for the input of government bodies, over the community most directly impacted by the law (Brown, 2020). Continuing the amplification of government voices over sex worker communities would be at the detriment of the creation of the AI-based policing models as sex workers are the ones creating the online advertisements for sexual services, making them best positioned to know what should be considered suspicious advertising.

2.2.2. Intersectional analysis

Those who can access positions of power are impacted by white supremacy, misogyny, transphobia, and homophobia that reinforce discriminatory practices. Although it is beyond the scope of this thesis to give an in-depth analysis of all the intersecting forms of oppression[17] at play when discussing government surveillance of the sex industry,[18] I do offer a high-level overview of how power structures impact government regulation of the sex industry below. I include an intersectional analysis because multiple factors impact how a person interacts with the state and how state surveillance would influence them. The intersectional analysis is meant to add context to the various ways sex workers could be impacted by the use of state surveillance and is not meant to analyze all of the intersecting identities in-depth. The high-level overview

[17] For a more in-depth analysis of the intersecting forms of oppression effects on AI-based policing modes see Babuta et al. (2018), Buolamwini and Gebru (2018), Law Commission of Ontario (2020), Mökander and Axente (2021), and Robertson et al. (2020).

[18] For a more in-depth analysis of the intersecting forms of oppression effects on the surveillance and policing of the sex industry see Beutin (2017), Butler Burke (2018), Felkins (2022), Hunt (2013), Jones (2022), Krüsi et al. (2012), Maynard (2018), Millar and O’Doherty (2020), O’Doherty and Waters (2019), Raguparan (2017), and Scheim et al. (2023).

includes an analysis of the disproportionate impact human trafficking laws and the laws regulating the sex industry have had on already marginalized communities.

The concept of intersectionality was first introduced by Crenshaw (1989), who argued that because people often experience multiple forms of oppression, scholars should not discuss oppression through a singular lens. An intersectional analysis comes from an understanding that individual lives and experiences are impacted by power, privilege, and oppression stemming from a history of imperialism, colonialism, patriarchy, and structural racism (Boonzaier, 2019). An analysis that does not consider the impact of class, race, and gender oppression and how they interact will be missing the full picture. Crenshaw (1989) maintained that only addressing one form of oppression will not address those who are experiencing it if those same people are also experiencing intersecting forms of oppression. For example, racialized transgender sex workers face more violence than do their racialized or cisgender counterparts (Scheim et al., 2023). Addressing violence against racialized sex workers will not adequately address all factors impacting a sex worker who is racialized and transgender, because they will continue to face violence due to their transgender status. The impact of interconnected forms of oppression makes it necessary to take an intersectional approach to these issues. Other critical scholars have followed in Crenshaw's footsteps, arguing one cannot fully understand power without considering multiple perspectives (McCann, 2007). For this reason, I also include feminism, critical race theory, and queer theory in my analysis.

Feminism

Feminism was developed to bring awareness to issues facing women—issues that historically were ignored or trivialized by academic and legal institutions—as well as to extend political, civic, and labour rights to women (Alcoff, 1994). Feminists argued that since men have held power historically, women's perspectives are not represented in legal institutions, leading to harmful and paternalistic actions by the state (Alessandrini, 2021). There are people of all genders in the sex industry while criminal laws have focused on the protection of women. In their research on public responses to the FBI raiding Rentboy.com and MyRedBook.com, Majic (2020) found news articles about the raid of the website listing male ads for sexual services focused on the agency of the male sex workers, while the news articles on the raid of the website listing female ads for

sexual services focused on the vulnerability of women in the sex industry. If women in the sex industry are viewed as being inherently victims, then any AI-based policing models could replicate this belief in what the AI flags as human trafficking. Research has already shown vulnerability is used as a reason to increase police surveillance of female sex workers. O'Doherty and Waters (2019) noted female sex workers took more steps to protect themselves from police and had more extensive interactions with police than did their male counterparts. Male sex workers can work with less concern of criminalization compared to their female counterparts (O'Doherty & Waters, 2019). Historically, gender has been left out of our understanding the impacts of surveillance, but this gap has closed in recent years (Heynen & van der Meulen, 2016). Although everyone is under state surveillance, women's experiences differ due to the gender dynamics of men being primarily in charge of the surveillance (Heynen & van der Meulen 2016). These gender dynamics mean that women are not just under state surveillance but are also being watched through the male gaze, which impacts their perceptions of the surveillance leading to feelings of insecurity in public spaces (Heynen & van der Meulen, 2016). Since AI replicates bias found in data, introducing AI-based policing models is likely to increase the police surveillance of female sex workers, while ignoring male victims of trafficking.

Queer theory

Queer theory is multidisciplinary and is focused on questioning the boundaries surrounding cis-heteronormative societal norms (Lamble, 2021). There is an overlap with feminism as both work to promote equality and question the construction of the gender binary that disenfranchises some while uplifting others. A large proportion of the sex work population identify as queer. Through surveys and focus groups of sex workers in Vancouver, Machat (2023) found that 23% of sex workers identify as gender diverse, 8% as trans, 30% as bisexual, 14% as pansexual, and 11% as queer. Transgender and non-binary people are overrepresented in the sex industry due in part to the widespread employment discrimination that they face (Fitzgerald et al., 2015). The sex industry provides some people with a stable income that they may not be able to access in mainstream workplaces. LGBTQIA2S+ sex workers are disproportionately affected by the criminalization of the sex industry, too. Scheim et al. (2023) indicated transgender and non-binary sex workers reported elevated levels of police surveillance and violence. They also noted, while transgender and non-binary sex workers were more likely than

their non-sex working peers to need medical or police services, these sex workers did not reach out for protection or other services out of fear of criminalization. The stigmatization of transgender people means that they are more likely to face violence and feel unable to go to the police or other emergency services due to fears of transphobia. Transgender sex workers have the added layer of fearing indirect criminalization related to their sex work, by police charging them under the commodification laws. Given the history of transgender sex workers avoiding police surveillance out of fear of facing transphobia, the introduction of AI-based policing models could mean that transgender sex workers no longer feel safe advertising online, ultimately taking away safe working spaces.

Critical race theory

Critical race theory centers racialized voices in academic literature to bring attention to the unique experiences of racialized individuals in power structures that have generally privileged whiteness (Clarke & Abdillahi, 2021). Critical race theory seeks to understand how legal institutions treat racialized individuals differently. Bringing this lens to the sex industry helps explain how sex workers' experiences in the industry are significantly impacted by their socio-political position in society (O'Doherty & Waters, 2019). The criminalized nature of the sex industry has meant that racialized and migrant women disproportionately face violence and coercion from clients and third parties as well as increased violence from police and police surveillance, making them less likely to call the police in an emergency (Clancey & Mahon, 2020; Maynard, 2018; Scheim et al., 2023). A content analysis of online client's message boards and forums by Sterling and van der Meulen (2018) found clients admitted that they are less likely to buy services from racialized women stereotypically associated with human trafficking to try to avoid police detection. Clients' avoidance of certain groups limits the amount of money racialized women can make, forcing them to partake in riskier behaviour with less time to properly negotiate with clients to continue to support themselves (Millar & O'Doherty, 2020b). Further, criminal laws do not consider the socio-political reasons people enter the sex industry in the first place (Sayers, 2018) and ignore the fact that sex work gives people independence and economic mobility in a deeply stratified and unequal colonial state (Raguparan, 2018). Again, since AI-based policing models have been shown to replicate bias, the concern is that the models would disproportionately flag racialized sex

workers online ads for sexual services, increasing police surveillance of racialized sex workers.

Policy effects on Indigenous sex workers

Canada's long history of colonization has led to laws regulating the sex industry having disproportionate effects on Indigenous women. In 1879, the Canadian government amended the *Indian Act* to criminalize Indigenous women suspected of selling sex (Van der Meulen & Durisin, 2018). The state viewed Indigenous women as promiscuous by nature and, therefore, enacted laws that focused on criminalizing Indigenous women (Kaye, 2017). This was done in spite of a necessary evil approach towards the sex industry more broadly (Van der Meulen & Durisin, 2018). New laws forced Indigenous women working in the sex industry to work outside of cities, where it was more dangerous (Van der Meulen & Durisin, 2018). Kaye (2017) argued these same ostensibly protectionist acts by the state continue through the current laws regulating the sex industry. The laws today do not explicitly target Indigenous women though they are disproportionately represented as the victims of trafficking, and the laws are represented as a way to protect them (De Shalit et al., 2014). The narrative is likely to impact AI-based policing as AI replicates biases (Robertson et al., 2020).

The narrative that the state needs to save Indigenous women reinforces colonial power structures, yet the government has failed to address policing policies and practices that normalize violence against Indigenous people (Hunt, 2016). Indeed, in cases in which Indigenous women are victimized, court processes demonstrate dehumanization and a general lack of sensitivity (Hunt, 2016). *R v. Barton* exemplifies the impact of this colonial history.[19] In this case an Indigenous sex worker, Cindy Gladue, was found dead in a bathtub with a gash in her vagina. Bradley Barton admitted to causing her death and successfully argued that due to Cindy's sexual history, that he and Cindy were involved in rough, but consensual sex leading to the jury acquitting him of first-degree murder and manslaughter (*R v. Barton, 2019)*. The defence was able to use Cindy's sexual history and her work as a sex worker to discredit her and make Bartons argument that he thought she consented more credible (*R v. Barton, 2019)*. Ultimately this decision was overturned by the Supreme Court of Canada, and their decision affirmed there is no defence of implied consent, and the accused cannot use

[19] For more information see *R v. Barton* [2019] 2 SCR 579.

the victim's sexual history to discredit the victim and improve their defence of mistaken belief of consent (*R v. Barton, 2019)*. This case shows how bias and colonial structures continue to stand in the way of Indigenous women, especially those involved in sex work, from accessing justice.

Hunt (2013) argued there needs to be a more nuanced understanding of Indigenous women in the sex industry that is based on their lived experiences, which reinforces the need to take an intersectional approach to analyzing the sex industry, incorporating feminism, queer theory, and critical race theory. She went on to state, "We must focus on the inequities that put Indigenous women in positions where trading sex becomes one of few options, we must simultaneously acknowledge the agency of Indigenous people" (p. 94). Hunt (2013) acknowledged the state needs to provide sex workers with their basic necessities without constraining their choices. Sex work may provide someone with economic security and access to a lifestyle that otherwise would not be possible due to the colonial state's continual oppression of Indigenous peoples (see James, 2018). Hunt (2013) asserts that using the criminal law to address these issues only further marginalizes Indigenous sex workers. The state should focus on listening and working with Indigenous sex workers on how to best address harms in the industry (Hunt, 2016). The long history of the state criminalizing Indigenous women, combined with the fact many Indigenous women are blamed for their abuse by police, means that they are unlikely to trust police or report when they do experience violence (Hunt, 2016), which makes the current system ineffective at addressing violence against Indigenous sex workers. These structures force sex workers to work further underground in increasingly dangerous situations without addressing the structural issues that cause violence.

Policy effects on migrant sex workers

Migrant sex workers face many of the same challenges as other sex workers with the additional barriers of the immigration laws and a lack of citizenship. Scholars have linked critical race theory to understanding how the state decides who is a citizen. Historically, western countries purposely excluded migrant workers from the benefits of citizenship to keep their labour as cheap as possible following the abolition of the Trans-Atlantic Slave Trade (Quirk, 2014). Coutin (2021) argued the intersection of criminal and immigration law creates a narrative that migrants are "illegal." They use the term

‘illegalization’ to describe how migrants are excluded from government services, and the way morality is directly tied to citizenship status, allowing those without status to be othered (Coutin, 2021). The process of illegalization is directly tied to criminalization and racialization of certain groups in Western societies (Coutin, 2021). The Canadian government has passed numerous laws restricting access to residency, citizenship, work, and services in Canada (Lam & Gallant, 2018). Bellissimo (2011) stressed these kinds of restrictions make it more dangerous for migrants as it limits their opportunities to immigrate, forcing them to seek out smugglers to help them enter Canada. Migrant workers may not be willing to come forward when they face exploitation because coming forward could jeopardize their path to citizenship (Dandurand, 2017). Corporations continue to use migrant workers as a means of cheap labour, who do not have access to social support, and who the employer can send back to their country of origin when they are no longer useful.

The stereotypical view that women are being transported to other countries for the purposes of exploitation has meant that countries have passed laws restricting women’s ability to migrate independently (Doezema, 1999). In 2012, the Canadian government changed the *Immigration and Refugee Protection Act (IIRPA)* to prevent migrants from working in “businesses related to the sex trade such as strip clubs, massage parlours or escort services” (Immigration, Refugees and Citizenship Canada, 2023, para. 15). Migrant sex workers not only have to worry about the criminal law, but also face the possibility of the state removing or deporting them if someone brings the migrant workers to the attention of the police. In Canada, police raids to find human trafficking victims will often include members of the Canadian Border Services Agency, who are there to check the immigration status of those working in the establishments (Lam & Lepp, 2019). Migrant sex workers are, therefore, less likely to come forward when they do experience violence, as disclosing they are a sex worker provides the state with a legal basis to remove them (Clancey & Mahon, 2020).

A recent increase in anti-immigrant rhetoric in Canada has led the government to pass a number of policies that make it harder to “access residency, citizenship, public services, and good jobs” (Lam & Gallant, 2018, p. 294). Some people hoping to immigrate to Canada are pushed towards irregular forms of migration, since legal forms are not available to them, which leaves them vulnerable to exploitation and violence (Lam & Gallant, 2018). Lam and Gallant’s (2018) conclusions come from years of

experience working with migrant sex workers as well as from research done by other community organizations. Those who can migrate may turn to the sex industry when they are unable to use their education from other countries, as their credentials may not be accepted in Canada (Lam & Gallant, 2018). To support themselves and their families, some migrants may choose to work in the sex industry as it allows them to pay their bills and work fewer hours than other job opportunities available to them. Migrant sex workers are therefore forced to work in less visible parts of the industry to avoid detection, making them more vulnerable to violence and exploitation (Lam & Lepp, 2019). The *IRPA* does not address the underlying structural issues that allow for exploitative labour practices and instead creates a framework of "crimmigration" (Millar & O'Doherty, 2020a, p. 76), in which the criminal, immigration, and other laws converge to punitively regulate the movement of people and those who work in the sex industry. Implementing AI-based policing models could increase the risk of migrant sex workers working in more visible parts of the industry since the AI falsely flagging their ad as possible human trafficking victim could mean their information is shared with the CBSA, leading to their deportation.

2.3. Governance, surveillance, and AI

Critical theories have developed concepts of governmentality and knowledge production (Best, 2015; DeKeseredy, 2021; O'Malley, 2021; Walby & Gorkoff, 2023); they have also recently expanded into the realm of government surveillance through the control over big data (C. B. Sanders & Sheptycki, 2017). Haggerty and Ericson (2000) theorize about the creation of "data doubles" (p. 605), in which the computer separates the human body from its physical form and reconstructs them as a "person's habits, preferences, and lifestyle from the trails of information which have become the detritus of contemporary life" (p. 611). Galič et al. (2017) expanded this idea, arguing that in contemporary capitalist societies the data double is more valuable than the physical human, as the information that the individual leaves online can be sold or bought by the state and other entities to monitor citizens' movements.

AI-based policing models differ from other methods of state surveillance, as they no longer require a physical being to observe behaviour and they allow the state to conduct surveillance on these data doubles. The data double is monitored through traces of their online presence that are collected and interpreted based on the purpose

of modern surveillance technology (Haggerty & Ericson, 2000). The government can collect and monitor the online behaviour of any citizen for specific purposes and interpret it in ways citizens do not realize. The façade that AI-based policing models are neutral and created with "rigorous, systematized, mathematical and neutral logic" (C. B. Sanders & Sheptycki, 2017, p. 5) allows them to sort "individuals on the basis of their estimated value and worth and … their estimated degree of risk (both to themselves and more generally) and their threat (to the social order)" (p. 12) without question of the values underlying the models. The state can also use the data to justify the exclusion of individuals from protection (Ogasawara, 2023). Ogasawara (2023) called this protective abandonment, which occurs when the state uses data collection under the guise of protection to rationalize the exclusion of individuals from safety to protect "existing political economic positions" (p. 2). States and others in power can hide behind this façade of neutrality, while maintaining control over who the state criminalizes, what behaviour is allowable in society, and who will be othered.

The advancement of technology provides the state with new tools to continue the surveillance and discrimination seen throughout history. Unlike previous forms of state surveillance, digital technology allows the state to gather, process, and predict citizens' movements in a quick, inexpensive, and expansive, but not necessarily more accurate, way. The use of Internet-based surveillance techniques also allows police access to knowledge to which they otherwise would not have access. Some traditional forms of surveillance required the police to identify a physical person to monitor but changes to surveillance technology have expanded government surveillance capacities (Haggerty & Ericson, 2000). Now police may access large databases or, through their own web-scraping,[20] collect information that they would not otherwise have known. In the realm of human trafficking, the police could use AI-based policing models to identify human trafficking victims in online ads for sexual services by monitoring advertising websites. The AI could be training on previous ads that police or researchers have confirmed contain a human trafficking victim, but it would be unclear exactly what elements the AI is using to identify the ad as containing a trafficking victim.

[20] Web-scraping is the process of using bots to extract data or content from a website (Scassa, 2017).

The state's increased reliance on technology has meant an increased reliance on computer scientists to solve complex social issues. Computer scientists are trusted to suggest policy or solutions to social problems due to their expertise in computer programming (Whatmore, 2009). These computer scientists are given similar respect and power to that given to politicians, who are trusted to create laws and policies that are supposed to protect citizens from social ills (Mears, 2007). However, policies created independently of the groups most impacted have only led to further marginalization of historically excluded groups (Mears, 2007). Much like politicians who must appease the majority to keep their jobs (Mears, 2010), computer scientists must make decisions about the issues and content upon which they focus for their own career advancement and funding opportunities (Whatmore, 2009). Robertson et al. (2020) argued that AI-policing models are likely to replicate many of the issues already seen in society including increasing the surveillance of already marginalized and over-policed groups (e.g., Black and Indigenous youth, activists etc.). However, as DeKeseredy (2021) noted, recently there has been pushback and skepticism as to whether anyone can truly be unbiased and doubt as to whether crime can be solved with "logic" or "science." Yet much of society's skepticism seems to be directed toward social scientists and politicians: the perceived complexities of computer science, and other "hard" sciences, has meant that their expertise is rarely questioned by the public (Whatmore, 2009).

2.3.1. Implementation of AI policing

The increased reliance on AI-based policing models to monitor and intervene in online interactions raises concern about the ethical use of this technology, especially by the state. Most of the literature in this realm is focused on how computer scientists can improve their models to reduce the risk of bias or to improve transparency (Law Commission of Ontario, 2020; Mittelstadt et al., 2016; Mühlhoff, 2021; Robertson et al., 2020; Yen & Hung, 2021). Concerns around the use of AI-based policing models include violations of privacy and the possibility of reproducing and legitimizing discrimination against marginalized groups (see Buolamwini & Gebru, 2018; Law Commission of Ontario, 2020; Robertson et al., 2020). Others have argued that the focus on technological solutions to social disorder reinforces policing as the solution (Heynen, 2023). Even though the purpose of this thesis is not to evaluate the effectiveness of the proposed AI-based policing models, it is important to understand the impacts of previous

attempts at using technology to expand the surveillance state. This section will discuss how previous surveillance technologies have been implemented by the state and the challenges to their use in Canada.

For some time now, police forces have been increasing their reliance on AI for a range of daily and surveillance activities such as crime analytics, investigations, and patrol (Brayne, 2018). The increased reliance on AI has prompted a gradual creep of the surveillance state. Robertson et al. (2020) conducted interviews with human rights and racial justice advocates and found that the communities were concerned about "algorithmic bias, the problems with police data, feedback loops entrenching systemic discrimination, data privacy, the chilling effect on racial justice and Indigenous rights activism, and exacerbating community distrust of law enforcement" (p. 26). Their concern was that the introduction of AI-based policing models would only enhance the harms that traditional policing methods already inflict.

Despite the rise in its use and attendant implications, there are currently no official laws or policies regulating the use of AI by police in Canada (Law Commission of Ontario, 2020).[21] In the absence of regulation, police in Canada have engaged in technology function creep, which occurs when developers design AI for one purpose, but use it for another. For example, in 2012 the Victoria Police Department was investigated for their use of Automated License Plate Recognition (Denham, 2012), which scans and identifies license plates. Police cars were fitted with cameras to scan oncoming traffic which would result in a "hit" (Denham, 2012, p. 5), "non-hit" (p. 5), or an "obsolete hit" (p. 5). A hit indicates that a car is reported stolen, someone is driving with an expired license or insurance, the owner of the car is a wanted person or "other pointer vehicle" (Denham, 2012, p. 5). An obsolete hit signifies the license plate was once on the alert system, but police have had it removed. A non-hit would mean the license plate has no infractions associated with that vehicle or its registered owner. The purpose of the system was originally to stop the rise in stolen cars, but the police later expanded the categories to other traffic-related infractions (e.g., driving with a suspended license) (Denham, 2012).

[21] Despite the lack of official laws and policies, a number of organizations have been raising concerns about police use of AI models, see Canadian Civil Liberties Association (2023); Office of the Privacy Commissioner of Canada (2021, 2023); Robertson et al. (2020).

Issues began to arise from the use of the other pointer vehicle designation (Denham, 2012). A person could be on that list for several reasons including being an accused person waiting for a court date, a parolee, someone who the state has refused a firearm or a person the state suspects of committing a crime, among other reasons. Although non-hit alert information is deleted after 30 minutes, the information for a hit is saved as part of the end-of-duty report by the officer (Denham, 2012). Saving the hits creates a record of individuals' movements even if they do not have a criminal record because they fall under the other pointer vehicle category. Monitoring people's movements is far from the original purpose of the technology. This demonstrates that, even if it is done purposefully there are ways that police can misuse the technology to violate the rights of Canadians. As a result of this inquiry, the Victoria Police Department had to change the parameters of the non-pointer vehicle category to be in line with the purpose of the Automated License Plate Recognition and was barred from saving non-hit and obsolete hit information as part of their end-of duty-report, as well, they could no longer share this information with the RCMP (Denham, 2012).

Discrimination

AI reproduces the bias that is inherent in the dataset on which it is trained (Brayne, 2018; Buolamwini & Gebru, 2018; Law Commission of Ontario, 2020, 2021; Mittelstadt et al., 2016; Robertson et al., 2020; Scassa, 2017). The introduction of bias is especially concerning for police use of AI, which often uses incomplete and/or biased data. Discriminatory policies and actions such as the over-policing of marginalized communities can be sustained via these systems (Robertson et al., 2020). For example, predictive policing models use large amounts of data to predict where crime is likely to occur on any given day or time so police can have more officers in those areas (Mühlhoff, 2021). However, the data reflects where past crimes have been reported, which means that areas that already have a high police presence are going to be predicted to need a higher police presence (Robertson et al., 2020). There are many ways the police could use these data, the limitations of the data are important to keep in mind when creating AI as it will only be as good as the database used to train it (Mittelstadt et al., 2016). The potential for bias is especially troubling because the public often views AI as trustworthy, neutral, and accurate due to trust in the mathematical principles that underlie algorithms.

The Law Commission of Ontario (2020) affirmed algorithmic discrimination has already impacted the criminal justice system. Police have already been found to use surveillance techniques to monitor Black Lives Matter and Indigenous rights protesters over social media (Davis, 2018). The use of these surveillance techniques means anyone associated with these movements is subject to over-surveillance online. The Law Commission of Ontario (2021) warned the state could extend over-surveillance to other groups already experiencing over-policing; these include those living in predominately Black, Indigenous, low-income neighbourhoods, or living non-traditional lifestyles like engaging in sex work. Programmers are likely to consider these characteristics to be red flags, increasing the likelihood that police monitor them online. Black and Indigenous people are already more likely to be under surveillance, arrested, and be given longer sentences than their white counterparts, which puts them at even greater risk of algorithmic discrimination (Robertson et al., 2020). In the realm of human trafficking, police are more likely to see groups like migrant sex workers (Lam & Gallant, 2018) or Indigenous women (Hunt, 2016) as trafficking victims, which could put them at increased risk of AI flagging their ads, thereby increasing surveillance of those who use websites to advertise sexual services.

Some scholars argued for creating AI-based policing models that incorporate bias in a way that attempts to reduce inequitable outcomes (Yen & Hung, 2021). For example, in the case of the over-incarceration of Indigenous peoples, the predictive policing models would have incorporated a warning that Indigenous people are over-represented to correct the output. However, other scholars refuted the claim that AI-based policing models can be created to control for any bias in a meaningful way, as discrimination can creep back through other means like “confirmation bias, outcome bias, blind-spot bias, the availability heuristic, clustering illusions and bandwagon effects” (Završnik, 2021, p. 633). Even if developers could program AI-based policing models with minimal bias, they are still essentially stereotyping the whole group—a process which could have more negative effects on some people than others (Mühlhoff, 2021). AI-based policing models are separating the data into two groups; either they have the variable, or they do not (e.g., either a suspected victim of human trafficking or not). The creation of this binary removes the possibility of understanding the nuance often present in these situations. How the police respond to each flag may not be appropriate for the situation the suspected victim is facing which could lead to some

suspected victims facing increased violence or individuals being over-charged with human trafficking when a lesser charge (or no charge) would be more appropriate. Another, more meaningful way to counteract the possible effects of discrimination is by including affected communities in the creation of the AI models. Communities that are at risk of being discriminated against are better-positioned to understand the possible impacts of AI being used in relation to them, therefore, it is crucial that they are a part of every stage of developing AI-based policing models (Law Commission of Ontario, 2021). Those developing AI-based policing models to identify human trafficking should be including sex workers in their development as sex workers are best positioned to understand the impacts of increased state surveillance on the sex industry.

Creating AI-based policing models may not be the best use of resources in the context of the criminal justice system. Završnik (2021) contended the concern should not just be about creating a better or unbiased algorithm; researchers should be asking themselves if the AI-based policing models are necessary and appropriate in the first place. They suggested researchers should look at the problem from another angle (Završnik, 2021). For example, instead of creating an AI model designed to predict how likely someone is to show up for court, an alternative would be to create a system to text individuals to remind them of their court date (Završnik, 2021). By looking for a simpler and more preventative solution, researchers can avoid recreating systemic harms while still addressing the issue. The expansion of the surveillance state through AI-based policing models also raises questions about whether this is the best approach to support trafficking victims, given that the use of the carceral state to address human trafficking has been critiqued for causing harm (see Global Alliance Against Trafficking in Women, 2007).

Privacy concerns

Privacy issues arise with police use of AI-based policing models due to the amount of information that the AI can collect and predict. Rogers et al. (2021) argued police should not collect data without consent as people have a right to know how and where police are using their personal data. There is a debate on whether any data can truly be publicly accessible. Robertson et al. (2020) noted, although information is available to the public, when the AI systematically compiles the information, it creates a detailed story of an individual's life that the individual has not consented to and may not

expect. People also choose what they put out on social media (e.g., sexual orientation or age), but are unlikely to be aware that these same demographics can be statistically predicted using demonstrated correlates and reveal personal information they did not want revealed (Kosinski et al., 2013). The predictive power could be especially problematic for sex workers who may face stigmatization and criminalization if their family or the police found out they were engaging in sex work. False predictions—both false positives and false negatives—can have far-reaching and negative effects on individuals (Mühlhoff, 2021). Some of what the AI-based policing models is gathering would be considered information about an identifiable individual (e.g., IP address, online identifiers, etc.; Rogers et al., 2021). Just because information is accessible to police does not mean they have a right to the information (Law Commission of Ontario, 2021). Rodrigues (2020) asserted people should have a legal right to withdraw their data from research no matter what the purpose of the research. Individuals cannot withdraw their data if they are not aware that their data is being used.

Concerns about individuals not knowing how AI is using their personal information has become evident in a recent investigation of AI use by the Privacy Commissioner of Canada (2021). Clearview AI was scraping images of people from social media, professional websites and other publicly accessible websites to train their facial recognition software and create a database (Office of the Privacy Commissioner of Canada, 2021). The company sold the resulting database of three billion faces to police organizations in Canada and around the world, along with the company's facial recognition software (Office of the Privacy Commissioner of Canada, 2021). The Privacy Commissioner of Canada found, after Canadian police forces were already using the AI, that the company's use of the technology infringed Canadians' right to privacy. The Privacy Commissioner said a private company cannot gather information from public websites and use it for an unrelated purpose without the consent of those about whom the personal information relates as well as the websites they are scraping (Office of the Privacy Commissioner of Canada, 2021). The AI in this case would create and save biometric indicators for each image, which is considered sensitive, and uses facial recognition, which is considered to be particularly sensitive in Canadian privacy laws (Office of the Privacy Commissioner of Canada, 2021). The Office of the Privacy Commissioner of Canada (2021) ordered Clearview AI to remove their AI from the Canadian market until it follows the Privacy Commissioners' recommendations.

Clearview AI has also been banned in the USA (American Civil Liberties Union, 2022) and has had to pay significant fines in Europe and Australia (Clayton & Derico, 2023). As of 2024, Clearview AI was still marketing their technology to governments for law enforcement and military activities (Clearview AI, n.d.). The Clearview AI case acts as a warning to other private companies and police services who may want to use their products, to ensure that all new investigative technology (whether or not it uses AI) comply with the complex privacy requirements.

To avoid future ethical issues, use of AI by the police should be transparent to ensure proper accountability and oversight (Brayne, 2018; Law Commission of Ontario, 2021; Robertson et al., 2020; Scassa, 2017). However, police forces have often been resistant to transparency; Ling (2017) reported that in one case the Montreal police refused to disclose how they tracked and intercepted encrypted Blackberry messages, instead they entered a stay of proceedings against the 36 accused. Ling (2017) went on to note that this was not the first time this happened. In 2015, the prosecution in another case dropped all charges after it was found that there were serious issues with disclosure and the police did not want to share how they obtained access to evidence presented in court (Ling, 2017). There also is no official training or educational requirements for crime analysts or police officers who use these programs (C. B. Sanders & Chan, 2021). When C. B. Sanders and Chan (2021) conducted interviews with police and crime analysts, the analysts revealed they did not feel qualified to do what their superiors were asking of them, adding the importance of training before implementing new surveillance measures. Given the lack of legislation and common law in this area, there is still much unknown about the legal implications of the police use of AI-based policing models, and the impacts of expanding the surveillance state to online spaces.

2.3.2. Ethical use of AI in policing

Despite all the potential issues with the emerging use of AI by the government, researchers have proposed numerous alternatives to encourage the ethical use of AI-based policing models. Two main principles to ensure ethical use are transparency and accountability. Government could accomplish this by requiring developers and police to disclose plans for proposed uses of AI-based policing model. including the data that would support those uses. Other important steps include:

- Conducting regular Algorithmic Impact Assessments[22] and enacting procurement rules (Law Commission of Ontario, 2021).

- Social media companies or any other websites that give or sell information to law enforcement should disclose who they are selling the information to, so people know how their information is being used and from whom it was obtained (Law Commission of Ontario, 2021; Rodrigues, 2020).

- Communities that are most affected by the technology should be included in the research process to minimize any potential discriminatory outcomes and catch potential biases (Law Commission of Ontario, 2021; Robertson et al., 2020).

- There should be a way for citizens to object to the use of personal information and an appeal process for any decisions made by the AI (Rodrigues, 2020).

- The robustness of the technology should be evaluated through rigorous testing in numerous situations to ensure high levels of accuracy (Law Commission of Ontario, 2021).

- The developers should take extra care when developing AI that is used with historically marginalized groups to ensure that the AI does not recreate discrimination (Office of the Privacy Commissioner of Canada, 2023).

Following these recommendations could reduce the possible ethical implications of implementing new surveillance techniques and technology[23]. The Office of the Privacy Commissioner of Canada (2023) warned developers about violating no-go zones, which includes “profiling that may lead to unfair, unethical, or discriminatory treatment, or creating outputs that threaten fundamental rights and freedoms” (p. 26). By staying away from potential areas that could cause discriminatory treatment, developers can avoid making AI-based policing models that cause collateral damage in already marginalized communities.

2.3.3. Human trafficking and AI

Over the past 2 years, while conducting my literature review for this project, I was able to identify nine factors that universities, anti-trafficking organizations or other private

[22] The Algorithmic Impact Assessment is a mandatory risk assessment tool created by the Treasury Board of Canda to determine how the proposed AI could impact Canadians based on the ” Government of Canada policy, ethical, and administrative law considerations” (Treasury Board of Canada Secretariat, 2024, pp.2). For more information see Treasury Board of Canada Secretariat (2024).

[23] The Law Commission of Ontario (2021) made similar comments, urging those developing and using new technologies to follow their recommendations to ensure the technology is used ethically.

entities are using when examining online ads for sexual services to find trafficking victims. Below is a list of different trafficking indicators that companies and/or universities are using to identify trafficking victims and the companies and universities that are creating them:

- Searching for semantics that are similar across multiple posts (e.g., MILA and Marinus).
- Searching for online ads for sexual services with "suspicious" wording or use of emojis (e.g., young, 24/7, kind, new, 😺, 💔, 🌷[24], etc.). Any word or emoji representing youth (e.g., young, new, student), docility (e.g., kind, sweet, friendly), or working in groups that the developers consider suspicious (e.g., Simon Fraser University).
- Clustering ads to create a searchable database for law enforcement to find ads with the same phone number (e.g., Domain Insight Graph).
- Tracking bruises or signs of drug use in pictures (e.g., Spotlight and Marinus).
- Identifying hotel rooms to identify locations of victims (e.g., TraffickCam).
- Tracking missing persons using facial recognition (e.g., Spotlight).
- Identifying suspicious activity on message boards and matching them with suspicious activity on online ads for sexual services (e.g., TellFinder).
- Identifying suspicious ads and then tracking Bitcoin information to identify who paid for them (e.g., Thorn).
- Looking for patterns of the ad activity like someone taking the ads down every 15 minutes or constantly changing contact information as well as the number of ads someone is posting, number of people someone includes in the advertisement and variability in pricing (e.g., Memex).

---

[24] As discussed in Section 2.1.3 of this thesis, due the criminalized nature of the sex industry, sex workers have begun using jargon, innuendo, and symbols to illustrate the type of services they offer to avoid police detection or having the website remove their ad for sexually explicit content. Sex workers do use emojis to symbolize the services offered, because of their common use, emojis are included as possible indicators of human trafficking. According to Cartwright et al. (2022), 😺, 💔, 🌷 are all used to signal youth or being new to the industry. As discussed in Section 4.1.1 of this thesis, the meaning of the emoji is likely to change based on the location they are posted in, the norms of the industry, the type of work they are advertising, and so on.

There is an emerging narrative that human trafficking is increasingly facilitated via online advertising, which means governments and anti-trafficking organizations are increasingly promoting and creating online solutions (Milivojevic et al., 2020). Research on human trafficking is based on stereotypical beliefs about the sex industry (Weitzer, 2005). Thakor (2018) argued the movement to create these AI-based policing models is perpetuating the idea that the best solution for dealing with human trafficking is through criminal regulations and increased state surveillance. In their analysis of intelligence-led policing technology, Heynen (2023), found that the indicators of trafficking being used to train the technology, "decontextualizes lived experiences and imposes a reductive set of assumptions and classifications that risk enmeshing sex workers and migrant workers in unaccountable systems of surveillance and policing" (p. 203). Milivojevic et al. (2020) warned against using digital band-aid solutions for addressing human trafficking and exploitation rather than addressing the structural issues that cause people to be vulnerable to exploitation in the first place.

2.4. Research objectives

The literature revealed AI-based policing models reproduce biases and infringe on people's privacy (Babuta et al. 2018; Buolamwini and Gebru 2018; Law Commission of Ontario 2020; Robertson et al. 2020). I have highlighted these issues in the discourse around human trafficking, which has a history of being based in paternalistic and exclusionary policies that do not adequately address the needs of those facing exploitation. Critical criminology explains how law and criminal justice is used to uphold structural inequalities, leading to discriminatory practices. Critical race theory, feminism and queer theory goes one step further in showing the ways the law reinforces racial and gender inequities. All of this has raised questions surrounding the use of AI in anti-trafficking initiatives.

There is a lack of clear research in Canada thus far on how the use of AI-based policing models in law enforcement anti-trafficking initiatives affect sex workers. As the use of AI-based policing models in the anti-trafficking context appears to be inevitable, it is important that researchers evaluate the prospective risks and benefits in this context and ensure that the voices of sex workers are among those heard regarding possible impacts, both positive and negative. Given the history of AI in reproducing inequities in society and the harm anti-trafficking initiatives have caused, it is also imperative that

researchers investigate the potential impacts of the models before they become commonplace in police investigations.

Given the above, I sought to understand the possible impacts associated that might result from the implementation of AI-based policing models. Core research questions include:

1. What are the potential risks and benefits of using AI-based policing models in anti-trafficking initiatives?
2. How might the AI-based policing models disproportionately affect racialized, LGBTQIA2S+, and migrant sex workers?

The findings of this study indicate developers should be cautious in creating AI-based policing models due to the complexity of the sex industry and developers should include sex workers, especially racialized, LGBTQIA2S+ and other marginalized sex workers, in every stage of the development to attempt to avoid past harms that policing the sex industry has caused.

Chapter 3.

Methods

3.1. Participatory action research

Sex workers and advocates have criticized researchers for causing harm in the sex worker community (see Weitzer, 2005). These harms include systemic issues like creating an inaccurate picture of the sex industry based on the most visible aspects of the industry or promoting the belief that the sex industry is inherently harmful. These perceived harms have influenced policies that lead to increasingly dangerous work environments (Weitzer, 2015). Harms also arise when individual researchers do not give back to the community (e.g., dissemination of results, honouria for participants, providing community members opportunities to work as research assistants, etc.) when they have finished conducting research (Bowen & O'Doherty, 2014). Researchers may not have a great understanding of the industry, which can mean they risk misinterpreting the data collected and misrepresenting what their participants said. To mitigate these possible harms, I took inspiration from and incorporated some aspects of participatory action research which attempts to center the community in the research process.

Participatory action research centers the community the researcher is studying in defining their own problems and generating suggested solutions, moving the role of researcher to listener (Dupont, 2008). As Borland (2015) suggested, researchers bring their own experiences and knowledge to their interpretation of the material, which is valuable in its own way, but by also engaging in conversation throughout the process they can "more sensitively negotiate issues of interpretive authority in research" (p. 421). This is the approach that I took inspiration from throughout the research process. Given my outsider status, I was conscious of the fact I have limited knowledge of the realities of working in the sex industry, jargon used by sex workers, and advertising norms. I was worried that my lack of understanding in these areas could lead to me misinterpreting something a participant said, focusing on the wrong details or perpetuating harmful myths about the sex industry. I decided to work with collaborators who could review my research materials and who allowed me to ask questions if I was not sure of an idea or term. One collaborator had experience in the sex industry and the other had experience

working with migrant sex workers. I had the collaborators review my interview schedule to ensure I was not missing any major questions. I met with both collaborators separately to speak about the interview questions and any concerns they had. I implemented the feedback they had about my interview schedule which is discussed in more detail in section 3.6. Then they assisted me with recruitment and would help with any questions that came up in my interviews. After I conducted the interviews, I sent them the first draft of my findings. They checked them over to ensure I was not missing or misinterpreting any major themes and checked my language to ensure I was not saying anything potentially harmful. Although two people cannot speak for the industry as a whole and their experiences are limited, their involvement created a more collaborative research process.

3.2. Types of anti-trafficking indicators

I focused on three indicators of trafficking that programmers are developing AI-based policing models to detect from the list of nine (found in Table 3.1). I compiled the list of nine through Google searches using the terms “human trafficking artificial intelligence,” “human trafficking AI,” and “human trafficking algorithms.” I gathered the information through websites advertising AI models or news articles about the AI. Table 3.1 shows each set of indicators and why it was either included or excluded. To be included in my study, the models had to meet the following criteria: (a) be AI-based policing models, (b) be designed to detect human trafficking from online ads for sexual services, and (c) potential to be used by Canadian police services.

Table 3.1. Included AI-based policing models

Identifiers Used in AI-Based Policing Model	Whether or not the model is included in my research	Name used to identify model
Searching for semantics that are similar across multiple posts (e.g., MILA and Marinus)	Included due to the fact it was already being tested and in negotiations with police	Identifying suspicious wording in ads
Searching for online ads for sexual services that have suspicious words or emojis (e.g., Simon Fraser University)	Included due to the fact it was already being tested and advertised	Identifying suspicious wording in ads

Identifiers Used in AI-Based Policing Model	Whether or not the model is included in my research	Name used to identify model
Clustering ads to create a searchable database for law enforcement to find ads with the same phone number (e.g., Domain Insight Graph)	Included due to the fact it was already being tested and in negotiations with police	Identifying suspicious ad behaviour
Looking for patterns of the ad activity like ads being taken down every 15 mins or constantly changing contact information as well as the number of ads someone is posting, number of people being advertised and variability in pricing (e.g., Memex)	Included due to the fact it was already being tested and in negotiations with police	Identifying suspicious ad behaviour
Identifying suspicious ads and then tracking Bitcoin information to identify who paid for them (e.g., Thorn)	Included since police are already using	Identifying and tracking cryptocurrency
Tracking bruises or signs of drug use in pictures (e.g., Spotlight and Marinus)	Excluded due to the findings in the Clearview AI case that similar AI models that scrape and save images infringe privacy laws	N/A
Identifying hotel rooms through images to identify location of victims (e.g., TraffickCam)	Excluded due to the findings in the Clearview AI case that similar AI models that scrape and save images infringe privacy laws	N/A
Tracking missing persons using facial recognition (e.g., Spotlight)	Excluded due to the findings in the Clearview AI case that similar AI models that scrape and save images infringe privacy laws	N/A
Identifying suspicious activity on message boards and matching them with suspicious activity on online ads for sexual services (e.g., TellFinder)	Excluded as I wanted to focus on AI models that are scraping and saving ads for sexual services, determined to broaden the scope of the research	N/A

I collapsed the five different AI-based policing models I decided to include into three distinct types of indicators. These include (a) identifying suspicious wording in ads (e.g., flagging multiple ads with similar language and flagging ads with suspicious wording), (b) identifying suspicious behaviour in ads (e.g., ads being posted, deleted then reposted; multiple names in an ad; changing contact information; and services

being similarly priced), and (c) identifying ads purchased with cryptocurrency. I did not include AI models using facial recognition or those that scraped images due to their potential privacy implications, making it unlikely for the police to be able to use them legally in Canada. The Privacy Commissioner of Canada has already found that similar technology some Canadian police services were using infringed privacy law (see Office of the Privacy Commissioner of Canada, 2021).

Despite multiple attempts, I was unable to gain access to the data used to train a few of the AI-based policing models. The Trafficking 10K Database contains 10,000 randomly selected online ads for sexual services gathered from multiple websites from all over North America and is used to train AI-based policing models created by both MILA and Marinus as well as others (Tong et al., 2017). The database includes both the images and wording that goes along with the advertisement.

3.3. Recruitment

For the interviews, I used criterion sampling (Palys, 2008) to ensure that the participants were well-versed in the issues. Specifically, I selected participants who (a) worked or volunteered with an organization that works directly with sex workers, (b) had experience as researcher in the fields of sex work and human trafficking, or (c) had experience working in the sex industry. I excluded anyone under the age of 18 years as I focused my research on the experiences of adult sex workers. As well, I excluded non-English speakers as I only have the capability to interview participants who speak English.

I recruited all participants through gatekeepers and through snowball sampling. Snowball sampling is the process of finding a small sample and then using their networks to access a larger sample (Palys & Atchison, 2021). The gatekeepers included my collaborators as well as several sex worker support organizations that I contacted to disseminate my call for participants among those who access their services. These organizations included SWAN Vancouver, PIVOT Legal, Butterfly: Asian and Migrant Sex Workers Support Network, Sex Workers United Against Violence, Peers, PACE Society, BC Coalition of Experiential Communities. I also gave the recruitment information to my collaborators who also sent it out to their networks. One collaborator posted my call for participants on social media which allowed me to get a more diverse

sample that included participants from multiple countries. Potential participants were able to contact me through email. The benefit of going through gatekeepers is that they ensured I was talking to the people who met my sampling criteria; the gatekeepers also gave legitimacy to my project (King et al., 2019). There is concern that gatekeepers can influence the positionality of the participants, I tried to send my recruitment information to different organizations who serve different populations to get a sample that was as diverse as possible. I included only stakeholders and organizations that directly serve sex workers as my objective for this project was to understand sex workers perspectives on police use of surveillance technologies.

3.4. Sample

In total, I conducted 21 interviews; participants included 18 sex workers, one person who works for a sex worker rights organization, and two academics. Some individuals held multiple of these roles as some with sex work experience also had experience working with sex work organizations or doing academic research in the field. My sample included three (14.3%) participants from the USA and one (4.8%) from the UK; the remaining 80.9% (*n* = 17) were from Canada. The sex workers also represented a wide variety of experience in the sex industry, including those who did street-based work, escorting, webcamming, content creation (e.g., porn, OnlyFans[25]) and more. Two (9.5%) participants disclosed to me that they were victims of sex trafficking. The participants were predominately cisgender women (*n* = 15; 71.4%) but also included non-binary (*n* = 3; 14.3%) individuals, transgender women (*n* = 1; 4.8%) and cisgender men (*n* = 2; 9.5%). The participants also came from a range of racial backgrounds including Chinese-Canadian (*n* = 1; 4.8%), Asian (*n* = 2; 9.5%), Latinx (*n* = 1; 4.8%), Indigenous/Metis (*n* = 3; 14.3%), and Black (*n* = 1; 4.8%), however most of the sample

[25] OnlyFans is an online content subscription service that allows users to create personalized content for a fee. Although someone can use OnlyFans for any content creation, sex workers have primarily used it to produce adult content.

was white (*n* = 10; 47.6%) or preferred not to disclose their racial background (*n* = 3; 14.3%). The two academics I spoke with were Dr. Hayli Millar[26] and Chris Atchison.[27]

3.5. Ethics

I received ethics approval from the Simon Fraser University Research Ethics Board in March 2022, they deemed this project to be minimal risk. All participants, except the two who were strictly working as academics, received a $50 honorarium for their participation. I paid the honoraria in the currency of the country in which the participant was located. I paid all honoraria either through e-transfer or PayPal, depending on the participant's preference. Given the issues sex workers have had with online banking institutions, I also gave participants the option of receiving a gift card with that amount, but no participant chose this option. Two participants preferred I give their honoraria to a sex worker rights organization of their choice, which I did.

All participants contacted me through email, and I sent the information sheet before scheduling an interview. To reflect the differences in the three groups I was including in my study, I created three different information sheets, which can be found in Appendices A, B, and C. I maintained the confidentiality of all participants by not recording any identifiable information, except for email addresses used for correspondence to allow me to send back their transcripts. I stored the information in a password-protected folder, on my personal password-protected laptop. I deleted all emails as soon as practical. I used SFU email for all correspondence. I also assigned pseudonyms after the interview and received oral consent instead of written. I chose pseudonyms through an online random name generator. Some participants requested their own pseudonyms or ways they would like me to identify them, so I honoured their wishes.[28] I edited the transcripts also to remove any identifying information, including

---

[26] Dr. Hayli Millar is an Associate Professor of Criminology at the University of the Fraser Valley. She specializes in critical and comparative socio-legal research and human rights-based and evidence-informed criminal justice policy reform. One of her main areas of studies is human trafficking and the sex industry (see Millar & O'Doherty, 2015, 2020a, 2020b; Millar et al., 2017; O'Doherty et al., 2018).

[27] Chris Atchison is the research lead CoRE-LAB at the University of British Columbia with a history of research on social justice issues including the sex industry (see Atchison & Burnett, 2016; Benoit et al., 2010, 2016; Bungay et al., 2016; Kille et al., 2017).

[28] Although I used pseudonyms chosen by some of the participants, I took additional steps to protect their identity. All pseudonyms are only first names to obscure which pseudonyms I

names, geographic locations, or names of websites to not draw attention to safe places sex workers may be working. I did include the names of larger or well-known websites or websites that no longer exist as there is less of a worry of bringing new police attention to these sites.

3.6. Interview schedule

I started the interview schedule with questions I created from my literature review in the areas of human trafficking, sex work and the ethics of AI-based policing models. Computer scientists and ethicists often assess AI-based models on the quality of the data that they use to train them. Without access to the data, I asked instead about the indicators that developers have proposed are associated with human trafficking (e.g., multiple names in the ad). Although my participants are not experts in computer science or AI, they have experience working in the sex industry and/or creating ads for online sexual services and therefore can comment on whether the indicators are also present in online ads for sexual services. Other questions revolved around the possible implications of using AI-based policing models to identify trafficking sites, and the importance of including sex workers' input in the creation of AI-based policing models. The final full interview schedule can be found in Appendix D. I showed both my collaborators the interview schedule. They both provided very helpful insights including providing a disclaimer at the beginning of the interview that explained my positionality in this area, and to define some terms at the outset (which can be found in Appendix D). They also suggested that I create a specific section to ask racialized sex workers what they thought about the use of AI-based policing models and how it could be discriminatory. However, I decided not to include this suggestion and instead asked everyone who they thought would be the most impacted by the use of AI-based policing models, because I wanted to ensure I considered any form of discrimination that could possibly be at play and not make assumptions about anyone's positionality. Although my questions in the interview schedule were on race and gender, by asking this question I

randomly generated, and which participants chose. The transcript files are not associated with any of the pseudonyms, and I kept a separate file matching pseudonyms and transcript files in a password protected folder. I will delete this separate file upon the completion of the project. As no one else was involved in participant recruitment, interviewing, transcribing, coding, or writing only I and the participants who chose their pseudonyms know who they are. I took these steps to avoid any possibility of participant identification.

was able to hear participants' views on how police using AI-based policing models could impact sex workers facing poverty, disability, and fatphobia.[29]

I separated the interview questions into six categories: (a) assumptions of the prospective indicators, (b) exploitation in online advertising, (c) third parties, (d) discrimination and technology, (e) recommendations, and (f) state of academic literature. I initially created a visual to show participants how one of the AI-based policing models worked (see Appendix D) but stopped showing it after the visualization caused more confusion than clarity among the first eight participants. I gave the participants time to speak about any concerns they had at the beginning and at the end of the interview. Many participants came with topics that they wanted to talk about and experiences that they wanted to share.

3.7. Interviews

I conducted semi-structured individual interviews because they allow the conversation to be flexible which allows themes to emerge naturally and gives participants the freedom to talk about what they think is most important (King et al., 2019). I conducted all interviews remotely, either through Zoom (*n* = 15; 71.4%) or over the phone (*n* = 6; 28.5%). I gave participants the choice of Zoom or phone. Interviews lasted between 30 mins and 2 hours, with the majority just over an hour long. I encouraged participants to talk as much or as little as they wanted, leading to a variation in the length of interviews. I recorded all interviews using QuickTime directly on my password-protected computer. When a participant preferred the phone, I put phone calls on speaker phone and used the computer microphone to record them. Since all the interviews were remote, I conducted them all from my house, alone, so no one could overhear the conversation and to ensure the privacy of participants. I transcribed three of the interviews completely by hand, while the others I transcribed using NVivo Transcription software before reviewing them two more times to ensure accuracy of the transcription. All the recordings were listened to at least twice (some more) to ensure

[29] I found that an in-depth analysis of the possible fatphobic bias of AI-based policing was beyond the scope of my research, due to the little data I obtained. I did have one participant mention how the algorithms used by Instagram and Facebook to flag nudity in an image is more likely to flag a fat sex worker's image, even if wearing the same clothing as a thin sex worker due to the amount of skin that is showing in the image. The fatphobic effects of AI-based policing remains an important subject for future research.

accuracy of the transcripts but also to ensure my familiarity with what participants said. I saved all the recordings and transcripts in password protected encrypted folders. I deleted all recordings once the participants approved the transcripts.

I started each interview by quickly going over the information sheet and asking if they had any questions, then I moved on to my disclaimer and clarification of terms. The disclaimer involved me sharing my positionality (which can be found in Appendix D) as well as defining important terms (e.g., how I am defining 'online ads' and what an algorithm or web scraper is). The topics of sex work and human trafficking have become highly politicized and so I made sure that participants understood I was coming from an understanding that sex work is work and that my focus on exploitation was because of the nature of the AI-based policing models. I wanted participants to know that I recognize that although exploitation occurs in the industry, the sex industry is not inherently exploitative. I did this to allow for ease of conversation with participants. I found that participants were much more willing to speak freely with me once they understood that I was not creating or advocating for the AI-based policing models and was not conflating human trafficking with sex work. I told participants they could withdraw at any time, skip any questions, and end the interview at any time.

3.8. Data coding process

I gave participants the option to review their transcripts before I coded them. I tried my best to get transcripts back to participants within a couple of weeks, but this became impossible as I conducted all 21 interviews in just over a month, with 14 interviews taking place within a two-week span. Unfortunately, this meant that it took me up to two months to get some transcripts back. All but two participants wanted their transcripts sent back, which they reviewed and could send back to me with any clarifications, additions, and/or deletions to ensure they thought I was accurately representing them. Two participants sent me back their transcript with notes to ensure I was representing them correctly as they did not feel the transcript accurately represented their point of view. One participant asked me to review the recording again to ensure the transcript was correct. Upon listening again, I realized I had misheard some of their words, so I updated the transcript and sent it back. The other participant sent back the transcript with changes they made to clarify points. Two participants sent back additional information they wanted included, which I added to the end of their

transcript to include in my coding. The rest of the participants approved their transcripts or did not respond to my email, which I took as tacit approval. There were also a couple of participants who I contacted to clarify things they said or to ask about their experiences when an interesting issue I had not discussed with them came up in another interview. I only contacted participants after the interview if they had agreed to it and wanted more involvement in the research process.

I coded all transcripts twice, using a combination of emergent and a priori coding. Emergent (or inductive) coding involves allowing the themes to arise from the data, while a priori (or deductive) coding consists of using already established themes (Blair, 2015). In the first round of coding, I relied mainly on emergent coding to allow themes to emerge naturally, especially since many participants mentioned issues and concerns that I had not initially considered. Next, I laid out all the emergent codes and began organizing them into themes. With my research questions in mind, I was able to produce several themes. Using these themes, I started my second round of coding. This time I relied more on a priori coding. The a priori codes were things that had emerged from my first round of coding, this included topics like “trusting police,” “questioning motives of the creator of the technology,” and so on. Once I finished coding for the second round, I again listed out all the codes and grouped them together to see if any new codes emerged. From these groupings my final themes emerged. As my final step in coding, I put all the codes in a Microsoft Excel sheet where I listed all the themes and the corresponding quotes from participants to ensure comprehensiveness. I found that putting the themes and quotes into a spreadsheet enabled me to visualize the data in new ways. It made me consider different connections between quotes and themes. I was able to move quotes around more easily to consider how they fit with other themes and identify overlap between themes.

Reflexivity was a big part of this project, as I entered this project with a skeptical view of the use of AI-based policing models. My research into this topic revolved around the harms of criminalization and police interference in the sex industry as well as the harms AI-based policing models have had more generally. Starting this project, I was not optimistic about the success of the use of AI-based policing models to identify human trafficking victims. To check this bias, I made sure to ask questions about the possible positive impacts of the use of AI-based policing models in an effort to avoid creating a self-fulfilling prophecy. When I did receive positive feedback from participants on the use

of the models, I asked follow-up questions. I also tried to include when participants thought the models' assumptions were correct in my write up and the benefits of the use of the models, even if participants did not collectively agree. As an outsider to the sex industry, I also knew that I held biases and am still learning about the sex industry. To try to combat these issues, I discussed these issues with my collaborators.

I found my positionality as a researcher impacted my participants' responses. I had multiple instances of participants saying that they did not want to offend me, because they did not like the use of AI-based policing models. I also had participants who started out restrained and closed off because they thought I was trying to do harm in the sex work community. In both cases, I found it especially useful to stop the interview and to tell them my role and my objectives in the research. I found that participants knowing that I was uncertain about the use of AI-based policing models allowed them to be more open with me and give me what appeared to be more forthright answers. Even though I did start my interviews with a disclaimer of my positionality, I worried that this came across as insincere as I would continue to be asked by participants what my thoughts are. I found much more success having frank conversations about my views about the AI-based policing models and my research objectives during the actual interviews.

Chapter 4.

Findings

In this chapter, I discuss the participants' thoughts on the indicators that programmers and police are proposing as possible elements of AI-based policing models to identify web sites and businesses that engage in human trafficking. First, I discuss whether each assumed indicator is something the participants also view as an indicator of exploitation. Then I examine whether the three types of indicators included in this research are likely to identify trafficking and if the participants can think of any other reason an ad might display this element. I then discuss the potential issues the participants identify with how the programmers are creating the AI-based policing models, the potential risks of police use of them, and the potential benefits. The next section includes the participants' thoughts on academic research into human trafficking and the sex industry, to get a sense of whether there is enough information to substantiate the assumptions behind the proposed indicators. I then share participants' recommendations on how to address exploitation both online and more generally, their recommendations on who should get access to AI-based policing models to identify human trafficking. I conclude by outlining recommendations to make the development of AI-based policing models to identify human trafficking and how they might proceed more ethically.

4.1. Indicators of human trafficking

First, I asked participants about their thoughts on the assumptions about what is an indicator of trafficking that researchers are using to train the AI-based policing models. To ensure the participants and I held the same understanding of the assumptions the developers of the AI-based policing model had made, I explained the indicators programmers used to identify trafficking.

4.1.1. Suspicious wording as an indicator of trafficking

I started with the idea that "suspicious" wording or multiple ads with similar wording could indicate trafficking. Researchers such as Cartwright et al. (2022)

designated certain words or emojis present in an ad to be indicators trafficking (e.g., 24/7, young, nice, open-minded, new, girls, etc.). The programmers design AI-based policing models to flag any ad with three or more of these suspicious words or emojis as trafficking. The words or emojis are associated with youth, docility, working in groups, low prices, willingness for unprotected sex, and having a male third party (see Cartwright et al., 2022).

Another speculation is that a high volume of ads using similar language signifies trafficking. This assumption is based on the idea that multiple ads with similar language involve one person creating many ads for different people. There were mixed results when I asked participants whether they thought this would be indicative of trafficking. Thirteen (61.9%) participants thought that suspicious wording in an ad would fail to detect exploitation, while only two (9.5%) thought suspicious wording could be an indicator of trafficking. A full breakdown of participants' views of the assumptions made by the AI-based policing model can be found in Table 4.1. I asked all participants if they thought suspicious wording or repetitive wording was an effective indicator of trafficking. I coded positive responses if the participants thought the indicator could identify trafficking, coded negative responses if they did not think it was an effective indicator, and coded mixed responses as unsure.

Table 4.1. Number and percentage of participants who thought looking at wording could identify suspicious behaviour

Indicator Viability	**Frequency** ***N*** **= 21**	**Percentage**
Neither looking at similar wording, nor looking at suspicious wording will identify exploitation	13	61.9%
Looking at similar wording could work, but looking at suspicious wording would be unsuccessful	4	19.0%
Looking at both similar wording, and suspicious wording will identify exploitation	2	9.5%
.Looking at suspicious wording could work, but not looking at similar wording	1	4.8%
Unsure if either will work	1	4.8%
Total	21	100%

Participants gave an array of other reasons as to why different people might have similarly worded ads or include suspicious wording. One explanation, mentioned by Shauna, is that sex workers, especially new sex workers,[30] may copy wording from other ads while trying to find what works for them. Others spoke about how some sex workers may work for an agency, work with other sex workers to create their ads, or they may hire someone to create and post their ads for them. As well, more organized and technologically advanced sex workers could be automating their advertising process. Cynthia explained how she created and reused advertisements:

> When I first started, I worked at an agency, and they would pretty much recycle the same ad and just change the pictures a little bit. And then when I went independent, I basically copied their ad. So, it's assuming that an agency is exploiting or bringing girls on. Yeah, obviously, they would have a similar ad form, but also, they would just have the same phone number. Our agency doesn't have a name; it doesn't go by anything except for the last four digits of the phone number. So, if you just looked at the phone number, then you would know it's all the same guy.

Naomi was adamant that many of these elements ostensibly indicative of trafficking (like similar wording, or the same phone number) are simply normative, business marketing behaviours—not indicators of exploitation. As in any industry, there is a standard way to advertise services and the use of jargon in advertisements. Sharon revealed that "young," "new," and "exciting" are all commonly used advertising strategies, and some sex workers, including Sharon, continue to put "young" in their ads, even though they are in their fifties. Sarah also noted that since the government criminalized sex work, they cannot say outright what they are offering, which mean sex workers use acronyms, symbols (i.e., emojis), or signs to signify what services they provide. The sex industry typically standardizes the language across the industry in each location, making ads sound similar.

Some participants indicated that any strategy that looks for "suspicious" wording can lead to misidentifying sex workers as victims of human trafficking. Sharon explained that the wording of ads may get more explicit as bills and rent become due. Financial constraints may influence sex workers decisions to post services they would not

[30] I am defining new sex worker as a sex worker with less than 6 months of experience.

normally offer to ensure they can pay their rent, making systemic pressures a factor in what sex workers post. However, as mentioned below, the police often leave out situational issues in their consideration of what constitutes exploitation. Esther expressed concern that the developers of AI would be programming bias against sex workers by using wording as an indicator of trafficking, especially without consideration of how the sex industry operates. Esther shared her frustration with researchers using this tactic,

> I think [it] is bullshit.… One set of words can mean something totally different to somebody else. And for the coding… the person's own personal biases against sex work can also be a problem.

Those creating or using these indicators in AI-based policing models must keep in mind that there are plausible explanations for the use of wording or emoji's other than exploitation. Tricia, who works for a sex worker support organization, spoke about how this type of strategy might disproportionately affect migrant sex workers, who may rely on third parties to post ads and speak with clients. They may not be fluent in English or know how to advertise online, which leads them to rely on third parties to post ads. Migrant sex workers reliance on third parties means many of their ads are similar with only minor variations in wording. Tricia was adamant that this would not be indicative of exploitation. Tricia was also concerned that given the precarious status of migrant workers, increasing attention on their ads could cause them to move further underground into more dangerous situations, which I discuss further in Section 4.4 of this thesis.

Possible indicators of trafficking

There was no consensus among participants on what they considered suspicious wording in an ad. Although some participants said ads focusing on youth were not suspicious, others disagreed. When asked to provide words they thought *were* indicative of trafficking, participants suggested words that researchers have linked to exploitation. Participants did find some specific wording in ads suspicious, including:

- Ads that are overly sexual.
- Ads that focus on the age of the person.

- Ads that deviate from the norm[31] (rather than ads that are the norm).
- Ads that say they travel.
- Ads that do not specify the amount of time.
- Male names included in the ad.
- Ads that look as though someone has created them quickly.

People's experiences in the sex industry differ. The lack of consistency among the participant views about what is an indicator of trafficking exemplifies how cultural norms change across locations. For example, Shauna found it normal for sex workers in her area to just post rates for time to avoid police detection, while Sarah, who worked in a different region, asserted having pricing in an ad in general is not the norm and clients must call for that information. The difference in norms influences what individuals view as "suspicious" activity. These differences create a layer of complication as any assumption about what is an indicator of trafficking may be regionally specific.

Other possible uses of AI-based policing models

Although Shirley Ann and Chris Atchinson said the indicators AI-based models are currently using may not find exploitation, they suggested other ways the models could identify harms by using wording in ads. Shirley Ann thought that the police could use AI-based models to identify wording in ads that are trying to entice people into the sex industry. In her experience, recruitment ads are used to glorify the industry, which may cause people to enter the sex industry without fully understanding what the job entails, or the possible dangers involved. Chris Atchison supported using AI to find bot-generated ads, as these ads would appear in high volume with similar wording. Chris's suggestion differs from the current models under development or in use. Training models to detect bot-generated content are already used to find spam on social media websites (see Lee et al., 2021). These models are designed to detect three things; (a) the features of the user, (b) the content being posted, and (c) to a lesser degree, anomalies in the networks of the accounts (Lee et al., 2021). In other words, they are attempting to identify accounts that differ from how you would suspect a human or a

[31] Ads that deviate from the norm would be any ad that includes information or language that is not in other ads. For example, if in an area where sex workers include prices for times, listing services with prices would deviate from the norm.

human-run account to behave. While the policing models' programmers have a much more arduous task of trying to differentiate between human-generated content from other human-generated content. Chris suggested that focusing on bot-generated content would increase the likelihood of identifying trafficking as a large network of traffickers would be more likely to use bots to generate ads and would be posting in multiple locations across the world. However, there was no consensus among participants that any of this would clearly indicate trafficking.

4.1.2. AI-based policing model using suspicious ad activity.

Conversations then turned to indicators that focus on suspicious ad activity. To ensure clarity, I explained that this strategy focuses on ads where sex workers post, take down and repost the ads, change contact information, have multiple names, have one person posting multiple ads, and/or there is little difference between the prices for each service. AI-based policing models presume such behaviour indicates trafficking. Again, participants expressed mixed views about whether the assumptions embodied by these indicators would signify trafficking. Figure 4.1 shows a breakdown of participants' evaluations of each of the prospective indicators.

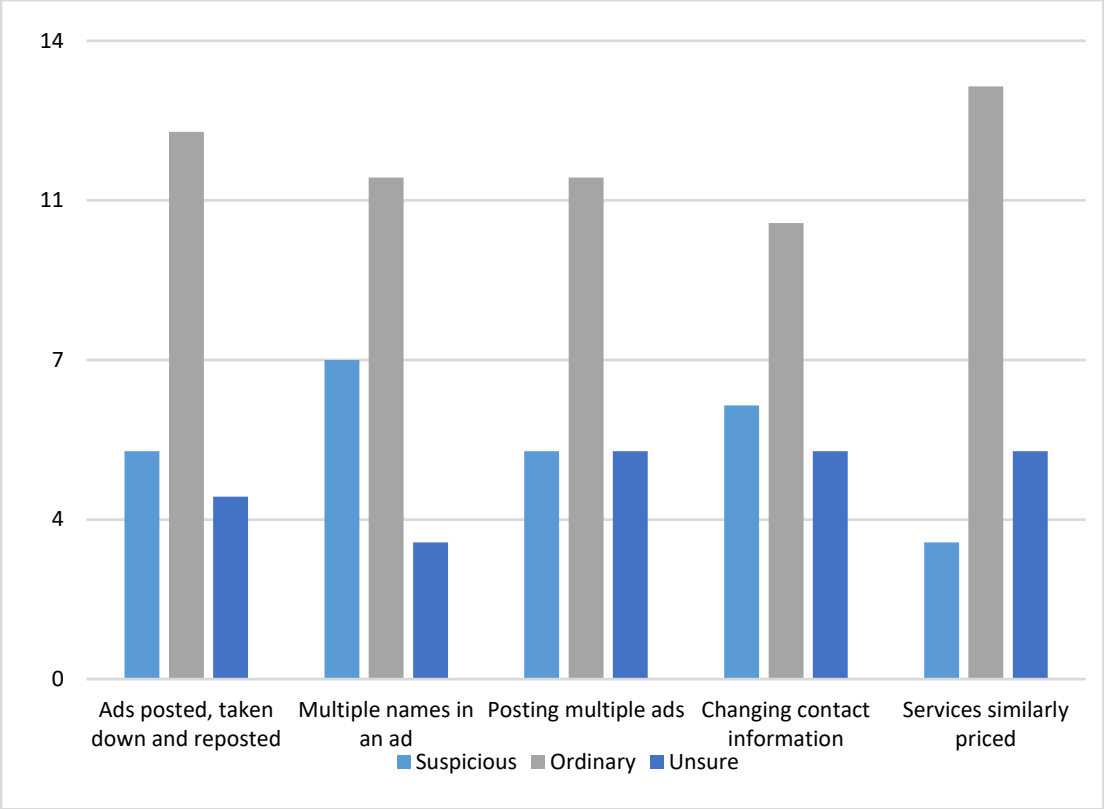

Figure 4.1. AI-based policing models looking at suspicious ad activity

Ads posted, removed, then reposted

The first indicator discussed involved ads that someone posts, removes, and then reposts in a short period of time. Twelve (57.1%) participants thought ads being reposted was ordinary, five participants (23.8%) found this behaviour to be suspicious, and four (19.0%) participants were unsure. Participants who found it ordinary offered rival plausible explanations as to why someone might take their ad down and repost it. These included:

- To avoid police detection.
- Removing the ads due to health concerns.
- Pushing ads to the top of the list to avoid paying an extra fee.

- Sex workers touring[32] from one city to the next.
- Sex workers wanting to fix typos.
- Having other people flag their ads (for several reasons, such as competition or concern about inappropriateness).

Reposting in this way may also simply reflect the availability of the sex worker or whether someone had made the amount of money they needed and no longer wished to accept clients for a period. Alicia mentioned that other factors, like her anxiety, could cause her to take down her ad:

> Anxiety will make me post my ad for maybe a day, maybe two, and then all of a sudden pull it down.... Since COVID [coronavirus disease], that's been going on because I can't have my phone ring off the hook when I'm not feeling well, when I'm having an anxiety attack and feeling a little bit like I have no future.

On the other hand, those that did find it suspicious thought it was because, as Joyce said, sex workers who are comfortable with what they are doing would not need to take down their ad. Four (19.0%) participants thought it was suspicious because they had not come across that kind of posting style before.

Multiple names in an ad

Another potential indicator involves ads that have more than one name listed. A slight majority (*n* = 11 or 52.4%) of participants stated that multiple names in an ad would not be unusual, while seven participants (33.3%) thought the behaviour could be suspicious if there were three or more names listed. The reason participants viewed having two names in an ad is not suspicious is because sex workers may work in pairs or go by two names, while three or more names is not something they see often which would make it more unusual. Other plausible reasons participants gave for multiple names appearing include sex workers working together, and sex workers working with an agency or massage parlour. Working together, although criminalized in many places, is not inherently harmful or exploitative but there are many advantages to working in groups, which is discussed in greater detail in section 4.2.2. Detecting cooperative behaviour or third parties alone is not enough to indicate trafficking and creates

[32] Sex workers will sometimes move from city to city to access different markets to make more money. Although this involves the movement of people for the purposes of selling sexual services, without an element of exploitation, this is not human trafficking.

opportunities for the police to criminalize sex workers under other provisions. Philip mentioned that having two names in an ad may increase safety for independent workers by deterring predators looking for vulnerable individuals from booking appointments. Working with another person means there is someone to step in if a client turns violent or refuses to pay; predators are less likely to book with sex workers if they know someone else is around. Some sex workers may just put a second name in the ad so they do not look like they are working by themselves. Safety in numbers means sex workers may look for others to work with, which could increase their likelihood of police detection. Sharon expressed her frustration with laws that force sex workers to work alone:

> Oh my God, how terribly crazy that a person would want to work with others to remain safe. Jesus, I have always maintained that nobody should have to enter the sex industry by themselves on their first day of work. Imagine being a police officer and they just give you your gear and say, "have at 'er good luck, no training for you." No one to ask questions, nobody to talk to about what the rates are or how to protect your health or how to vet clients. Give me a break. Everybody has to work with someone else in order to learn these things. This is what they've done to us you know. As well as there's the community of brothel life; you have people that you can share crisis moments with, people who can support you. You know business owners are not – they are not exploiters; they are front line workers. (Sharon)

Sharon was concerned that targeting cooperative and collaborative behaviour would leave sex workers to work alone, which could put them in more dangerous situations.

Posting multiple ads

The AI-based policing model also takes one person posting multiple ads as indicative of trafficking. While some participants (23.8%, or 5 interviewees) thought that such behaviour may be suspicious, the majority (*n* = 11 or 52.4%) saw this behaviour as ordinary. The remaining three participants (14.3%) were unsure. Reasons participants gave for this behaviour being "ordinary" included:

- The poster being a massage parlour or escort agency.
- An intentional marketing or business strategy for sex workers.
- A sex worker catering to various parts of the industry.
- Sex workers touring and reposting their ads in various locations.

Naomi mentioned that sex workers may end up posting more than one ad in a day because they are trying to use up advertising credits they have on a specific website. Lisa found that, as in any other industry, sex workers are trying to get as many clients as they can. She saw posting multiple ads as “not necessarily exploitative, because again, you’re trying to capture as many fish as you can, so as many fishing lines as you can dip into the water, the better, I would say.” Sharon added she knows a massage parlour owner who posts their ad 200 times a day to keep their ads on the front page. She has found clients are unlikely to scroll past the first 20 or 30 advertisements, so it is crucial to keep reposting ads or bumping your ad back to the top of the page to ensure clients see it.

Another factor may be the location of the sex worker. Shauna stated in small cities there may not be enough clientele to cater to one market, so to be a full-time sex worker you may have to post ads for multiple categories (e.g., girlfriend experience [GFE], sensual massage, and BDSM). However, again, there was no consensus among the participants about what an indicator of exploitation looks like. Philip did state that one person producing 200 ads a day would be suspicious to him and that he would flag that as possible trafficking cases.

Changing contact information

Another potential AI-based policing model sees a change in contact information while the rest of the ad stays the same as an indicator of exploitation. There was mixed support for this indicator with 10 (47.6%) participants saying that changing contact information would not be unusual and six participants (28.5%) identifying it as potentially suspicious. The remaining five (23.8%) were unsure. Other reasons participants mentioned why someone might change their contact information included:

- Avoiding a stalker or other harassment from an ad.
- Avoiding police surveillance.
- Using a phone handler.
- Having a phone company shut down your phone.

- Having multiple numbers to organize clients.[33]
- Changing identity.
- Losing phone numbers as a result of living in poverty.

Alicia spoke about how her cell phone provider shut off her service because she was sending too many texts and videos. While on the phone, the customer service representative for the company made transphobic comments and shamed her for her online ad for sexual services, which the company had found online. Although the company just gave her a warning, this kind of surveillance could mean sex workers are at a higher likelihood of having their services interrupted, which could be detrimental to their business, as clients need to be able to contact sex workers consistently. Even without the added issue of surveillance, having to change contact information on an ad is a reality for people living in poverty or precarious situations. As Rowan shared,

> Not for me personally, but I've worked with a fair amount of sex workers and sometimes, to speak of the circumstances of poverty or domestic violence, one might have to change their numbers several times or might lose their phone and have to get a new one. Might be using more than one phone and there's more turnover and that potentially because of just the realities of living in poverty on that level. So, I could definitely see that being a factor as to why someone might change their contact information.

Annie and Nancy mentioned that some sex workers could be using third-party phone apps. These apps allow you to text and make phone calls, without providing identification to register. Those living in poverty or having precarious immigration status may be more likely to use third party apps, making them more likely to have to update their contact information as missing a payment could mean losing the number and having to register for a new one. Tricia noted that tracking ads that change contact information would disproportionately affect sex workers who rely on third parties to communicate with clients, especially those for whom English is not their first language.

[33] A sex worker may have separate phone numbers for several reasons including giving one number to regular clients so their regulars can always reach them, and then having another number they can post in an ad and change, if needed, without affecting their regular clients. As well, they could use a third-party phone app number to post in an ad that cannot be as easily traced back to them to avoid family, friends or employers discovering they are engaging in sex work.

There were competing views of whether this is an indicator of trafficking. Annie thought changing contact information was suspicious because of how important it is for clients to have a consistent way to contact you. She said it is unlikely that an escort agency or independent sex worker would willingly change their contact information. She revealed that there are other ways to anonymize your ads, to avoid stalkers or other harassment, like changing the name on the ad, while keeping the same phone number to ensure regulars can still get hold of you.

Services similarly priced

Thirteen (61.9%) participants noted ads in which services are priced similarly are nothing unusual, while three participants (14.2%) found it suspicious if someone priced all services similarly. The remaining five (23.8%) participants were unsure. Again, participants offered several other reasons for this behaviour including upselling,[34] newer sex workers not knowing how to price, as well, it could be used as a tactic to avoid police detection. Shauna provided an example of how pricing could be used to avoid police detection. She asserted that sometimes sex workers charge for time instead of for the services offered since charging for time is not illegal, “and if, whatever happens in that hour happens. Some things happen when people get together, so like, whatever.” The criminal law limits sex workers so they must find ways to navigate around the law to ensure they can work safely. Several participants did identify some other pricing practices that they did find suspicious including ads that lay out pricing (although this may be dependent on advertising norms in a particular area) or ads with significantly lower or higher prices than the average pricing for an area. However, Annie did mention that she routinely posts higher than average prices to avoid “cheap” clients.

Other rival plausible explanations for suspicious ad activity

Three (14.2%) participants stated that an ad only displaying one of these indicators would not be enough to flag, but that multiple indicators may make them suspicious. However, Shauna did comment on how someone hacked her ads, which displayed all the ‘suspicious’ elements. The hackers changed her contact information and prices. When she gained access back, she had to take down and republish all her ads with the correct information. She asserted she was not experiencing exploitation;

[34] Upselling is trying to persuade the client to purchase additional services or more expensive services on top of their base price.

however, she expressed having ads hacked was a big issue for sex workers. Overall, participants thought most of what the developers used as indicators of trafficking are just indicative of cooperative behaviour; most participants were adamant that cooperative behaviour does not suggest exploitation, regardless of its legal status.

4.1.3. Bitcoin or cryptocurrency as an indicator of trafficking

The final indicator I discussed as a part of this project relates to tracking Bitcoin or other cryptocurrency transactions. Thirteen (61.9%) participants thought tracking Bitcoin and other cryptocurrency would be unsuccessful at finding exploitation, while six (28.5%) stated it had some validity. Two (9.5%) participants were unsure. Participants talked about how cryptocurrency is a vital part of the sex industry because of criminalization in Canada and most of the USA, and that it will become more relied on as Visa and Mastercard continue to cut service to the sex industry. Eight (38.1%) participants brought up the fact that PayPal, Visa, and Mastercard continue to restrict services from those in the sex industry, forcing them to rely on other methods of payment.[35] They feared further restrictions could limit many sex workers' abilities to make money, especially in a world where sex workers must increasingly rely on online platforms.

When asked if tracking Bitcoin transactions would be indicative of exploitation, Sharon said,

> No, all it's going to do is further criminalize the safe places where we work. Given that these people [the people creating the models] have deemed all sex work as exploitation, anybody who's running a business and providing safe workplaces for sex workers is going to be captured in that data and subjected to criminalization, which again is police violence against sex workers.

Many of the inquiry participants shared similar concerns about this indicator. Since there are a limited number of places sex workers can work, bringing more police attention will only force the sex industry further underground. Those who thought the use of cryptocurrencies could be an indicator of trafficking pointed out that criminal organizations often use cryptocurrency to avoid police detection, so it is likely that traffickers would be using the same techniques. Philip thought this indicator could be

[35] See Price (2022) and Webber (2022) for more discussion on this topic.

more successful than the other indicators included in this study because it is looking at the back end and someone using substantial amounts of cryptocurrency to buy a ton of ads could be suspicious. However, Philip later went on to say that since cryptocurrency is so traceable, anyone who knows anything about it should not use it for criminal purposes, so this type of indicator would only assist in catching the “stupid criminals.”

4.1.4. Thoughts on data collection methods

I asked participants about their thoughts on the use of ads scraped from websites that advertise sexual services as data to train the AI-based policing models. Most expressed worry about what would happen to the data once the AI collected it, who would have access to it, and what would happen if someone hacked the data. Sharon and Annie brought up how the state has previously compromised the privacy of sex workers (e.g., collecting street-based sex workers’ DNA), which made them worried about what would happen with their digital information. When asked if they thought scraping online ads for sexual services would help researchers identify exploitation, Phillip said,

> In order to train an AI, you've got to be able to tell it what is honest and what is dishonest. But you don't know that. You don't have a pool of training data. So, if you abandon that and you say, right, well, we think we know what a dishonest ad looks like, let's say it'll say young. So, you pull out the ones which include the words "young" or "new" or "exciting". But that's how legitimate workers will describe themselves, if that's the segment of the market they're in. So, you're outside the industry trying to make an assumption about what the bad people will do that the good people will not do. And running it through a computer does not solve the fact that your idea doesn't work.

In this quote, Phillip reiterates what many participants have been saying so far, just having access to ads for sexual services is not enough to train AI. The programmers would need access to confirmed cases of trafficking in an ad, otherwise the AI is just being trained on assumptions about what human trafficking is by someone who operates outside of the sex industry. Even if programmers had access to confirmed cases my participants were against programmers scraping their online ads for sexual services to be used as negative cases to train the AI due to the invasion of privacy.

> That's a huge gross invasion of privacy, because that's not why the ads are posted. The ads are not posted to collect data and to monitor… Sex workers don't post ads to have their data taken and compiled in a police

> database and shared with whatever other state institution needs to have access to it, right? [Naomi]

The internet, although available to the public, is different from traditional public spaces. The amount of information that AI can gather and analyze from someone's online presence increases the likelihood the police can identify someone. When in person, public space has a level of anonymity that is no longer available in online spaces. There are efforts taken by individuals and websites to protect anonymity (e.g., websites with paywalls or sign ins and individuals using pseudonyms). Many websites have anti-scraping policies that the AI would infringe. Sex workers may post photos with their ads, meaning that anyone scraping this information would be saving substantial amounts of biometric data, which as stated by the Privacy Commissioner of Canada (2021), is the most sensitive information that police could save. Despite the fact that some participants did mention they were glad to see people are looking out for those experiencing exploitation (see section 4.3), ultimately, the privacy intrusions of increasing the surveillance of sex workers online have already caused people to move to in person work. After changes in policy requiring government identification to sign in to online webcamming sites[36], Nancy, decided to move from online work to in person work:

> I actually have started getting away from webcam and started working towards full service and in-person work instead. So that's kind of where my thoughts are on it… And so, for me, that's safe. But for the people who are already unsafe… you're pushing them more underground.

All (100%) participants gave negative responses to the idea of scraping online ads for sexual services; there were no positive or neutral reactions. Olivia, who was the most supportive of the models, talked about how violating it was when agencies would steal her photos, and did not support scraping online ads for sexual services for information.

4.1.5. Last thoughts on the assumptions embedded in the proposed indicators

Of the participants, 10 (47.6%) did not consider any of the indicators as indicative of trafficking when examined individually, and no participant thought all the assumptions

[36] Webcamming and other content creation websites now require sex workers to sign consent forms and use their government identification to sign in to ensure everyone on the websites are of age and consent to participating in adult content. For more information see Webber, (2022) and Blunt et al., (2022).

would be successful. Philip mentioned, “the whole thing is fundamentally flawed.… They have built a house of cards on something that doesn't work. So, yes, I mean, they can produce output, but it will be garbage.” To be successful in finding exploitation, participants suggested looking at labour trafficking more generally, as they indicated that sex trafficking is not as big of an issue as suggested by the media and some stakeholders. Dr. Millar, who has done research on human trafficking in Canada, brought up the fact that exploitation exists in several industries, yet the state does not put the same focus on creating technology to prevent other types of labour exploitation. To be clear, she was not advocating or endorsing the use of AI-based policing models in any industry, unless its creators used a grassroots approach and included experiential perspectives; she was simply suggesting that “the conversation should be flipped to develop technologies to track labour exploitation in global supply chains … a demonstrably larger problem.”

Those who expressed none of the indicators could specify trafficking (*n* = 10 or 47.6%) thought that these forays into AI-based policing models were looking for exploitation in the wrong place. Nancy, who has experience working at a non-profit that supported trafficking victims, and Shirley Ann, who disclosed that she was a victim of trafficking, argued that police and non-profit organizations could better identify traffickers by talking to people and building relationships with the sex work community. They indicated more efforts to build relationships would make it safe for those experiencing exploitation to come forward but that the criminalized nature of the sex industry prevents this from happening. Shirley Ann and Nancy said what the developers consider an indicator of “suspicious” ad activity comes from sex workers adapting to the criminalized state of the sex industry, not from trafficking. Dr. Millar specified the need to better define exploitation in the sex industry if people are going to try to address it, with clear distinctions drawn between sex work and human trafficking. Nine (42.9%) participants suggested the state could better address exploitation by looking at the systems that create the opportunity for exploitation, such as immigration policies, housing policies, high cost of living, foster care systems, disability policies, white supremacy, and anti-LGBTQIA2S+ hiring policies. Sharon mentioned that sex workers will often report exploitation and identify those causing violence in the sex industry, but police do not listen to them. Sharon shared an experience when she tried to get support and could not:

> I can remember a moment when a young woman posted an ad saying, "help I've been kidnapped" and one of the clients, because there are clients that are cruising to see if there's people who are being exploited, they're worried about it. They are looking at all the ads and they try to be "white knights," it's what we call them right. He calls me he said, "Oh my God, do you think this is real?" And so, I phone the police and reported it and all that sort of thing, and it was real. She was rescued but I'll tell you something else about that situation was I called and reported it, and it took them eight hours to come and take my report. Eight hours! That's what the priority was for a kidnapped sex worker at the police.

None of the AI-based policing models I include in this project would be likely to flag this ad. The ad does not outwardly include any of the indicators included in this project. If someone only posts one ad, then the ad would not be flagged for multiple ads having similar wording or for one person posting multiple ads. The poster did not take down the ad then repost it, nor did they change any of the contact information, nor did they include pricing, nor did they include multiple names so the AI would not flag the ad for being suspicious. As well, based on the reports by those training the AI-based policing models, "help" and "kidnapped" were not words included as suspicious wording in ads. The only model that may have flagged it would be the models' using cryptocurrency as an indicator as it is unknown how the poster purchased the ad.

Two (9.5%) participants disclosed they were victims of trafficking. Shirley Ann did not think any of the indicators would successfully identify trafficking. Niki suggested looking at the volume of ads posted, especially if all the ads are from one person, and variability in pricing could be indicators. Niki advised looking for indicators that suggest a person did not have control over their experience and was not enthusiastic about working. To her, having autonomy means making informed decisions on the websites where you post ads, posting your own ads, and being confident about your pricing. She also had experience looking through ads to aid police in trying to identify potential trafficking victims. She said these indicators would only make her reach out to those posting the ads to check in and she would not be comfortable dispatching police to check on them with such little information.

4.2. Concerns and risks of the use of AI-based policing models to identify trafficking

I asked participants to share their thoughts on the risks and benefits of the use of AI-based policing models. Although not all the participants had experience with computer coding or the creation of AI, all the participants have encountered programs and policies created by individuals with no experience in the sex industry that affect their well-being. This includes nine (42.9%) sex worker participants who disclosed their own experience in advocacy work, including working with police or government officials to address violence in the sex industry. All participants spoke about the stigma around the sex industry and/or human trafficking and how it affected their ability to work. These participants explained the ways outsider influence can impact the sex industry and what ulterior motives may be impacting the creation of the AI-based policing models. This section will review the participants' concerns with how the programmers are designing AI-based policing models, and the risks of using these models in the sex industry.

4.2.1. Participant concerns about the use of AI-based policing models to flag online ads for sexual services

The participants conveyed doubt that the indicators proposed as relevant fodder for AI-based policing models would be able to find exploitation in the sex industry at all, as well as expressed a fundamental lack of trust in the creators of the AI-based policing models and its use by police. Seven (33.3%) participants said the sex industry is too varied for computer programmers to reduce it to general assumptions about what exploitation looks like. Alicia shared several points developers should consider when creating these assumptions:

> We're such a vast, diverse group of people, you know, you talk about sexuality, you're talking about the representation of every kind of human being that is on this earth like is represented somehow in the sex work industry. And every kind of sex you can think of exists and somehow is being offered as a service. So, it's just so diverse…. I can't see a computer being able to differentiate between all those things and make any kind of sensible decision and come up with any kind of sensible conclusion about that person.

Although Alicia is unable to make a judgement about what the AI can and cannot do, in this quote, Alicia is resisting the idea that sex work can be simplified into a dichotomy

(i.e. trafficking vs. non-trafficking) because everyone's experience is different. People may enter the sex industry with varying levels of constraints to their decisions, which an AI-based policing model would not be able to consider in the decision to flag their ad. Even among the 21 participants I spoke with during this project, there was no consensus on what an indicator of trafficking is, or even what comprises "normal" advertising practices of sex workers. There seem to be regional differences, as those who worked internationally spoke about the diverse ways they try to maneuver around the laws or police practices in different areas (e.g., advertising time rather than service), as well as in areas where sex work is legal, how they ensure they are not breaking the law (e.g., posting license numbers). But there was even a lack of consistency among sex workers from the same city, suggesting several factors could influence sex workers; including gendered, racial, or other socio-economic differences in advertising as well as differences in norms in the sector of the industry they work in. Further exploration of these differences was outside the scope of this project but does indicate a gap in knowledge.

Seven (33.3%) participants questioned whether AI could ever identify exploitation from an ad. Since sex workers direct the ads to potential clients and not traffickers, Cynthia questioned whether signs of exploitation would be present in an ad:

> The ad is aimed at the client, whereas exploitation, you would want to look at how they're treating the girls right, what is the business employee to employer, that kind of stuff… I don't know how you would use the ads to figure that out.

In line with this, Nancy suggested police will be more successful at finding trafficking victims by speaking with people and building relationships within the community. Other concerns expressed by participants included how criminalization creates the opportunity for exploitation since sex workers are unable to come forward when they encounter violence since they face potential arrest. Sex workers do not have any labour protections, meaning they may not be able to leave exploitative situations without financial repercussions. Further, Rowan worried that AI-based policing models are not considering different kinks sex workers may be catering to (e.g., presenting oneself as underage, even though they are a consenting adult, power dynamics etc.). Although these sexual practices may be outside of the mainstream, they are sexual acts performed between two consenting adults and do not meet the criminal definition of exploitation set out above. However, many of these acts require effective communication

between both parties, communication that the AI-based policing models could influence. If these models are looking for specific words associated with these kinks (i.e., submissive, young) sex workers cannot explicitly advertise what services they are offering to avoid police detection, increasing the likelihood of miscommunication.

Participants also mentioned criminal exploitation is often quite different from the way the media portrays it. Seven (33.3%) participants spoke about how the moral panic surrounding the sex industry has led to fundamental misunderstanding of what exploitation and human trafficking looks like. In their experience, the misunderstanding has led to policies and practices that do not actually help sex workers or those experiencing exploitation. Nine (42.9%) participants spoke about how migrant workers often face the brunt of exploitative practices in other industries (e.g., agriculture, hospitality), yet these industries do not get nearly as much attention as the sex industry. Felicity spoke about how a lot of industries (e.g., construction) in a capitalist society require people to sell their body and time in the pursuit of survival, yet society only see it as exploitative when it involves sex. Two (9.5%) participants spoke about how exploitative anti-trafficking organizations are, often paying the survivors that speak on their behalf little for their labour.[37]

The conceptual murkiness of the proposed indicators is not the only concern participants had: eleven participants (52.4%) questioned the motives behind the creation and use of AI-based policing models in this context. These participants were suspicious of what the creators were getting out of developing the AI-based policing models (e.g., money, social capital, professional recognition, and awards, etc.). These suspicions arise from watching politicians and others use the anti-trafficking narratives to further their careers. Like other anti-trafficking initiatives, if the developers are creating these AI-based policing models with prestige in mind, instead of concern for those experiencing exploitation or concern about those deemed 'collateral damage' in the process—efforts to understand this complicated issue may be quite minimal. Tricia spoke about how AI-based policing models may be good for the police, but harmful to the sex industry:

> Again, I think it's like, sure if you have the resources to scan everything and hope that you find one, then of course you will find something, but I don't think that should be the approach. I think that does more harm

[37] An in-depth analysis of this is outside the scope of this research but for more discussion see D'Adamo, 2023; Vanwesenbeeck, 2019.

> than good because you're increasing surveillance… I mean authorities might think it's worth it because it's also creating police and tech-related jobs. They would require more funding from the government to do the sort of things, so for them probably yes, it's worth it but then I think for the community, no, definitely no and I think there's also lots of white saviour and racist assumptions behind this type of surveillance.

Tricia elucidated the politicized nature of human trafficking by speaking about the financial benefits of developers creating AI-based models, despite their potentially harmful effects on the sex industry. Through her position working in a sex worker support organization, Tricia has seen the ways police have used the anti-trafficking narrative to increase funding for various policing organizations and non-profits. Shauna saw the use of AI-based policing models to continue controlling the sex industry, women's bodies, and other marginalized folks. Finally, Lisa recommended those creating the AI-based policing models ought to unpack why they feel the need to make them in the first place.

Participants' concerns about the police

Participants expressed considerable concern about giving police access to AI-based policing models to monitor the sex industry. A large majority (*n* = 17 or 80.9%) of participants indicated that police using these models to flag online ads for sexual services would negatively affect the sex industry, especially since police have not appropriately addressed trafficking cases in the past. Three (14.3%) participants said they might support the police use of these models, but it would depend on the police officer, as participants perceive some police officers to be more trustworthy than others. Only one (4.8%) participant fully supported giving police access to these models because the police need to keep up with changing technology to find and arrest traffickers. Participants who did not support the police use of AI-based policing models acknowledged the need to protect victims of trafficking but noted that the use of the models created more harm than good. They feared that the collateral damage far outweighed any benefits and as mentioned above, advocated for systemic changes that would reduce people's risk of exploitation, over the policing of the sex industry.

Participants' concerns about the police having access to AI-based policing models using the indicators discussed in Section 2.3.4 of this thesis are that the police will not be able to distinguish a false positive (i.e., when the AI flags an ad as trafficking when it is not) and that when the police do successfully identify a case of trafficking, they

will only further traumatize the victims. In Sharon's experience police enter sex work establishments with guns drawn and make the workers lay on the floor, often the police do not give sex workers a chance to dress. In her understanding, the police officer's approach makes workers less likely to trust the police. Having these experiences in the past made Sharon skeptical that police would respond to a false positive correctly. She suggests the proper way for police to check if there is exploitation would be entering the premises in street clothing, identifying themselves as police and building rapport. Ideally it would not be police in this position at all, but peer support persons. Even when victims go to the police, they may not have a positive experience. Shirley Ann shared her experience going to the police after reporting she had been trafficked:

> But the whole process, there was nobody making sure I was emotionally okay. And then they arrested him. I'm waiting for a court case and I'm waiting to do my trial, I'm waiting to testify. Then that man dropped dead. And I call the police station working on the file, they're like, "Oh, he died. Congratulations". He told me Congratulations, he died. That was what the police told me.

Shirley Ann spoke extensively about how traumatizing the experience of coming forward to the police was for her. She spoke about not being able to have a support person in the interrogation room with her and how she was not given the opportunity to speak with a social worker before the police interrogated her. She indicated the police did not care about her experience and that the police focused on the other people her abuser was still in control of because they were minors, and she was not. The police did not tell her about any of the services available to her as a victim and had to rely on a family member who was a social worker to support her through the process. Likewise, Niki shared her experience working with police as a peer support person:

> Because I've seen firsthand … the cops are working on this project chose not to involve us for whatever reason, the organizations working with these people. But then I get a phone call at 8:00 in the morning saying they've had this girl. They held a girl in the jail… They did this project, "Oh, we're only looking for trafficking." They held her there for hours with no supports. Or it's just, again, the wrong department that's getting sent, that doesn't have the proper training, that doesn't know what to do, and she's going to go back to him. What did you think was going to happen? And now you got this trafficker, my God. There are still cases that have been ongoing. I think there's a case that just got solved that we were actively working on for about four years and the trial was going on and on and on. And then this guy gets cut loose, who was supposed to have 18 charges, and he gets cut loose. And so now he's back out there looking for her or other girls again.

As shown by Niki and Shirley Ann, there are gaps in the police's ability to respond to cases of trafficking, making victims less likely to report in the future. Shirley Ann went on to say that she would not contact police again if she was in the same position. The lack of trust towards police was a common theme amongst the participants with 17 (80.9%) participants mentioned that they did not trust the police. Eight (38.1%) participants said the historical mistreatment of sex workers by police as one of the reasons for their lack of trust. Lane saw the police as only necessary when there is immediate violence or minors involved; other than those circumstances, they indicated that others, such as sex worker rights organizations, may be more appropriately positioned to respond to incidents of exploitation.

4.2.2. Risks of deploying AI-based policing models to monitor the sex industry

Given the lack of trust among participants and their historical mistreatment by police, participants saw the police as potentially creating more harm than good. Twenty (95.2%) of the participants identified potential risks associated with the use of AI-based policing models to monitor online ads for sexual services. Rowan talked about how being in view of police often leads to more harassment. Deploying AI to monitor online ads for sexual services will increase police disruption of the sex industry, which has historically been able to operate without many disruptions. Niki mentioned that she was part of a pilot program using AI to reach out to sex workers with information on support services. Niki helped create the blurb that the program was automatically sending out and corresponded when people responded, especially to offer support if they identified a trafficking victim. They were able to identify one case of trafficking, but she said most people she reached out to were upset by the intrusion.

Annie feared if police deploy AI-based policing models to monitor online ads for sexual services and target clients, the clients may be reluctant to use advertising websites, moving the industry more offline, and making it more precarious and dangerous. The advertising of sexual services online has provided sex workers with several safety protocols, such as screening clients. Annie mentioned that she would not want to have to go back to meeting clients in person as you usually must be in an environment where people are drinking, and intoxicated clients increase the risk of violence. Nine (42.9%) participants thought the use of AI-based policing models would

cause sex workers to have to adapt to avoid detection. The sex industry has historically adapted to avoid criminalization:

> But I feel like sex workers have been so adaptive throughout history, in so many different types of technology that they may—if they caught wind of this technology, they would start figuring out an underground way to skirt the system to make sure they don't get caught in it or something. (Nancy)

Even if the police do use the AI-based policing model, it will not stop people from working in the sex industry. It could, however, take away safe avenues for sex workers, which will cause detrimental side effects:

> And so, I think that, yes, sex workers will figure out a way to go around them, and they will also die in the process. And so, I think we can't just say like, "Oh, well, if they do this, you know, we'll figure out other things." That's true, but I think that there'll be a lot of collateral damage in the process. And I think that these technologies are really dangerous and are particularly dangerous for the most marginalized sex workers. (Shauna)

Shauna went on to mention that the sex industry has already experienced these negative effects. As discussed in Section 2.1 of this thesis, when the FBI took down Backpage, the raid forced sex workers who could not afford to advertise on other sites to work on the street. Shauna was worried that using AI-based policing models to monitor online ads for sexual services would have the same impact, forcing lower income sex workers who cannot afford to navigate around the models to work more in-person. Ultimately, participants worried this could lead to more sex workers working in increasingly dangerous situations which could lead to more violence and death in the industry. As well, they were concerned the use of AI would limit upward mobility for some sex workers preventing them from getting out of poverty.

Since many of the indicators are likely to identify cooperative behaviour and third parties, they will put sex workers who rely on third parties at increased risk. Seven participants (33.3%) spoke about how third parties make up an integral part of the sex industry, often providing safety and community for sex workers. Seven (33.3%) participants expressed that using the indicators discussed in this project to train AI-based policing models would disproportionately impact sex workers who rely on third parties (e.g., drivers, managers, assistants, phone operators, etc.). Sarah spoke about

her positive experience working at an escort agency as it provides space for comradery among workers:

> Escort agencies are one of the safest ways to work because you have other people around, there's certain things and that's part of what you pay the house for, and it provides connection and many other things. But it's that sort of thing that has more eyes on it that would make me assume that clients would be less likely to go there. Which could then make girls more likely to be independent, which could have really negative effects, depending on where they're at. [There are] girls who are new to the industry. There's those that are, like myself, seasoned so to speak. And I've worked in agencies before where my nickname was momma, because the girls that came in did not know what they were signing up for or weren't prepared for the volume of business or whatever and had mental health issues or whatever. And I don't want to perpetuate stigma, but you know, it happens. We were able to support them through that to go like, "This isn't for you, Love. Let me be there for you. Find some resources to get through whatever you need to financially, and so on." So, yeah, I think it could affect it negatively.

In her experience, agencies provide support for new workers through the ins and outs of the industry and even counsel newer workers to leave the industry if it is not working for them. Again, this sort of cooperative behaviour and working with third parties, although criminalized, is not enough to prove exploitation and based on Sarah's and other participants' experience cooperative behaviour could help address the risk of exploitation. The experiences of participants contradict the idea that all cooperative behaviour and third parties in the sex industry are exploitative; instead, these data show the importance of working together and creating community.

Despite participants sharing largely positive experiences working in the sex industries, they noted that they understand there can be exploitative third parties. Chris Atchison worried using AI-based policing models to monitor online ads for sexual services would increase the number of sex workers who work with exploitative third parties. If being a third party means potential arrest, people with the best intentions may be hesitant to work as third parties, leaving those with bad intentions as the only option. Knowing that sex workers themselves could face criminalization, sex workers may be less likely to come forward when they do face exploitative third parties. Naomi expressed concern this would cause victims of exploitation to go further underground with the perpetrator to avoid police detection, and to go without the proper social supports they need so they can continue to make money.

Participants also brought up concerns about the potential for a data breach which could leave sex workers at an increased risk of being outed to family, friends, or professional communities. Annie said the stigma around sex work makes it dangerous and traumatizing if you are outed. Being outed could mean rejection from family members, their childrens' friends, or their parents, as well as the risk employers may not hire or even fire an individual. Three participants (14%) spoke about their concern over losing their children if they are outed. Lisa had this fear realized, losing custody of her child after being outed as a sex worker in court.

4.3. Benefits of using AI-based policing models that flag online ads for sexual services

Four (19.0%) participants mentioned some kind of benefit from the use of AI-based policing models. Nancy noted automating the hunt for exploitation might allow police to help more people. The introduction of these models would mean activities that take humans hours to complete, the AI could complete in minutes. The increased speed of activities would allow police to analyze more data in any given day which would hopefully mean police detecting more victims. The AI-based policing models would also mean the police would have to devote fewer people to data analysis, freeing up officers for other activities. Olivia said AI would make the industry "more legit; we'll be getting more rights and be more empowered," and it could allow police to stay ahead of traffickers. Some participants were comforted by the fact people were looking out for those being exploited. Nancy stated that the good intention of the AI-based policing models could lead to a positive outcome, therefore, she wanted to support it.

Identifying victims of human trafficking is a laudable goal; if done correctly, it could mean protecting people from the harms of exploitation. Lisa did not think these AI-based policing models would be beneficial overall but thought something interesting or helpful could come out of the research. The implementation of AI-based policing models seems inevitable, but this could be an opportunity to put resources into researching exploitation with the inclusion of sex workers, to fill gaps in knowledge about human trafficking. Two (9.5%) participants only saw possible benefits if those using and creating these AI-based policing models worked with sex workers to minimize harm done to the community. Sex workers are the experts of their experience, making them best positioned to speak on what an indicator of trafficking is and how best to handle when

someone experiences exploitation. Developers working with sex workers not only helps prevent potential harms of the AI but could also increase the effectiveness of the AI-based policing models.

4.4. Effects of anti-trafficking AI-based policing models on marginalized groups

Knowing the historical inequities in policing, especially the policing of the sex industry, I then asked participants how they thought the introduction of AI-based policing models to identify human trafficking from online ads for sexual services would affect other marginalized groups. Twenty participants (95.2%) thought the AI-based policing models would overly impact already-marginalized groups, particularly people with low socio-economic status, racialized sex workers, transgender sex workers, non-binary sex workers, and migrant sex workers. Participants shared these concerns regardless of whether they were in Canada, the USA, or England. The only participant who did not express agreement with this sentiment did not feel comfortable answering the question as they were not part of a marginalized group.

Five (23.8%) participants spoke about how researchers have previously shown AI to reproduce bias in society. The participants had experienced the ways racism, homophobia, and transphobia affect their ability to work in the sex industry. The participants identified several ways they have experienced bias. First, Lane, a non-binary first generation Chinese Canadian, shared how racialized and queer sex workers do not start on an equal footing:

> Well, we're not even on the even playing field at the beginning. So, it'll just push us further into the margins. And eventually some of us will die from just whatever. If we don't have money like to pay our rent, a lot of us, you know, substance use… It's just it's stable income.

Rowan, a non-binary sex worker, echoed this sentiment:

> I think in a similar way to the other marginalized identities we already face more barriers like housing, work in general, that's why so many of us are queer folks. So, I'm trying to think of specifics, just that already being so marginalized in the overall job pool by putting more restrictions on the accessible work that we have and potentially pushing those folks more into poverty, more into desperate situations, dangerous situations.

Shauna also spoke about how the historical exclusion of Black workers, migrant workers, transgender workers, Black transgender workers, disabled workers, and queer workers from traditional employment has pushed them into the sex industry to support themselves. Shauna went on to say that without proper social supports, people will continue to work in the sex industry as they must continue to pay for rent, food, medical bills, and so forth. Additionally, Rowan, Naomi, and Shirley Ann spoke about how they have all experienced being unable to access traditional employment due to disability. The financial disability supports the government provided them was not enough for them to be able to support themselves and pay for necessities like housing and food. The sex industry allowed them to make enough money to support themselves, while being able to create their own schedules, when they felt well enough to work. As mentioned in Section 2.1.2 of this thesis, current Canadian policies push sex workers into more desperate situations by creating more dangerous working conditions, which restricts their ability to earn a living. If the AI-based policing models make it harder or more expensive to advertise sexual services online, it is the people already in disadvantaged circumstances and people for whom conventional employment has excluded who will find it harder to navigate, encouraging some queer and racialized sex workers to take on riskier clients or work in more precarious circumstances.

Second, participants thought that the use of AI-based policing models would only automate the over-policing of racialized and queer sex workers. Participants revealed how the historical over-policing of racialized and queer communities could be used as evidence to suggest that AI-based policing models would disproportionately affect these groups. Two participants (9.5%) specifically identified the anti-trafficking movement's focus on racialized women as an issue with how the police interact with the sex industry. Sharon talked about when a major sporting event came to her city, the police did raids on massage parlours in response to societal panic that the sporting event would increase the prevalence of human trafficking.[38] The police only raided establishments that advertised they had racialized sex workers.

The historic over-surveillance of racialized communities has led to more distrust among racialized sex workers and the police. Shirley Ann, a Black sex worker who had

[38] Ham (2010) debunked the myth that sporting events increase the prevalence of sex trafficking in the city that is hosting it.

experienced trafficking in the past, shared how the culture of policing has made her feel that obtaining support from the police is not possible:

> I can't even call the police at all… Any issue that I have where I may feel my life is threatened, I'm not calling the police. I rather them find my dead body… because I'm Black and give me a good burial. That. That is what they created to the point where. No, don't call them. Wait till I'm dead. Because when you're dead, they legally have to do something with the body unless they want it to smell and decay into the floor, so that. I know if I'm dead, they'll do their best job possible because they have to. It's a health hazard once I'm dead. Yeah, that's how I've coped with knowing there's not a solution from people while I'm alive.

Having historically had negative experiences, Shirley Ann said she would prefer to die rather than rely on the police to help. The ongoing injustice faced by marginalized communities makes police a threat to their ability to work rather than a source of protection.

Another group that three of the participants (14.3%) identified as being at risk of over-policing is migrant sex workers. Dr. Millar spoke about how in Canada, migrant workers must worry about both the criminal and immigration laws, as the *IRPA* prevents any migrant from working in the sex industry. When police catch migrants in the sex industry, the migrants face deportation or removal. It is unclear what happens to sex workers who the government deports as it is virtually impossible to track people once the government has moved them beyond Canada's borders. As a result, the state leaves migrant sex workers without any resources or protection. Similarly, Tricia stated,

> I mean right now there are already no safe ways for the community [Canadian migrant sex worker support organization] supports to report to the police and so I think with more surveillance it would just show that again there is no safe way to report. More so than before because even when women are working with others – I mean there are quite a lot of women we know who have dual roles as well so I think that group of people will also face more scrutiny because they are doing dual roles - they are phone handlers, but they are also a worker, or they are handling the phone for someone else.

Racialized and queer participants expressed that community organizations are unwelcoming to transgender, non-binary, and racialized sex workers. The lack of inclusion in organizations means that the supports offered to some sex workers are not always available to trans, non-binary, and racialized sex workers.

> It would probably have a bad impact on us just for the sake that, we're already a little bit on [the] fringes, already as a trans sex worker, I've had to really duke it out with other sex workers who didn't necessarily always… There's inclusivity issues, even amongst us… We have our own problems as well among us. Never mind that society also has problems with us. (Alicia)

> No, because over time, every community becomes toxic. So, I used to attend group therapy for a sex worker organization, and Mondays, I'm mostly the only person of colour in that group and the rest of the group are white women.… They don't realize how much privilege they have for being a white person in sex work. And when I'm in therapy trying to process my stuff and when I bring up how sex work is super racist, they don't have the concept of that because they don't experience it. They'll never get rejected for the colour of their skin, ever.… So, they need to acknowledge we're coming from a wide range of backgrounds. (Shirley Ann)

To combat the possible disproportionate effects AI-based policing models could have, 11 (52.4%) participants thought the creators of the models need to center the voices of marginalized sex workers in any police-led initiative targeting the sex industry.

> It'd be great to have teams of BIPOCs in it, because then I don't have my voice drowned out because I'm always finding myself drowned out by whiteness. So, it just doesn't work as well. That's what I'm saying building this app would have to be really grassroots, you know what I mean? And it would have to be really community based. (Lane)

4.5. State of academic knowledge on sex work and exploitation

Given the importance of the social and historical context and its impact on the creation of AI-based policing, I asked the participants how they thought academic research reflected their experiences. Fourteen (66.7%) participants said most academics do not know enough about the sex industry to be making anti-trafficking AI-based policing models. Likewise, the two researchers interviewed for this project thought the state of research on human trafficking and exploitation in the sex industry was insufficient:

> Not in the context of sex work and certainly not in the context of human trafficking because we don't have an empirical evidentiary baseline, and we have very few charged and prosecuted cases. Even though there are a growing number of cases, it is almost exclusively purchasers, some sex workers, and third parties who are being prosecuted. I mean sex work and human trafficking have now become synonymous. No, I don't

> think that there is sound empirical basis for the development of AI and if we are serious about developing AI to track exploitation it should be across all labour sectors where we have some evidence that exploitation is taking place (and to track Canadians who go abroad to purchase sex from children). (Dr. Millar)

> I don't think people even know enough about how to make effective policy, let alone technologies for targeting. They can't even get the basics right because there's not an adequate amount of empirical – an adequate empirical foundation upon which to make solid decisions. On even the most benign aspects of how we deal with the operation of the sex industry. Now we are talking about making decisions that, again, I do not think are empirically informed in any way, shape or form because if I don't have access to an empirical base upon which to make a solid recommendation on the development of the regulation of the industry. How then, could anybody make the argument that they have a solid enough empirical base to make recommendations on the policing of an industry… If we can't even regulate interactions, how are we regulating the actual targeting and regulating behaviours? There is no adequate empirical base, there is no standardized empirical base for the study of the industry. (Chris Atchison)

Sex workers echoed the academic's statements regarding the state of literature on human trafficking:

> Clearly not, because if the academics knew enough, they would know that they were trying to tackle a very, very hard problem—which the technology isn't good enough for yet. Sort of like academics in World War II thinking about going to the Moon. Well, yes, we can see what we need to do to get there, but we can't do it now. And any academics who understand this subject will know that's where they are from an academic point of view. It's probably a wonderful thing to get your teeth into with a bit of grants, but you certainly should not be pretending that you've got anything that has a real-world use. (Philip)

Two (9.5%) participants stated that the state of academic literature was anti-sex work, and those biases will affect the creation of AI-based policing models. Another bias that could affect the creation of the models, noted by Chris, is that research only gives a snapshot of what is happening in the ever-evolving sex industry in one location.

> Time and place are probably the two single – they're two most important variables when we are trying to understand the knowledge base around the industry. Our knowledge of a snapshot in time will ultimately have to be checked against another snapshot in time and then another snapshot in time. And our knowledge of what's happening in this specific location has to be checked against knowledge in another location and if the way that we are collecting knowledge and the knowledge that we are gathering in time and place differs those knowledges no longer—are no longer are comparable so the idea that even the collective knowledge is coherent enough to build the technology for combating the aspects of

> the industry that flies in the face of the empirical realities of time and place. Not to mention, again, incredible variability in measurement and a disconnected network of actors studying the industry so all of those things you know, slow steps? (Chris Atchison)

To try to combat the lack of knowledge, participants said that researchers need to take a critical perspective and must include sex workers in their research. Sex workers thought that researchers cannot understand what it is like in the industry without experiencing it themselves—or hearing it from people who have lived the life—and this would always be a limit to their research.

> I just don't think research is enough. It's great, we do need to do it, we need research. We absolutely do. We needed that side of things, but I don't think you know enough because this is just being very raw and real, like until you're in a room sucking a dick for money that you don't want to be sucking in a shitty environment. You have no idea what it's like and what's going on in the person's head. You don't know what their home life is like. You know what I mean? You don't know any of that. (Niki)

In this quote, Niki expressed that merely conducting research does not make someone an expert in what it is like to be a sex worker; people must experience it to know it. One of the researchers who shared this sentiment saw their role as supporting those with lived experience. As Dr. Millar noted, “It’s not my lived experience, right? So, I can only support [the sex worker community] as an academic.”

4.6. Recommendations

The participants made several recommendations on how to make AI-based policing models aimed at the sex industry more ethical. This section starts with recommendations for how to address exploitation that is facilitated through online advertisement, then moves on to how to address general exploitation in the sex industry, and, finally, makes recommendations on how to make these AI-based policing models more ethical.

4.6.1. Recommendations on how to address exploitation in sex work that is facilitated through online advertising

Thirteen (61.9%) participants gave recommendations on how to address exploitation in the sex industry that do not involve the use of AI-based policing models, including:

- Working with those involved in the sex industry.
- Creating an advanced bad date system.
- Creating technology to help screen clients.
- Working with websites to flag ads.
- Allowing anonymous reporting on websites (for both sex workers and clients).
- Having a person who understands the sex industry looking through ads.
- More research into the patterns of trafficking ads.
- Allowing for more explicit advertising on websites.
- Web-scraping public forums and using AI for outreach.
- Engaging in community building.

Philip suggested age verification through facial recognition when the technology is advanced enough[39]. He specified that for this to be successful there may need to be a secondary check for people who the AI flags as being underage as not everyone ages the same way. Niki suggested keeping a general database that sex worker support organizations can access. Four (19.0%) participants stated that those running the advertising sites should collaborate with developers and police to fight exploitation online, as they have access to the back end of the advertising systems. Again, there was

[39] In 2024, the Canadian Senate introduced Bill S-210, *An Act to Restrict Young Persons' Online Access to Sexually Explicit Material,* which will make it illegal for websites containing sexually explicit material to allow young people to access that content. However, the British Columbia Civil Liberties Society has flagged the proposed law as simplistic and overbroad, noting the potential privacy issues of requiring people to identify themselves to access legal material (Jackson, 2024).

a lack of consistency among participants' understanding of what constitutes exploitation and what an indicator of trafficking could be.

4.6.2. Recommendations on how to address exploitation more generally

I asked the participants, in a perfect world, how would they want exploitation in the sex industry to be addressed. A key principle raised by nine (42.8%) participants was about supporting victims who self-identified as victims of human trafficking and/or exploitation regardless of the severity. Participants wanted victims believed, relationship building with victims, reduced barriers for victims, and more support services (including support to deal with the aftermath of trauma) and support workers (not police) to help those in need. Participants also wanted the conflation of sex work and human trafficking to stop, education for service workers, police, and third parties on how to better support sex workers and including sex workers in policy-advising positions. They asserted accurate non-politicized education for all service workers including police, nurses, doctors, social workers, and others who may work at a hospital was necessary. They also spoke about the need to move away from carceral systems as the only form of protection to creating a more equitable society and addressing the underlying issues that cause exploitation. Their suggestions included more funding to harm reduction community-based organizations and to address mental health concerns. They called for more community supports for queer and racialized sex workers, as well as those experiencing domestic violence, and poverty. Participants also called for more childcare supports to help protect families struggling to make ends meet.

Finally, nine (42.8%) participants identified structural issues that the state must address to better target and prevent exploitation. Rowan suggested more attention by the state on what leads people to exploit others, such as offering universal basic income, increasing disability payments, and addressing structural barriers that prevent racialized, LGBTQIA2S+, and disabled workers from accessing jobs that offer living wages. Alicia suggested that sex workers should have access to labour protections given to other workers including things like the government support payments during the 2020 coronavirus pandemic and allowing sex workers to mentor each other on safe practices, without fear of criminalization. Felicity also suggested addressing the stigma around sex work:

> I feel like a lot of white women, white privileged women in the sex industry are like, we need decrim[inalization], because once that oppression is taken away from them, they don't have to worry about being racialized as black. They don't have to be concerned if they pass as cisgender, like after decriminalization, of course, there are still going to be people who will try to murder and rape sex workers. Sadly. But, well, I never murdered anyone. I think a lot of serial killers go after foster care survivors, undocumented migrants, all those people because they know that if the police get contacted, they'll do NHI[40] [no human involved] on the case and just drop it. (Felicity)

4.6.3. Recommendations on access to AI-based policing models

Seven participants (33.3%) provided suggestions on who should use AI-based policing models to monitor online ads for sexual services if the creators do not give it to police. These included community-based organizations, government funded groups of sex workers, teams of social workers and police, someone who understands psychology and trauma, researchers, and universities. Olivia was the only participant who advised the developers to give the AI-based policing models to the police. A significant minority of eight (38.1%) participants suggested no one should get it as they saw no benefit to the use of AI-based policing models if those using them only monitor the sex industry with no safety nets for sex workers. Four participants (19.0%) said they would only trust the use of AI-based policing models if the sex work community engages in the creation. One (4.8%) participant was unsure of who should use these models.

4.6.4. Recommendations on ethical AI-based policing models

All 21 (100%) participants suggested specific strategies for how to make AI-based policing models to monitor online ads for sexual services in a more ethical manner. Their answers included meaningful collaboration with people who have a wide range of experiences, transparency, empathy, involving humans in the implementation of the models, employing a clear definition of exploitation that differentiates the sex industry, the creation of an oversight board, as well as better and more ethical research on the sex industry. Naomi suggested any AI-based policing model created should not assume the sex industry is inherently exploitative as this could cause over-surveillance of sex workers. Sharon stated it is up to those creating the AI-based policing models to

[40] In the past, the “no human involved” classification has been used on police files when police have found deceased sex workers or those experiencing homelessness (Wodda & Panfil, 2020).

maintain trust with sex workers. All (100%) participants said to make the AI-based policing models ethical, the creators must consult sex workers. Participants were adamant that collaboration needs to include people with an array of experiences, including sex workers, clients, third parties, racialized sex workers, LGBTQIA2S+ sex workers, victims of trafficking/those who have experienced exploitation, and former sex workers.

To ethically include sex workers into the research, four (19.0%) participants suggested researchers should properly compensate everyone for their time and contribution. Sharon suggested that researchers test AI-based policing models on other industries first, before using it on marginalized and criminalized populations. Sharon was also adamant that researchers must read and follow research ethics policies such as the *Tri-Council Policy Statement* (Canadian Institutes of Health Research et al., 2022), to ensure they are doing no harm to the communities they are researching. Three (14.3%) participants thought the AI-based policing models were not representative of their experiences and those developing the models should take the time to gain a better understanding of the sex industry, the range of exploitation in all labour, and the ways their bias affects how they view the sex industry.

Chapter 5.

Discussion of AI-based policing models to identify human trafficking

5.1. AI-based policing models and the surveillance state

As previously explained, the purpose of this thesis is to engage with individuals subjected to state surveillance on their perspectives of the feasibility of AI tools to distinguish between human trafficking and sex work, to expose the potential impacts that could arise from the use of such AI-based policing models and give recommendations on alternative ways to address these issues. While this project focuses on the use of AI-based policing models, many of the themes could be used in the analysis of other surveillance technologies employed by the state. In this project, I asked sex workers their opinions about three commonly proposed indicators of human trafficking: (a) suspicious wording in online ads for sexual services, (b) suspicious behaviour in online ads for sexual services, and (c) use of cryptocurrency to purchase online ads for sexual services. While some participants had varying responses regarding the potential of using language or suspicious posting activities to identify human trafficking, all participants could produce plausible rival explanations for the indicators of trafficking used by the AI-based policing models. To further complicate matters, there was no consistency among participants about what is “normal” ad behaviour or language and what is an indicator of trafficking. These findings indicate that they may not be particularly effective tools at detecting human trafficking.

5.1.1. Indicators of trafficking in online ads for sexual services

Participants’ lack of consensus about what might be a valid indicator of trafficking is not surprising given there is no consensus within the related scholarship on how to define human trafficking (Wijers, 2015). What participants viewed as “normal” is based on their subjective experience of the norms of advertising in the area in which they work and live. Sharon, Naomi, and Shauna all noted how advertising practices may also vary based on the type of clientele they are trying to attract, the type of services they are offering, and the length of time they have been working in the industry. What a sex

worker considers normal in one area, another sex worker could deem a potential indicator of trafficking in another. Scholars have identified other elements that generally affect one's experience in the sex industry and that could impact marketing strategies, including race (Raguparan, 2017), gender (Fitzgerald et al., 2015; O'Doherty & Waters, 2019), immigration status (Butler Burke, 2018) and socio-economic status (Sterling, 2018). Finally, how the government regulates the sex industry in any area would have impacts on how and where a person is able to advertise their services. Sterling (2018) found the introduction of criminal provisions in Canada to prevent the advertising of sex work changed sex worker's online advertising habits, including the use of vague wording to avoid police detection. Blunt and Wolf (2020) reported comparable results after the USA government passed *FOSTA-SESTA* in 2018 (see Section 2.1.3). The norms of how to avoid police detection would also vary by region; for example, Shauna advertises the cost of her time rather than specific services, as paying for time is not criminalized, while Sarah, who lives in a different city, uses acronyms for the services she provides.

Although there was no agreement on what an indicator of trafficking is, the majority of the participants did not think the indicators included in this study would be able to detect trafficking. Many of these indicators could be connected to historical and current myths about human trafficking and the sex industry. The words the programmers consider indicators of trafficking are related to youth, travel, working long hours and being passive (e.g., 24/7, young, nice, open minded, new, girls). The idea that young women are being forced into the sex industry and that no one would willingly do sex work can be traced back to the 'white slave trade' moral panic (Doezema, 1999) and can continue to be seen in rhetoric about human trafficking today (Brown, 2020). As shown by the inquiry participants, the use of these words could just be advertising strategies, since sex workers, as in any industry, will include words or phrases that will attract clients. Language such as "young" or "open minded" in an ad may or may not reflect the truth but will allow sex workers to attract more clients in an industry that thrives on fantasy. Sex workers may also use indicators like "24/7" or other language they normally would not include in an ad to generate the income they need to continue to support their and/or their family's lifestyle.

These terms are all highly subjective; what is "young" to one person may not be to another. Although some people do enter the sex industry under the age of 18 years (and would be considered sexually exploited youth—not sex workers), research has

shown that the majority of sex workers enter the industry in their 20s or 30s, with a significant minority entering in their 40s (T. Sanders et al., 2018). The idea that most sex workers enter the industry as children has been debunked by a number of researchers (Comte, 2014; Weitzer, 2005). Research on the off-street industry has shown that the dichotomy that everyone in the sex industry is either exploited or fully liberated does not reflect the reality of those in the industry (Comte, 2014). Researchers cannot generalize from one experience. Although some may enter the industry because they enjoy the work, others may choose to work in the sex industry because they are left out of traditional means of employment, such as people with disabilities (Jones, 2022), and transgender people (Fitzgerald et al., 2015). Some people may make the decision under constrained circumstances, yet they have likely weighed the pros and cons (Comte, 2014). The sex industry provides a place for people to support themselves, despite the deeply stratified, unequal colonial state in which we live (Raguparan, 2018). The inquiry participants also highlighted the importance of individual experience, space to figure out what advertising strategy works for the individual and respecting someone's choice to enter the sex industry.

The association of travel as an indicator of trafficking also can be traced back to the "white slave trade", where it was thought that racialized men were taking white women across borders to sell them in the sex trade (Doezema, 1999). In the 1990s, governments used this same rhetoric to pass immigration laws that limited women's ability to move freely (Wijers, 2015). The *Palermo Protocol* does require movement as an essential element of trafficking, however, movement alone is not enough to prove trafficking, as the defining element is exploitation (United Nations, 2000). As mentioned by participants, sex workers may tour or move for a number of reasons including working in more urban areas to increase income, to avoid family or friends identifying their work in the sex industry, or to capitalize on the "newness" of going to a different city, which is in line with what Hannem (2018) found in their study. Travelling to a different city allows sex workers to increase their potential earning capacity (T. Sanders et al., 2018). Again, the act of traveling alone is not enough to prove trafficking, but the association between traveling and human trafficking has severely limited sex worker's ability to move freely within and outside of countries (Durisin & van der Meulen, 2021).

Many of the indicators are associated with cooperative behaviour and third parties in the sex industry. This includes using terms like "24/7," having multiple names

in an ad, and posting multiple ads. The idea that third parties are inherently dangerous has been a long-standing myth within rhetoric surrounding the sex industry (Bruckert & Law, 2014). However, research has shown that some third parties act as important safety and communication supports for workers in the sex industry, as many of the participants expressed. Bruckert and Law (2014) and McBride et al. (2021) found in their interviews with sex workers that third parties make working in the sex industry safer. Having other people around when working means there is someone who can intervene if a client refuses to pay or if a client starts to act out violently (Bruckert & Law, 2014). My participants, similarly, advocated for allowing sex workers to work together as it provides safety, especially as it gives new sex workers an opportunity to learn from others. Bringing police attention to sex workers who work together would have a cooling effect leading to sex workers working alone, increasing the risk of the job.

Escort companies and massage parlours also provide community and support to some who decide to work for them (McBride et al., 2021). McBride et al. (2021) found that there are psychological and physical health benefits to working for a third party. Community is very important for getting information to people about mental health, general health and other support services but also sharing information about bad clients and steps one can take to protect themselves (Blunt et al., 2022). The inquiry participants shared many of these sentiments, especially the few who had worked for agencies in the past. Some of the participants brought up how working together means being able to learn from someone who has experience in the industry and enjoy other emotional support. They also act as a support network for people who may not want to continue in the sex industry. These communities are no longer just in person. The Internet provides the opportunity for sex workers around the world to connect. However, online communication has been severely limited by criminal laws that limit sex workers ability to advertise and communicate online (Blunt & Wolf, 2020). Participants concluded that if the goal is to address exploitation in the industry, then the state should take steps to ensure sex workers can work safely.

The problem with using these words as indicators of trafficking is that they are based on biased understandings of the sex industry. Not having an accurate picture of how sex workers advertise means that the AI-based policing models could be flagging “normal” advertising behaviour as potential trafficking. Since many of these indicators are tied to myths that have been used historically to increase policing of the sex industry,

many of the harms of these policies are likely to be replicated. The indicators being so deeply tied to police misconceptions of the sex industry and human trafficking reinforces the conflation of the two and positions the police as the solution to the problem (Heynen, 2023). The replication and continuation of policing harms is what many of the participants in this study worried would continue with the AI-based policing models. Any surveillance technology introduced by the state should, at the very least, account for the rival plausible explanations for advertising behaviour and the complexity of experience in the sex industry.

5.1.2. Cryptocurrency and online banking

The use of cryptocurrency as an indicator of human trafficking can be tied to the understanding that criminals are more likely to use cryptocurrency to cover their criminal behaviour. However, this understanding ignores what many participants in this study shared: sex workers are prohibited from using the traditional banking system and must rely on other systems. Participants noted that surveillance of the sex industry has impacted their abilities to access financial institutions like Mastercard, PayPal, Visa and more. Recently sex workers have claimed that Canadian banks have been canceling their accounts due to their involvement in the sex industry and OnlyFans (Johansen & Espinosa, 2023). Where banks have not cut services, companies are still restricting sex workers access to their services. Eight (38.1%) of my participants had mentioned they have already experienced interruptions to online payment processors due to their sex work. This is line with Webber (2022) research, which found that when Mastercard updated its policies around adult content creation, 90% of their sample of 117 sex workers had endured at least one detrimental effect due to Mastercard's policy change. In total, 68% had their accounts flagged and 32% had their accounts closed (Webber, 2022).

The conflation of human trafficking has meant Visa and Mastercard have cut their services to websites like Pornhub, Backpage and other websites that facilitate sex work (see Global Network of Sex Work Projects, 2015; Johansen & Espinosa, 2023; Price, 2022). Blunt et al. (2022) reported 66% of their sample of 157 sex workers had their accounts closed by online financial institutions. Participants in this study explained that these anti-sex work policies force sex workers to find alternative systems of payment. The move to cryptocurrency has been seen throughout the sex industry as a way to

avoid being monitored (Johansen & Espinosa, 2023)—a point about which many of the inquiry participants agreed. Cryptocurrency and other non-traditional forms of banking are becoming necessary in the sex industry because anti-trafficking and anti-sex work policies prevent sex workers from accessing other payment processors. As mentioned by the inquiry participants, further surveillance of this activity would only move sex workers further offline to continue their work.

5.1.3. Bias in policing and AI-based policing models

Participants expressed how the lack of understanding of the realities of working in the sex industry has led to AI-based policing models that are not reflective of the reality of exploitation and human trafficking. Scientists speak with authority on subjects, even when the topic falls outside of their area of expertise (Whatmore, 2009). Being an expert in computer programming or AI does not make an individual an expert in advertising in the sex industry. The lack of trust among the study's participants toward those creating the AI-based policing models, fits into a long-standing history of people making decisions about the sex industry without input from sex workers. As Chambliss (2001) argued, those who are the most vocal about the exaggeration and distortion of crime are typically the ones profiting.

Seven (33.3%) of the participants were concerned about how the possibility of gaining grants and furthering one's career would be considered over the protection of sex workers, especially since millions of dollars have gone into the creation of these AI-based policing models (see Maza, 2013; Wu, 2020). The AI-based policing models can hide behind the façade of neutrality because of the mathematical principles on which computer scientists based their work (Mittelstadt et al., 2016). However, more attention is being given towards the ways that AI has been shown to reflect the bias of those who create it (Mittelstadt et al., 2016). The programmers are creating the AI-based policing models to identify trafficking within a criminal justice system that, for years, scholars like Brickey and Comack (1987) and DeKeseredy (2021) have found to reinforce social inequities. The AI-based policing models will likely reflect many of the same inequities seen within the criminal justice system. The inquiry participants flagged resulting inequity as a concern they had about the use of AI-based policing models. Additionally, Lisa advocated for those developing surveillance technology to ask themselves why they are pursuing it and who benefits from its creation.

The inquiry participants also questioned the programmers focus on the sex industry in their search for human trafficking. Kaye and Hastie (2015) argued that the focus of the anti-trafficking laws on the sex industry has had a detrimental impact on those experiencing other forms of labour trafficking. As mentioned by Dr. Millar, Felicity and Sharon, labour exploitation is taking place in a number of industries, yet they are not experiencing the same level of surveillance in the name of protection. Felicity specifically noted that other industries, like construction, do require workers to use their bodies but do not receive the same level of scrutiny despite the fact many of these jobs are dangerous and have detrimental impacts on the health of the workers. Despite the fact labour exploitation is known to exist in a number of industries, especially industries that rely on migrant workers, the legal framework cannot adequately address these issues (Hastie, 2012). As found in Brown's (2020) analysis the government justifies the exploitation of workers in these fields, specifically migrant workers, because of the benefits to Canadian businesses. Quirk (2014) noted that western country's need for migrant workers arose due to the abolition of slavery to replace the loss of cheap labour. As shown in section 5.1.1, there are many similarities between the proposed indicators of trafficking, and past efforts to criminalize and control the sex industry in the name of protecting women despite it having harmful impacts on sex workers. Given this history, my participants questioned the motives behind the creation of surveillance technologies aimed at the sex industry. Shauna saw the foray into AI-based policing models as a continuation of the state trying to control women's and other marginalized people's bodies, rather than to help those experiencing exploitation.

Participants also warned of the cooling effect that increased police interference in the sex industry would have on sex workers who do experience violence. Benoit et al. (2016) found about half of the 139 sex worker participants reported that they knew someone who, or they themselves, had experienced discrimination and disrespectful treatment from police. Scoular et al. (2019) noted those who had negative experiences with police said they would not report violence in the future. Sex workers are less likely to report to police when they experience violence or exploitation out of fear that they themselves will be arrested (Platt et al., 2018). The lack of trust creates a barrier for police in responding to victims of human trafficking because sex workers who experience exploitation may not want to cooperate out of fear of arrest. The inquiry participants similarly shared these barriers. Shirley Ann talked about her experience

going to the police after being trafficked and said that she would not go to the police in the future if it happened again. In fact, she would rather die than call the police if she was experiencing violence. Sex workers are forced to take precautions or change their behaviour to avoid police detection (Krüsi et al., 2012; O'Doherty & Waters, 2019), which includes changing online behaviour (Blunt & Wolf, 2020; Sterling, 2018). Vanwesenbeeck (2017) also argued anti-trafficking initiatives by the police and the criminalization of the sex industry increases the risk of violence and exploitation by creating barriers for victims to access justice and forcing sex workers to work in more dangerous situations to avoid police detection. The participants (80.9%) also shared the lack of trust with the police, who said the police should not be given access to AI-based policing models that flag exploitation from online ads for sexual services. To avoid replicating these harms, future advancements in investigating exploitation in the sex industry should be created in partnership with sex workers.

5.1.4. Race, immigration status, and AI-based policing models

Overall, the inquiry participants thought that police accessing AI-based policing models would likely affect racialized and migrant sex workers disproportionately due to the history of targeting of these groups in the policing of the sex industry. They acknowledged that the racism within the sex industry, especially in sex worker support organizations, means that racialized sex workers are unlikely to access services, or when they do, they may not feel like they belong. The participants pointed to the historical harms of the anti-trafficking movement on racialized sex workers as evidence for their claims. The anti-trafficking movement has been criticized for ignoring the racial, colonial, and economic disparities that create the opportunity for exploitation (De Shalit et al., 2014). The criminal justice system has been criticized as a tool that upholds existing social structures by disproportionately criminalizing racialized persons (Clarke & Abdillahi, 2021). Black and Indigenous people are already facing discrimination, including surveillance, arrest, and longer sentences, all of which puts them at even greater risk of the AI-based policing models discriminating against them (Robertson et al., 2020). In this study, participants noted that racialized sex workers are already disadvantaged by the fact they are viewed as the stereotypical victims of trafficking, which restricts their earnings and prevents them from being able to work in legal parts of the sex industry, which is supported by Raguparan's (2017) study. Racialized sex

workers have been found to be forced to take fewer precautions when negotiating with clients who are wary about seeing racialized sex workers out of fear they will be caught in a police sting (Sterling & van der Meulen, 2018).

The use of AI-based policing models may not only make racialized persons more likely to be under surveillance by police, but also, like Shirley-Ann, less likely to come forward when they experience harm. Due to the greater impact of the criminal laws on racialized sex workers, they also are less likely to report violence to the police (Maynard, 2018). Other research has similarly found that the focus on Indigenous women has meant that police are more likely to profile them as victims, which means they are faced with increased police surveillance and are more likely to face arrest and state violence (Kaye, 2017). This reinforces the colonial government's long history of regulating Indigenous women's bodies (Kaye, 2017). Several participants noted the additional barrier for migrant sex workers who not only face possible criminal sanctions but also face the possibility of immigration officers removing them from the country for violating immigration work visa regulations. Migrant workers also have been found to be less likely to report violence to the police for this reason (Lam & Lepp, 2019). Removing the barrier of criminalization would allow sex workers greater access to justice by providing victims with the ability to report without fear of arrest (Platt et al., 2018). Participants warned that the use of AI-based policing models would remove safer avenues of work from racialized sex workers, especially if police already see them as the stereotypical trafficking victim the programmer is training the AI-based policing model to find.

5.1.5. Gender and AI-based policing models

Participants in this study also expressed concern that police use of AI-based policing models would have a disproportionate effect on transgender, non-binary, and female sex workers. Again, they acknowledged past harms of policing on transgender, non-binary and female sex workers as evidence for their claims. Past research has exhibited that websites hosting male ads for sexual services are much more likely to be praised by the media for being sex positive, while those hosting female ads for sexual services were more likely condemned for promoting sex trafficking (Majic, 2020). This difference in how society views female and male sex work means that websites hosting female ads for sexual services will be monitored by AI-based policing models more than websites hosting male ads for sexual services. O'Doherty and Waters (2019) have

already shown female sex workers must take more steps to avoid police detection than their male counterparts. The traditional focus of law enforcement on female sex workers made the participants concerned that AI-based policing models would target them disproportionately. In addition, surveillance technologies may impact people of different genders differently (Heynen & van der Meulen, 2016). The majority of female participants in this study were uncomfortable with the idea of their data being collected by the AI-based policing models with no way to know who is collecting it and how it is being used.

The bias of the AI could have similar effects on transgender sex workers, as Scheim et al. (2023) found transgender and non-binary sex workers are even less likely to report violence than their cis-gender counterparts due to the increased surveillance and negative interactions with police. Since transgender and non-binary people are often reliant on the sex industry for income due to discriminatory employment practices, the participants also worried about how the use of AI-based policing models would disproportionately affect them, which is supported by past research (see Fitzgerald et al., 2015). Rowan, Alicia, and Lane affirmed that transgender and non-binary sex workers are already coming from a place of disadvantage when trying to access housing and employment. Participants agreed that taking away safe avenues to advertise sex work would disproportionately affect transgender and non-binary sex workers who will have to find alternative ways to support themselves and their families. A lack of safe alternative options could mean transgender and non-binary sex workers move towards in-person or street-based work which could increase risk. As mentioned in Section 2.2.2 in this thesis, advertising online provides sex workers with an array of safety precautions like the ability to negotiate and screen clients before meeting in person. This is especially important for transgender sex workers who are at risk of transphobic violence from clients (Russo, 2020).

5.1.6. Privacy impacts of AI-based policing models

Participants expressed apprehension towards the AI-based policing models because of the privacy implications of this kind of state surveillance. Although sex workers are putting their ads on publicly accessible websites, they are not consenting to the police scraping and storing the information. Naomi made it very clear in her interview that online ads for sexual services are not posted for the benefit of police investigations,

and, therefore, the scraping of them without consent is a violation of sex workers privacy. The Office of the Privacy Commissioner of Canada (2023) has stated that "public accessibility of data does not mean that it can be indiscriminately collected or used" (p. 80). The state must still follow privacy laws to ensure they are not causing harm through the storage and disclosure of data. The move towards AI-based policing models has meant that police have gained access to information that they never would have been able to use previously (Haggerty & Ericson, 2000). This has blurred the lines between the public and private sphere (C. B. Sanders & Sheptycki, 2017). The study's participants expressed concern over the lack of transparency in what information can be gathered by the use of AI and what it would mean if there was a data breach.

People may be unaware how much data an algorithm can gather about them from one post. A sex worker may take a number of steps to conceal their identity by using a fake name, not posting a picture of their face, or acquiring a separate phone to communicate with clients. All of that would be for nothing as the metadata[41] that could be collected can be traced back to an individual in ways that someone may not realize (C. B. Sanders & Sheptycki, 2017). As participants pointed out, this leaves sex workers at risk of being outed. Bruckert and Hannem (2013) identified some of the implications of being outed as facing increased violence and harassment as well as potential social exclusion (e.g., loss of job, friends, family). Many of these concerns were shared by the participants in this study. Three of the participants specifically spoke about the concern that being outed could mean losing custody of their child. If there was ever a data breach it could have detrimental effects to anyone who had the state scrape their data. The participants worried about what Ogasawara (2023) coined as protective abandonment, that the information the state is gathering under the guise of protection, would be used to prevent sex workers from accessing other social supports due to their association with criminalized activities. As shown by Nancy, the increase of online surveillance has meant that some sex workers may choose to work in-person rather than online because of the possible privacy infringement this type of surveillance could have. Although Nancy mentioned that it was safe for her to work in person, she acknowledged that this is not the reality for everyone. Wright et al., (2015) similarly found that sex workers are resistant to the introduction of community surveillance technologies that increase their

[41] Metadata refers to the automated log that collects information on the location, time, by who and around whom something is posted or accessed online.

visibility to police, instead they must implement their own personal safety measures, as they are unable to rely on community safety measures. Moving to in person work would be one way a sex worker could resist being exposed to the potential harms of the AI-based policing models; however, they will still be vulnerable to the risks involved with in-person work.

5.1.7. Benefits of AI-based policing models

Although there are concerns about using AI-based policing models to identify exploitation in online ads for sexual services, the participants also mentioned possible benefits accompanying potential use of this technology. Identifying and helping victims is a laudable goal for those who create AI-based policing models, which they should pursue, but without putting others at risk. Nancy even found comforting the very idea of someone looking for victims. Olivia was adamant that creating AI-based policing models to support the search for human trafficking would help police stay ahead of traffickers. Information that would take humans hours to sort through may take an AI-based policing model mere seconds. AI-based policing models also could mean that humans are no longer needed to go through potentially traumatic images or information (Thakor, 2018). Bennett Moses and Chan (2018) argued, although not supported by empirical evidence, AI-based policing models might lead to a reduction in crime. Humans are flawed decision makers, and AI-based policing models could improve the consistency of police decisions (Oswald et al., 2018). The point of using AI-based policing models is not to have the model make the final decision for the police, but to "assist the police in making better decisions and distribute police resources more effectively" (Yen & Hung, 2021, Replies to the Criticisms section, para. 3). Even though only 4 (19.0%) participants identified benefits to the use of AI-based policing models, the consensus among participants was that more should be done to keep those working in the sex industry safe. They disagreed with the notion that increasing police surveillance through AI or other means was the best solution.

5.1.8. Structural impediments to success

The structural barriers to accessing police services and justice create impediments for police to use AI-based policing models without exacerbating existing inequities and creating collateral damage. When the participants in this study were

asked how they would confront exploitation in the sex industry, many identified the need to address the underlying issues that cause violence in the first place. If people do not feel comfortable coming forward to police, increasing police surveillance will only push them underground to avoid detection. Similarly, if people do not have access to safe affordable housing and food, they will remain vulnerable to exploitation. Mears (2007) warned policymakers and researchers against creating band-aid solutions instead of dealing with underlying structural issues. Milivojevic et al. (2020) argued AI is merely a reflection of humanity and it "is not a ruse, nor a saviour" (p. 29). AI-based policing models are unable to solve complex social issues making it necessary to continue to look at the issue through a critical lens. Individuals will continue to exploit others unless the government takes additional steps to address the underlying issues that force them to be vulnerable in the first place. Of the participants, 42.8% (*n* = 9) identified structural issues that the state needs to address to better support sex workers and victims. Many of the issues brought up by participants in my study came down to two things: (a) criminalization of the industry and (b) the lack of structural supports.

A majority of participants spoke about how the criminal law inhibits their ability to work safely. A meta-analysis by Platt et al. (2018) found countries that criminalize the sex industry have poorer outcomes among sex workers health and working conditions. Sharon and other participants spoke about how the criminalized nature of the sex industry prevents sex workers from working together, a way of working which provides safety and community. In Canada, by passing *PCEPA* sex workers are viewed as helpless victims, delegitimizing any agency they have and preventing their work from ever being seen as valid labour (Bruckert & Hannem, 2013). The inquiry participants acknowledged that sex workers will find ways to avoid police detection, even if it means they are increasing their risk. However, the criminalization of the industry does not only affect sex workers themselves—it also affects their families. Participants discussed the effects of stigma, with many worrying about the possibility policing interference in the sex industry could mean they are outed. As identified in Section 5.1.6 in this thesis, being outed can have detrimental effects to someone's livelihood and relationships.

As Felicity noted, decriminalization is only part of the solution. Krüsi et al. (2012) demonstrated that safe spaces for sex workers to work improves their ability to negotiate with clients, increases trust with police and improves their health outcomes. As Shauna mentioned, there is no point in identifying victims if there is no support or help for them to

support themselves. Inquiry participants spoke extensively about how many people experience barriers to accessing health care, housing and traditional employment which make entering the sex industry an option to allow them to continue to support themselves. These experiences have been documented in other research projects. Migrants are already “illegalized” (i.e., seen as “illegal” in communities), using indirect laws that exclude them from housing, other workforce options and healthcare (Coutin, 2021). Fitzgerald et al. (2015) demonstrated that widespread employment discrimination against transgender and non-binary people has led to them being overrepresented in the sex industry. Much like transgender and migrant sex workers, many disabled people rely on sex work as they face challenges maintaining employment in an ableist, capitalist society (Coombes et al., 2022). Rowan, Shirley Ann and Shauna similarly spoke about how the sex industry provides those with disabilities a way to make a living wage while also providing flexibility to those with disabilities to work when they can. Following the coronavirus pandemic, many immunocompromised people turned to online sex work as it provided them a way to make money without having to risk in person interactions (Coombes et al., 2022). Sex work provides people with many benefits, such as an ability to make a good living, choose their hours, the freedom to work for oneself, and so forth (Bowen, 2015). The study’s participants advocated that to reduce people’s vulnerabilities the state needs to reduce barriers to employment and housing.

5.1.9. Victim support through relationship building

Just under half of the inquiry participants indicated that the best way to identify and help victims of trafficking is through relationship building. There are many barriers to victims coming forward. Victims trying to obtain protection must cooperate with law enforcement and agree to testify, which could put them or their family at more risk if their traffickers learn they are cooperating (Global Alliance Against Trafficking in Women, 2007, p. 14). Being unable to go to law enforcement for help leaves sex workers and trafficking victims even more open to exploitation and other forms of victimization. Those perpetuating violence against sex workers know these realities so they are able to continue offending without repercussion (Lutnick, 2019). Even if victims were willing to come forward, Crown counsel has expressed frustration with trying to convince judges and juries about the realities of exploitation (O’Doherty et al., 2018). The study’s participants recognize the realities of trafficking are much different than what the media

shows. Misconceptions have made it very hard for victims to receive justice; indeed, the fixation on targeting sexual exploitation has served to make victims of labour trafficking invisible to society (Kaye & Hastie, 2015). Thus, evidence shows that crime control is ineffective (Morcom & Schloenhardt, 2011). States need to take a more human rights-focused approach; a view the majority of the participants share.

Advertising sexual services online is not going anywhere so any AI-based policing model interventions in the industry should avoid past mistakes. The inquiry participants worried that the effects of the AI-based policing models would be similar to past attempts to regulate the online advertising of sexual services. Blunt et al. (2020) and Tichenor (2020) both demonstrated interventions that target online ads for sexual services are already having negative effects. Many of the inquiry participants' concerns about losing safe places to advertise and losing income, have already been experienced by the participants in Blunt et al.'s (2020) and Tichenor's (2020) research. Sex workers also risk losing the ability to take safety precautions afforded by online advertising, like linking with other sex workers about their experiences with clients and being able to clearly communicate what kind of services they offer before meeting a client in person (Campbell et al., 2019). All inquiry participants thought that sex workers needed to be involved in the creation of the AI-based policing models to avoid past harms. A few participants also called for humans to be involved in the AI process. This is in line with what some computer scientists have called for (e.g., Rodrigues, 2020), which includes human-in-the-loop designs of AI that allow human intervention if bias is detected. But if the human involved in the loop does not understand the complexity and nuance of the sex industry, it is unlikely that this sort of design will reduce the risk.

5.1.10. Sex workers 'involvement in the creation of AI-based policing models

The study's participants joined the call for sex workers to be involved in identifying the problems facing sex workers and their solutions (Bruckert & Hannem, 2013; City of Vancouver & Vancouver Coastal Health Authority, 2014). The Law Commission of Ontario (2021) reported on the use of AI-based policing models by the state also found communities that are at risk of being discriminated against are better positioned to understand the possible impacts of the AI-based policing models and, because of this, it is crucial that they are involved in every stage of developing AI.

Felkins (2022) noted white, cis-gender and otherwise privileged sex workers are upholding systems of power in sex work, financially benefiting from the advocacy of marginalized sex workers. The participants shared a concern that AI-based policing models would not represent marginalized communities in their creation, leading to further marginalization. To effectively support marginalized sex workers the creators of any AI-based policing models aimed at the sex industry should center marginalized experiences, particularly racialized, LGBTQIA2S+ and migrant sex workers. Centering marginalized voices is especially important to reduce the level of bias entering the AI-based policing models that have already caused so much harm to the communities.

5.2. Limitations of this study

I conducted this study seeking to better understand the potential impacts of the state using AI-based policing models to expand the surveillance of sex workers and to identify victims of human trafficking. The majority of the participants did not have a background in computer science, meaning that my findings can only critique the underlying assumptions of developers of the AI-based policing models as opposed to making definitive statements about the potential success of the AI. I also did not have access to the data used to train the AI, which prevented any further understanding of what the developers are training the AI to detect. Police presumably have not yet started to use AI-based policing models, which means the participants could only speculate on the effects that these models could have on the industry. However, given their experience with other AI models affecting the online industry and various forms of police intervention, they are in the best position for understanding the possible effects. Although it was not included in this analysis, the participants did talk at length about the impact of algorithmic surveillance on websites like Instagram and X (formerly, Twitter). The use of algorithms to monitor these sites have affected the participants ability to support themselves due to their content being taken down or shadow banned[42]. The participants expressed how they live with constant anxiety due to the possibility that their account will be taken down, leaving them without a way to connect with potential clients.

[42] Shadow banning occurs when someone posts as normal, but their content does not show up in anyone's feed (Blunt et al., 2022). For more discussion on sex workers' experiences on social medial websites see Blunt et al., 2022.

The majority of my sample were white, female, and cisgender; meaning many voices and experiences were not captured by my sample. The majority of my sample was from Canada, and the current criminal laws regulating the sex industry are likely to impact participant's views on the proposed AI-based policing models. My gatekeepers were sex worker support organizations, meaning those who do not access these services would have not received my call for participants. The implications being sex workers who may be working in isolated areas were not represented. My affiliation to the university and the universities association with the AI-based policing model could have biased my sample, as people may not have been comfortable speaking with me if they thought my intention was to promote the use of AI. I found that in my interviews some participants were reluctant to be completely open with their thoughts because they did not want to insult the AI-based policing model, or they were suspicious of my motives. I found that once I explained my exploratory position on the AI-based policing model, they shared more openly with me. My lack of experience in the sex industry could have also limited who was willing to participate and affect how some participants answered questions. I took inspiration from participatory action research to try to account for my lack of insider knowledge and how this could impact my interpretation of data; however, these methods have their own drawbacks.

My study was an exploratory effort to understand the possible implications of using AI-based policing models in anti-trafficking initiatives by the police. I hope my study will inform future research, but my research is only one piece of the puzzle. I was unable to speak with police and the developers of the AI due to time constraints and my focus on sex workers' experiences, but they should also be consulted in the future. There are many questions still to be answered on the data being used to train these AI-based policing models and how the police anticipate using them. My participants raised a number of important topics that were beyond the scope of my study and deserve a more in-depth analysis. These topics include:

- Defining all the diverse types of models' police could use in AI-based policing models (e.g., Random Forests, Large Language models and unsupervised clustering models etc.).
- Inquiry into the possible impacts of AI-based policing models' developers have designed to identify suspicious activity on message boards and match them with suspicious activity on online ads for sexual services (e.g., TellFinder).

- The possible fatphobic and discriminatory effects of AI-based policing on fat people.
- The geographic, gendered, racial, or other socio-economic factors that may influence what sex workers view as “normal” advertising behaviour.
- The ideological debate around the difference between sex work and human trafficking.

Scholars should conduct more research to obtain a wider range of views on AI-based policing models in anti-trafficking initiatives before the police implement any model.

5.3. Conclusion

Although this study was only exploratory, participants expressed concern that the AI-based policing models’ developers are designing to find exploitation from online ads for sexual services may not be particularly effective at distinguishing sex work from human trafficking and instead, will recreate many of the same harms that past anti-trafficking initiatives have created. The focus of this study was on the use of AI-based policing models, but more broadly, the research analyzes the expansion of the surveillance state to online communities. Police surveillance of online communities of already marginalized and criminalized groups like sex workers puts them at risk as there is a lack of foundational knowledge about their online behaviour needed for developers to train the AI. The majority of the inquiry participants could think of rival plausible explanations for the behaviour on ads the AI-based policing models assume are an indicator of trafficking. Many of the indicators of trafficking can be traced to myths about the sex industry, which have been used in the past to increase police presence in the sex industry and negate individual choice to enter.

The worry of the majority of participants was that these AI-based policing models will continue to conflate sex work with human trafficking, leading to the sustained criminalization of sex work, which would mean the expansion of the surveillance state into areas which previously had very little police interference. Misconceptions about the sex industry by police have previously led to the arrest and deportation of sex workers, particularly migrant sex workers (Clancey & Mahon, 2020) and impaired the physical and psychological health of sex workers (Krüsi et al., 2014). The study’s participants warned that continuing to use these myths on which to base police practices or surveillance technology will only force the sex industry further underground to avoid police detection,

which previous research (see Krüsi et al., 2014, Vanwesenbeeck, 2017) has shown increases the risk of negative outcomes for sex workers. The inquiry participants also highlighted that the intrusions into sex worker's privacy could mean that more sex workers choose to work in person, which could increase their risk. This could potentially have greater impacts on already marginalized groups who experience exclusion from traditional employment and housing as well as the brunt of harms of the criminal justice system.

There also are benefits to using AI-based policing models as identifying victims of human trafficking is an important and time-consuming task. The introduction of AI could mean that police could detect more victims. However, if the AI cannot effectively differentiate instances of exploitation where an individual fears for their safety and cooperative sex work with third-party involvement in the sex industry, the collateral damage could outweigh the benefits. As mentioned by many of the participants, without changes to the criminal law, as well as the social support networks, employment laws, housing laws and proper training for those who support victims, there will be few supports for the victims the AI-based policing models detect. It is imperative that those who are better positioned to understand the issues facing sex workers—sex workers themselves—are the ones whose voices are central to the creation of AI-based policing models. Hopefully, these findings demonstrate that there is much to learn from consulting with those directly impacted by law enforcement efforts. Meaningful collaboration with those who have lived experience in the sex industry; racialized sex workers, LGBTQIA2S+ sex workers, clients, third parties, trafficking victims, and former sex workers can help to point out rival plausible explanations and other important limitations on assumptions that are found at the core of those investigation efforts. Finally, these data suggest that programmers and researchers should do more research on the efficacy and the risks of AI-based policing models before they are put into use, especially if they are being shared with government or the police. Importantly, these findings make room for future collaborations on the quest to address exploitation. To be most effective—and to reduce the risk the AI will replicate and sustain state- based oppression of marginalized groups like sex workers—AI-based state intervention should be created in collaboration with the groups that will be most impacted by the intervention.

References

Legal Citations

Bill 210, *An Act to Restrict Young Persons' Online Access to Sexually Explicit Material*, 1st session, 44th Parliament, 2021.

Canada (Attorney General) v. Bedford, 2013, SCC, 72. https://decisions.scc-csc.ca/scc-csc/scc-csc/en/item/13389/index.do

Canadian Alliance for Sex Work Law Reform v. Canada (Attorney General), 2023 ONSC 5197.

Canadian Charter of Rights and Freedoms, being Part I of the Constitution Act, 1982, being Schedule B to the Canada Act 1982 (U.K.), 1982, c. 11. https://www.canlii.org/en/ca/laws/stat/schedule-b-to-the-canada-act-1982-uk-1982-c-11/latest/schedule-b-to-the-canada-act-1982-uk-1982-c-11.html

Criminal Code of Canada, R.S.C. 1985, c C-46 [Canada]. https://www.canlii.org/en/ca/laws/stat/rsc-1985-c-c-46/latest/rsc-1985-c-c-46.html

Fight Online Sex Trafficking Act & Stop Enabling Sex Trafficking Act, Pub. L. No. 115-164, 132 Stat. 1253 (2018). Retrieved from https://www.congress.gov/bill/115th-congress/house-bill/1865

Immigration and Refugee Protection Act, R.S.C. 2001, c. 27 [Canada]. https://www.canlii.org/en/ca/laws/stat/sc-2001-c-27/latest/sc-2001-c-27.html

Indian Act, R.S.C 1985, c I-5 [Canada] https://www.canlii.org/en/ca/laws/stat/rsc-1985-c-i-5/latest/rsc-1985-c-i-5.html

Protection of Communities and Exploited Persons Act, R.S.C. 2014, c. 25 [Canada]. https://www.canlii.org/en/ca/laws/astat/sc-2014-c-25/latest/sc-2014-c-25.html

R. v. Anwar, 2020 ONCJ 103. https://www.canlii.org/en/on/oncj/doc/2020/2020oncj103/2020oncj103.html

R. v. Barton, 2019 SCC 33 https://decisions.scc-csc.ca/scc-csc/scc-csc/en/item/17800/index.do

Other Citations

United Nations. (2000, November 15). *Protocol to prevent, suppress and punish trafficking in persons especially women and children, supplementing the United Nations Convention Against Transnational Organized Crime* (General Assembly Resolution 55/25). https://www.ohchr.org/en/instruments-mechanisms/instruments/protocol-prevent-suppress-and-punish-trafficking-persons

Aggarwal, C. C. (2018). *Neural networks and deep learning: A textbook*. Springer. https://doi.org/10.1007/978-3-319-94463-0

Alcoff, L. (1994). The problem of speaking for others. In S. O. Weisser & J. Fleischner (Eds.), *Feminist nightmares: Women at odds: Feminism and the problem of sisterhood* (pp. 285–309). NYU Press. http://public.eblib.com/choice/publicfullrecord.aspx?p=865963

Alessandrini, D. (2021). Feminism. In M. Valverde, K. M. Clarke, E. Darian-Smith, & P. Kotiswaran (Eds.), *The Routledge handbook of law and society* (pp. 26–30). Routledge.

Alpaydin, E. (2016). *Machine learning: The new AI*. MIT Press.

American Civil Liberties Union. (2022, May 11). *ACLU v. Clearview AI.* https://www.aclu.org/cases/aclu-v-clearview-ai

Atchison, C., & Burnett, P. J. (2016). The social dynamics of safe sex practices among Canadian sex industry clients. *Sociology of Health & Illness*, *38*(6), 939–956. https://doi.org/10.1111/1467-9566.12416

Babuta, A., Oswald, M., & Rinik, C. (2018). *Machine learning algorithms and police decision-making: Legal, ethical and regulatory challenges* (Whitehall Report 3–18). Royal United Services Institute for Defence and Security Studies. https://rusi.org/explore-our-research/publications/whitehall-reports/machine-learning-algorithms-and-police-decision-making-legal-ethical-and-regulatory-challenges

Beatson, J., Hanley, J., & Ricard, A. (2017). The intersection of exploitation and coercion in cases of Canadian labour trafficking. *Journal of Law and Social Policy*, *26*, 137–158. https://doi.org/10.60082/0829-3929.1259

Bellissimo, M. D. (2011). Preventing trafficking, abuse and exploitation of vulnerable immigrants: Is it possible? *Immigration Law Reporter*, *93,* 30–35.

Bennett Moses, L., & Chan, J. (2018). Algorithmic prediction in policing: Assumptions, evaluation, and accountability. *Policing and Society*, *28*(7), 806–822. https://doi.org/10.1080/10439463.2016.1253695

Benoit, C., Atchinson, C., Casey, L., Jansson, M., McCarthy, B., Phillips, R., Reimer, B., Reist, D., & Shaver, F. (2010). Building on evidence: An international symposium on the sex industry in Canada. *Canadian Institute of Health Research*, 23.

Benoit, C., Smith, M., Jansson, M., Magnus, S., Ouellet, N., Atchison, C., Casey, L., Phillips, R., Reimer, B., Reist, D., & Shaver, F. M. (2016). Lack of confidence in police creates a "blue ceiling" for sex workers' safety. *Canadian Public Policy*, *42*(4), 456–468. https://doi.org/10.3138/cpp.2016-006

Bernstein, E. (2010). Militarized humanitarianism meets carceral feminism: The politics of sex, rights, and freedom in contemporary antitrafficking campaigns. *Signs: Journal of Women in Culture and Society*, 36(1), 45–71. https://doi.org/10.1086/652918

Best, J. (2015). Beyond case studies: Expanding the constructionist framework for social problems research. *Qualitative Sociology Review*, *11*(2), 18–33. https://doi.org/10.18778/1733-8077.11.2.02

Beutin, L. P. (2017). Black suffering for/from anti-trafficking advocacy. *Anti-Trafficking Review*, *9,* 14–30. https://doi.org/10.14197/atr.20121792

Bishop, C. M. (2006). *Pattern recognition and machine learning*. Springer.

Blair, E. (2015). A reflexive exploration of two qualitative data coding techniques. *Journal of Methods and Measurement in the Social Sciences, 16*(1), 14–29. https://doi.org/10.2458/v6i1.18772

Blunt, D., Coombes, E., Mullin, S., & Wolf, A. (2022). *Posting into the void*. Hacking//Hustling. https://hackinghustling.org/wp-content/uploads/2020/09/Posting-Into-the-Void.pdf

Blunt, D., Wolf, A., & Lauren, N. (2020) *Erased: The impact of FOSTA-SESTA and the removal of Backpage. https://hackinghustling.org/wp-content/uploads/2020/02/Erased_Updated.pdf*

Blunt, D., & Wolf, A. (2020). Erased: The impact of FOSTA-SESTA and the removal of Backpage on sex workers. *Anti-Trafficking Review*, *14*, 117–121. https://doi.org/10.14197/atr.201220148

Boonzaier, F. (2019). Researching sex work: Doing decolonial, intersectional narrative analysis. In J. Fleetwood, L. Presser, S. Sandberg, & T. Ugelvik (Eds.), *The Emerald handbook of narrative criminology* (pp. 467–491). Emerald Publishing. https://doi.org/10.1108/978-1-78769-005-920191037

Borland, K. (2015). "That's not what I said": Interpretative conflict in oral narrative research. In R. Thomson & A. Perks (Eds.), *The oral history reader* (3rd ed., pp. 412–423). Routledge. https://doi.org/10.4324/9781315671833

Bowen, R. (2015). Squaring Up: Experiences of Transition from Off-Street Sex Work to Square Work and Duality-Concurrent Involvement in Both-in Vancouver, BC: Sex Work, Square Work, and Duality. *Canadian Review of Sociology/Revue Canadienne de Sociologie*, *52*(4), 429–449. https://doi.org/10.1111/cars.12085

Bowen, R., & O'Doherty, T. (2014). Participant-driven action research (PDAR) with sex workers in Vancouver. In C. R. Showden & S. Majic (Eds.), *Negotiating sex work* (pp. 53–74). University of Minnesota Press. https://doi.org/10.5749/minnesota/9780816689583.003.0003

Brayne, S. (2018). The criminal law and law enforcement implications of big data. *Annual Review of Law and Social Science*, *14*(1), 293–308. https://doi.org/10.1146/annurev-lawsocsci-101317-030839

Brickey, S., & Comack, E. (1987). The role of law in social transformation: Is a jurisprudence of insurgency possible? *Canadian Journal of Law and Society*, *2*, 97–119. https://doi.org/10.1017/S0829320100001174

Brown, S. (2020). *Politicization of human trafficking laws in Canada* [Honours Thesis]. Simon Fraser University.

Bruckert, C., & Hannem, S. (2013). Rethinking the prostitution debates: Transcending structural stigma in systemic responses to sex work. *Canadian Journal of Law and Society*, *28*(1), 43–63. https://doi.org/10.1017/cls.2012.2

Bruckert, C., & Law, T. (2014). *Beyond pimps, procurers and parasites: Mapping third parties in the incall/outcall sex industry*. Rethinking Management in the Adult and Sex Industry Project. https://www.nswp.org/sites/nswp.org/files/ManagementResearch%20(4).pdf

Bungay, V., Oliffe, J., & Atchison, C. (2016). Addressing underrepresentation in sex work research: Reflections on designing a purposeful sampling strategy. *Qualitative Health Research*, *26*(7), 966–978. https://doi.org/10.1177/1049732315613042

Buolamwini, J., & Gebru, T. (2018). Gender shades: Intersectional accuracy disparities in commercial gender classification. *Proceedings of Machine Learning Research, 81*, 1–15.

Butler Burke, N. (2018). Double punishment: Immigration penalty and migrant trans women who sell sex. In E. Dursin, E. van der Meulen, & C. Bruckert (Eds.), *Red light labour: Sex work regulation, agency and resistance* (pp. 203–213). UBC Press.

Campbell, R., Sanders, T., Scoular, J., Pitcher, J., & Cunningham, S. (2019). Risking safety and rights: Online sex work, crimes and 'blended safety repertoires.' *The British Journal of Sociology*, *70*(4), 1539–1560. https://doi.org/10.1111/1468-4446.12493

Canadian Alliance for Sex Work Law Reform. (2015). *Criminalizing advertising of sexual services: Impacts and consequences*. https://www.safersexwork.ca/wp-content/uploads/2014/07/Infosheet-on-Criminalizing-Advertising.pdf

Canadian Civil Liberties Association. (2023, September 25). *Advocates demand proper consideration for AI regulation*. https://ccla.org/press-release/advocates-demand-proper-consideration-for-ai-regulation/

Canadian Institutes of Health Research, Natural Sciences and Engineering Research Council of Canada, & Social Sciences and Humanities Research Council of Canada. (2022). Tri-council policy statement: Ethical conduct for research involving humans: TCPS2 2022. https://ethics.gc.ca/eng/documents/tcps2-2022-en.pdf

Cartwright, B., Frank, R., Sharifi, T., & Pannu, M. (2022). *Deploying artificial intelligence to detect and respond to the use of digital technology by perpetrators of human trafficking*. Simon Fraser University.

Chambliss, W. J. (2001). *Power, politics, and crime*. Westview Press.

City of Vancouver, & Vancouver Coastal Health Authority. (2014, June 25). *Position paper on: Bill C-36 the Protection of Communities and Exploited Persons Act*. https://vancouver.ca/files/cov/City-of-vancouver-brief-bill-C-36-protection-communities-exploited-persons-act.pdf

Clancey, A., Khushrushahi, N., & Ham, J. (2014). Do evidence-based approaches alienate Canadian anti-trafficking funders? *Anti-Trafficking Review*, *3,* 1–13. https://doi.org/10.14197/atr.20121435

Clancey, A., & Mahon, F. (2020). Strategic redirection through litigation: Forgoing the anti-trafficking framework to address labour abuses experienced by migrant sex workers. *Anti-Trafficking Review*, *15*, 171–175. https://doi.org/10.14197/atr.2012201512

Clarke, K. M., & Abdillahi, I. (2021). Critical race theory: Emergence and new lines of inquiry. In M. Valverde, K. M. Clarke, E. Darian-Smith, & P. Kotiswaran (Eds.), *The Routledge handbook of law and society* (pp. 21–25). Routledge.

Clayton, J., & Derico, B. (2023, March 27). Clearview AI used nearly 1m times by US police, it tells the BBC. *BBC.* https://www.bbc.com/news/technology-6505701Clearview AI. (n.d.). *Clearview AI*. https://www.clearview.ai

Comte, J. (2014). Decriminalization of sex work: Feminist discourses in light of research. *Sexuality & Culture*, *18*(1), 196–217. https://doi.org/10.1007/s12119-013-9174-5

Conroy, S. (2022, December 6). *Trafficking in persons in Canada, 2021* (Juristat Bulletin—Quick Fact, Cat. No. 85-005-X). Statistics Canada. https://www150.statcan.gc.ca/n1/en/pub/85-005-x/2022001/article/00001-eng.pdf?st=en4Pbihs

Coombes, E., Wolf, A., Blunt, D., & Sparks, K. (2022). Disabled sex workers' fight for digital rights, platform accessibility, and design justice. *Disability Studies Quarterly*, *42*(2), Article 2. https://doi.org/10.18061/dsq.v42i2.9097

Coutin, S. B. (2021). Immigration, law, and resistance. In M. Valverde, K. Clarke, E. Darian-Smith, & P. Kotiswaran (Eds.), *Routledge handbook of law and society* (pp. 150–153). Routledge. https://doi.org/10.4324/9780429293306-29

Crenshaw, Kimberle (1989) Demarginalizing the intersection of race and aex: A Black feminist critique of antidiscrimination doctrine, feminist theory and antiracist aolitics, *University of Chicago Legal Forum*, 1989(1), Article 8. http://chicagounbound.uchicago.edu/uclf/vol1989/iss1/8

D'Adamo, K. (2023, June 12). *How anti-trafficking tokenises survivors*. openDemocracy. https://www.opendemocracy.net/en/beyond-trafficking-and-slavery/the-anti-trafficking-movement-is-pitting-survivors-against-each-other

Dandurand, Y. (2017). Human trafficking and police governance. *Police Practice and Research*, *18*(3), 322–336. https://doi.org/10.1080/15614263.2017.1291599

Davis, S. (2018, May 3). Police monitored Black Lives Matter Toronto protesters in 2016, documents show. *CBC News*. https://www.cbc.ca/news/canada/toronto/police-monitored-black-lives-matter-toronto-protesters-in-2016-documents-show-1.4645628

De Shalit, A., Heynen, R., & van der Meulen, E. (2014). Human trafficking and media myths: Federal funding, communication strategies, and Canadian anti-trafficking programs. *Canadian Journal of Communication*, *39*(3), 385–412. https://doi.org/10.22230/cjc.2014v39n3a2784

DeKeseredy, W. S. (2021). *Contemporary critical criminology* (2nd ed.). Routledge. https://doi.org/10.4324/9781003009429

Denham, E. (2012, November). *Use of automated license plate recognition technology by the Victoria Police Department* (Investigative Report F12-04). Office of the Information and Privacy Commission. https://www.oipc.bc.ca/documents/investigation-reports/1410

Doezema, J. (1999). Loose women or lost women? The re-emergence of the myth of white slavery in contemporary discourses of trafficking in women. *Gender Issues*, *18*(1), 23–50. https://doi.org/10.1007/s12147-999-0021-9

Doezema, J. (2002). Who gets to choose? Coercion, consent, and the UN trafficking protocol. *Gender & Development*, *10*(1), 20–27. https://doi.org/10.1080/13552070215897

Dupont, I. (2008). Beyond doing no harm: A call for participatory action research with marginalized populations in criminological research. *Critical Criminology*, *16*(3), 197–207. https://doi.org/10.1007/s10612-008-9055-7

Durisin, E., & Van der Meulen, E. (2021). The perfect victim: 'Young girls', domestic trafficking, and anti-prostitution politics in Canada. *Anti-Trafficking Review*, *16*, 145–149. https://doi.org/10.14197/atr.201221169

Durisin, E., Van der Meulen, E., & Bruckert, C. (2018). Contextualizing sex work: Challenging discourses and confronting narratives. In E. M. Durisin, E. Van der Meulen, & C. Bruckert (Eds.), *Red light labour: Sex work regulation, agency, and resistance* (pp. 2–26). UBC Press.

Farley, M. (2004). "Bad for the body, bad for the heart": Prostitution harms women even if legalized or decriminalized. *Violence Against Women*, *10*(10), 1087–1125. https://doi.org/10.1177/1077801204268607

Felkins, S. (2022). Cripping sex work: Disabled sex workers and racialized disgender in the online sex industry. *Disability Studies Quarterly*, *42*(2), Article 2. https://doi.org/10.18061/dsq.v42i2.9175

Fitzgerald, E., Patterson, S., Biko, C., Hickey, D., & Tobin, H. J. (2015, December). *Meaningful work: Transgender experiences in the sex trade*. National Center for Transgender Equality. https://transequality.org/sites/default/files/Meaningful%20Work-Full%20Report_FINAL_3.pdf

Floridi, L., & Chiriatti, M. (2020). GPT-3: Its nature, scope, limits, and consequences. *Minds and Machines*, *30*(4), 681–694. https://doi.org/10.1007/s11023-020-09548-1

Gallagher, A. (2017). What's wrong with the global slavery index? *Anti-Trafficking Review*, *8*. https://doi.org/10.14197/atr.20121786

Gin, W. (2012). Jesus Q. Politician: Religious rhetoric in the United States, Australia, and Canada. *Politics and Religion*, *5*(2), 317–342. https://doi.org/10.1017/S1755048312000053

Global Alliance Against Trafficking in Women. (2007). *Collateral damage: The impact of anti-trafficking measures on human rights around the world*. https://www.iom.int/sites/g/files/tmzbdl486/files/jahia/webdav/shared/shared/mainsite/microsites/IDM/workshops/ensuring_protection_070909/collateral_damage_gaatw_2007.pdf

Global Network of Sex Work Projects. (2015). *Visa and MasterCard cut sex workers off from advertising site.* https://www.nswp.org/fr/node/9455

Government of Canada, Department of Justice. (2015, March 11). *Fact sheet: Prostitution criminal law reform: Bill C-36, the Protection of Communities and Exploited Persons Act*. https://www.justice.gc.ca/eng/rp-pr/other-autre/c36fs_fi

Haggerty, K. D., & Ericson, R. V. (2000). The surveillant assemblage. *The British Journal of Sociology*, *51*(4), 605–622. https://doi.org/10.1080/00071310020015280

Ham, J. (2010). *What's the cost of a rumour? A guide to sorting out the myths and the facts about sporting events and trafficking.* Global Alliance Against Traffic in Women. https://gaatw.org/publications/WhatstheCostofaRumour.11.15.2011.pdf

Hannem, S. (2018). Everybody knows everybody: Sex work in rural and small communities. In E. M. Durisin, E. Van der Meulen, & C. Bruckert (Eds.), *Red light labour: Sex work regulation, agency, and resistance* (pp. 224–233). UBC Press.

Hastie, B. (2012). Doing Canada's dirty work: A critical analysis of law and policy to address labour exploitation trafficking. In A. Quayson & A. Arhin (Eds.), *Labour migration, human trafficking and multinational corporations: The commodification of illicit flows* (pp. 121–137). Routledge. https://doi.org/10.4324/9780203134733

Hastie, T., Tibshirani, R., & Friedman, J. (2009). *The elements of statistical learning* (2nd ed.). Springer. https://doi.org/10.1007/978-0-387-84858-7_9

Haynes, D. F. (2014). The celebritization of human trafficking. *The ANNALS of the American Academy of Political and Social Science*, *653*(1), 25–45. https://doi.org/10.1177/0002716213515837

Heynen. (2024). Data-driven policing and whole-of-society anti-trafficking strategies. In E. Van Der Meulen, A. De Shalit, & K. Roots (Eds.), Trafficking Harms: Critical perspectives on human trafficking in Canada (p. 288). Fernwood.

Heynen, R., & Van Der Meulen, E. (2022). Anti-trafficking saviors: Celebrity, slavery, and branded activism. Crime, Media, Culture: An International Journal, 18(2), 301–323. https://doi.org/10.1177/17416590211007896

Housefather, A. (2018). *Moving forward in the fight against human trafficking in Canada*. House of Commons Canada. https://www.ourcommons.ca/Content/Committee/421/JUST/Reports/RP10243099/justrp24/justrp24-e.pdf

Hunt, S. (2013). Decolonizing sex work: Developing an intersectional Indigenous approach. In E. Van der Meulen, V. Love, & E. Durisin (Eds.), *Selling sex: Experience, advocacy, and research on sex work in Canada* (pp. 82–100). UBC Press.

Hunt, S. (2016). Representing colonial violence: Trafficking, sex work, and the violence of law. *Critical Studies in Gender, Culture and Social Justice*, *37*(2), 25–39.

Immigration, Refugees and Citizenship Canada. (2023, February 2). *Protecting workers from abuse and exploitation – temporary foreign worker program and international mobility program*. https://www.canada.ca/en/immigration-refugees-citizenship/corporate/publications-manuals/operational-bulletins-manuals/temporary-residents/foreign-workers/protecting-workers-abuse-exploitation.html

Jackson, A. (2024, May 31). *Submissions to the House of Commons Standing Committee on Public Safety and National Security regarding Bill S-210, An Act to restrict young persons' online access to sexually explicit material*. British Columbia Civil Liberties Association. https://bccla.org/wp-content/uploads/2024/06/2024-05-31-BCCLA-Submissions-to-SECU-re-S-210.pdf

James, E. (2018). Indigenous, indoors and incognito: Thoughts and experiences of an Irish and Ojibwe female sex worker. In E. M. Durisin, E. Van der Meulen, & C. Bruckert (Eds.), *Red light labour: Sex work regulation, agency, and resistance* (pp. 159–166). UBC Press.

Jensen, K. F. (2021). Big data surveillance and security intelligence: The Canadian case: edited by David Lyon and David Murakami Wood, Vancouver, UBC Press, 2021. *Intelligence and National Security, 37*(5), 745–748. https://doi.org/10.1080/02684527.2021.1911394

Johansen, L., & Espinosa, E. (2023, April 7). Adult content creators claim Canadian banks cancelling accounts. *CityNews Toronto*. https://toronto.citynews.ca/2023/04/07/adult-content-banks-cancel-accounts

Jones, A. (2022). "I can't really work any 'normal' job:" Disability, sexual ableism, and sex work. *Disability Studies Quarterly*, *42*(2), Article 2. https://doi.org/10.18061/dsq.v42i2.9094

Kangaspunta, K. (2015). Was trafficking in persons really criminalised? *Anti-Trafficking Review*, *4,* 80–97. https://doi.org/10.14197/atr.20121545

Kaye, J. (2017). *Responding to human trafficking: Dispossession, colonial violence, and resistance among Indigenous and racialized women*. University of Toronto Press. https://doi.org/10.3138/9781487513863

Kaye, J., & Hastie, B. (2015). The Canadian Criminal Code offence of trafficking in persons: Challenges from the field and within the law. *Social Inclusion*, *3*(1), 88–102. https://doi.org/10.17645/si.v3i1.178

Khan, I. (2018). From average Joe to deviant John: The changing construction of sex trade clients in Canada. In E. Dursin, E. van der Meulen, & C. Bruckert (Eds.), *Red light labour: Sex work regulation, agency and resistance* (pp. 203–213). UBC Press.

Kille, J., Bungay, V., Oliffe, J., & Atchison, C. (2017). A content analysis of health and safety communications among internet-based sex work advertisements: Important information for public health. *Journal of Medical Internet Research*, *19*(4), e111. https://doi.org/10.2196/jmir.6746

King, N., Horrocks, C., & Brooks, J. (2019). *Interviews in qualitative research* (2nd ed.). SAGE.

Kosinski, M., Stillwell, D., & Graepel, T. (2013). Private traits and attributes are predictable from digital records of human behavior. *Proceedings of the National Academy of Sciences*, *110*(15), 5802–5805. https://doi.org/10.1073/pnas.1218772110

Kosta, E. (2022). Algorithmic state surveillance: Challenging the notion of agency in human rights. *Regulation & Governance*, *16*(1), 212–224. https://doi.org/10.1111/rego.12331

Krüsi, A., Chettiar, J., Ridgway, A., Abbott, J., Strathdee, S. A., & Shannon, K. (2012). Negotiating safety and sexual risk reduction with clients in unsanctioned safer indoor sex work environments: A qualitative study. *American Journal of Public Health*, *102*(6), 1154–1159. https://doi.org/10.2105/AJPH.2011.300638

Krüsi, A., Kerr, T., Taylor, C., Rhodes, T., & Shannon, K. (2016). 'They won't change it back in their heads that we're trash': The intersection of sex work-related stigma and evolving policing strategies. *Sociology of Health & Illness*, *38*(7), 1137–1150. https://doi.org/10.1111/1467-9566.12436

Krüsi, A., Pacey, K., Bird, L., Taylor, C., Chettiar, J., Allan, S., Bennett, D., Montaner, J. S., Kerr, T., & Shannon, K. (2014). Criminalisation of clients: Reproducing vulnerabilities for violence and poor health among street-based sex workers in Canada—a qualitative study. *BMJ Open*, *4*(6), e005191–e005191. https://doi.org/10.1136/bmjopen-2014-005191

Lam, E., & Gallant, C. (2018). Migrant sex workers' justice: Building Alliances across movements. In E. Dursin, E. van der Meulen, & C. Bruckert (Eds.), *Red light labour: Sex work regulation, agency and resistance* (pp. 293–304). UBC Press.

Lam, E., & Lepp, A. (2019). Butterfly: Resisting the harms of anti-trafficking policies and fostering peer-based organising in Canada. *Anti-Trafficking Review*, *12*, 91–107. https://doi.org/10.14197/atr.201219126

Lamble, S. (2021). Queer Theory and Socio-Legal Studies. In M. Valverde, K. Clarke, E. Darian-Smith, & P. Kotiswaran (Eds.), *Routledge Handbook of Law and Society* (1st ed., pp. 53–58). Routledge. https://doi.org/10.4324/9780429293306-9

Law Commission of Ontario. (2020). *The rise and fall of AI and algorithms in American criminal justice: Lessons for Canada*. https://www.lco-cdo.org/wp-content/uploads/2020/10/Criminal-AI-Paper-Final-Oct-28-2020.pdf

Law Commission of Ontario. (2021). *Regulating AI: Critical issues and choices*. https://www.lco-cdo.org/wp-content/uploads/2021/04/LCO-Regulating-AI-Critical-Issues-and-Choices-Toronto-April-2021-1.pdf

Lee, M.-C., Vajiac, C., Kulshrestha, A., Levy, S., Park, N., Jones, C., Rabbany, R., & Faloutsos, C. (2021). INFOSHIELD: Generalizable information-theoretic human-trafficking detection. *2021 IEEE 37th International Conference on Data Engineering*, 1116–1127. https://doi.org/10.1109/ICDE51399.2021.00101

Leigh, C. (1997). Inventing sex work. In J. Nagle (Ed.), *Whores and other feminists* (pp. 169–184). Routledge.

Ling, J. (2017, March 21). A mob trial is over after Canadian cops refuse to disclose their surveillance techniques. *Vice*. https://www.vice.com/en/article/a-mob-trial-is-over-after-canadian-cops-refuse-to-disclose-their-surveillance-techniques/

Lutnick, D. A. (2019). The 'prioritizing safety for sex workers policy': A sex worker rights and anti-trafficking initiative. *Anti-Trafficking Review*, *12*, 140–154. https://doi.org/10.14197/atr.201219129

Machat, S. (2023). *By us, for us: A needs and risks assessment of sex workers in the Lower Mainland and Southern Vancouver Island.* Transitions Metro Vancouver Consortium. https://wish-vancouver.net/content/wp-content/uploads/2023/04/by_us_for_us_-_a_needs_and_risks_assessment_of_sex_workers_in_the_lower_mainland_and_southern_vancouver_island_-_web.pdf

Majic, S. (2020). Same same but different? Gender, sex work, and respectability politics in the MyRedBook and Rentboy closures. *Anti-Trafficking Review*, *14*, 82–98. https://doi.org/10.14197/atr.201220146

Matte Guilmain, L., & Hanley, J. (2020). Creative recourse in cases of forced labour: using human trafficking, human rights and labour law to protect migrant workers. *International Migration*, *59*(2), 126–139. https://doi.org/10.1111/imig.12743

Maynard, R. (2018). Do black sex workers' lives matter? Whitewashed anti-slavery, racial justice, and abolition. In E. Dursin, E. van der Meulen, & C. Bruckert (Eds.), *Red light labour: Sex work regulation, agency and resistance* (pp. 281–292). UBC Press.

Maza, C. (2013, December 25). *How technology is turning the tables on human traffickers*. MIC. https://www.mic.com/articles/77303/how-technology-is-turning-the-tables-on-human-traffickers

McBride, B., Shannon, K., Murphy, A., Wu, S., Erickson, M., Goldenberg, S. M., & Krüsi, A. (2021). Harms of third party criminalisation under end-demand legislation: Undermining sex workers' safety and rights. *Culture, Health & Sexuality*, *23*(9), 1165–1181. https://doi.org/10.1080/13691058.2020.1767305

McCann, M. (2007). Dr. Strangelove (or: how I learned to stop worrying and love methodology). In A. Sarat (Ed.), *Studies in law, politics and society* (Vol. 41, pp. 19–59). Elsevier. https://doi.org/10.1016/S1059-4337(07)00002-6

Mears, D. P. (2007). Towards rational and evidence-based crime policy. *Journal of Criminal Justice*, *35*(6), 667–682. https://doi.org/10.1016/j.jcrimjus.2007.09.003

Mears, D. P. (2010). *American criminal justice policy: An evaluation approach to increasing accountability and effectiveness*. Cambridge University Press. https://doi.org/10.1017/CBO9780511794858

Milivojevic, S., Moore, H., & Segrave, M. (2020). Freeing the modern slaves, one click at a time: Theorising human trafficking, modern slavery, and technology. *Anti-Trafficking Review*, *14*, 16–32. https://doi.org/10.14197/atr.201220142

Millar, H., & O'Doherty, T. (2015, October 15). *The Palermo protocol and Canada ten years on: The evolution and human rights impacts of the anti-trafficking laws in Canada (2002–2015)*. SWAN Vancouver Society. https://icclr.org/wp-content/uploads/2019/06/Palermo-Project-Key-Findings-Report-15-October-2015-with-copyright-2.pdf?x73602

Millar, H., & O'Doherty, T. (2020a). *Canadian human trafficking prosecutions and principles of fundamental justice: A contradiction in terms?* https://icclr.org/wp-content/uploads/2020/06/Millar-and-ODoherty-Technical-Report-on-Canadian-Human-Trafficking-Prosecutions-1.pdf?x73602

Millar, H., & O'Doherty, T. (2020b). Racialized, gendered, and sensationalized: An examination of Canadian anti-trafficking laws, their enforcement, and their (re)presentation. *Canadian Journal of Law and Society*, *35*(1), 23–44. https://doi.org/10.1017/cls.2020.2

Millar, H., O'Doherty, T., & Roots, K. (2017). A formidable task: Reflections on obtaining legal empirical evidence on human trafficking in Canada. *Anti-Trafficking Review*, *8*. https://doi.org/10.14197/atr.20121783

Mittelstadt, B. D., Allo, P., Taddeo, M., Wachter, S., & Floridi, L. (2016). The ethics of algorithms: Mapping the debate. *Big Data & Society*, *3*(2). https://doi.org/10.1177/2053951716679679

Mökander, J., & Axente, M. (2021). Ethics-based auditing of automated decision-making systems: Intervention points and policy implications. *AI & SOCIETY*. https://doi.org/10.1007/s00146-021-01286-x

Mökander, J., Morley, J., Taddeo, M., & Floridi, L. (2021). Ethics-based auditing of automated decision-making systems: Nature, scope, and limitations. *Science and Engineering Ethics*, *27*(4), Article 44. https://doi.org/10.1007/s11948-021-00319-4

Morcom, C., & Schloenhardt, A. (2011). *All about sex!? The evolution of trafficking in persons in international law* (Research paper). University of Queensland Human Trafficking Working Group. https://law.uq.edu.au/files/4311/Evolution-of-Int-Law-relating-to-Trafficking-in-Persons.pdf

Mühlhoff, R. (2021). Predictive privacy: Towards an applied ethics of data analytics. *Ethics and Information Technology*, *23*(4), 675–690. https://doi.org/10.1007/s10676-021-09606-x

O'Doherty, T. (2011). Victimization in off-street sex industry work. *Violence Against Women*, *17*(7), 944–963. https://doi.org/10.1177/1077801211412917

O'Doherty, T., Millar, H., Clancey, A., & Mackenzie, K. (2018). Misrepresentations, inadequate evidence, and impediments to justice: Human rights impacts of Canada's anti-trafficking efforts. In E. Dursin, E. van der Meulen, & C. Bruckert (Eds.), *Red light labour: Sex work regulation, agency and resistance* (pp. 104–120). UBC Press.

O'Doherty, T., & Waters, I. (2019). Gender, victimization, and commercial sex: A comparative study. *Atlantis*, *40*(1), 18–31. https://doi.org/10.7202/1066418ar

Office of the Privacy Commissioner of Canada. (2021, February 2). *Joint investigation of Clearview AI, Inc. by the Office of the Privacy Commissioner of Canada, the Commission d'accès à l'information du Québec, the Information and Privacy Commissioner for British Columbia, and the Information Privacy Commissioner of Alberta* (PIPEDA Findings #2021-001). https://www.priv.gc.ca/en/opc-actions-and-decisions/investigations/investigations-into-businesses/2021/pipeda-2021-001/

Office of the Privacy Commissioner of Canada. (2023, December 7). *Principles for responsible, trustworthy and privacy-protective generative AI technologies*. https://www.priv.gc.ca/en/privacy-topics/technology/artificial-intelligence/gd_principles_ai/

Ogasawara, M. (2019). Mainstreaming colonial experiences in surveillance studies. *Surveillance & Society*, *17*(5), 726–729. https://doi.org/10.24908/ss.v17i5.13521

Ogasawara, M. (2023). Protective abandonment: Risk, data, and surveillance of nuclear workers post Fukushima. *Current Sociology*. Advance online publication. https://doi.org/10.1177/00113921231211583

O'Malley, P. (2021). Governmentality and sociolegal studies. In M. Valverde, K. Clarke, E. Darian-Smith, & P. Kotiswaran (Eds.), *Routledge handbook of law and society* (pp. 31–36). Routledge. https://doi.org/10.4324/9780429293306-5

Oswald, M., Grace, J., Urwin, S., & Barnes, G. C. (2018). Algorithmic risk assessment policing models: Lessons from the Durham HART model and 'experimental' proportionality. *Information & Communications Technology Law*, *27*(2), 223–250. https://doi.org/10.1080/13600834.2018.1458455

Palys, T. (2008). Purposive sampling. In M. Given (Ed.), *The Sage encyclopedia of qualitative research methods* (Vol. 2, pp. 697–698). SAGE.

Palys, T. S., & Atchison, C. (2021). *Research methods in the social and health sciences: Making research decisions*. SAGE.

Platt, L., Grenfell, P., Meiksin, R., Elmes, J., Sherman, S. G., Sanders, T., Mwangi, P., & Crago, A.-L. (2018). Associations between sex work laws and sex workers' health: A systematic review and meta-analysis of quantitative and qualitative studies. *PLOS Medicine*, *15*(12), e1002680. https://doi.org/10.1371/journal.pmed.1002680

Porth, K. (2018). Sex, lies and committee hearings: Challenging prostitution propaganda. In E. Dursin, E. van der Meulen, & C. Bruckert (Eds.), *Red light labour: Sex work regulation, agency and resistance* (pp. 281–292). UBC Press.

Price, M. (2022). Visa, Mastercard cut ties with ad arm of Pornhub owner Mindgeek after lawsuit. *Global News*. https://globalnews.ca/news/9038274/visa-mastercard-mindgeek-pornhub/

Quinney, R. (2001). *The social reality of crime*. Transaction Publishers.

Quirk, J. (2014). *The anti-slavery project: From the slave trade to human trafficking*. University of Pennsylvania Press.

Radford, A., Narasimhan, K., Salimans, T., & Sutskever, I. (2018). *Improving language understanding by generative pre-training* (Pre-Print). https://s3-us-west-2.amazonaws.com/openai-assets/research-covers/language-unsupervised/language_understanding_paper.pdf

Raguparan, M. (2017). "If I'm gonna hack capitalism": Racialized and Indigenous Canadian sex workers' experiences within the neo-liberal market economy. *Women's Studies International Forum*, *60*, 69–76. https://doi.org/10.1016/j.wsif.2016.12.003

Raguparan, M. (2018). "The paradox?!": Racialized and Indigenous sex workers encounters within a capitalist market. In E. Dursin, E. van der Meulen, & C. Bruckert (Eds.), *Red light labour: Sex work regulation, agency and resistance* (pp. 189–202). UBC Press.

Rennie, D. (2016, June 1). *Q&A: Policy to protect the human rights of sex workers*. Amnesty International. https://www.amnesty.org/en/documents/pol30/4173/2016/en/

Ribeiro, M. T., Singh, S., & Guestrin, C. (2016). "Why should I trust you?": Explaining the predictions of any classifier. *Proceedings of the 22nd ACM SIGKDD International Conference on Knowledge Discovery and Data Mining*, 1135–1144. https://doi.org/10.1145/2939672.2939778

Ricard-Guay, A. (2016). *Labour trafficking in Canada: At the margins of the anti-trafficking efforts* (Robert Schuman Centre for Advanced Studies Research Paper No. RSCAS 2016/40). SSRN. https://doi.org/10.2139/ssrn.2832812

Robertson, K., Khoo, C., & Song, Y. (2020). *To surveil and predict: A human rights analysis of algorithmic policing in Canada*. The Citizen Lab, University of Toronto Faculty of Law, and International Human Rights Program. https://citizenlab.ca/wp-content/uploads/2020/09/To-Surveil-and-Predict.pdf

Rodrigues, R. (2020). Legal and human rights issues of AI: Gaps, challenges and vulnerabilities. *Journal of Responsible Technology*, *4*, Article 100005. https://doi.org/10.1016/j.jrt.2020.100005

Rogers, A., Baldwin, T., & Leins, K. (2021). 'Just what do you think you're doing, Dave?' A checklist for responsible data use in NLP. *Findings of the Association for Computational Linguistics: EMNLP 2021*, 4821–4833. https://doi.org/10.18653/v1/2021.findings-emnlp.414

Romano, A. (2018, April 13). *A new law intended to curb sex trafficking threatens the future of the internet as we know it*. Vox. https://www.vox.com/culture/2018/4/13/17172762/fosta-sesta-backpage-230-internet-freedom

Roots, K. (2013). Trafficking or pimping? An analysis of Canada's human trafficking legislation and its implications. *Canadian Journal of Law and Society*, *28*(01), 21–41. https://doi.org/10.1017/cls.2012.4

Royal Canadian Mounted Police. (2018, October 24). *Operation northern spotlight VII: Canadian police services continue to work together to stop human trafficking* [News release]. https://www.rcmp-grc.gc.ca/en/news/2018/operation-northern-spotlight-vii-canadian-police-services-continue-work-together-stop

Russo, R. (2020). Online sex trafficking hysteria: Flawed policies, ignored human rights, and censorship. *Cleveland State Law Review, 68*(2), 314–345.

Sanders, C. B., & Chan, J. (2021). The challenges facing Canadian police in making use of big data analytics. In D. Lyon & D. Murakami Wood (Eds.), *Big data surveillance and security intelligence: The Canadian case* (pp. 180–194). UBC Press.

Sanders, C. B., & Sheptycki, J. (2017). Policing, crime and 'big data'; towards a critique of the moral economy of stochastic governance. *Crime, Law and Social Change*, *68*(1–2), 1–15. https://doi.org/10.1007/s10611-016-9678-7

Sanders, T., Scoular, J., Campbell, R., Pitcher, J., & Cunningham, S. (2018). *Internet Sex Work*. Springer International Publishing. https://doi.org/10.1007/978-3-319-65630-4

Sarai, R. (2022). *Preventing harm in the Canadian sex industry: A review of the Protection of Communities and Exploited Persons Act: Report of the Standing Committee on Justice and Human Rights.* https://www.ourcommons.ca/Content/Committee/441/JUST/Reports/RP11891316/justrp04/justrp04-e.pdf

Sayers, N. (2018). Municipal regulation of street-based prostitution and the impacts on indigenous women: A necessary discussion. In E. Dursin, E. van der Meulen, & C. Bruckert (Eds.), *Red light labour: Sex work regulation, agency and resistance* (pp. 57–66). UBC Press.

Scassa, T. (2017). Law enforcement in the age of big data and surveillance intermediaries: Transparency challenges. *Scripted*, *14*(2), 239–284. https://doi.org/10.2966/scrip.140217.239

Scheim, A. I., Santos, H., Ciavarella, S., Vermilion, J., Arps, F. S. E., Adams, N., Nation, K., & Bauer, G. R. (2023). Intersecting inequalities in access to justice for trans and non-binary sex workers in Canada. *Sexuality Research and Social Policy, 20,* 1245–1257. https://doi.org/10.1007/s13178-023-00795-2

Scoular, J., Pitcher, J., Sanders, T., Campbell, R., & Cunningham, S. (2019). Beyond the gaze and well beyond Wolfenden: The practices and rationalities of regulating and policing sex work in the digital age. *Journal of Law and Society*, *46*(2), 211–239. https://doi.org/10.1111/jols.12155

Sorfleet, A., Temple, A., BC Coalition of Experiential Communities, Belak, B., Giesbrecht, C., Casey, L., Hunt, S., Ross, B., Benoit, C., Bungay, V., Manning, E., Shannon, E., Gender and Sexual Health Initiative, BC Centre for Excellence in HIV/AIDS, Fuji Johnson, G., Millar, H., Wilson, J., Paterson, J., Lowman, J., Arthur, J., … West Coast Co-operative of Sex Industry Professionals. (2017, July 6). Open letter decries police posing as sex-worker clients in “repressive” Operation Northern Spotlight. *The Georgia Straight.* https://www.straight.com/news/933756/open-letter-decries-police-posing-sex-worker-clients-repressive-operation-northern

Sterling, A. (2018). New risk-spaces for harm: The effects of the advertising offence on independent escorts. In E. M. Durisin, E. Van der Meulen, & C. Bruckert (Eds.), *Red light labour: Sex work regulation, agency, and resistance* (pp. 94–103). UBC Press.

Sterling, A., & van der Meulen, E. (2018). “We are not criminals”: Sex work clients in Canada and the constitution of risk knowledge. *Canadian Journal of Law and Society*, *33*(3), 291–308. https://doi.org/10.1017/cls.2018.13

Thakor, M. (2018). Digital apprehensions: Policing, child pornography, and the algorithmic management of innocence. *Catalyst: Feminism, Theory, Technoscience*, *1*(4), 1–16.

Tichenor, E. (2020). “I’ve never been so exploited”: The consequences of FOSTA-SESTA in Aotearoa New Zealand. *Anti-Trafficking Review*, *14*, 99–115. https://doi.org/10.14197/atr.201220147

Tong, E., Zadeh, A., Jones, C., & Morency, L.-P. (2017). Combating human trafficking with multimodal deep models. *Proceedings of the 55th Annual Meeting of the Association for Computational Linguistics (Vol. 1: Long Papers)*, 1547–1556. https://doi.org/10.18653/v1/P17-1142

Treasury Board of Canada Secretariat. (2024, May 30). *Algorithmic Impact Assessment tool.* https://www.canada.ca/en/government/system/digital-government/digital-government-innovations/responsible-use-ai/algorithmic-impact-assessment.html

Van der Meulen, E., & Durisin, E. (2018). Sex work policy: Tracing historical and contemporary developments. In E. M. Durisin, E. Van der Meulen, & C. Bruckert (Eds.), *Red light labour: Sex work regulation, agency, and resistance* (pp. 27–47). UBC Press.

Van Der Meulen, E., & Heynen, R. (2016). Gendered Visions: Reimagining Surveillance Studies. In E. Van Der Meulen & R. Heynen (Eds.), Expanding the Gaze (pp. 3–32). University of Toronto Press. https://doi.org/10.3138/9781442625396-004

Vanwesenbeeck, I. (2017). Sex work criminalization is barking up the wrong tree. *Archives of Sexual Behavior*, *46*(6), 1631–1640. https://doi.org/10.1007/s10508-017-1008-3

Vanwesenbeeck, I. (2019). The making of “the trafficking problem.” *Archives of Sexual Behavior*, *48*(7), 1961–1967. https://doi.org/10.1007/s10508-018-1367-4

Vold, G. B. (1967). The need for change in emphasis and perspective in criminology. *Criminology*, *4*(4), 2–4. https://doi.org/10.1111/j.1745-9125.1967.tb00161.x

Walby, K., & Gorkoff, K. (2023). Post-structuralism: Foucault and critical criminology. In S. Hassan, D. Lett, & L. Ballantyne (Eds.), *Introduction to criminology* (pp. 261–266). KPU Press Books. https://kpu.pressbooks.pub/introcrim/chapter/10-3-post-structuralism-foucault-and-critical-criminology/

Webber, V. (2022, February). *The impact of Mastercard’s adult content policy on adult content creators: Survey results and analysis*. Mastercard Policy Impacts. https://www.researchgate.net/publication/358441297_The_Impact_of_Mastercard's_Adult_Content_Policy_on_Adult_Content_Creators

Weitzer, R. (2005). Flawed theory and method in studies of prostitution. *Violence Against Women*, *11*(7), 934–949. https://doi.org/10.1177/1077801205276986

Weitzer, R. (2015). Human trafficking and contemporary slavery. *Annual Review of Sociology*, *41*(1), 223–242. https://doi.org/10.1146/annurev-soc-073014-112506

Whatmore, S. J. (2009). Mapping knowledge controversies: Science, democracy and the redistribution of expertise. *Progress in Human Geography*, *33*(5), 587–598. https://doi.org/10.1177/0309132509339841

Wijers, M. (2015). Purity, victimhood and agency: Fifteen years of the UN trafficking protocol. *Anti-Trafficking Review*, *4*. https://doi.org/10.14197/atr.20121544

Wodda, A., & Panfil, V. R. (2020). *Sex-positive criminology*. Routledge.

Wozniak, J. F., Cullen, F., & Platt, T. (2015). Richard Quinney's "the social reality of crime": A marked departure from and reinterpretation of traditional criminology. *Social Justice*, *41*(3), 197–215.

Wright, J., Heynen, R., & Van der Meulen, E. (2015). "It Depends on Who You Are, What You Are": 'Community Safety' and Sex Workers' Experience with Surveillance. Surveillance & Society, 13(2), 265–282. https://doi.org/10.24908/ss.v13i2.5230

Wu, J. (2020, April 14). AI Is helping us combat the economic problem of human trafficking. *Forbes*. https://www.forbes.com/sites/cognitiveworld/2020/04/14/ai-is-helping-us-combat-the-economic-problem-of-human-trafficking/

Yen, C.-P., & Hung, T.-W. (2021). Achieving equity with predictive policing algorithms: a social safety net perspective. *Science and Engineering Ethics*, *27*(3), 36. https://doi.org/10.1007/s11948-021-00312-x

Završnik, A. (2021). Algorithmic justice: Algorithms and big data in criminal justice settings. *European Journal of Criminology*, *18*(5), 623–642. https://doi.org/10.1177/1477370819876762

Appendix A.

Information Form – Sex Workers

Information Form
Ethical Considerations of Anti-Trafficking Algorithms Crawling Escort Ads

Who is conducting this study?
Principal Investigator
Dr. Tamara O'Doherty, Simon Fraser University
Co-Investigator
Dr. Ted Palys, Simon Fraser University
Student Lead
Sydney Brown, Simon Fraser University

Who is funding the study?
The study is being funded by the Social Sciences and Humanities Research Council of Canada.

Purpose of the Study
The purpose of this study is to learn more about the potential positive and negative impacts using artificial intelligence in anti-trafficking initiatives on the sex worker community. Technology is in development to train computers to label escort ads based on the likelihood they could be human trafficking. The development of these tools is missing the input of the sex worker community. Past research has shown the history of artificial intelligence reproducing discrimination in society and the disproportionate effect anti-trafficking initiatives have had on migrant and racialized women. The focus of this study is to bring in sex workers' voices to raise potential concerns and make recommendations about how to ethically implement the technology under development. Given the impact this technology may have on the sex industry, you could provide important insights to the topic.

Voluntary Participation
Your participation is voluntary. You can choose to withdraw from the study at any time without a reason up to the point of the completion of the thesis defense. After 6 months, it is beyond the capability of the researchers to remove your responses.

Study Procedure
You will be asked to take part in a 45-to-60-minute interview. The information sheet will be reviewed at the beginning of the interview to ensure you are comfortable with participating. You will be asked for your verbal consent to participate. During the interview you will be asked about your knowledge of exploitation in online advertisements for sex work, your thoughts on the use of artificial intelligence in this context, and your recommendations for how to ethically use the technology. Your

identity will be protected by assigning you a pseudonym after the interview. If you would like your identity known, you are welcome to tell the researcher this at the beginning of the interview.

Interviews will take place over Zoom or over the phone, whichever you prefer. At the start of the interview, you will be asked for your consent to record the interview. The interview will be recorded using QuickTime Player and will be saved directly on to the researcher's desktop. The recording will be saved until the interview is transcribed. All transcriptions will take place in a timely manner and all identifying information from the transcripts will be removed, unless you prefer to be identified. Transcripts will be sent back to you for your approval, to ensure you feel you are being represented correctly.

Benefits and Risks of Participating
You will receive $50 for your time and expertise. The money will be e-transfer to you using the email you have provided the researcher with. If you are unable to accept etransfers, then please let the researcher know and other options can be discussed to ensure you are properly compensated for your time. Other benefits include having your voice heard about the risks and benefits of this technology before it is fully implemented. This study will make recommendations about the future use of artificial intelligence in anti-trafficking initiatives and in law enforcement more generally. There are no foreseeable risks to you in participating.

Privacy and Data Storage
Your confidentiality will be respected. All audio recordings will be destroyed after they have been transcribed. All transcripts will be anonymized unless you would like to be identified. Any interview notes will be immediately digitized, and the hard copies will be destroyed. To safeguard interviews, all data will be stored on a password-protected computer in encrypted folders. A backup of the data will be stored in a password protected encrypted folder on a hard drive that is kept at the researcher's residence. Data may be shared through SFU Vault or other SFU approved cloud storage system. The data provided and knowledge of your identity will only be accessible to the researchers listed above. The data will be stored until April 2023, after that it will be destroyed.

Withdrawing from Study
To withdraw from the study, please contact Sydney Brown through email or other established method of contact. No reasons need to be given for you to withdraw and you will not be penalized in any way. You are able to withdraw from the study for 6 months from the time of your interview, after that it will be impossible to remove your data from the results.

Distribution of Results
The results of this study will be reported in a graduate thesis and may also be published in journal articles and books or presented at conferences. All participants will receive a summary of findings after the study is completed.

Contact Information
Please feel free to contact any of the researchers if you have any concerns. The student lead can be reached at xxx.

If you have any concerns about your rights as a research participant and/or your experiences while participating in this study, you may contact the SFU Office of Research Ethics at dore@sfu.ca or 778-782-6618.

Thank you for reviewing this informed consent form. If you are interested in participating, please contact Sydney Brown.

Appendix B.

Information Form – Sex Worker Support Organization

Information Form – Sex Workers Organizations
Ethical Considerations of Anti-Trafficking Algorithms Crawling Escort Ads

Who is conducting this study?
Principal Investigator
Dr. Tamara O'Doherty, Simon Fraser University
Co-Investigator
Dr. Ted Palys, Simon Fraser University
Student Lead
Sydney Brown, Simon Fraser University

Who is funding the study?
The study is being funded by the Social Sciences and Humanities Research Council of Canada.

Purpose of the Study
The purpose of this study is to learn more about the potential positive and negative impacts using artificial intelligence in anti-trafficking initiatives on the sex worker community. Technology is in development to train computers to label escort ads based on the likelihood they could be human trafficking. The development of these tools is missing the input of the sex worker community. Past research has shown the history of artificial intelligence reproducing discrimination in society and the disproportionate effect anti-trafficking initiatives have had on migrant and racialized women. The focus of this study is to bring in sex workers voices to raise potential concerns and make recommendations about how to ethically implement the technology under development. Given the impact this technology may have on the sex industry and your experience working with those involved in the industry, you could provide important insights to the topic.

Voluntary Participation
Your participation is voluntary. You can choose to withdraw from the study at any time without a reason up to the point of the completion of the thesis defense. After 6 months, it is beyond the capability of the researchers to remove your responses.

Study Procedure
You will be asked to take part in a 45-to-60-minute interview. The information sheet will be reviewed at the beginning of the interview to ensure you are comfortable with participating. You will be asked for your verbal consent to participate. During the interview you will be asked about your knowledge of exploitation in online advertisements for sex work, your thoughts on the use of artificial intelligence in this context, and your recommendations for how to ethically use the technology. Your

identity will be protected by assigning you a pseudonym after the interview. If you would like your identity known, you are welcome to tell the researcher this at the beginning of the interview.

Interviews will take place over Zoom or over the phone, whichever you prefer. At the start of the interview, you will be asked for your consent to record the interview. The interview will be recorded using QuickTime Player and will be saved directly on to the researcher's desktop. The recording will be saved until the interview is transcribed. All transcriptions will take place in a timely manner and all identifying information from the transcripts will be removed, unless you prefer to be identified. Transcripts will be sent back to you for your approval, to ensure you feel you are being represented correctly.

Benefits and Risks of Participating
You will receive $50 for your time and expertise. The money will be e-transfer to you using the email you have provided the researcher with. If you are unable to accept etransfers, then please let the researcher know and other options can be discussed to ensure you are properly compensated for your time. Other benefits include having your voice heard about the risks and benefits of this technology before it is fully implemented. This study will make recommendations about the future use of artificial intelligence in anti-trafficking initiatives and in law enforcement more generally. There are no foreseeable risks to you in participating.

Privacy and Data Storage
Your confidentiality will be respected. All audio recordings will be destroyed after they have been transcribed. All transcripts will be anonymized unless you would like to be identified. Any interview notes will be immediately digitized, and the hard copies will be destroyed. To safeguard interviews, all data will be stored on a password-protected computer in encrypted folders. A backup of the data will be stored in a password protected encrypted folder on a hard drive that is kept at the researcher's residence. Data may be shared through SFU Vault or other SFU approved cloud storage system. The data provided and knowledge of your identity will only be accessible to the researchers listed above. The data will be stored until April 2023, after that it will be destroyed.

Withdrawing from Study
To withdraw from the study, please contact Sydney Brown through email or other established method of contact. No reasons need to be given for you to withdraw and you will not be penalized in any way. You are able to withdraw from the study for 6 months from the time of your interview, after that it will be impossible to remove your data from the results.

Distribution of Results
The results of this study will be reported in a graduate thesis and may also be published in journal articles and books or presented at conferences. All participants will receive a summary of findings after the study is completed.

Contact Information
Please feel free to contact any of the researchers if you have any concerns. The student lead can be reached at xxx.

If you have any concerns about your rights as a research participant and/or your experiences while participating in this study, you may contact the SFU Office of Research Ethics at dore@sfu.ca or 778-782-6618.

Thank you for reviewing this informed consent form. If you are interested in participating, please contact Sydney Brown.

Appendix C.

Information Form – Academics

Information Form – Academics
Ethical Considerations of Anti-Trafficking Algorithms Crawling Escort Ads

Who is conducting this study?
Principal Investigator
Dr. Tamara O'Doherty, Simon Fraser University
Co-Investigator
Dr. Ted Palys, Simon Fraser University
Student Lead
Sydney Brown, Simon Fraser University

Who is funding the study?
The study is being funded by the Social Sciences and Humanities Research Council of Canada.

Purpose of the Study
We are doing this study because we want to learn more about the possible negative and positive effects of using artificial intelligence (AI) and machine learning in anti-trafficking initiatives on the sex worker community. Given the history of AI reproducing inequalities in society and the harm anti-trafficking initiatives have caused, we want to investigate the potential effects and biases of the technology before they are implemented. Since there has been historically a disproportionate effect of anti-trafficking initiatives on racialized and migrant women, our research will include an analysis on how the use of this technology could disproportionately affect these groups. Given your research in this area, you can provide insights into this topic.

Voluntary Participation
Your participation is voluntary. You can choose to withdraw from the study at any time without a reason up to the point of the completion of the thesis defense. After 6 months, it is beyond the capability of the researchers to remove your responses.

Study Procedure
You will be asked to take part in a 45-to-60-minute interview. The information sheet will be reviewed at the beginning of the interview to ensure you are comfortable with participating. You will be asked for your verbal consent to participate. During the interview you will be asked about your knowledge of exploitation in online advertisements for sex work, your thoughts on the use of artificial intelligence in this context, and your recommendations for how to ethically use the technology. Your identity will be protected by assigning you a pseudonym after the interview. If you would

like your identity known, you are welcome to tell the researcher this at the beginning of the interview.

Interviews will take place over Zoom or over the phone, whichever you prefer. At the start of the interview, you will be asked for your consent to record the interview. The interview will be recorded using QuickTime Player and will be saved directly on to the researcher's desktop. The recording will be saved until the interview is transcribed. All transcriptions will take place in a timely manner and all identifying information from the transcripts will be removed, unless you prefer to be identified. Transcripts will be sent back to you for your approval, to ensure you feel you are being represented correctly.

Benefits and Risks of Participating
There are no direct benefits to participating. Indirect benefits include having your voice heard about the risks and benefits of this technology before it is fully implemented. This study will make recommendations about the future use of artificial intelligence in anti-trafficking initiatives and in law enforcement more generally. There are no foreseeable risks to you in participating.

Privacy and Data Storage
Your confidentiality will be respected. All audio recordings will be destroyed after they have been transcribed. All transcripts will be anonymized unless you would like to be identified. Any interview notes will be immediately digitized, and the hard copies will be destroyed. To safeguard interviews, all data will be stored on a password-protected computer in encrypted folders. A backup of the data will be stored in a password protected encrypted folder on a hard drive that is kept at the researcher's residence. Data may be shared through SFU Vault or other SFU approved cloud storage system. The data provided and knowledge of your identity will only be accessible to the researchers listed above. The data will be stored until April 2023, after that it will be destroyed.

Withdrawing from Study
To withdraw from the study, please contact Sydney Brown through email or other established method of contact. No reasons need to be given for you to withdraw and you will not be penalized in any way. You are able to withdraw from the study for 6 months from the time of your interview, after that it will be impossible to remove your data from the results.

Distribution of Results
The results of this study will be reported in a graduate thesis and may also be published in journal articles and books or presented at conferences. All participants will receive a summary of findings after the study is completed.

Contact Information
Please feel free to contact any of the researchers if you have any concerns. The student lead can be reached at xxx.

If you have any concerns about your rights as a research participant and/or your experiences while participating in this study, you may contact the SFU Office of Research Ethics at dore@sfu.ca or 778-782-6618.

Thank you for reviewing this informed consent form. If you are interested in participating, please contact Sydney Brown.

Appendix D.

Interview Schedule

Interview Script
Ethical Considerations of Anti-Trafficking Algorithms Crawling Escort Ads

Caveat
This is a semi-structured interview so questions may be asked in a different order or slightly different language to go with the flow of the conversation.

Review of Information Sheet
- I would like to first start off by quickly reviewing the information sheet. Please feel free to interrupt me at any time to ask questions.

Consent Questions
- Do you have any questions about the information sheet?
- As explained in the information sheet, you have the option to have your identity remain confidential or to be identified. Which would you prefer?
- Do you consent to being a part of the study?
  Do you consent to being audio recorded?

Disclaimer
Before I start asking questions, I would like to go over some assumptions and definitions for the purposes of my research.

1) I recognize that sex work is work, and like in all industries, there are situations where sex workers are exploited and trafficked. The technology I will be discussing in this interview is created to try to detect exploitation in the industry. Because of this, the questions I will be asking will be focusing on how AI might be used to target exploitation.
2) When I talk about online ads, I am referring to traditional online advertisements on websites that have replaced Back Page. I understand that there are other ways to advertise online (e.g., using one's own website) but because the technology on which my study focuses relies on online ads hosted by third parties like Backpage my research focuses on these online ads.
3) The technology being studied uses algorithms to web crawl and/or uses automated decision making. This involves programming a computer to search for web sites that have particular characteristics that the programmers think is associated with exploitative agencies. The automated instructions are called algorithms. Web crawling involves taking snapshots of a website and saving it to the personal desktop of whoever is crawling. This is automated through the use of algorithms. Automated decision making involves training an algorithm to make decisions for someone. This is done by labeling data (i.e., a picture) based on whether the picture or other data displays the characteristic identified by the programmer.

General Questions in the Interview Schedule:

Assumptions of the Algorithms

- There are a number of algorithms currently being used to identify human trafficking victims using escort ads. I am going to list a few and would like to know whether you feel each one would be useful in identifying human trafficking.
  - The first is an algorithm designed to go through escort ads on publicly accessible websites to find patterns in the text of the ads. The computer decides whether the ad is likely human trafficking based on the pattern in the text. From your experience, is the wording in the text a useful thing to look at?

I made 30K working this job –call 123-456-7890 or visit scam.com
I made 30K working from home –call 123-789-4560 or visit fraud.com
I made 30K in a month working at this company –call 123-555-1234 or visit notarealwebsite.com
I made 30K working only 5 hours a week – visit scamfraud.com
I earned 30K working on the go –call 123-555-7890 or visit fraudscam.com
The template: I made 30k - call or visit .com
Yellow = Constant, Blue = Slot, Green = Insertion, Gray = Deletions, Pink = Substitutions

    -
    -
      - Do you think this process will help identify exploitation? Why or why not? Are there any other reasons why multiple ads would share similar wording?
  - The next algorithm looks for suspicious ad activity on the dark web, such as ads being taken down every 15 mins, or constantly changing contact information as well as the number of ads someone is posting, the number of names in the ad, lack of variability in pricing (i.e., all services are similarly priced).
    - Do you think that taking down ads every 15 minutes can help to identify exploitation? Is there any other reason someone might take down their ads every 15 minutes?
    - Do you think that changing contact information can indicate exploitation? Is there any other reason someone might change their contact information frequently?
    - Do you think that the number of ads someone is posting can indicate exploitation? Is there any other reason someone may post multiple ads?

        - Do you think the number of names in an ad can indicate exploitation? Is there another reason why multiple names may be in one ad?
        - Do you think all services being priced similarly in an ad can indicate exploitation? Are there any other reasons why all services may be priced similarly?
    - To create the algorithms, researchers are saving escort ads that are collected from publicly accessible websites (no paywall and no sign in). What are your initial thoughts about using online escort ads to try to learn about exploitation in the sex industry?
    - Once suspicious ads are identified, algorithms are being created to track who is buying the ads through publicly available data like Bitcoin transactions.
        - Bitcoin is a type of cryptocurrency which is a form of digital currency. The logic behind this technology is that traffickers are more likely to be using cryptocurrency to buy advertisements so algorithms might be useful to help track those who purchase ads. They are able to do this because some cryptocurrencies like Bitcoin now require personal information which the authorities are able to track. Do you think that using bitcoin or another cryptocurrency means an agency is likely to be engaging in exploitation?
    - Do you have any other general thoughts about how these technologies will affect the sex industry?
    - Do you see any benefits or limitations to approaching finding exploitation in this way?

Exploitation in Online Advertising

- How successful do you think technology will be at finding people who are being exploited?
- Where would *you* look to find exploitation in the sex industry?
- What would you look for in an online ad that would indicate to you that someone is being exploited?
- Are there any places you know online where people are more likely to post ads of people who are being exploited?

Third Parties

- The way the algorithm works is that it is looking for patterns in the online ads, which means it is more likely to flag ads that have been placed by third parties. How do you think this technology will affect third parties (i.e., handlers)?
- How do you think this will affect sex workers who use third parties to advertise?

Discrimination and Technology

- Who do you think will be most affected by these technologies? Are some sex workers more likely to be impacted than others? Do you think there is anyone who will not be affected by these technologies?
    - What about trans or non-binary sex workers?
    - What about racialized sex workers?
    - What about migrant sex workers?
    - What about male sex workers who advertise online?
    - What about migrant sex workers?

    - Any other group you can think of?
  - How do you think police using this technology will affect the sex industry?

Recommendations

- How useful do you think this technology will be at targeting exploitation in the sex industry?
- If any, what kind of technology do you think would be useful to helping those experiencing exploitation in the sex industry?
- If this technology was given or used by non-profits or other support services, what organizations do you think would be able to use it to support those facing exploitation?
- What recommendations would you make to those developing this technology?

Academic Specific Questions:

- Do you think there is a sufficient evidentiary basis for the AI that is currently in development? Why or why not?
- If you think the evidentiary foundation is lacking, what do you think the AI developers are missing?
- What impact will the gaps have on the results and use of the AI?

Conclusion

- Have I missed anything important you would like to add?
- As I mentioned at the beginning of the interview, your identity can remain confidential or you can be identified, would you like to change whether you are identified or not?
- Would you mind being contacted in the future if I have any clarifying questions?
- Would you mind if I send you the transcripts and/or initial themes I find for you to review and check I am accurately representing your thoughts?