

New Technology, Same Old Stigma: An Analysis of Feminist Discourses and Sex
Work Stigma in Sex Robot Media

by

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Abstract

Scholars have theorized the technological displacement of sex workers at the hands of sex robots, but none have addressed how sex robot representations could contribute to sex work stigma. Using critical discourse analysis and sex positive theories, this thesis seeks to address this gap by analyzing the production of knowledge in the emerging field of sex robots.

Specifically, this study analyzes sex robot representations in academic literature and online news articles to critically consider how prevailing discourses may impact sex and gender norms and sex work stigma. My analysis revealed that through their construction as sex work, sex robot representations reproduce problematic sex and gender norms, radical feminist discourses, and stigmatize sex workers and sex work clients. Furthermore, sex workers, sex work clients, and sex robot/doll users were found to be underrepresented in these conversations. This research demonstrates the need for more inclusive and destigmatizing sex robot representations.

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Introduction

Robots are being welcomed into our living rooms, kitchens, and bathrooms, but what about our bedrooms? As robot technology becomes increasingly popular, a particular type of robot seems to be on everyone's lips: the sex robot. According to Danaher (2014), sex robots are visually human-like artifacts used for sexual activity that perform human-like movements and interact with the environment through artificial intelligence technology. This technology is just beginning to enter the market, and admittedly, the artificial intelligence of today's sex robot is slightly underwhelming; but it is evolving rapidly. David Levy (2007a), an artificial intelligence expert and leading voice in the field, claims that sex with robots is inevitable and will soon become a normal part of our lives, and he is not alone in his belief. In 2006, the chairman of the European Robotics Research Network announced with confidence that "people will be having sex with robots within five years" (Levy, 2007b, p. 1). For futurist Pearson (2015), robot sex will begin to replace human sex by the year 2050. Beyond at-home usage, scholars have predicted that sex robot brothels will be commonplace in a near future (e.g. Yeoman & Mars, 2012).

Though sex robots are not yet as common as some have anticipated, they do exist. Leading developers RealDoll offer hyper-realistic silicone sex dolls with advanced robotic heads and accompanying artificial intelligence software. The dolls are able to perform facial and neck movements, and their A.I. software, which is managed through an app, is said to have learning abilities that allow the dolls to have long conversations and remember user's preferences and interests ("RealDollx", n.d.; "RealDoll – the world's finest love doll: SolanaX", n.d.). The machines remain rather expensive for the time being, which may play a role in the delay of sex robot brothel development. However, sex *doll* brothels are opening up around the world ("Map of sex doll brothels around the world," 2019). Some are said to offer sex robots as well as sex

dolls, but this seems highly unlikely. These claims are difficult to verify given the speed at which such establishments are opened and closed, the false and exaggerated statements from media outlets, and the inaccurate use of “sex robots” and “sex dolls” as interchangeable terms.

These developments have not gone unnoticed by scholars and media outlets. In recent years, sex robots have increasingly featured as controversial topics in news articles and academic texts (Döring & Poeschl, 2019). As ethical and legal debates emerge, sex robots have forced many to seriously reconsider ideas about sex and gender. Some are excited about the possibilities that sex robots present, viewing them as opportunities to deconstruct sexual boundaries and make sexual pleasure more accessible (e.g. Karaian, 2020; Levy, 2007a; McArthur, 2017). Others are more apprehensive about the technology, expressing concerns about the effects of sex robots on our society. From these concerns, abolitionist movements such as the Campaign Against Sex Robots, which seeks to ban sex robot development, have begun to take form (“About”, 2015).

In some cases, sex robots are advertised as catalysts to a societal collapse in which marriage is destroyed and romance is dead; when sex robots abound there will be no more human sexual relations (e.g. Geher, 2019; Kummer, 2019). Though such speculations may seem extreme, they are unsurprising when we consider that sex robots live at the intersection of human fear of artificial intelligence and sexual taboo. However, the most common sex robot anxieties rest on theories that they represent and lead to sexism, objectification, and violence against women (see Gee, 2016; Gutiu, 2012; Kaufman, 2018; Richardson, 2016a, 2016b; Sparrow, 2017; Weber, 2005). Sex robots themselves are believed to be harmful through their sexist representations and allowing people to use sex robots is believed to further encourage deviant and anti-social conduct (see Gutiu, 2012; Richardson, 2016a, 2016b; Sparrow, 2017).

Recently, scholars such as Danaher (2019) and Kubes (2019) have proposed that anti-sex robot arguments reproduce those made by radical feminists against pornography. Indeed, radical feminists have similarly criticized pornography for representing and encouraging female objectification and violence (e.g. Barry, 1979; Dworkin, 1981; Dworkin & MacKinnon, 1988). These discourses, often associated with the feminist “sex wars” of the seventies and eighties, have had a significant influence on academic, popular, and legal constructions of sexuality. To see them taken up within the context of sex robots raises interesting questions as to how these discourses may further shape our understanding of sex and gender norms.

Above connections to discourse about pornography, associations between sex robots and sex work dynamics are common in the academic discourse and in fictional and non-fictional media (Döring & Poeschl, 2019). Richardson (2016a; 2016b) has spoken extensively about what they believe is the construction of sex robot-human relationships to mimic sex worker-sex work client relationships. At the heart of Richardson’s arguments against sex robots are radical feminist arguments against sex work —sex robots are especially problematic because they are viewed as reproducing a model of sex work involving female objectification and violence. Richardson’s (2016a; 2016b) criticism of the parallel between sex work and sex robots is especially interesting given how sex robots are often proposed as an alternative to sex work.

Given that conversations about sex robots are fertile ground for contemplating sex and gender, it is critical to better understand how radical feminist discourses are being taken up and are shaping the popular conversation. If, as Richardson (2016a; 2016b) claims, sex robots are being constructed as sex workers and sex with robots is described as sex work, how are these representations further constructing sex workers and sex work? Furthermore, as feminist discourses have shaped popular discourses and legal decisions regarding sex and sex work, what

may be the impact of radical feminist discourses emerging from sex robot representations? The purpose of this study is therefore to analyze the production and distribution of knowledge in the emerging field of sex robots to critically consider its impact on constructions of sex and gender norms. I am interested in what feminist discourses prevail in discussions about sex robots and whether and how these narratives intersect with feminist debates about sex work. I ask: 1. How does academic literature and online news media represent sex robots? 2. How do these representations reproduce or challenge sex and gender norms? 3. How do these representations reproduce or challenge radical feminist discourses on sexuality? and 4. How do these representations reproduce or challenge sex work stigma?

This thesis is guided by Williams et al.'s (2015) Positive Sexuality Framework and Rubin's (1984) theory of erotic stigma, and employs feminist methodology and critical discourse analysis. I prioritize research written by sex workers and sex worker organizations, and research that highlights the opinions and experiences of sex workers and clients when contextualizing sex robot narratives and their intersections with sex work and law. My goal is to theorize the influence of these discourses on future sex robot policy, sex work stigma, and law. Though many have considered the effect of sex robot representations on women, to date no research has considered how sex robot representations could contribute to the stigmatization, marginalization, and criminalization of sex workers and sex work clients. This research seeks to address that gap.

In order to situate the reader, Chapter 1 includes a brief historical overview of the development of robotics, sex toys, sex dolls, and sex robots. The purpose of this general introduction is to demonstrate how, across time and culture, humans have exhibited a fascination with automata and a drive to create machines that mimic human form and intelligence. The phenomenon of sex robots is understood as a natural and predictable evolution given our human

history. This section also aims to, as accurately as possible, provide a representation of the state of sex robot technology as it stands today. As detailed in the chapter, pinpointing the exact state of the technology is difficult given the speed with which it evolves and the exaggerated or false claims made by developers and media outlets. I then present a review of the literature on expected acceptance and use of sex robots, some of the most common concerns and benefits proposed by scholars, and prevailing debates on the construction of robot sex. The chapter ends with a review of the parallels made between sex robots and sex work and theories of technological displacement. This highlights the extent to which sex work is intrinsically related to conversations about sex robots, and that there is a serious gap in the literature that addresses the consequences of this intersection while taking sex worker perspectives into account.

Chapter 2 delineates the theoretical frameworks that inspire both inquiry and analysis in this project. It begins by explaining sex work stigma through Goffman's (1963) theory of stigma and expands into a broader consideration of erotic stigma as defined by Rubin (1984). The role of academic literature, news media, and law as sites of knowledge production that can reinforce and challenge stigma are then discussed. Next, through a review of the feminist sex wars and emerging anti-pornography and anti-sex work stances I outline three emerging discourses that are of particular relevance to current discussions concerning sex robots: inherent harm, causality, and fundamental differences between men and women's sexuality. In the last section of the chapter, I discuss sex positivity as a theoretical framework to combat sexual stigma, and outline the use of Williams et al.'s (2015) Positive Sexuality Framework in my analysis.

Chapter 3 outlines the methodology and method used to select and analyze academic literature and online news articles about sex robots and sex work. I present a brief explanation of feminist methodology and critical discourse analysis theory and my decision to apply these to my

research study. I then detail the selection strategy that I developed to generate a representative sample of nine sex robot academic texts and 66 sex robot online news articles that think through the relationship between sex robots and sex work, as well as the questions that guided my discourse analysis.

Findings from my analysis are detailed in Chapter 4. It begins with a discussion of the conceptualization of sex robots as sex work throughout my samples, and the implication of this for the rest of my analysis. Each following section discusses themes that emerged from my discourse analysis as I tried to answer my research questions: the gendered construction of sex robots and sex robot users, the pathologizing and dehumanizing of men who purchase sex robots and sex work, discourses of inherent harm and causality, sex worker victimization and disposability, and the missing perspectives from concerned populations.

Chapter 5 is composed of my concluding thoughts, including a discussion of the limitations of my project, and recommendations for future research. I highlight the role of academics and journalists in the production of knowledge and propose that the development of sex robots serve as an opportunity for us to challenge sex and gender norms, sexual stigma, and oppressive sex work law.

Terminology

Below is a list of relevant terms which should be understood to best appreciate this work.

Anthropomorphism: The act of attributing human characteristics and/or emotions to objects, animals, and other non-human things (Duffy, 2013).

Artificial Intelligence (A.I.): In this text, A.I. refers to computer systems that display a form of human like intelligence such as learning, language, inference, perception, etc. (Seel, 2012).

Android/Gynoid/Humanoid: These refer to robots that are specifically human-like in appearance (“Humanoid”, n.d.; Prucher, 2007). The term humanoid does not imply a particular gender, whereas as gynoid implies that the robot is woman-like in appearance (“Gynoid”, n.d.). Android can be gender neutral or imply a robot that is male-like in appearance (Prucher, 2007).

Automata: mechanical devices which perform pre-set functions, often designed to look like humans or animals (“Automaton”, n.d.). These are different than robots because they have no artificial intelligence, they cannot learn or change; only movement or speech that is pre-set can be performed. These can be simple or relatively complex. For example, an automaton resembling a small boy built by Jaquet-Droz in the 18th century that can write (Stacey, 2013).

BDSM / sadomasochism (s/m): BDSM is an umbrella term that encompasses a range of sexual (and non-sexual) activities including but not limited to bondage and discipline, domination and submission, and sadomasochism (Brown et al., 2019). BDSM practicing individuals may practice one or many these activities (Brown et al., 2019). S/m is sometimes used interchangeably, especially in texts referring to arguments of the feminist sex wars. In this text I will use BDSM. If s/m is used, it is in reference to an author’s work that uses this term.

Cis: A cis individual has the same gender identity as the sex they have been assigned at birth (Henningesen, 2019).

Deviance: Deviance refers to “a form of social unacceptability” that is associated with a moral culpability (Scambler & Paoli, 2008, p. 1849). Individuals who are deemed deviant are blamed and seen as morally responsible for their behaviours (Scambler & Paoli, 2008). This differentiates deviance from other forms of social unacceptability for which individuals are not held responsible (Scambler & Paoli, 2008). Labeling someone as deviant portrays them as making *conscious* immoral choices.

Discourse: “a complex, multimodal object, as a form of social interaction and as a communicative event in its sociocultural context, managed by socially shared underlying cognitive strategies and representations” (Van Dijk, 2012, p. 1001).

Doll: A doll is “a small-scale figure of a human being used especially as a child's plaything” (“Doll,” n.d.). In this text, a doll need not be small-scaled nor specifically used by a child, but it does represent a human form.

Gender and Sex Norms: Expectations about gender and sexuality that are socially constructed (Kirch, 2008). Those who do not fit these norms are often stigmatized, ostracized and discriminated against.

Heteronormativity: A Western construct that values heterosexuality as the norm (Lind & Brzuzy, 2007). “[It] is the dominant sexual model of social, cultural, political, and economic organization, including the way it organizes identities, experiences, regimes of truth and knowledge, and ideologies of gender and sex” (Jeppesen, 2016, p. 493).

Technological Displacement: The displacement of human labour caused by technological advancement (Danaher, 2014; McConnell & Lampert, 1949). Also referred to as “technological unemployment” (Danaher, 2014; McConnell & Lampert, 1949).

Technophilia: Attraction and enthusiasm towards (especially new) technology (Osiceanu, 2015).

Sex Dolls: Sex dolls are artifacts which are used for sexual stimulation and that represent a human body (Döring & Pöschl, 2018). They are differentiated from sex toys, which may represent body parts, because they represent a whole body, head, and face (Döring & Pöschl, 2018). Sex dolls do not have A.I. abilities.

Sex Robot: This text uses Danaher’s (2017) definition of sex robots:

a “sex robot” is any artificial entity that is used for sexual purposes (i.e., for sexual stimulation and release) that meets the following three conditions:

Humanoid form, i.e., it is intended to represent (and is taken to represent) a human or human-like being in its appearance.

Human-like movement/behavior, i.e., it is intended to represent (and is taken to represent) a human or humanlike being in its behaviors and movements.

Some degree of artificial intelligence, i.e., it is capable of interpreting and responding to information in its environment. This may be minimal (e.g., simple preprogrammed behavioral responses) or more sophisticated (e.g., human-equivalent intelligence; p. 4-5).

Sex Robot/Doll Users/Customers/Clients: For the purpose of this work, individuals who use sex dolls/robots, whether through personal purchases or rental services, will be described as sex robot/doll users, customers, or clients. This is to avoid any confusion with sex work clients, which refers to those who specifically purchase sex work from a (human) sex worker.

Sex Work/Sex Worker: Generally, sex work is an umbrella term used to describe a range of sexual services in exchange for money or other material goods (Lind & Brzuzy, 2007). Sex work includes both legal and illegal activities; examples include erotic dancing, pornography, and prostitution. This definition is incomplete as sex work need not always include services of a sexual nature (e.g. non-sexual domination or dating services) and is not necessarily always in exchange for material goods (e.g. in exchange for services or protection). The definition of sex work depends on individual interpretations of sexuality.

For the purpose of this thesis, sex work will refer to the consensual exchange of sexual services for money or other material goods between humans that is currently criminalized in Canada, or what is traditionally understood as prostitution. It will not refer to other types of legal sex work such as pornography, unless indicated. “Sex work” and “sex workers” will also not be used to refer to sex dolls/robots or imply human-sex doll/robot interactions, unless specifically citing an author who uses the terms as such. This is to make a clear delineation between sex work: a job done by humans, and sex dolls/robots: objects used by humans.

Many sex workers find “prostitution” and “prostitute” to be reductive and stigmatizing terms and ask that people use the terms “sex work” and “sex worker” instead (Nengeh Mensah, 2007). However, I am cognizant that this is not the preference of all sex workers. Usually, those who use the term sex work do so to signal the recognition of sex worker agency and demand for a legal system that gives sex workers safety, freedom of choice, and benefits (Durisin et al., 2018). Others prefer to use the term prostitution to “imply that the provider is in a subservient position,” and to demonstrate their perspective that sex work is an inherently oppressive product of a sexist and violent patriarchal society (Mackinnon, 2011; Richardson, 2016a, p. 290). This thesis uses the term sex work in order to acknowledge sex worker agency, demonstrate support for sex workers opposing the construction of sex work as inherently oppressive, and signal a demand for laws that respect sex worker rights. When “prostitution” or “prostitute” is used, it is to reflect terminology used by another author, reference historical usage, or refer to specific policy.

Sex Work Client(s): In this piece, sex work client will be used to refer to individuals who purchase criminalized sexual services from human sex workers. Sex work client is a term that I have developed to mirror the sentiment of the terms sex work and sex worker, to highlight a consensual exchange, and to avoid the stigmatization of clients.

Sexual Scripts: Sexual scripts are culturally defined organizations of intimacy and sexuality (Döring & Poeschl, 2019). An example of a prominent Western sexual script is that sexual interactions must follow the order of kissing-foreplay-penetration (Döring & Poeschl, 2019).

Othering: “Othering is a process whereby individuals and groups are treated and marked as different and inferior from the dominant social group. Disenfranchised groups such as women,

people of divergent ethnic backgrounds, working-class people, homosexuals, or migrants may all be othered and, in consequence, suffer discrimination” (Griffin, 2017).

Chapter 1: Sex Robots: Development, Predictions, and the Sex Work Parallel

Though sex robot technology is just beginning to enter the market, human fascination with robots and artificial intelligence is not a new concept. The creation of automata can be traced back as far as the first century A.D., and has been evidenced across many different cultures (Levy, 2007a). Many are familiar with French inventor Jacques Vaucanson’s *Canard Digérateur* or “digesting duck.” The famous mechanical duck of the early 18th century could not only move its wings, neck, and feet, but could eat corn and subsequently appear to digest and defecate by releasing previously stored material (see Appendix A, *figure 1.*; Levy, 2007a). The impressive machine was a huge attraction that sparked in many a fascination with automata, and by the 19th century, mechanical dolls were popular creations in France. Today, dolls that similarly blink, move, talk, and relieve themselves are popular children’s toys (e.g. Hasbro’s “Baby Alive” dolls, see Appendix A, *figure 2.*; Levy, 2007a).

Often at the forefront of robot technology, Japan has conceptualized and constructed doll-like automata since the 18th century (Levy, 2007a). It is the advancement of A.I. in the 1950’s, however, that has motivated the creation of machines that were not only entertaining, but practical and intelligent (Levy, 2007a). Driven by industrial development, Japan focused on creating robots capable of performing industry job tasks (in car factories for example) with speed and efficiency (Levy, 2007a). By the 1990’s and early 2000’s, Japanese scientists concentrated their efforts perfecting “service bots” who could absolve humans of tedious tasks such as cleaning and refueling gas (Levy, 2007a). This developed into a desire for robots that could provide such practical services directly in the home (Levy, 2007a). According to Levy, an A.I.

expert who has been studying intimate relationships between humans and robots since 2003, a shift is being witnessed from industry, to service, and into the home; robots are now increasingly being designed to interact with humans.

Robots with a specifically human form, also called androids or humanoids, have been under development in Japan since the 1970's (Levy, 2007a). Today, there are a variety of androids able to perform impressive feats, such as Volkswagen's robot that can drive a car (Levy, 2007a). To Levy (2007a), these robots are but rudimentary examples of what will flourish in the near future: he predicts that the robots of the mid-twenty-first century "will be more creative than the most creative of humans...be able to conduct conversations...on any subject, at any desired level of intellect and knowledge, in any language and...will also possess human-like or superhuman-like consciousness and emotions" (p.10). With Japanese scientists leading a push towards robots with emotional functions who interact and build relationships with humans, Levy is confident that we will be able to ascribe feelings to robots and develop feelings for them as well. These predictions are especially applicable to androids, as humans are much more likely to accept and interact with robots that have human physical characteristics (Levy 2007a).

Sex Toys

So how did we get from a defecating duck to sex robots? As is the case with robots, interest in the use of mechanical and electronic devices to aid with or amplify sexual pleasure has existed for a long time, with the oldest dildo estimated to be 28,000 years old (Amos, 2005; Danaher, 2017a; Lehmiller, 2018). In the 1880's, female vibrators were invented to aid in the medical treatment of hysteria: a broad term used to describe various mental and physical health problems experienced by women, believed to be cured through orgasms (Latham, 2015; Lehmiller, 2018; Levy, 2007a). By the 1900's vibrators evolved from medical devices to sexual

stimulation tools and today they are a million-dollar industry (Levy, 2007a). Though vibrators are still considered illegal in some places (such as Alabama), their use is found to be common amongst both women and men (Herbenick et al., 2009; Lehmiller, 2018; Levy, 2007a). Today, machines like the famous Sybian, a saddle with a motorized “penis” that a woman can mount, are designed to create sensations that go beyond simple replications of human sexual interaction (see Appendix A, *figure 3.*, Levy, 2007a). Unique, intense, and superhuman sensations are common selling points for modern sex toys (Levy, 2007a). Take for example Cosmopolitan’s descriptions of toys in their online article *50 Sex Toys for Mind Blowing Orgasms*: “a butt plug experience unlike any other,” “[comparable to] standing next to really loud speakers and having an orgasm just from that feeling,” “a thing [that] is like the robot version of a human mouth you never knew you wanted” (Hsieh & Smothers, 2019).

Automated toys are not only developed for women; male devices for stimulation are traced back to German constructions in the 1950’s (Levy, 2007a). Most of these devices feature a chamber in which the penis is inserted; depending on the design, the chamber may vibrate, move, tighten and relax, etc. (Levy, 2007a). These are distinctive from sexual aids: artificial vaginas which men use to masturbate into but that do not produce movement on their own, also commonly known as “fleshlights.” These types of toys have been around since the 17th century and have been associated with dolls since their creation (Levy, 2007a). By the 1980’s, inflatable sex dolls made from latex or vinyl—otherwise known as blow-up dolls—were quite common (Levy, 2007a; see Appendix A, *figure 4.*). Unfortunately, these did not provide much realism to users. Over the last thirty years, developers have been invested in solving this issue by creating dolls that not only look but feel realistic (Levy, 2007a). Today, though inflatable dolls still exist,

there is a much larger variability of dolls available on the market, including latex dolls, plush dolls, and hyper-realistic silicone dolls (Döring & Pöschl, 2018; Levy, 2007a).

The most advanced sex dolls available today are created with silicone and can be positioned in many ways in order to provide users with a more realistic sexual experience. They have orifices in the mouth, vagina, and anus, are available in a variety of styles, and are often customizable: purchasers can choose options such as hair style and colour, skin tone, eye colour, and body shape (see Appendix A, *figure 5*). Sex dolls are used by both men and women in solo and partnered sex, but are also used in other friendly, romantic, and caretaking activities such as grooming, talking, and watching T.V. (Döring & Pöschl, 2018). Due to the high cost of these dolls, sex doll brothels, which allow users to rent dolls for a limited amount of time, are becoming more and more popular (“Map of sex doll brothels around the world,” 2019; Morgan, 2018). The recent increase in sex doll brothels around the globe has brought new attention to the use of sex dolls, sparking much controversy and producing the similar ethical and health concerns raised about sex robots. The dolls are criticized for promoting the objectification of women, encouraging violence, and contributing to social isolation and mental health issues in users (Döring & Pöschl, 2018). Sex robots are made of the same material as sex dolls and look the same, but have incorporated sensors, actors, and A.I (Döring & Pöschl, 2018).

Considering the advancing state of robotics and A.I., the drive for realism, and the increase in the development of sex toys that promise supernatural experiences, the addition of robotic and A.I. technology to sex dolls emerges as a predictable next step. Logically, sex doll companies and brothels are increasingly providing (or planning to provide) customers with both dolls and robots. For these reasons, the ethics of sex dolls and sex robots are often discussed collectively. In the media, the terms are at times used interchangeably, though wrongfully so.

The Current State of Sex Robots

Indeed, sex robots are here, and they are evolving rapidly. Starting at around twelve thousand dollars for a complete head, face, and body, leading developers RealDoll have two sex robots (called RealDoll^X), available for purchase: Harmony^X and Solana^X (see Appendix A, *figure 6., figure 7.*; “RealDoll^X”, n.d.; “RealDoll – the world’s finest love doll – Solana^X”, n.d.). In order to create the perfect companion, RealDoll offers customers various options for nearly every robot part: eye colour, body shape, hair style, and even labia. At extra charges, customers can further their customization by choosing features such as “hi-realism” eyes, specific nipple skin tone and shape, pubic hair, and piercings. The dolls’ bodies are made of high grade silicone with silicone rubber skin and gel implants in the breast and buttocks to provide a realistic feel. The bodies are relatively flexible which allows the dolls to be placed in various positions. Attached to these bodies is a neck equipped with a modulator adaptor and a “skull base,” allowing users to easily swap between different faces and bodies (“RealDoll – the world’s finest love doll – Solana^X”, n.d.). The mechanical neck and modular face system is what enables Harmony and Solana to perform a range of movements such as smiling, frowning, lip-synching to imitate speech, and turning their heads left, right, up, and down (“RealDoll – the world’s finest love doll – Solana^X”, n.d.). With their purchase, customers receive a one-year subscription to an app that manages the A.I. software. Through this app, customers create and design an avatar to connect to their physical doll. Customers can not only choose the voice, build, and clothing of their avatar, but can also choose from ten personality characteristics to influence the way the avatar acts and reacts to the user (unfortunately for Apple fans, the app is currently only available on Android; “RealDoll – the world’s finest love doll – Solana^X”, n.d.). An insert, which resembles a typical masturbatory aid, is placed inside the silicone doll. Physical touch to the

insert causes the robot to produce sounds of sexual pleasure; when the insert is not touched, the robot stops producing sounds and returns to blinking and looking around (“RealDoll^X”, n.d). Especially impressive are the advertised learning abilities of the avatar. The more users interact with their avatar, the more the avatar is supposed to “warm up to” and “connect with users” (“RealDoll – the world’s finest love doll SolanaX”, n.d.). Extra good care is said to be rewarded by unlocking “special features” (“RealDoll – the world’s finest love doll – SolanaX”, n.d.).

RealDoll is not the only company promising the greatest sex robot experience. On the Android Love Dolls website, male and female dolls that are touted as being “able to perform over 100 sexual acts autonomously” and having “advanced artificial intelligence speech,” seem to be available for purchase: prices and an “add to cart” button are included with each robot (“Android robot doll Evelyn”, n.d.). This is confusing given a statement on the front page of the website that reads: “Android Love Dolls is a startup company and current dolls are in the final development stage. We will keep the users posted in every aspect on the creation of our Android Robot Dolls through our blog” (“Realistic android robot dolls”, n.d). It is unclear as to whether Android Love Dolls’ products are available for purchase, pre-order, or anything at all. Similarly, AI-tech offers dolls with a robotic head that can “[give] unconditional love,” “listen to you,” and “feel your feelings” (“Artificial intelligent sex robot with facial expression deep learning”, 2019, n.d). The robots are said to include touch sensors and internal heating, but no indication of price or purchase button is provided on the site (“Artificial intelligent sex robot with facial expression deep learning”, 2019). As for DollSweet, which produces sex dolls in China, their site advertises that they have developed a complete robot head prototype and are hopeful that they will be developing sex robots in the near future. (“New tech”, n.d.). On the MacMill Cybernetics website, sex robots can be ordered by email or phone but brief descriptions, very few photos, and

an incredibly rudimentary website make knowing what the actual product is like rather challenging (“Products”, n.d.). It is difficult to certify which company is at the forefront of sex robot development, but based on media coverage, RealDoll seems to be leading the way.

Many may have heard of Roxxy, who garnered much attention around 2009 when developer Douglas Hines and his company True Companion declared that they had created the first ever sex robot, a claim echoed by many media outlets (Levy, 2013; e.g. Hough, 2010; Parsons, 2010; Salton, 2010). Not only was Roxxy supposedly the first of its kind, she was also thought to have many advantages over other developing models: a complete customizable personality, a heartbeat and circulatory system, the ability to feel touch and hear speech, and even the ability to orgasm, features yet to be achieved by robotics leaders such as MIT and Stanford University (Levy, 2013¹). In 2010, True Companion began to sell the supposedly advanced robot at the curiously low price of US\$6,495 and asked purchasers to accept an agreement with 15 clauses covering the purchase and subscription to accompanying services which did not include any sort of refund (Levy, 2013). The website then later stated that Roxxy was not ready for delivery, but began to accept pre-orders (Levy, 2013). Levy (2013) has expressed much concern about the claims made by True Companion, which they argue are impossible given the stated costs of development, current advancements in robot tech, and lack of Hines’ presence amongst leading developers and researchers. Roxxy’s unveiling at 2010 AVN Adult Entertainment Expo in Las Vegas exposed a very basic model with much left to be desired, and video evidence of the claims made by Hines have yet to be found (Kleeman, 2017; Levy, 2013). A simple comparison of the available images of Roxxy and RealDoll’s dolls and robots makes evident that RealDoll products are much more sophisticated, at least in physical

¹ According to Levy (2013), these claims were made on the True Companion website “truecompanion.com.” However, this site is no longer active.

appearance (see Appendix A, *figure 8*). As the True Companion website is currently inactive, it is safe to assume that at least some of the claims made by Hines are false, and that RealDoll^x represents one of the most advanced forms of sex robot available today. The sudden disappearance of supposed sex robot companies is not uncommon (e.g. Z-onedoll²), and it is advisable that potential buyers do extensive research before making a purchase.

Predicted Acceptance and Use of Sex Robots

Sex robots are on the rise, but many are skeptical as to whether these machines will become popular amongst the average consumer, and whether humans can actually develop romantic feelings towards robots. Media reports paint a conflicting picture. Sky News UK reported a poll in which 15% of men were willing to have sex with a robot, while Huffington Post reported that only 9% of people were interested in robot sex (Danaher, 2014; Nixon, 2015). According to YouGov's survey with over 1000 Americans, 24% of men and 9% of women would *consider* having sex with a robot (*Robot Sex*, 2017). The accuracy of such polls is debatable, and there is a lack of empirical research investigating how sincerely humans are willing to have robot sex. In one study, Scheutz and Arnold (2016) surveyed 100 Americans regarding the capabilities of sex robots, their appropriate use, their appropriate form, and what it would be like to have sex with them: over two thirds of men said they would have sex with a robot. These findings indicate that sex robots could be popular, but more research is necessary. Regardless, Levy (2007a; 2007b), asserts that sex with robots will be normal and common in the near future, and that we should gladly welcome them into our sexual lives.

Levy (2007a) sees a parallel with the way that pet owners anthropomorphize and develop deep emotional relationships with their animal companions, and the ways in which humans can

² According to older online lists and articles, Z-onedoll was a company providing sex robots, but no Z-onedoll website could be found.

become attached to non-living objects. They explain that a true *belief* in an object as “alive” or “human” is not necessary for humans to form bonds to machines (Levy, 2007a). Simply treating an object as human, for example by voicing its human-like characteristics (“this computer is being so annoying today!”), or being polite to it (“please work!”), leads to anthropomorphism and attachment over time, which eventually induces feelings of connection (Levy, 2007a). Levy believes that our ability to have relationships with objects will soon extend to robots; beyond forming bonds, we will also be able to fall in love. Many scholars would likely agree with Levy’s statements, as research demonstrates that humans have a psychological tendency to anthropomorphize objects (Duffy, 2003; Sullins, 2012). Furthermore, research has shown that humans are easily convinced that a person loves them even when actions contradict this belief, and children and seniors project human feelings onto robots (Sullins, 2012; Turkle & al., 2006). Computer designs can take advantage of these tendencies to create realistic experiences of bonding with machines (Sullins, 2012). Additionally, there is already evidence of certain individuals who prefer computers over humans’ company (Sullins, 2012). For Levy (2007a), whether fostered through the human impulse to care for things, our ever increasing technophilia, or as a solution to social isolation, romantic relationships with robots will soon be conventional.

In addition to studying the ways that humans characterize objects, scholars have also analyzed research on the use of sex dolls to hypothesize about the ways that humans might use sex robots. In their article, Yeoman and Mars (2012) conjure up a futuristic scenario in which Amsterdam is the top destination for sex robot tourism. The authors use the popularity of sex dolls in technologically advanced countries such as Japan and South Korea as rationale for their projected success of sex robot tourism, echoing claims made by Levy (2007b) that “the early success of these sex-doll-for-hire businesses is a clear indicator of things to come. If static sex

dolls can be hired out successfully, then sexbots with moving components seem certain to be even more successful” (p. 2). Other authors have drawn similar conclusions about the use of sex robots; Döring and Pöschl (2018) suggest that sex robots will be used for solo and partnered sex, and to form non sexual relationships, “on the basis of data concerning...sex doll use” (p. 54).

Though an association between sex dolls and sex robots seems intuitive, there are also limitations to sex doll use as the sole predictive model for sex robot use, as highlighted by the findings of Lancaster-James and Bentley (2018). In 2018, Lancaster-James and Bentley conducted a qualitative study which investigated the characteristics and motivations of sex doll owners and their opinions on sex robots. Recruited through an online sex doll forum, participants answered a questionnaire that combined both closed- and open-ended questions. More than half of the respondents communicated that they were intrigued by sex robot technology, but a number of the respondents expressed ethical concerns, a lack of interest, a preference for non-robotic dolls, a refusal to relinquish their current doll(s), and concerns that they would not be able to control their fantasies in the same ways as with a doll (Lancaster-James & Bentley, 2018). In a *BBC News* article, a sex doll owner who purchased RealDoll’s A.I. app explains his choice to not intergrade it into his doll Mai Lin: “I thought the app might bring her to life but the app has its own personality and it is different from how I pictured Mai Lin in my mind” (Wakefield, 2017). Though there is presumable overlap in the characteristics and motivations of sex doll consumers with those of potential sex robot consumers, research suggest that there may also be important differences between both types of consumers that should not be overlooked. Therefore, though sex dolls are a great starting point to help us understand sex robots, the acceptance and use of sex robots cannot be inferred solely through the study of sex doll owners.

Concerns

Anxieties surrounding the potential impacts of sex robots on society are common both within academic and non-academic publications. In the West, fear of artificial intelligence and robots in general is quite common and is represented in both fictional and non-fictional media, a phenomenon that is not reproduced in Japan where robots are viewed more positively (Alesich & Rigby, 2017; Levy, 2007a). Especially worrisome to some are autonomous weapons systems that would replace human soldiers; the fear being that robots will not possess the same moral judgment and responsibility that humans can (Danaher, Earp & Sandberg, 2017). With sex robots, it is not the morality of the robot that is a concern, but that of the user. As previously mentioned, the most common sex robot concerns are similar to those about sex dolls: sex robots will encourage objectification, violence, addiction, social isolation, and sexist gender stereotypes (Gee, 2016; Gutiu, 2012; Kaufman, 2018; Richardson, 2016a, 2016b; Sparrow, 2017; Weber, 2005). In some cases, these concerns have resulted in advocacy against the development and distribution of sex robots (e.g. “About”, 2015).

Perhaps the most common concern about sex robots is that they will have negative effects on the ways in which women are viewed and treated (Danaher, 2017b). For one, the physical design of sex robots in itself could be problematic (Robertson, 2010; Gutiu, 2012; Sullins, 2012). Most sex robots currently developed represent heteronormative ideals of female beauty (large lips, small waist, large hips and breasts, long white hair, etc.) and there is anxiety that these sexualized representations will exacerbate harmful gender norms (Gutiu, 2012; Robertson, 2010; Sullins, 2012). Gutiu (2012) draws attention to degrading comments such as “make me a sandwich,” and “shut up and strip” found under YouTube videos of female form androids, and proposes that sex robots reinforce stereotypes of women as passive and subordinate. Because misogynistic comments were specifically found under YouTube videos of *female* gendered

robots, whereas comments underneath YouTube videos of non-gendered robots focused on the sophistication and performance of the machines, Gutiu (2012) believes that gendered robots, rather than robots in general, particularly strengthen sexist beliefs —beliefs that could lead to sexist behaviours. These fears have also been conveyed in the media. In the television series *Humans*, a group of male teenagers harass a female form robot, and one of the teens is encouraged to have sex with the robot after it has been turned off (*Humans*, as in Danaher, 2017b). What *Humans* communicates is not that such actions harm a non-sentient robot, but that they symbolize and normalize human violence (Danaher, 2017b).

Media and scholarship on sex robots have expressed concerns about the symbolic consequences of a sexual activity in which consent, as it is understood in human sexual relationships, cannot be replicated (Bates, 2017; Danaher, 2017b; Sparrow, 2017). Some lament the fact that certain robots are/will be designed to refuse sexual advances, and that this is advertised as their selling point (Sparrow, 2017). Others argue that no matter the design, sex with a robot inherently eroticizes rape because a robot can in no way actively decide to have sex (Danaher, 2017b; Gutiu, 2012; Richardson, 2016a, 2016b; Sparrow, 2017). The robot is either programmed to consent, which scholars argue, gives the robot no “choice” and normalizes dangerous tropes of women as “always available” (Sparrow, 2017, p. 468), or alternatively, the robot can be programmed to be able to refuse consent, but this is still problematic because it gives users the opportunity to engage in an imitation of rape (Sparrow, 2017). Even if no act of consent is programmed into the robot, rape is still believed to be represented because no consent can be explicitly given (Sparrow, 2017). Some have proposed that robots whose symbolic nature is unethical, such as child sex robots and sex robots designed to refuse advances, should be

outlawed on the basis of their immoral representation, regardless of whether they lead to actual harm (Danaher, 2017b; Sparrow, 2017).

Predicted harms of sex robots are not limited to effects on women, many authors have proposed potential negative effects for sex robot users (Gutiu, 2012; Richardson, 2016a, 2016b; Snell, 1997; Sullins, 2012; Whitby, 2011). The main concern is that using sex robots would promote social isolation; users could become addicted, would avoid meeting other people, and would miss out on the important skills that are developed by attempting romantic relationships with humans (Danaher, 2017b; Gutiu, 2012; Snell, 1997, Richardson, 2016a, 2016b; Sullins, 2012; Whitby, 2011). Gutiu (2012) states that “the existence of sex robots will mean that men engage ‘women’ without having to experience social discomfort, men will turn to their ‘robot lover’ who does not present them with any challenges or uncertainty” (p. 15).

Proposed Benefits

Though there are many concerns about sex robots, there are also many proposed benefits. One of these is obvious, yet often overlooked—pleasure. McArthur (2017) refers to what they call “hedonic arguments”: sex robots will bring sexual and other pleasures to certain individuals, and this will likely improve their quality of life, and therefore “the level of overall happiness in the world” (p.34). This is supported by research that demonstrates that sex doll owners benefit from sexual and general satisfaction from their use and relationships with dolls, and that generally, people’s quality of life and happiness seem to improve with greater levels of sexual satisfaction (Lancaster-James & Bentley, 2018; McArthur, 2017; Valverde, 2012). Sex robots may also satisfy niche sexual interests and fantasies in individuals for whom this would be an obvious benefit, and some believe that sex robots will provide a level of sexual pleasure unachievable with partnered or solo human sex (Levy, 2007a; Döring & Pöschl, 2018). Indeed, it

is highly likely that sex robot use could increase levels of happiness in certain individuals, but to say that sex robots will increase the overall happiness of the world is quite a stretch, as this is difficult if not impossible to measure and correlate to a specific variable. In my encounters with sex robot media, I, like others (Karaian, 2020), have found the focus on pleasure to be minimal—hedonistic type arguments seem to gain little traction. This may be because sexual pleasure is still undervalued across discourses in law, religion, politics, education, and health (Allen, 2004; Hull, 2008; Kaplan, 2014; McArthur, 2017, Pitts & Greene, 2020; Tepper, 2000).

More commonly, proposed benefits of sex robots are formed from “distributive arguments” (McArthur, 2017, p. 38). Such arguments explain that individuals who have difficulties accessing human sexual encounters can benefit from sex robots. Arguments for the accessibility of sex robots have been made for various individuals, such as those in single-sex (e.g. prison) and lonely (e.g. space) environments, sexual minorities, those who have had traumatic sexual experiences, those with limited sexual experience, those with sexual difficulties or anxieties, those who are severely mentally or physically disabled, or those who simply do not want a committed partner (Ancil & Dubé, 2020; Di Nucci, 2017; Döring & Pöschl, 2018; McArthur, 2017; Levy, 2007a). Being deprived of sexual pleasure and sexual relationships can have negative effects on individuals, including depression and violent behaviour, therefore, sex robots could be an interesting solution for these individuals (McArthur, 2017). They could provide users sexual pleasure and emotional bonding beyond the capabilities of more typical sex toys, and could even be used as a transition to human relationships (McArthur, 2017).

Scholars such as McArthur (2017) and Danaher (2017a; 2019) explain that sex robots should not be solely viewed as a replacement for human relationships, but as potential tools for improving them. Sex robots could be used to explore gender and sexual orientations, work

through sexual trauma, learn about sex, and improve sexual skills (McArthur, 2017). In ongoing relationships, sex robots could help couples with different levels of libido or unmatched fantasies, or could simply be used to spice things up (McArthur, 2017). Some have even suggested that sex robots could reduce infidelity (McArthur, 2017; Yeoman & Mars, 2012).

Other commonly proposed benefits of sex robots are concerned with avoiding risks involved with human sex and contributing to an overall “healthier” society. Unwanted pregnancy and sexually transmitted infections can be avoided with sex robots, making them a safer alternative for users, and a potential solution for reducing these problems on a larger scale (Döring & Pöschl, 2018; Levy, 2007a; Yeoman & Mars, 2012). McArthur (2017) believes that sex robots could have health benefits for users, given that higher levels of sexual activity is related to various health outcomes. Moreover, sex robots could be designed to increase these health benefits, for example by increasing the amount of physical exertion required to use them (McArthur, 2017). The development of sex robots as therapeutic tools to help reduce sexual violence and teach consent, empathy and compassion, has also been suggested (Ancil & Dubé, 2019; Danaher, 2017b; Peeters & Haselager, 2019). Finally, the elimination of sex work is proposed by some as a potential benefit of sex robots (e.g. Döring & Pöschl, 2018; Levy 2007a, 2007b; Yeoman & Mars, 2012). However, whether this should be considered as a benefit is debatable. For further discussion on this, see this chapter’s section on the parallel between sex work and sex robots as well as the analysis provided in chapter 4.

Categorizing Robot Sex

So what exactly is robot sex? This question may seem redundant, but the question of robot sex is incredibly complex and highly relevant. Scholars question whether sex robots can be simply considered as very advanced sex toys, and therefore robot sex as just another form of

masturbation, or if robot sex is something closer to partnered sex. The distinction is important, as the categorization of sex robots has a strong influence on individuals' beliefs concerning their morality and their agency as "workers." The argument can be made that robot sex is more than masturbation because of the way that individuals will relate to robots (McArthur, 2017). As mentioned in this text, humans do form emotional bonds to objects and can perceive themselves as being in a relationship with such objects (McArthur, 2017; Sullins, 2012; Turkle & al., 2006). As evidenced by the emotional and relational connections experienced by sex doll owners, it is very possible that many humans will form similar bonds to robots (Döring & Pöschl, 2018; Lancaster-James & Bentley, 2018; Valverde, 2012). Given this, categorizing robot sex as nothing more than masturbation seems incorrect, and discounts the experiences of many. For some, the inability to categorize sex robots as fully "object" means that sex with a robot is a type of "nonreciprocal sex...that deploys an 'Other' as an object for sexual gratification" (McArthur, 2017, p.37). This view of robot sex supports arguments such as those made by Gutiu (2012) and Richardson (2016a; 2016b), that robot sex is a form of objectification and therefore immoral because it represents, condones, and possibly encourages objectification (McArthur, 2017).

However, the same argument that is used to support this view of objectification—that individuals relate to robots as more than objects—can also be used to refute it. If individuals do relate to robots and connect with them on an emotional level, can the use of robots not also represent, condone, and further encourage beneficial activities? Following the logic of representation, empathetic and caring activities, such as those evidenced by sex doll owners, should have the same representative weight as any objectifying sexual activities. Authors thus argue that robot sex need not be limited to a representation of objectifying sex, instead, it could represent and therefore encourage, "reciprocal significant sex" (McArthur, 2017).

On the other hand, it can be argued that robot sex *is* just masturbation. If sex is understood as a sexual exchange with another person (whether it be vaginal, oral, anal or manual) that requires “shared sexual agency”—a sort of back and forth, sharing, or mutual awareness—then masturbation is not sex (Migotti & Wyatt, 2017, p. 20). Indeed, most people do not consider masturbation to be sex, and doing so has brought up interesting considerations as to whether masturbation—if sex—is also then homosexual and incestuous sex (Migotti & Wyatt, 2017). If we accept that masturbation is not sex, then masturbation with a toy, no matter how fantastical or advanced, remains masturbation. For some, robot sex can only be considered as “sex” in the way that we understand it if the robot has the ability to exercise sexual agency, which requires sentience (Migotti & Wyatt, 2017). Under this view, until sex robots are sentient, the ethical questions of human sex such as consent and infidelity are inapplicable (Migotti & Wyatt, 2017). After all, though highly advanced, a non-sentient robot is still an object.

I myself favour the view that treating (non-sentient) robot sex as partnered sex is inaccurate, but again, worry that a classification of masturbation fails to acknowledge the very real emotional connection that some individuals may feel. Still, as Migotti and Wyatt (2017) point out, there are certainly individuals who already build relational bonds with sex toys (or stuffed animals), and this does not change our general understanding of these objects as objects. Perhaps then, robot sex should be considered as something else, not partnered sex, but a heightened or special form of masturbation. According to Karaian (2020), non-sentient sex robots should be considered as “sophisticated masturbatory aids” that allow us to externalize and materialize our fantasies in the same way that other mediums, such as writing and film, are commonly used (p. 4). Of course, experiences will vary greatly from user to user. Some may

treat robot sex just like using a typical sex toy, while others may find the experience unmatched by human companionship.

The Parallel Between Sex Robots and Sex Work

Whether robot sex is constructed as simple masturbatory pleasure, or a form of objectification needing to be banned, the theme of sex work reoccurs in discussions of sex robots. A substantial section of Levy's (2007a) influential book is dedicated to the idea of sex robots as legal alternatives to prostitution. Through a literary analysis of the motivations of men who purchase sex, Levy explains why sex robots are fitting substitutes and concludes that the technological displacement of sex workers by sex robots is a realistic possibility. Other scholars such as Bendel (2015), Danaher (2014), and Yeoman and Mars (2012) have proposed sex robots as solutions to problems associated with sex work; suggesting that they could eliminate pregnancy and STI risks, make transactions easier and safer, promote hygiene, reduce legal complications, and encourage a reduction in human trafficking. Richardson (2016a; 2016b) also makes parallels between sex robots and sex work, however Richardson does not believe that sex robots will replace or eliminate sex work. Instead, Richardson (2016a; 2016b) suggest that sex robots will cause an increase in the demand for sex work, claiming a causal relationship between the development of new sex technologies (such as pornography, sex dolls, and sex robots) and an increase in the sex work market. Richardson (2016a; 2016b) argues that relationships between consumers and sex robots are being developed to mimic, and therefore reinforce, relationships between sex work clients and sex workers which they believe to be inherently unethical, objectifying, exploitative, and violent. These concerns are at the source of the development of the Campaign Against Sex Robots. The Campaign, launched in September 2015, is also based on the belief that there are parallels between human-robot relationships and sex work client-sex

worker relationships, and that sex work is a form of violence and exploitation against women and children (Danaher et al., 2017; *About*, 2015). Its website reads:

The vision for sex robots is underscored by reference to prostitute-john exchange which relies on recognizing only the needs and wants of the buyers of sexual abuse, the persons in prostitution are not attributed subjectivity and reduced to a thing (just like the robot). The development of sex robots and the ideas to support their production show the immense horrors still present in the world of prostitution which is built on the “perceived” inferiority of women and children and therefore justifies their use as sex objects (*About*, 2015).

Richardson’s (2016a; 2016b) work raises important questions about the way that sex work is constructed in sex robot representations. There is obviously a recurring association between sex robots and sex work, and though Richardson (2016a; 2016b) has discussed what consequences they believe this construction will have on women, little consideration has been paid to the consequences of these sex robot narratives on those actually involved in sex work—sex workers and sex work clients.

The parallel between sex robots and sex work does not only exist in academic debate, it also seems to be engrained in our collective consciousness. Amongst a list of fifteen possible uses for sex robots, survey respondents rated “instead of prostitutes” as the most appropriate (Scheutz & Arnold, 2016, p.354). Interestingly, an age effect was found: the use of robots “instead of prostitutes” was less acceptable to Millennials than to older participants, indicating the possibility of generational differences in beliefs about sex robots and/or sex work (Scheutz & Arnold, 2016). Perhaps, compared to older adults, Millennials do not feel that sex robots and sex work are so easily interchangeable, or perhaps they feel that “prostitution” is a non-acceptable practice whether with a robot or human. Without more detailed research, it is hard to determine what this finding reveals.

Associations between sex work and sex robots were also seen in Döring and Poeschl's (2019) study on media representations of robot-human relationships wherein sex work/prostitution relationships and dynamics were found to be present in both fictional and non-fictional media, though significantly more common in non-fictional media. Another study looking at reactions of disgust towards sex robots by presenting participants hypothetical scenarios found that participants judged the behaviour and character of individuals paying for sex with humans more harshly than individuals paying for sex with a robot (Koverola et al., 2018). This indicates that robot sex may be culturally viewed as a morally acceptable alternative to sex work.

The Technological Displacement of Sex Work?

In 2014, legal philosopher John Danaher published an article that dissects and reflects upon predominant theories concerning the consequences of sex robot development on the sex work market. According to Danaher (2014), current hypotheses either follow “the Displacement Hypothesis” or “the Resiliency Hypothesis.” “The Displacement Hypothesis” is defined by Danaher as the proposition that “prostitution will be displaced by sex robots, much as other forms of human labour have been displaced by technological analogues,” and has been forwarded by a few key authors in the field (p. 117; Levy, 2007a, 2007b; Yeoman & Mars, 2012). This hypothesis relies on “the Transference Thesis” and “the Advantage Thesis” (Danaher, 2014, p.118). The Transference Thesis argues that the needs and desires of sex work clients can be fulfilled by sex robots, while the Advantage Thesis argues that sex robots will provide many advantages over sex workers. Levy (2007a; 2007b) and Danaher summarize the driving factors to buying sex as: a need for mutuality, a need for sexual variety, a desire to avoid expectations that come with relationships, and a need for alternatives for those who lack sexual

success. Levy claims that the needs associated with these driving forces can be met and surpassed by sex robots given that they have zero expectations, offer more variety, satisfy specific physical and sexual preferences, and can provide genuine companionship. Levy stresses that sex robots can simply provide more options to users than a human could. Any desired physical or personality trait can be designed into a robot, allowing clients to purchase the partner of their dreams. Moreover, sex robots can allow users to perform niche or risky sexual acts that a human may be uncomfortable with. Finally, Levy (2007a; 2007b) explains that because intimacy can be programmed into sex robots, they will be able to create a more convincing illusion of the emotional connection craved by clients, avoiding the potential disingenuousness of human sex workers who may have to “fake” a connection.

Levy’s (2007a; 2007b) list of driving factors to purchasing sex builds upon a relatively strong foundation of research on sex work clients, but there is little evidence to indicate that the experience of purchasing sex from a human is transferable to sex robots, and whether a crossover between both populations (sex work clients and sex robot users) truly exists. Even if similar basic “needs” are “satisfied” through both the use of a sex robot and the purchase of sex work, we cannot assume that these experiences are exactly the same or of interest to the same individuals. Interestingly, Lancaster-James and Bentley’s (2018) study of sex doll users found that “prostitute” was one of the least (4%) used terms by owners to refer to their doll, with lover (44%) and companion (43%) being the top two, indicating that sex doll users do not necessarily view sex dolls through the lens of sex work. It is possible that this will also be true for sex robot users. Unfortunately, the current literature mainly consists of assumptions made by scholars who, as far as we know, are not sex robot users themselves—perceptions of sex robots need to be further understood from the perspective of individuals who actually use these objects. It is also

important to consider possible individual differences and refrain from lumping sex work clients into one heterogeneous group. As previously mentioned, only a little more than half of sex doll users expressed an interest in exploring sex robots (Lancaster-James & Bentley, 2018). Similarly, though many sex work clients may find sex robots appealing, it is conceivable that a significant amount will also be disinterested.

Danaher acknowledges this possibility with their Resiliency Hypothesis: “demand for and supply of human sexual labour is likely to remain competitive in the face of sex robots” (2014, p.121). This hypothesis relies on what Danaher calls “the Human Preference Thesis”: most humans will naturally prefer, and therefore continue to choose, human sex over robot sex (2014, p.121). Danaher (2014) defends “the Human Preference Thesis” by referencing a Huffington Post poll in which only 9% of respondents said they would have sex with a robot. Danaher also uses their own preference as rationale for the Human Preference Thesis, writing: “If I were presented with the choice between sex with a ...human partner or a robot...I would prefer the former to the latter” and stating that “a case can be made for [the Human Preference Thesis] from common sense and intuition” (p.122). However, considering the range of findings reported by polls on sex robot interest (e.g. Nixon, 2015; *Robot Sex*, 2017), and the evidence to suggest the inaccuracy of online polls (Peterson, 2018), this Huffington Post poll is not nearly enough evidence to fully support the Human Preference Thesis. Furthermore, findings from Scheutz and Arnold (2016) paint a different picture, suggesting that over two thirds of men would be interested in exploring robot sex. Finally, Danaher’s (2014) use of personal preference does very little to support the Human Preference Thesis, as this may very well vary from person to person.

Another thesis used by Danaher to support the Resiliency Hypothesis is the “Increased Supply Thesis,” which supports that technological displacement in other occupations will lead to

an increase in sex workers, and will ensure a large enough supply of human sexual work for anyone who desires it (2014, p. 124). This theory has a few problems. For one, it relies on the assumption that people who lose their jobs to technology will choose sex work as an alternative, and further evidence that this is a real effect of technological displacement is needed. Secondly, even if the supply of sex workers remains consistent or increases, this does not guarantee a matching demand. Certainly, both the Displacement Hypothesis and the Resiliency Hypothesis lack empirical support. Furthermore, authors on both sides of the debate have failed to recognize specific socio-legal contexts, and the crucial role these may have on the technological displacement of sex workers.

Even if we assume Danaher's (2014) position that sex with a human is the obvious preferred choice, they have failed to consider the ways in which laws can affect such choices. They mention that robots have legal advantages over humans, but emphasize that the law has never dissuaded people from becoming sex workers in the past, and that the sex work market will continue to grow and move towards decriminalization (eliminating the possibility of robots displacing sex workers). Using Canadian prostitution law as an example, which decriminalizes sex work but criminalizes the purchase of sex, it becomes clear that Danaher's (2014) Resiliency Hypothesis cannot be so easily generalized. Potential sex work clients in Canada currently do not have the legal freedom to make their "preferred choice," and so they may have stronger motivations for choosing robots over sex workers. Additionally, there is uncertainty that the complete decriminalization of sex work is in the near future for Canada. Even if it does happen, it is difficult to predict that its timing will coincide with sex robot technology in a way that avoids technological displacement. Legal contexts are briefly discussed by Levy (2007a; 2007b) and Yeoman & Mars (2012), but mainly in the context of proposing sex robots as a positive legal

alternative to prostitution.

Overwhelmingly, whether scholars propose that robots will reduce or reinforce sex work, there is a serious lack of attention given to legal contexts and their possible influence on the question at hand. Furthermore, researchers have failed to seriously consider the impact of sex robots on the lives of individual sex workers, nor have they included sex worker perspectives into their theorizations. This has resulted in scholarship that lacks specificity and inclusivity. Given the frequency with which sex robots are associated with sex work, it is important that these intersections are critically analyzed, and that possible consequences—for both robots and their consumers, as well as sex workers and their clients—be considered.

Chapter 2: Theoretical Frameworks: Stigma, The Feminist Sex Wars, and Sex Positive Theory

In order to contextualize my analysis of the representation of sex robots provided below—namely the extent to which they are conceptualized and stigmatized as sex work and sex workers—this chapter begins by explaining and defining sex work stigma through Goffman's (1963) theory of stigma and Rubin's (1984) theory of sexual politics, and by underlining the role of academic scholarship, media, and law in producing, reproducing, and challenging stigma. I then outline prominent feminist debates on sexuality and identify recurring sexual discourses. Key here is a consideration of radical and cultural feminist discourses on heterosexual sex and sexuality. The term “radical feminist discourses” is used in this text to encompass recurring positions from those who oppose certain sexual practices on the basis that they are founded in, or evidence of, gender inequality (radical feminism), and who establish essential differences between male and female sexuality (cultural feminism). This includes positions from radical feminists and cultural feminists, but also from feminists who identify under other “feminisms,”

such as lesbian feminism or dominance feminism for example, and what some have come to call carceral feminism (e.g. Bernstein, 2010). “Radical feminism” is used to group these positions for simplicity as it is a familiar term that has come to embody the core values being discussed and represented within sex robot debates. However, it is important to acknowledge that not every feminist who identifies as a “radical feminist” supports every one of these positions, and not every feminist who supports these positions identifies as a “radical feminist.” The chapter ends with a consideration of sex-positive theoretical frameworks for working through issues of sexuality such as those represented in my work.

Stigma Theory

Understanding the production and consequences of sexual stigma for sex robots and sex work is key for making sense of these intersecting narratives. The word stigma stems from the Greeks, who used the term to define marks made by cuts and burns on the bodies of slaves, criminals, or traitors to identify their difference and lack of morality (Goffman, 1963). Throughout history and across various cultures, the practice of marking individuals has been used to single out, control, and “other” individuals. Salient examples include Nazis forcing people identified as of Jewish origin, ancestry, or faith to wear badges during WWII (United States Holocaust Memorial Museum, Washington, DC, n.d.), and tattoos used to mark Japanese criminals (Dajani, 2017). Today, stigma describes a phenomenon extending far beyond the boundaries of visible marks. It encompasses a broad range of behaviours, thoughts, and patterns that result in the othering and discrimination of individuals or groups.

Sex Work Stigma and Goffman’s Theory

The purchase and sale of sexual services are understood as stigmatized practices, and both sex workers and sex clients face discrimination as a result of stigma (Bruckert, 2012;

Hammond, 2015). For sex workers, discrimination is so prevalent that the term “Putophobia,” and its English translation “Whorephobia,” have been taken up by sex workers, sex work researchers, and sex work advocates to label “one of the most widespread discriminations in our western culture” (Nikita & Schaffauser, 2007, p. 24, translated by Bruckert & Chabot, 2014, p. 79; see also Tempest, 2019). According to prominent sex work scholars in Canada and the world, sex work discrimination is rooted in stigma as theorized by Goffman (1963; Bruckert & Chabot, 2014; see also Abel, 2011; Armstrong, 2019; Benoit et al., 2015; Benoit et al., 2018; Benoit et al., 2019a, 2019b; Bruckert, 2012; Cunningham, 2016; Hallgrímsdóttir et al., 2008). In order to diminish sex work discrimination, it is important to understand the production and consequences of the stigma that legitimizes it (Benoit et al., 2019a; Hallgrímsdóttir et al., 2008; Parker & Aggleton, 2003).

Canadian sociologist Goffman (1963) theorized that society categorizes people into groups from which members are assigned attributes that are considered “normal”, and when an individual’s attribute does not meet society’s expectations, they are identified as different. By this process, an attribute that differentiates an individual and consequently discredits them is what Goffman recognizes as stigma. Because of an attribute, “[the individual is] reduced in our minds from a whole and usual person to a tainted, discounted one” (Goffman, 1963, p.12). Goffman has often been criticized for describing stigma through attributes, which may give the impression that individuals’ attributes, in and of themselves, cause stigmatization (Richardson & Laurie, 2019). However, Goffman (1963) explains that stigma must be understood through “a language of relationships, not attributes” (p. 12). It is not the specific attribute of an individual that, by its very nature, is stigmatizing, but the way in which others (usually the majority or most privileged), relate to and perceive it (Goffman, 1963). Stigma is socially constructed and

therefore, context specific. It is influenced by time, culture, geography, groups, etc. In Canada, the stigmatization of sex work has varied within different time periods, geographical locations, and economic spaces (Hallgrímsdóttir et al., 2008; Khan, 2018). In order to emphasize that stigma is a social construct, rather than referring to stigmatizing attributes, this work refers to individuals as *being stigmatized*, *experiencing stigma*, or *stigmatizing others*.

In the Victorian era, sex work was understood by some as a “necessary evil” (Backhouse, 1985, p. 387; Khan, 2018). This philosophy was rooted in the belief that men had naturally high sex drives that needed to be satiated. Therefore, sex workers, though deviants, were seen as providing a needed service to society (Khan 2018). Others however, viewed sex work as “an inevitable evil” (Khan, 2018, p. 69). This perspective did not view sex work as useful nor productive, but conceded that it was unavoidable (Backhouse, 1985; Khan, 2018). Under both the “necessary evil” and “inevitable evil” perspective, the conceptualization of men as being unable to control their sexual urges meant that clients did not suffer as much stigmatization or legal regulation. Female sex workers were (and still are) stigmatized and labeled as deviants for opposing sex and gender norms which construct female sexuality as conservative and solely motivated by desires for love and intimacy (Armstrong, 2019). Because of this, sex workers faced the bulk of persecution and were regulated through arrests, punishments, and forced hospitalization (Backhouse, 1985; Khan, 2018).

Into the mid and late 19th century, perceptions of sex workers and clients began to shift as movements against prostitution and sex trafficking gained momentum (Backhouse, 1985; Khan 2018). Reformers wanting to bring an end to sex work declared “white slavery” (the kidnapping and luring of white women into prostitution by racialized men) as a serious problem across North America and Europe (Backhouse, 1985, p. 393; Khan, 2018). Though still stigmatized, sex

workers started to be viewed not only as deviant women but also as victims to corrupt traffickers (Khan, 2018). Clients were not yet the main focus of demonization, but were no longer perceived as innocent victims of their own desires. Women's rights organizations spoke to the lack of accountability placed on men, and a new focus on aristocrats and migrants marked clients as indulgent and savage men who would tarnish the purity of femininity and whiteness (Khan, 2018). In Canada and globally, sex workers continue to be blamed for deviancy and to be stigmatized as immoral, corrupt, and "vectors of disease" (Hallgrímsdóttir et al., 2008, p. 131; Scambler & Paoli, 2008). However, with the recent developments of legal systems that criminalize clients, sex workers are increasingly stigmatized as victims, and the perception of clients has evolved from rather benign, helpless men, to sexual deviants and criminals (Hallgrímsdóttir et al., 2008; Khan, 2018).

According to Goffman (1963), those who are stigmatized are negatively affected in two ways. First, they actively suffer because of their difference. Attributes and characteristics are generalized to the stigmatized individual (otherwise known as stereotypes) and they suffer from animosity, stigmatizing names, and social isolation (Goffman, 1963). Some reoccurring stereotypes encountered by sex workers are that they are "dirty", "immoral", "hyper-sexual", "home wreckers", "victims" and that sex work is not a "labour activity" (Benoit et al., 2019a; Bruckert & Chabot, 2014, p.80-84). Sex work stigma has serious consequences; it hinders sex workers trying to develop careers or build and maintain relationships (Bruckert & Chabot, 2014). Moreover, it legitimizes and promotes the discreditation and disrespect of sex workers as well as violence against them. (Armstrong, 2019; Benoit et al., 2018; Lowman, 2000; Sallmann, 2010). Sex work clients are similarly labeled as "deviant", "dirty" and "immoral" as well as "paedophiles," "murdering bastards," and "abusive" (Hammond, 2015). This encourages the

shaming and criminalization of sex work clients which disproportionately affect racialized and lower socio-economic class men (Kulick, 2005; Fischer et al., 2002; Van Brunschot, 2008).

The second way that stigma negatively affects individuals is by forcing them to adjust their actions and behaviours. As many stigmatized individuals are aware of their stigmatization, they may devote a lot of energy and resources attempting to conceal these attributes and behaviours in order to avoid negative consequences (Goffman, 1963). For example, many sex workers deal with stigma through information control; they lead double lives and use lies and selective disclosure to protect their identity (Benoit, et al., 2019a). Though information control helps protect sex workers from the consequences of stigma, it is very demanding and time consuming. Especially concerning is the effect that stigma is found to have on sex workers' access to health care. For many sex workers, inappropriate questions, moral judgement, and lack of continuity and consistency in care lead sex workers to avoid disclosing their work and avoid seeking medical assistance when severely injured (Benoit et al., 2018; Benoit et al., 2019b; Bruckert & Chabot, 2014). Canadian sex workers who did decide to disclose their work often found that their fears of judgement came true, with some sex workers explaining that they noticed a change in their care after disclosure (Benoit et al., 2018).

Stigma can affect behaviour and thought to such an extent that some individuals may even begin to internalize stigma, meaning that they begin to believe in the stigma held against them. In this way stigma is dynamic: it is affected by beliefs and behaviours and in turn influences them. For sex workers, stigma can lead them to alter their own perceptions of themselves and internalize stereotypes (Benoit, et al., 2019). Tempest (2019), a Canadian sex worker, has written about the ways in which internalized whorephobia contributed to their feelings of powerlessness in intimate relationships, which fed an unhealthy tolerance of abuse

and disrespect. The internalization of stigma also leads sex work clients, aware of society's perception of them as perverts and deviants, to question their own motives (Hammond, 2015). On a more positive note, many sex workers choose to completely reject stereotypes or reframe the conceptualization of their work by focusing on the benefits they reap from the work, such as economic security, material goods, self-worth, and sexual empowerment (Benoit, et al., 2019). Though sex workers are stigmatized, many actively work to resist this stigma and develop strategies to alleviate discrimination (Parker & Aggleton, 2003; Scambler & Paoli, 2008). As for sex work clients, many turn to internet communities as positive and safe spaces to receive support from other clients (Hammond, 2015).

As previously discussed, stigma is deeply connected to discrimination. According to Link and Phelan (2001), people experience stigmatization specifically when being marked as different provokes status loss and discrimination. The cumulative and influential nature of stigma translates to discrimination that is deeply embedded into our societal structures and institutions: stigmatized individuals are said to have less chances for success and are disadvantaged in many important aspects of life such as “income, education, psychological well-being, housing status, medical treatment, and health” (Link & Phelan, 2001, p. 371). Authors have stressed that the disadvantaging impact of stigma on certain groups is so grave that stigma must be considered as a “central driver of morbidity and mortality at a population level” (Hatzenbuehler, Phelan, & Link, 2013, p. 813).

Furthermore, stigma is influenced by existing inequalities, in turn reinforcing them (Parker & Aggleton, 2003). Key to understanding inequality is intersectionality. Originally introduced by Kimberlé Crenshaw in 1989, and further developed by Patricia Hill Collins, “intersectionality references the critical insight that race, class, gender, sexuality, ethnicity,

nation, ability, and age operate not as unitary, mutually exclusive entities, but as reciprocally constructing phenomena that in turn shape complex social inequalities” (Collins, 2015, p.2). This is to say, that contexts and systems of identity interplay to create unique experiences of oppression and privilege that influence the experience and consequences of stigma and discrimination. Though sex work is a stigmatized practice, some sex workers and sex clients are more privileged or oppressed in their material relationships and practices depending on intersections of race, class, ability, gender, sexual orientation, histories of colonization, etc. (Benoit et al., 2019a; Benoit et al., 2018). For example, women of colour and indigenous women who work in the sex industry are often stigmatized for their work, especially because of their race, and their racial identities may make them more vulnerable to discriminating consequences of sex work stigma (Chude-Sokei, et al., 2016; Hunt, 2013; Maynard, 2018; Miller-Young, 2014). The stigma faced by these women can come from both inside and outside their cultural and community groups (Chude-Sokei, et al., 2016; Hunt, 2013; Miller-Young, 2014). Gender identity and sexual orientation also affect how and to what extent some sex workers are stigmatized—transgender and homosexual sex workers often navigate complex experiences of stigma different than those of cis and straight sex workers (Benoit et al., 2018; Lyons et al., 2017; Samudzi & Mannell, 2016). Sex worker experiences of stigma also vary across sectors. Street-based sex workers are generally the most highly stigmatized, and often, this stigma intersects with xenophobic stigma and drug use stigma (Armstrong, 2019). Though patterns and similarities in experiences of stigma exist, these are dependent on individuals’ access to power, and can also be highly individual.

Erotic Stigma

The stigmatization faced by sex workers and sex work clients can be considered as forms of erotic stigma. Erotic stigma is defined by Rubin (1984) as a socially acceptable system of prejudice and stigma against sexual minorities. Building on the theoretical works of Weeks (1977; 1981), Hansen (1979), and Foucault (1978), Rubin explains that North American society holds primarily negative views of sexuality stemming from religious values and nineteenth-century moralities that encourage chastity and heterosexual reproduction. This results in stigma against any sexual variety that does not fit within the confines of reproductive, marital, heterosexual sex (Rubin, 1984). Sex workers and sex clients, who use sex for monetary gain and non-reproductive and non-marital pleasure, certainly fall into this category. Rubin identifies six important western axioms at the root of the erotic stigma furthered by media, pop culture, psychological and medical fields, and the law, and explains that these must be overcome in order to develop a sex positive society. These are considered in greater detail in the analysis provided below. By way of an introduction they are briefly summarized here as: **sexual essentialism**, which constructs sex as a natural and biological force that shapes society; **sex negativity**, a western cultural view of sex as dangerous and immoral unless it is marital and reproductive; **the fallacy of the misplaced scale**, the exaggerated significance that is attributed to sex and which identifies any differences in sexuality as cause for dramatic concern; **the hierarchical valuation of sex acts**, the ways in which sexual acts and identities are morally, legally, and socially hierarchized; **the domino theory of sexual peril**, the belief that if any “bad” sexual acts are accepted, sexual morality will completely fall apart; and **a lack of a concept of benign sexual variation**, which highlights our difficulty in overcoming prejudice towards sexual preferences that are simply different than our own.

Sites of Stigma

There are a variety of factors that work to produce, reinforce, and challenge stigma. A goal of this thesis is to consider whether and how sex robot and sex work discourses intersect and how sex robots are stigmatized and potentially stigmatize sex work. In order to do so, I have chosen to narrow the focus of my analysis to academic literature and online news media. Both are influential sites of sexual debate that are currently the most saturated in terms of sex robot discussions, that have historically affected sexual minorities, and that play dynamic roles in the production and distribution of knowledge. Also considered is law's relationship to these sites and stigma, its ongoing role in the oppression of sex workers and sex work clients, and its inevitable involvement in the development and regulation of sex robot technology.

Academic Literature. Many academics hope that their research will produce social change, and indeed, academic scholarship can have a positive impact on groups and individuals by highlighting injustices. However, it can also play a damaging role by contributing to stigmatizing discourses. Historically, academic scholarship has contributed to the stigmatization of many minority groups including but not limited to women, indigenous people, people of colour, sexual minorities, religious groups, disabled people³, individuals suffering from addiction, and sex workers (see Beddoes & Schimpf, 2018; Ben Hafsa, 2019; Bonilla-Silva, 2009; Bonilla-Silva & Baiocchi, 2001; Broyles et al., 2014; Coulter et al., 2013; Delgado, 1984; Harper, 2012; Hereniko, 2000; Luxton, 2012; Mirga-Kruszelnicka, 2018; Pheterson, 1990; Shanouda & Spagnuolo, 2020; van der Meulen et al., 2013). Though not always intentional, the use of language alone in academic literature can mark others as different and propagate stigma (Broyles et al.). Furthermore, the prevalent exclusion of minority groups from academia and

³ There is much disagreement about what terminology is appropriate when referring to individuals who are disabled (Auslander & Gold; 1999). Some members of the community prefer people-first phrasing such as “people with disabilities”, while others prefer to use disability as an adjective, also known as identity-first language (Auslander & Gold; 1999). I have chosen to use the later given that it is the preferred terminology of my friends in the community.

research concerning them contributes to misrepresentation and stigma (Ben Hafsa, 2019; Broyles et al., 2014; Coulter et al., 2013; Delgado, 1984; Mirga-Kruszelnicka 2018; Luxton, 2012; van der Meulen, Durisin & Love, 2013).

Academic research on sex work has been especially problematic. Because of its criminalization and stigmatization, including sex workers and sex work clients in the research process without risking their safety or wellbeing can be difficult, and both quantitative and qualitative research methods present important ethical dilemmas (Hubbard, 1999). Furthermore, through research, writing, and activism, academics have historically misrepresented the realities of various sexual minorities, including sex workers and sex work clients, and in doing so have reinforced negative stereotypes and sex work stigma (Khan, 2014; Kulick, 2005; Pheterson, 1990; Rubin 1984, 1993; van der Meulen et al., 2013). Anti-sex work scholars have also been criticized for failing to use proper theory and methods, and for making unsupported claims in order to promote their personal agendas (Rubin, 1984, 1993; Weitzer, 2005a, 2005b). Thankfully, sex workers and sex worker advocates are hopeful that through evidence-based empirical research, and the inclusion of sex workers as knowledge producers, sex work stigma can be reduced (Lewis et al., 2013; van der Meulen et al., 2013).

News Media. Media is another site of knowledge production that can contribute to stigma because of its important role in the construction of individuals' opinions, beliefs, and attitudes (Betton et al., 2015; Gunther & Christen, 1999; Lecheler & de Vreese, 2012). News media in particular can reinforce prevailing opinions, norms, and stereotypes in the interest of those with the most privilege and power, and is especially insidious because it is often regarded by the public as being neutral, factual, and "the consensus" (Edwards & Cromwell, 2005; Hall et al., 2013, p. 59; Roth & Sanders, 2018). The news can take many forms, but for the purpose of

this section it refers to traditional forms of media that are interpreted as reporting factual information on real life events (e.g. television news, newspaper articles, online news websites, community papers, etc.; see chapter 3 for an explanation of why I selected online news articles and opinion pieces as samples in this study). As a key source of information for both the public and policymakers, news media is also deeply interconnected with the production and distribution of academic scholarship and the development of laws (Hammersley, 2007; Weiss, & Singer; 1988). The news is often the medium through which policymakers extract academic research findings that influence their legal decisions (Hammersley, 2007; Weiss & Singer; 1988).

The news can be stigmatizing in the way that it represents individuals and groups, and can further encourage stigmatization and discrimination by affecting consumers' perceptions and resulting behaviours (see Ben Hafsa, 2019; Frederick et al., 2016; Kasperson, 2012; Kasperson et al., 1988). For example, a 2016 study found that participants exposed to news articles that framed fatness in a negative way (unhealthy, controllable, and acceptable to stigmatize and discriminate against), expressed more anti-fat prejudice, willingness to discriminate against fat people, and support for charging fat people more health insurance (Frederick et al., 2016). The news also stigmatizes minority groups by over representing them in passive or victimizing roles and failing to present them in roles as experts, and repeated exposure to such portrayals reinforces stigma in consumers (Loto, et al., 2006; Voorhees et al., 2012).

Similar findings on the stigmatizing influence of news media has been found in research around the globe on mental illness, HIV/AIDS, suicide, drug addiction, abortion, and sex work (Benoit et al., 2018; Card et al., 2019; Conrad & Angell, 2004; Klin & Lemish, 2008; Lee & An, 2016; McGinty et al., 2015; Nixon et al., 2016; Roth & Sanders, 2018; Weitzer, 2018). In Canada, the mid-seventies saw a huge increase in articles on prostitution in the Vancouver Sun

which described “attempts and demands to get rid of street prostitution” by politicians, police, and neighbourhood groups, contributing to a “discourse of disposal” (Lowman, 2000). The surge of these articles and the way they constructed sex work were found to play an important role in increased murders against sex workers (Lowman, 2000, p.988). Unfortunately, the media rarely portrays sex work in a neutral or positive light and has perpetuated false understandings of sex work by favoring stories of abuse, conflating sex work and trafficking, blaming sex workers for the negative consequences of their work, and reporting that violence against sex workers was committed by “pimps” when it was actually committed by police (van Brunschot et al., 2000; MacDonald & Jeffrey 2006; Weitzer, 2018). Media representations of sex workers are especially important because for the average individual, they are the sole point of contact with sex work and a main source of information on the subject (Hallgrimsdóttir et al., 2006). Furthermore, some promising studies demonstrate that news media using positive frameworks can contribute to a reduction in stigmatizing attitudes, and sex work advocates acknowledge the potential positive role of media in normalizing sex work (Frederick, et al., 2016; Lee & An, 2016; McGinty et al., 2015; Sanders, 2018; Weitzer, 2018).

Law. Though law and policy can serve to alleviate the repercussions of stigma through prevention and punishment, they can often actually perpetuate and reinforce stigma (Burris, 2006). It is widely understood that the law not only reflects our moral beliefs, culture, and sexuality, it also informs them (Burris, 2006; Kahan, 1997; Sadan, 2004; Stychin, 1995). Legislation in itself can encourage stigma by classifying certain groups as inherently criminal and deviant, and promotes certain sexualities (heterosexuality) by regulating and repressing others (Stychin, 1995). For example, in the 1970’s and 1980’s Canadian law prohibited the “importation of...goods which [depict] or [describe] sexual acts that [appear] to degrade or

dehumanize any of the participants, including ‘depictions or descriptions of anal penetration,’” as well as materials depicting the use of sex toys and sex aids (see Cossman, 2013, p.49). However, “goods which communicate...information about anal penetration committed in private between a husband and a wife” were permitted (Cossman, 2013, p.50). This clearly demonstrates legal discrimination against queer sexuality which was treated as inherently degrading (Cossman, 2013). Even in the 21st century, Canadian obscenity laws have been accused of allowing gay and lesbian material to be unjustly seized by customs and violating the rights to freedom of sexual expression of sexual minorities (Cossman, 2013). Such laws, by the very ways they are written, are evidence of stigma against the sexual minorities whom they actively discriminate. In doing so, these laws reinforce stigma by intrinsically marking these groups as “different” and “criminal”, while also authorizing continued stigma and discrimination.

Law has also had stigmatizing effects on sex work. Under current sex work law in Canada (which criminalizes the purchase of sex), sex work is understood to be a form of violence of which women are victims (Bruckert, 2015; Bruckert & Hannem, 2013; Belak & Bennett, 2016, p. 5). This encourages the perception of sex workers as victims, and sex work clients as deviants (Belak & Bennett, 2016; Bruckert, 2015; Bruckert & Chabot, 2014; Bruckert & Hannem, 2013; Khan, 2018; Kulick, 2005). Of all the stereotypes associated with sex workers, sex workers see the narrative that sex workers are “victims”, which is closely tied to the belief that sex work is not a “real job”, as especially common and problematic (Bruckert & Chabot, 2014; Krüsi et al., 2016). This narrative suggests that sex work is inherently violent and objectifying (Farley, 2004; MacKinnon), and that factors such as drug use, abuse, and mental health force sex workers to enter the trade and impede their ability to leave (Shaver et al., 2018). Research has found that victimization narratives do not match the much more nuanced feelings

that sex workers have about their work, fail to acknowledge sex worker agency, and downplay the role of structural systems in sex work discrimination (Hallgrimsdóttir et al., 2006; Krüsi et al., 2016; Shaver et al., 2018). Sex workers explain that being seen as a victim makes them feel discredited, judged, and underestimated (Bruckert & Chabot, 2014). Sex workers, sex work advocates and researchers alike have come forward to denounce laws that criminalize the purchase of sex as stigmatizing and endangering the lives of sex workers (Anderson et al, 2016; Belak & Bennett, 2016; Benoit et al., 2014; Bruckert, 2015; Ka Hon Chu & Glass, 2013; Krüsi et al., 2016).

Sex War Debates

Existing concerns about the harm that sex robots will cause to women, society, and their users are not new in many respects. Feminists scholars have long argued about whether sexuality is a site of oppression and harm or of pleasure and liberation. Still today, sexuality is one of the most contested issues amongst feminists. This division can be largely traced back to fierce debates between (generally) Western feminists in the late 1970's to early 1990's, often referred to as the "feminist sex wars" (Khan, 2014; Mann, 2012). During this period, feminists emphasized the need to address and resist sexist power dynamics that contribute to sexual aggression and violence towards women (Mann, 2012). While all feminists agreed that violence against women was a feminist issue, disagreements evolved over what sexual activities could be considered as sexist, "wrong," "feminist," or harmful, and how these activities should or should not be controlled. In particular, feminists argued over pornography, s/m, lesbian identity, monogamy, sex toys, sex work, and vaginal penetration (Ferguson, 1984; Khan, 2014; Mann, 2012).

On one side, various feminist groups such as radical feminists, cultural feminists, lesbian feminists, lesbian separatists, political lesbians, anti-pornography feminists, and dominance feminists, took a stance against some or all of the aforementioned practices (Ferguson, 1984; Khan, 2014; Mann, 2012). Underlying such “anti” stances were a set of foundational beliefs, mainly that “heterosexual sexual relations generally are characterized by an ideology of sexual objectification (men as subjects/masters: women as objects/slaves) that supports male sexual violence against women. [and] Feminists should repudiate any sexual practices that supports or ‘normalizes’ male sexual violence” (Ferguson, 1984, p.108). The range of practices that were identified as male sexual objectification varied amongst individual scholars and groups. For some, only heterosexual relations fit this definition, but others considered all forms of vaginal penetration as oppressive (Khan, 2014). For MacKinnon (1989), all sex was to be considered as a form of male sexual violence in its essence (although it is unclear if they suggest that all forms of sex should be renounced). In *Sexuality*, MacKinnon (1989) equated sex to gender, and declared that sex, as a strict construct of male desire, is inherently and universally oppressing. According to MacKinnon, sexuality is a non-organic product of patriarchal and capitalist structures (Cornell, 1991; MacKinnon, 1989). While MacKinnon’s emphasis is on structures of power, cultural feminists sought to emphasize inherent differences in male and female sexuality as products of our biology (Echol, 1983; Ferguson, 1984). Male sexuality is associated with violence, performance, physicality, selfishness and pleasure, while female sexuality is associated with intimacy, commitment, care, empathy, love, and spirituality (Echol, 1983; Ferguson, 1984; Morgan, 1977). In their statements, Morgan (1977) makes evident the understood differences between male and female sexuality:

Every woman knows in her gut the vast differences between her sexuality and that of any patriarchally trained male’s – gay or straight... That the emphasis on genital sexuality,

objectification, promiscuity, emotional non-involvement, and, of course, invulnerability was the *male style*, and that we, as women, placed greater trust in love, sensuality, humor, tenderness, commitment. (p. 181)

On the other side, sex-positive feminists, anti-censorship feminists, sex-radical feminists, queer feminists, and libertarian feminists fought against the criticism and control of sexual practices (Ferguson, 1984; Khan, 2014; Mann, 2012). These feminists were motivated by liberal notions of freedom, anti-censorship, and beliefs that such practices play important roles in the sexual liberation of women and other non-woman identifying folk (Ferguson, 1984; Mann 2012). The focus of these groups was more fractured. Liberal feminists were mostly concerned with issues of censorship and built their arguments on broader philosophies of freedom and human rights to speech and privacy (Mann, 2012). Other pro-sex feminists homed in on sex as a realm of pleasure, viewing sexual repression as a core component of female oppression (Mann, 2012). Sexual repression was seen as patriarchal and bourgeois control based on outdated religious ideas of morality (Ferguson, 1984; Mann, 2012; Rubin, 1984). Of particular concern was the ongoing oppression of sexual minorities such as BDSM practitioners, queer folk and sex workers, and radical feminists were accused of contributing to the stigmatization and discrimination of these groups (Ferguson, 1984; Khan, 2014; Rubin, 2984). Core to many “pro-sex” feminists was the belief that “any theoretical analyses, legal restrictions, or moral judgments that stigmatize sexual minorities and thus restrict the freedom of all [should be repudiated].” (Ferguson, 1984, p. 109; Rubin, 1984). Of course, there were also some feminists who, not completely identifying with one “side” or the other, took more neutral positions (Khan, 2014).

Sex Wars and Pornography

As discussed in Chapter 1, the main concerns about sex robots are that their representations objectify women and sexualize violence, and that this will lead to increased objectification and violence in the real world. These are the same concerns that motivated radical

feminists to oppose and even try to ban pornography. In the 1970's, anti-pornography groups formed and performed activist work with the goal of educating people on the violence against women depicted in pornography, often presenting slides of s/m images as examples (Khan, 2014; Mann, 2012). Radicals such as Andrea Dworkin and Catharine MacKinnon expressed concerns that pornography not only represented but encouraged female objectification and violence (Barry, 1979; Dworkin, 1981; Dworkin & MacKinnon, 1988; MacKinnon, 1985; Ferguson, 1984; MacKinnon 1989, Mann, 2012). As a solution, many radical feminists called for the criminalization and censorship of pornography, as exhibited by the "Feminist Perspectives on Pornography" conference and resulting 1978 march for the "eradication of pornography" (Echols 1983; Khan, 2014, p. 58; Mann, 2012). In 1980, famous feminist authors including Andrea Dworkin, Audre Lorde, and Lauren Lederer published anti-pornography articles in the famous anthology: *Take Back the Night: Women on Pornography* (Khan, 2014). Dworkin and MacKinnon also pushed for civil rights that would allow women to collectively sue for the harms that pornography has caused them (Danaher, 2019; Dworkin & MacKinnon, 1988). In Canada, radical feminist stances became increasingly popular and fundamentalist, and the 1970's and 1980's saw a rise in the censorship of pornographic material that unfairly targeted gay and lesbian porn (Cossman, 1997; Cossman, 2013). Radical feminists also played a pivotal role in the rewriting of obscenity laws in the 1990's that allowed materials believed to have the ability to lead to harm against women to be considered obscene (Cossman, 1997; Cossman, 2013; Karaian, 2005).

Sex Work

The concerns that motivate the abolition of sex robots echo those about sex work, a central issue of the sex wars that continues to polarize feminists. According to many radical

feminists, sex work is a form of objectification and sexual violence that further encourages sexism and violence (Barry 1979; Bernstein, 2012; Heath et al., 2016; MacKinnon 1989; Mackinnon, 2011; Waltman, 2001). In the 70's and 80's, an influx of radical feminist movements and texts criticizing sex work as inherently violent lead to a rise in abolitionist stances. These developments coincided with increasing academic interest in sex work and its clients (Khan 2018; Mann, 2012). Researchers were especially interested in understanding why certain men choose to pay for sex, a question that continues to be addressed in academia and media (e.g. Farley et al., 2017; Westerhoff, 2008). Sweden in particular was heavily influenced by feminist critiques of sex work and produced reports that seriously questioned the mental health of sex work clients (Kulick, 2005). In 1984, *Sexuality Without a Face* proposed that men who have purchased sex more than ten times “need help” as their actions are caused by “personal and societal problems” (Månsson & Linders, 1984 as in Kulick, 2005, p.215). In 1996, social workers blatantly stereotyped sex work clients in *The Sex Buyers*, often “cited as the authoritative text on the topic” (Kulick, 2005, p. 217). The texts determined and described five categories of clients: the omnivorous consumer, the relationship avoider, the supplement buyer, the relationship seeker, and the refused (Sandell et al., 1996, as in Kulick, 2005, p.216). Above presenting a very heteronormative view of romantic and sexual relationships, the authors’ categorizations implied that men who purchase sex must have dysfunctional personalities, relationships, or childhoods, and must be cured through “training in maleness” and “opportunit[ies] to acquire a clearer role as a male” (Kulick, 2005; Sandell et al., 1996 as in Kulick, 2005, p. 216).

The success of *Sexuality Without a Face* incited the publication of other pathologizing pieces and a growing negative sentiment towards clients furthered by academics, media outlets,

and writers in Sweden (Kulick, 2005). Eventually, Sweden introduced the “the Nordic Model,” a law which criminalizes the purchase of sex but not the seller, and the model was adopted by various countries including Norway, Iceland, and Canada (Khan, 2018; Kulick, 2005; Skilbrei & Holmström, 2013). As with pornography, radical feminists’ stances on sex work had strong influences in Canada, and radical feminists themselves were substantially involved in the implementation of the Nordic Model (Belak & Bennett, 2016; Bruckert, 2015; Bruckert & Chabot, 2014; Bruckert & Hannem, 2013; Durisin et al., 2018). Radical feminists pushed for the adoption of this model through claims that sex work is inherently objectifying and violent, and that sex workers and women need to be protected by the law (Durisin et al., 2018.) Many sex workers have fought and continue to fight against the implementation of this model, explaining that it strips them of agency and makes their work more difficult and dangerous (Belak & Bennett, 2016; Bruckert, 2015; Bruckert & Chabot, 2014; Durisin et al., 2018). Regardless, the Canadian government chose to move forward with the criminalization of the purchase of sex, of third-party material benefit from sexual services, and of third-party advertisement of sexual services.

Emerging Discourses

The rifts between feminists exemplified by the sex wars, especially concerning sex work, are still alive and well, and these debates are clearly relevant to current Western understandings of sex. Still today, scholars contextualize modern sexuality issues within the core discourses of the feminist sex wars (for example, Cossman’s [2019] perspective on the #metoo movement and Srdarov & du Coudray’s [2016] analysis of *Twilight* and *Fifty Shades of Grey*). Recently, Kubes (2019) and Danaher (2019) have highlighted the similarities between anti-porn and anti-robot sentiments, which I also see reflected in anti-sex work sentiments. This leads me to ask how

radical feminist discourses are being circulated in sex robot academic literature and online news media, and what the consequences of these discourses may be. Based on my research, three specific discourses emerge from radical feminists' stances against pornography and sex work that are of key relevance to conversations about sex robots.

The first, highlighted by Danaher (2019), is the belief that pornography is *inherently* harmful to women as a *collective* group (rather than, for example, specifically being harmful to the actors involved). Here the focus is not on the effect that porn can cause, but that porn, just in its being, is wrong and harmful. As Danaher (2019) points out, this concept is particularly complex: what is being argued by some is that pornography is “a kind of social authority that...allows it to establish the norms for sexual engagement” (p.137). Additionally, radical feminists suggest that the representations found in porn are sexist and violent. However, Danaher questions whether porn has this type of authority. I struggle with the above distinction. Is “establishing sexual norms” not a (supposed) effect of pornography (the cause)? The concept of inherent harm is difficult to grasp, making it all the more challenging to decipher or dispute these arguments. This discourse is also salient in anti-sex work stances which view all sex workers as automatically victimized simply because they engage in sex work, regardless of how sex workers and sex work clients describe their experiences.

The second emerging discourse relevant to sex robots is the belief in a causal relationship between pornography and violence (Danaher, 2019). When radical feminists argued that pornography was harmful because it caused violence against women, debate ensued over the evidence of a causal relationship (Mann, 2012). Just as with sex robots, certain scholars opposed this view and actually suggested that pornography could help reduce violence by providing an outlet to potential violators (Mann, 2012). This inspired researchers to inquire about the

relationship between pornography and violence, and thousands of studies have been published on the issue (Danaher, 2017). Repeatedly, research has failed to prove a causal link between pornography and sexual violence, or demonstrate a difference in effect between violent and non-violent porn (Ferguson & Hartley, 2009; Lehmiller, 2018). Yet the discourse of causality consistently reappears as an argument against sexual practices. Radical feminists claim that sex work is related to increases in sex-trafficking, and scholars express concerns that sex robots will cause increased violence (Danaher, 2019; O’Doherty et al. 2018).

There is a third discourse that I see as particularly relevant to sex robots that Danaher (2019) does not mention. This discourse portrays men and women’s sexuality as fundamentally different, with men’s sexuality being especially bad. Both radical and cultural feminists make distinctions between male and female sexuality and portray male sexuality as incredibly unidimensional (Echols, 1983; Kulick, 2005). Regardless of what acts take place, male sexuality is always violent, dominating, and sexist (Echols, 1983; MacKinnon, 1989). Even if a man shows concern for a partner’s pleasure, it is rationalized as a manifestation of his “obsession with sexual performance” (Echols, 1983, p. 47). Again, this discourse is salient in sex work debates as well. The Nordic Model itself is founded in the belief that sex work is “a form of sexual exploitation that disproportionately and negatively impacts... women and girls” (Bruckert, 2015; Bruckert & Hannem, 2013; Belak & Bennett, 2016, p. 5). Men are repeatedly centralized within “problematic” sexual practices. These three discourses raise obvious points of analysis for sex robots. It begs consideration of how inherent harm, causal links to violence, and maleness are constructed and understood within the sex robot experience.

Sex Positivity

In order to effectively recognize and challenge stigmatizing discourses of sexuality emerging from sex robot representations, I have chosen to apply a sex positive theoretical framework. During the sex wars, sex positivity began to be conceptualized as a theoretical framework by sex radical feminists and queer theorists, sometimes as direct responses to radical feminist discourses (Ivansky & Kohut, 2017). However, the concept of sex positivity was introduced by thinkers long before its association with feminist movements. In the late 19th century, Magnus Hirschfeld, fought for a greater understanding of non-normative sexualities, especially homosexuals (Djajic-Horváth, 2019; Mosher, 2017). Recognized for initiating the world's first gay rights organization, Hirschfeld emphasized the harm that criminalization causes to sexual minorities (Djajic-Horváth, 2019). Reich (1974) also challenged sexual norms in their book *The Sexual Revolution: Toward a Self-Regulating Character Structure* by proposing that sex was a normal and healthy part of human life, that the value of sexual desire should be recognized, and that sexuality should be considered beyond procreative and monogamous standards (Matviyenko, 2018, Mosher, 2017). Though the works of Hirschfeld and Reich were not feminist in nature, they reflect current sex-positive feminist beliefs in multi-faceted sexuality that exists beyond heteronormative and patriarchal norms. Simone de Beauvoir approached sexual norms from a specifically feminist perspective in 1949 in *The Second Sex* (Mosher, 2017; Vintges, 2017). This work, which declared women's sexuality as a social construct controlled by the patriarchy, was foundational to the development of current feminist sexual theories (Mosher, 2017; Vintges, 2017).

More than a simple stance against censorship, modern sex positive theory is often described as a direct response to a sex negative society (Ivanski & Kohut, 2017; Williams et al., 2015). A sex negative society is one that views sex as risky and dangerous behaviour that should

be limited to heterosexual reproduction (Mosher, 2017; Nugent, 2013a, 2013b; Williams et al. 2015). In response to this, sex positivity promotes a society that values sexual pleasure and sexual diversity (Mosher, 2017; Williams et al. 2015).

To fully grasp the impact of sex robot representations on sex and gender norms and sex work, scholars must apply theoretical frameworks that allows for critical investigations of the potential consequences of stigmatizing and criminalizing non-normative sexual practices. Though radical feminist theories may prove valuable in understanding potential oppressive conditions that sex robots may cause for women, they do not allow for astute considerations of sex workers and sex work clients. The exploitative view of sex work held by radical feminists is limiting because it assumes that ending sex work would be an indisputably positive outcome for all. And so, a radical feminist position fails to thoroughly examine the effect of sex robot discourse on sex workers and sex work clients, and the potential impacts that sex workers could face in the event of sex robot popularization. Additionally, it is important that the potential stigmatization of sex robot users is addressed. Research has yet to determine the use of sex robots as pathological or harmful to users and society, but discourses against sex robot users may be used to motivate unsupported criminalization and stigmatization.

Considering this, I have chosen to incorporate Williams et al.'s (2015) Positive Sexuality Framework and Rubin's (1984) theory of erotic stigma as theoretical frameworks to address the intersections of sex robots and sex work. Though originating from the discipline of psychology, Williams et al.'s (2015) framework is proposed for use across disciplines. As someone who works through research questions that tread the line between the disciplines of psychology and women's and gender studies – two disciplines that I feel can benefit from interdisciplinary approaches – I am drawn to this framework which “identifies key dimensions of positive

sexuality as an approach to understanding and addressing a full range of sexuality topics and issues” (William et al., 2015, p. 6). The use of this framework by Döring and Pöschl (2018) heartened my decision, as it allowed them to present both positive and negative outcomes of sex toys, sex dolls, and sex robots in a non-stigmatizing and open-minded manner.

The Positive Sexuality Framework emphasizes inclusivity, individual experience, and empathy. Through its eight core dimensions this framework ensures that marginalized voices are heard and sexual minorities are not stigmatized:

(1) positive refers to strengths, wellbeing, and happiness; (2) individual sexuality is unique and multifaceted; (3) positive sexuality embraces multiple ways of knowing; (4) positive sexuality reflects professional ethics; (5) positive sexuality promotes open, honest communication; (6) positive sexuality is humanizing; (7) positive sexuality encourages peacemaking; (8) positive sexuality is applicable across all levels of social structure this approach stimulates (Williams et al., 2015, p.7-10).

This theory’s emphasis on inclusivity, diversity, humanity and peace, avoids prioritizing identity politics and transgressive sexuality—a common criticism of sex positivity for further oppressing minority groups (Glick, 2000). Specifically, sexual liberation can be addressed through the dimensions of peacemaking and humanizing, which promote empathizing with others’ pain and developing language and communication that helps all parties heal and find liberation (William et al., 2015). The dimension of positive sexuality as applicable across all levels of social structure ensures that the sexual access of people across all statuses is accounted for, while the dimensions of honest communication and embracing multiple ways of knowing allow for disempowerment to be included into conversations.

This theory acknowledges sexuality as diverse, natural, and human. It opposes the binary labeling of sexual practices as “good” or “bad” or the diagnosis of certain desires as inherently deviant. Using this framework in combination with Rubin’s (1984) theory of erotic stigma allows me to identify and criticize discourses which present sexual practices under a good/bad binary,

privilege certain sexualities over others, and make generalizations or essentialist statements. These theoretical frameworks also help ensure that I myself will not construct any sexual practices as inherently wrong or morally superior. Naturally, the use of a sex positive theoretical framework produces criticisms of radical feminism. I therefore would like to acknowledge the significant impact of radical feminists in stimulating critical considerations of sex and sexual minorities. I deeply value the role that radical feminists have had in fighting for the politicization of sexual violence and, as pointed out by Khan (2014), sparking an important dialogue about sex. I firmly believe that such debates are crucial to the development of feminism as a continuously evolving movement striving for inclusivity. My intent is not to devalue all radical feminist positions but to ponder why such discourses can be problematic.

Chapter 3: Methodology & Method

The availability of robots designed with the specific intention of providing sexual stimulation is a relatively new phenomenon, but media representations of sexual and romantic relationships between humans and robots are not. Depictions of desirable bots date as far back as 1927 and are quite common (Döring & Poeschl, 2019). In 2019, Döring & Poeschl conducted a content analysis of robot-human relationship portrayals in the media, the first of its kind. Fictional and non-fictional media pieces from 1927 to 2014 were collected, including fan fiction stories, mangas, comics, movies, TV series, newspaper articles, magazine articles, and informational YouTube videos. Using Sexual Script Theory and quantitative media analysis, Döring and Poeschl (2019) were able to identify reoccurring represented characteristics of robot partners, human partners, and human-robot relationships in both non-fictional and fictional media. They concluded that “overall, media representations of intimate human–robot relationships reveal stereotypical gender roles, heteronormativity and a focus on sexual versus

emotional intimacy” (Döring & Poeschl, 2019, p. 665). My goal was not to attempt to reproduce findings from Döring and Poeschl, but rather to build on this work by engaging with the discourses emerging from these representations. To do so, I chose to focus on representations of sex robots found in academic literature and online news media. These mediums were chosen because of their influence on each other and because they are key sites of knowledge production that have the power to challenge or reinforce stigma.

Given Döring and Poeschl’s (2019) findings that sex work dynamics are represented in non-fictional media representations of sex robots as well as Richardson’s (2016a; 2016b) claims that sex robots are being developed to mimic and develop sex worker-client representations, I wanted to examine the conceptualization of sex robots as sex work in my samples and to contemplate the relationship between these representations and the ongoing stigmatization of sex work. At the foundation of my analysis is a consideration of radical feminist discourses, and their role in reinforcing sex and gender norms and sexual stigma. My sampling method, discussed below, is inspired by Döring and Poeschl’s (2019) article, while critical discourse analysis was used for my analysis. This method was chosen for its ability to critically think through the discourses emerging from sex robot representations and inquire about potential implications.

Methodology

Feminist Methodology

As discussed in chapter 2, Williams et al.’s (2015) Positive Sexuality Framework highlights the importance of recognizing and valuing the experiences of marginalized groups at the heart of research projects. This is in accord with feminist methodology’s concern with the consideration and inclusion of marginalized subjects in academia and research. Diverging from positivist methodologies, feminist methodologies are not concerned with objective truths but

rather with how truth is constructed by individuals, institutions, social practice, and research itself, to uphold social inequalities (do Mar Pereira, 2017; Harding, 1987; Hesse-Biber, 2014; Jaggar, 2016; Maruska, 2010). Feminists methodologies prioritize reflexivity, the lived experiences of individuals, and an ethics of care. Feminist research does not support the production of knowledge that further oppresses groups, and so rather investigates injustice with the goal of creating social change (Harding, 1987; Hesse-Biber, 2014; Jaggar, 2016; Maruska, 2010). In combination with sex positive theory, feminist methodology motivates the inclusion of sex worker perspectives in this project through prioritizing research written by sex workers and sex worker organizations throughout.

Feminist methodology has influenced my research process at various stages. First, it has influenced my research questions. In my initial engagement with sex robot literature, using a feminist lens alerted me to possibly stigmatizing emerging discourses. My original interest in the ethical and philosophical debates concerning sex robots shifted towards a critique of the way in which these debates could possibly ostracize certain groups. This in turn motivated my use of critical discourse analysis as a method so that I could develop qualitative questions that reflect on privilege and oppression and acknowledge the role of power and social constructs in the production of knowledge. As a psychology student, I needed a methodology and method that would help me deconstruct my empirical training and move away from the desire to quantify things (something I still struggled with in this project). In the selection of samples as well, feminist methodology pushed me to include both news media articles and scholarly texts. This was not my original intent. As I began my project, I planned to only examine sex robot representations in online news media. However, feminist methodology acknowledges the critical role of academia in knowledge production and the structural oppression of marginalized groups

(do Mar Pereira, 2017). Furthermore, when beginning my data collection, I quickly realized that many online news articles referenced popular sex robot academic works and authors (e.g. Bates, 2017; Moye, 2012; O’Neil, 2015; Orr, 2016). Similarly, academic texts encountered in my literature review referred to news articles (e.g. Danaher, 2014; Danaher, 2017a; Levy, 2007a; Richardson, 2016a). Considering this, I determined that both academic and media representations of sex robots needed to be included into my research.

Critical Discourse Analysis

As mentioned above, Critical Discourse Analysis (CDA) was chosen for the analysis of sex robot media representations. CDA builds upon constructivist epistemology⁴ to establish methods for analyzing discourse (Jørgensen & Phillips, 2002). There are multiple methodological approaches to CDA, and a variety of theoretical approaches can be integrated into CDA to fit specific research needs, however these methods are grounded within a specific methodology (Gee, 2011a; Jørgensen & Phillips, 2002): CDA acknowledges that discourse (the production, consumption, and interpretation of texts and images) is a social practice that plays a crucial part in the creation and understanding of our world and analyzes content and language structure to illuminate such discourses (Gee, 2011a; Jørgensen & Phillips, 2002). CDA also recognizes that the relationship between discourses and social structures is bilateral and that discourse can create and support power dynamics that uphold social inequalities (e.g. sexism, racism, ableism, etc.; Gee, 2011a; Jørgensen & Phillips, 2002). Finally, CDA is political; it aims to create social change by identifying oppressive power relations (Gee, 2011a; Jørgensen & Phillips, 2002).

⁴ Constructivism is a broad epistemological theory in which reality is viewed as socially constructed, there are many forms of constructivism (e.g. social constructivism, critical constructivism), and it is often related to postmodernist and post-structuralist epistemologies which are in line with feminist methodology (Maruska, 2010).

CDA is an especially useful for analysing news media and academic samples. The information in news media is expected, presented, and believed to be “factual” and “neutral,” but this is never truly to case (Edwards & Cromwell, 2005; Hall et al., 2013; Hammersley, 2007). Journalists can be biased, and all news articles will choose to highlight or omit certain facts or points of view. Furthermore, the choice of language and images can also influence readers’ perspectives. Similarly, academic texts and books are often taken as unbiased, factual, “expert knowledge”. Though not as accessible to the average person, academic literature influences or forms the basis of many news articles, as seen in the case of sex robots, making its influence far ranging (Weiss & Singer; 1988). CDA helps reveal that, underlying the production of news media and academic literature, are power dynamics, personal motivations, and ideologies. A CDA thus enables the researcher to untangle the social inequality that influences and results from news media and academic literature. Unlike more traditional methodologies, which identify current phenomena, CDA can be used to consider future consequences and long-term effects of a phenomenon (van Dijk, 1993). The field of sex robots is still so new that empirical research on the topic remains difficult to conduct, but this does not mean that no work can be done. Myself and other scholars advance alternative perspectives to mainstream feminists’ constructions of sex robots (Karaian, 2020; Kubes, 2019) and believe that some of the potential negative consequences from sex robot popularization could be prevented through thoughtful development and collaboration that promotes positive outcomes (Anctil & Dubé, 2019, 2020; Danaher, 2019; Kubes, 2019; Peeters & Haselager, 2019). My hope is that by identifying the possible stigmatizing consequences of sex robot representations in the media and academic literature, they can be prevented or at least diminished. Considering this, CDA was the best method to help me achieve my research goals.

Method

Selection

For the purpose of the critical discourse analysis, two samples of sex robot media were selected. The first sample contained nine academic texts and the second contained 66 online news articles. These samples were chosen for their concentration of sex robot representations as well as their potentials as influential sites of knowledge production and distribution that can both reproduce and challenge stigma.

Academic Scholarship. A sample of nine academic texts were chosen for analysis. Given the goal of examining the intersections between sex robot and sex work discourses, prevailing feminist perspectives and their potential stigmatizing effects, a variety of key terms were searched within Google Scholar and Carleton University MacOdrum Library. Inspired by Döring & Poeschl (2019), the search terms: “sex,” “romance,” “love,” “dating,” “prostitute,” and “boy/girlfriend(s)” were used in combination with “robot(s),” “android(s),” and “gynoid(s).” However the terms “prostitution,” “sex work,” “sex worker(s),” “brothel(s),” “john(s),” “escort(s),” “trafficking,” “sex trade,” and “sex dolls” were also included as this study aimed to specifically examine the conceptualization of sex robots as sex workers. The goal was to include texts with a strong academic influence in the current sex robot conversation. Therefore, samples had to be published between 2000 and 2019, and were limited to journal articles, non-fictional books, dissertations/theses, book chapters, and academic presentations. As with Döring and Poeschl (2019), samples had to be available online. Newspaper, magazine, and editorial articles were not included in this sample (these were considered in the online news sample). There is a large amount of literature on general robot technology, however the goal of this study was to analyse current sex robot discourses specifically. Given the scope of this project, only a limited

number of articles could be analysed, and so to ensure that I would have enough material I chose samples that featured a relatively important amount of discussion on sex robots. Therefore, articles or books that featured sex robots as a very small subtopic or tangent (e.g. one line mentioning that they exist) were not included. Samples needed to have at least a complete paragraph dedicated to the discussion of sex robots. Articles mostly concerned with the ethics of child sex robots were excluded, as this is a controversial topic that needs serious consideration beyond the scope of this work.

To further narrow the sample, this study limited its focus to popular and influential articles which discussed sex robots and mentioned sex work, prostitution, or brothels. From this original search, numerous articles were found. Again, given the size of some of these samples (including two 300+ page books), I had to find a way to limit my sample. Therefore, in order to determine which samples were most influential, number of citations (via Google Scholar) and, when possible, Altmetric scores (via www.altmetric.com) were used. Altmetric scores are weighted counts that consider attention received from a variety of different sources including peer reviewed publications, news outlets, twitter, and Wikipedia (“How is the Altmetric Attention...,” 2019). Samples were then given weighted scores based on citations, total Altmetric score, and Altmetric percentile scores in comparison to outputs of the same age. As the goal for this sample was to represent texts with strong academic influence, most weight was given to number of citations (10 points per citation), followed by total Altmetric score (2 points per score), and Altmetric percentile (1 point per score). This scoring system was used in order to avoid texts which received a lot of attention on platforms such as twitter, but zero academic attention, from scoring too highly. Based on these findings, nine samples were chosen (see Appendix B, Table 1.).

It is important to note that for some samples, number of citations and Altmetric scores were unavailable. Furthermore, many variables can affect articles' and books' number of citations and Altmetric scores, including year of publication (recently published articles having less opportunity to be cited or discussed), number of references in the text, and Price Index (Onodera & Yoshikane, 2015). Therefore, though this list is a good representation of influential academic literature on the subject of sex robots, it in no way can be considered exhaustive. It must also be considered that the method for ranking these articles was created by myself to fit the needs of my study, meaning that it has not been rigorously tested. Furthermore, given that the field of sex robots is an emerging one, new articles are being published quite often, and citation counts and Altmetric scores will likely fluctuate by large amounts over the next few years before becoming more stable. However, given that there is no clear method for collecting samples in discourse analysis, I created this rather quantitative sampling method in order to prevent my own bias from affecting my sample. I wanted to ensure that my samples were not chosen because of evident interesting or controversial messages. Given that the samples chosen using my method are foundational to sex robot literature—they are recurrently cited by authors, scholars, researchers, and journalists (including some from the online news articles in my own sample)—I believe that my method was successful for the purpose of this project.

In order to determine whether these samples sufficiently discussed the intersection of sex work and sex robots, they were categorized by whether they featured sex work as a significant focus, direct reference, or indirect reference (see Appendix B, Table 1). Samples that discussed the intersection of sex robots and sex work significantly were categorized as “significant focus”, this included samples that discussed the technological displacement of sex workers by sex robots, parallels between sex workers and sex robots, and samples about sex robot/doll brothels.

This also included books which featured large sections or chapters on the issue (e.g. Levy 2007a; Danaher, Earp, Sandberg, 2017). Samples that made a reference to the intersection of sex robots/dolls and sex work but did not dedicate a significant part of the work to this issue were categorized as direct reference. Finally, samples that made indirect references to sex work in relation to sex robots/dolls, for example by alluding to sex robots as “prostitutes,” or indirectly suggesting that problems of prostitution are related to sex robots were categorized as indirect reference. Six texts were categorized as significant focus, three texts were categorized as direct reference, and no texts were categorized as indirect reference, confirming that there was a significant discussion of the intersection of sex work and sex robots in the sample (see Appendix C, Table 4.). This categorization was also used so that possible differences in discourses emerging from different types of samples could later be considered.

Academic samples were further identified as presenting a positive, negative, or neutral attitude towards sex robots (see Appendix B, Table 1). Again, the purpose of this categorization was so that possible differences in discourses emerging from specific perspectives could be identified and considered in the discourse analysis. Samples that focused on positive aspects of sex robots, and/or concluded that concerns about sex robots are over-exaggerated, unnecessary, or avoidable, were identified as positive. Samples that focused on negative aspects of sex robots, and/or concluded that sex robots will cause harms to society and/or should be banned/prevented, were identified as negative. Samples that presented both benefits and drawbacks in a balanced manner, or that simply reported other individuals’ viewpoints without making any conclusions, were identified as neutral. Some articles were identified as neutral-negative or neutral-positive: these texts presented both positive and negatives of sex robots, but emphasized one side more than the other, making it difficult to categorize them as truly “neutral.” There was an equal

balance of positive, negative, and neutral stances on sex robots amongst the sample. Two samples were negative, two were neutral, three were positive, one was neutral-negative and one was neutral-positive (see Appendix C, Table 5.).

There are limitations of categorizing my samples as such. First, these categorizations are based on my own understanding of the texts which could be interpreted differently by others. Second, forcing samples into a category may constrict my understanding of the texts or force it in a particular direction. However, I believe that these categorizations helped me organize my thoughts and resulting discourse analysis. Furthermore, looking at these samples through these categorizations allowed me to have interesting insights on how certain discourses may emerge from distinct agendas.

Online News Media. As an incredibly new technology and subject of controversy, the availability of sex robot information through the web is unmatched by print news. Furthermore, research has shown that increasingly, individuals are turning to internet news websites as their source of news, especially youth (Geiger, 2019; Gottfried & Shearer, 2016; 2017). Given this, and that Döring and Poeschl (2019) only selected samples available online in their study, I chose to specifically study online news articles. I wanted to ensure that my samples would represent articles that are easily accessed by the average online news consumer, and so, through online research, found lists of the most popular English news websites (*Leading U.S. news websites by unique monthly visitors 2018*, n.d.; Sharma, 2018; *Top 30 Canada Newspapers & News Media*, n.d; *Top 10 Canadian Newspapers*, 2020; *Top 15 most popular news websites, January 2020*). Given the important cultural differences in how robots are perceived, only news websites from the United States, Canada, or Europe were considered (Alesich & Rigby, 2017; Levy, 2007a).

As a Canadian scholar, I try to include Canadian research into my work whenever possible, and given the large influence of radical feminism on sex work law in Canada, Canadian contexts were particularly relevant to this research. Therefore, I wanted to make sure that my sample included news articles that Canadians would likely access, and so also searched for specifically Canadian lists of top news sites (*Top 30 Canada Newspapers & News Media*, n.d.; *Top 10 Canadian Newspapers*, 2020). This would also allow me to see if there were any interesting discourses specifically emerging from Canadian sources. From this research, I created a list of the top fifteen Canadian news sites and top fifteen non-Canadian English news sites (see appendix B, Table 2.).

Each of these 30 news sites were then visited and searched for articles. Similarly to the academic samples, the search terms robot(s), “android(s),” and “gynoid(s)” were used in combination with terms “sex,” “romance,” “love,” “dating,” “boy/girlfriend(s),” “prostitute,” “prostitution,” “sex work,” “sex worker(s),” “brothel(s),” “john(s),” “escort(s),” “trafficking,” “sex trade,” and “sex dolls.” When possible, searches were filtered by relevance. From these search results, articles about sex robots or sex dolls (as media outlets have used sex robots and sex dolls as interchangeable terms) were chosen. Because research demonstrates that individuals report difficulties discriminating between news and opinion type pieces (especially online), newspaper, magazine, editorial, and news like blog article results were included in the sample (Loker, 2018). Chosen samples had to be published between 2000 and 2019, in order to represent current discourses. Book, television, movie, or game reviews were not included, as they are a genre too specific for this study. Video materials were also not included, as their analysis involves considering factors such as visual, informational, and auditory components which are beyond the scope of this work. Chosen samples had to feature sex robots or sex dolls as the main

topic and also include a direct or indirect reference to sex work. For each article found, the terms “sex work,” “sex worker,” “client,” “john,” “brothel,” “prostitute,” “prostitution,” “pimp,” “trafficking,” “escort,” “sex trade,” “exchange,” “pay,” and “purchase” were used to find references to sex work. As with the academic samples, pieces that featured sex robots as small subtopics or tangents, or that were mostly concerned with child sex robots, were not included.

From this search, a sample of 66 online news articles was created (see Appendix B, Table 2.). Samples were saved as PDF files using a screen capture tool, then categorized by article type: (1) opinion, (2) news, or (3) feature. Opinion pieces are articles in which the author, usually an editorial staff or publisher of a magazine or newspaper, thoroughly expresses their own opinion about a subject. News articles should generally not include personal opinions, they are traditionally written by reporters or journalists for the purpose of reporting events. Features are similar to news articles but provide a more in-depth exploration of a topic or event and may feature some opinions from the author, often in the conclusion. These categorizations were to provide a general understanding of my (relatively) large sample, and to allow interesting trends between types to be considered. However, this categorization was difficult to implement. The article type was not always indicated, and sometimes, though the type was indicated, it did not seem to match its supposed type. I was forced to use my best judgment. Given this difficulty, I found it challenging to properly apply this information to my analysis. The most common article type was news article ($n = 37$), followed by feature ($n = 17$), and opinion piece ($n = 13$).

As with the academic samples, online news samples were further categorized by whether they referred to sex work as significant focus, direct reference, or indirect reference, as well as whether they presented a positive, negative, neutral, neutral-negative, or neutral-positive attitude towards sex robots. Most samples featured sex work as a significant focus of the article ($n = 39$)

or made a direct reference to sex work (n = 24), while only 4 samples indirectly referenced sex work (see Appendix C, Table 6.). Most of the samples were neutral in their position towards sex robots (n = 38). The second most common positions were negative-neutral (n = 15), and negative (n = 8). The least common positions were positive (n = 4), and neutral-positive (n = 2). News articles and features were usually neutral (news: n = 23; features: n = 12) or neutral-negative (news: n = 11; features: n = 3). Opinion pieces were mostly negative (n = 6), followed by positive (n = 3), neutral (n = 3), and negative-neutral (n = 1; see Appendix C, Table 7.). Though this sample is a good representation of online news media on sex robots and sex work, it is clearly not exhaustive. This sample was limited by the size of my study. Furthermore, new news articles on sex robots are published frequently.

In order to analyze the discourses emerging from the samples, I also analyzed the images featured in the online news articles. As Döring and Poeschl (2019) found that most representations of robot partners were female in form, I wanted to see if my sample would have a similar pattern. I counted the number of articles that featured female formed robot images, male formed robot images, and gender neutral images. Two articles featured an image of a sex robot/doll with a male form. One of these articles featured only one image which was of a male form robot/doll (Pandey, 2019; see Appendix A, *figure 9*.). The other article had many images in which two seemingly male form robots/dolls could be found amongst approximately twelve female form robot/dolls⁵ (Wakefield, 2017). Five articles featured a “gender neutral image” (an image of a robot in which there is no obvious gender, e.g. Wagstaff, 2018; see Appendix A, *figure 10*.), and two articles featured images of both gender neutral robots/dolls and female formed robots/dolls. Two articles featured images of robots/dolls that were not easily classifiable

⁵ Some of these images were of unfinished heads, making the supposed gender hard to distinguish.

as representing a normative female form, but could not be categorized as completely gender neutral because they seemed to insinuate the presence of breasts or other cis female characteristics (e.g. Dickson, 2016; see Appendix A, *figure 11*.) All of the other articles with images featured only images of female formed robots/dolls (n = 48; n = 7 articles did not feature any images).

Given emerging theories on the racialization of sex robots by certain scholars (e.g. Karaian, 2020; Sparrow, 2019), I also counted the amount of times that the images of robots/dolls in the sample represented a white person or a person of colour. Out of the 50 articles that featured images in which race was identifiable, almost all of them featured images of white sex dolls/robots (n = 46). Out of these 46, a few articles also featured images sex robots/dolls that are Eastern Asian in appearance (n = 2), that were racially ambiguous but white passing (meaning that they may have represented a person of colour, but could also easily pass as a white; n = 5) and that represented a person of colour (n = 3). There were two articles that only featured images of sex robot/dolls that were racially ambiguous/white passing, and no articles that only featured images of sex robot/dolls representing people of colour. These numbers were used to help further support my analysis (see Appendix C: Table 9).

Procedure

After the process of selection and categorization for both academic and online news media samples, a critical discourse analysis was used to identify how sex robots and sex work narratives intersected. Of particular interest was the feminist perspectives presented and whether sex and gender norms, radical feminist discourses, and sex work stigma were reproduced or challenged. In their book on the theory and method of discourse analysis, Gee (2011a) identifies seven things that are enacted by language, which they refer to as “building tasks”: (1)

significance, (2) practices, (3) identities, (4) relationships, (5) politics, (6) connections, and (7) sign systems and knowledge (see p. 17-20). To analyze these building tasks Gee (2011a) proposes six tools of inquiry: (1) situated meanings, (2) social languages, (3) figured worlds, (4) intertextuality, (5) Discourses⁶, and (6) conversations (see p. 28-30). These building tasks and tools of inquiry are combined to create large questions which provoke various sub-questions that are used to guide discourse analysis (Gee, 2011a). The relevance of the building tasks varies based on the sample being analyzed and research project, the researcher must determine which building tasks are most suitable to their research questions (Gee, 2011a). For this analysis, I have adopted three of Gee's (2011a) building tasks that I felt would best help me discover instances of stigmatization and make connections to reoccurring radical feminist discourses.

The three building tasks most pertinent to my samples and research questions, are identities, politics, and connections. The building task of **identities** refers to the realization of identities through the language of the text (Gee, 2011a). Language is used by authors to identify themselves and/or others (Gee, 2011a). Identities of the self and others are created by the author and exist specifically from the author's perspective; they vary depending on the type of text and purpose. As explained by Gee (2011a), "[identities] are enacted at the right times and places to make [them] work" (p.18). The discourse analysis questions attributed to this building task are:

What identity or identities is this piece of language being used to enact (i.e. get others to recognize as operative)? What identity or identities is this piece of language attributing to others and how does this help the speaker or writer enact his or her own identity? (Gee, 2011a, p. 18).

This building task is relevant to my analysis because I wanted to see how identities were used by authors to promote their perspectives and challenge or reproduce sex and gender norms. Sexual

⁶ In his work, Gee (2011a) differentiates between Discourses with a capital D and discourses. Discourses with a capital D is one of Gee's (2001a) six tools of inquiry used in discourse analysis, it is defined as "ways of combining and integrating language, actions, interactions, ways of thinking, believing, valuing, and using various symbols, tools, and objects to enact a particular sort of socially recognizable identity" (p. 29).

minorities are stigmatized by being identified and categorized as certain “types” of people or associated with behaviours and personalities (Goffman, 1963; Rubin, 1984). In my analysis, the identity building task helped me identify instances in which certain identities were forced onto groups or individuals. It also made me question the role of authors’ identities in their production and communication of knowledge, for example, certain authors’ “sex positive” identities can obscure the use language and ideologies that are stigmatizing to sexual minorities.

The building task of **politics** refers to the distribution of social goods through the language of the text (Gee, 2011a). Language is used to make implications about morality, intention, value, and ethics (Gee, 2011a). The discourse analysis question attributed to this building task is:

What perspective on social goods in this piece of language communicating (i.e. what is being communicated as to what is taken to be ‘normal’, ‘right’, ‘good’, ‘correct’, ‘proper’, ‘appropriate’, ‘valuable’, ‘the way things are’, ‘the way things ought to be’, ‘high status or low status’, ‘like me or not like me’, and so forth? (Gee, 2011a, p. 19).

Questions of morality and ethics are central to conversations about sex robots and sex work, and are key components of radical feminist discourses. The building task of politics is therefore essential to my discourse analysis. Using this building task helped me question the ways in which language was used to label certain sexual practices as moral/immoral, good/bad, or in any other type of binary categorization.

The building task of **connections** refers to the ways in which a text makes certain things, ideas, concepts, people, etc., relevant to each other (or irrelevant; Gee, 2011a). The discourse analysis question attributed to this building task is: “How does this piece of language connect or disconnect things; how does it make one thing relevant or irrelevant to another?” (Gee, 2011a, p. 19). This building task was used to help find connections between sex robot representations, radical feminist discourses, and established sex and gender norms. Though sex robots are a new

technology, authors can reinforce an ideology by making connections between them and other concepts around which individuals hold firm beliefs. Furthermore, this building task was important to understanding how sex robots and sex work are made relevant or irrelevant to each other, and what are the potential consequences of these connections.

The questions attached with the building tasks of identities, politics and connections were used as a guide throughout my analysis. I tried to answer them when reading my materials and took note of interesting patterns. I then established reoccurring themes throughout the samples. The themes that I chose to discuss were not the only ones to emerge; they were chosen for their ability to best answers my research questions.

As a compliment to my textual analysis, visual images accompanying online articles were also analyzed. Inspired by Gee's (2011a; 2011b) instructions on discourse analysis, I asked: What is the unsaid message communicated by the image? What knowledge is needed to understand the image? What information is assumed? What is the image trying to achieve? What is the image trying to effect in the viewer? How does the image fit within a broader context? Does it allude to other images or texts? How does it fit within particular discourses? and, What patterns emerge across these types of images? Given that images form a large component of online news articles, this helped me further understand the discourses emerging from online news representations of sex robots.

Chapter 4: Analysis

Though the representation of sex robots in non-fictional media has been addressed using content analysis (Döring & Poeschl, 2019), there is a gap in research that provides in depth analyses of the discourses emerging from academic and news media representations and their possible consequences on sexual minorities. Using discourse analysis, I hoped to explore the use

and reproduction of sex and gender norms in sex robot academic texts and online news articles, and investigate Richardson's (2016a, 2016b) claims that sex robots and their users are being developed as "prostitution-client" relationships. Via the application of a sex positive perspective, the goal here is to consider whether and how these narratives further stigmatize sex workers and sex work clients. My findings reveal that the representation of sex robots in academic and online news media are problematic, not because sex worker-client relationships are inherently harmful, but because, as I explain below, these representations reinforce negative sex and gender norms, problematic radical feminist discourses, and sex work stigma.

In terms of sex robots, stigmatizing, sex negative discourses that reinforce problematic sex and gender norms were most common in online news articles, while really only present in academic articles written by anti-sex robot authors. This raises interesting questions about the way the media disseminates information and portrays sex, gender, and non-normative sexual practices and identities to the general public. Throughout this chapter, I address what is (or could be) the role and responsibility of news media in contributing to sex positive constructions (both figuratively and physically) of sex robots.

Unexpectedly, there was an overall sex negative attitude towards sex work across both academic and online news samples. This was made evident through the use of language and subtle implications. Academic texts and media articles used sex work type terms to describe sex robot and sex robot activities. Terms such as "robot sex workers" (Carpenter, 2017; McArthur, 2017), "robotic prostitute" (Sullins, 2012), "pretend prostitutes" (Hunter, 2018), and "plastic prostitutes" (Dyer, 2018), were relatively common, and the use of the term "brothel," which is obviously associated with human sex work, was almost universal. References to pimps were also found in online news articles, with either the sex robot sellers being referred to as pimps (e.g.

“the plastic pimps,” Hunter, 2018) or the robots/dolls referred to as being “pimped” (Moye, 2012), further engraining an association between sex robots and sex work. Furthermore, sex robots were often discussed as possible replacements for sex work in both samples. In nearly all the academic articles, the replacement of sex work by sex robots was discussed as possible, and positive or neutral (Döring & Pöschl, 2018; Levy 2007a, 2007b; McArthur, 2017; Sparrow, 2017; Sullins, 2012; Yeoman & Mars, 2012). Richardson (2016a; 2016b) differed in that they did not see the replacement of sex workers by sex robots as positive nor possible (claiming that sex robots will actually increase the demand for sex work). They also argue that they are not comparing sex robots to sex workers themselves, but that sex robot advocates do so (Richardson, 2016b). Many online news articles also described the replacement of sex work by sex robots as possible, and positive or neutral (e.g. Bennet, 2016; Dunn, 2016; Kummer, 2019; Opray, 2017).

Presenting sex work and sex robots as the same, interchangeable, or naturally similar fails to make room for the complexity and richness of these relationships and practices, and is disrespectful to individuals involved in them. As I explain further in this chapter, implying that sex workers can and should be replaced by sex robots reinforces the narrative that sex work is an inherently harmful practice, and that sex workers and clients are victims and deviants—a narrative that ignores the large body of research demonstrating that these claims are unsupported and harmful. By equating sex robots to sex workers, the work and identity of sex workers is devalued through their construction as a displaceable work force and disposable individuals. Sex robot users and sex work clients are also amalgamated as one and the same through reductive, pathologizing, and dehumanizing stereotypes which serve to alienate them and authorize discrimination.

Furthermore, by engraining an association between sex robots and sex work into our collective consciousness, any gender norms, stereotypes, or stigma associated with one becomes intrinsically associated with the other. I argue in this chapter that associating sex robots with negative connotations of sex work and pornography is used by some authors to convince readers of the “wrongness” of sex robots. Likewise, the reciprocal nature of these associations affected my analysis by making me consider how these associations also work to categorize and stigmatize sex work.

This being said, an important distinction must be made. From a development standpoint, sex robots are not necessarily being constructed to replace sex work, and neither do they have to further down the line. The interpretation of the user is especially important and is lacking from the conversation. Will users conceive of their sex robots as sex workers? As discussed in Chapter 1, we have yet to undertake research that can truly determine how sex robots will be perceived by users and if sex work clients are interested in “switching” to sex robots. In these next sections I highlight some of the problematic discourses emerging from sex robot representations and how they can and should be challenged.

Gendering Robots and their Users

In their study, Döring and Poeschl (2019) found that non-fictional media often represented robots as female, and robot users as male, recreating heteronormative sexual norms and traditional gender roles. A similar pattern was found in my samples. In online news media (and in some specifically anti-sex robot academic articles), sex robots were customarily emphasized as female or woman and sex robot users as male or men. Though I acknowledge that these representations are based in reality, I view them as incomplete. I propose that such representations build upon radical feminist discourses that label men and women as

fundamentally different to further reinforce sex and gender norms that are a product of Western culture rather than a necessary characteristic of sex robots. I also note that an encouraging trend of using gender inclusive terms and highlighting a wider variety of robot forms and potential robot users was found in the academic sample. In order to combat sex and gender norms, and encourage the development of diverse robots, academics and online news outlets should favor inclusive language and imagery, avoid stereotypes, and acknowledge the underlying cultural norms that favor the production of normative robots.

The Female Sex Robot

The gendering of sex robots is most apparent in Richardson's (2016b) article where the female form is incorporated into the very definition of sex robots: "What is a sex robot? It is a doll with programs and motors that is primarily imagined and/or produced in the form of a woman or girl" (Richardson, 2016b, p. 48). Though the use of the word "primarily" is used to indicate that, indeed, not all sex robots are produced in a female form, the inclusion of the phrase "produced in the form of a woman or girl" as an answer to the question "what is a sex robot?" gives the impression that having a female form is a definitive criteria of sex robots. Notice that the element of function is not included in this definition. The female form then, although only "primarily imagined and/or produced," is more imperative to the definition of sex robots than their function as sexual tools. *Texas Monthly* also defines sex robots as inherently female in form: "A sex robot brothel is a place where people go to interact with sex toys that look like women and have parts that simulate the sexual characteristics one would associate with women" (Soloman, 2018).

These quotes exemplify a direct gendering of robots through the use of language, but generally, sex robots/dolls were gendered through a failure to note the existence of non-female

formed robots/dolls and through selected images, especially in online news articles. As described earlier, only two articles featured an image of a sex robot/doll with a male form, and only six articles featured images that could be easily classified as “gender neutral.” The rest of the articles featured images of female looking dolls or robots, female passing humans, or objects/body parts associated with the female body (e.g. an image of high heels, see Appendix A, *figure 12*). The online articles also almost unanimously featured images of robots/dolls that resemble white or white passing women with “pornographic” forms that represent normative beauty ideals (white, very large breasts, excessively small waists, exaggerated lips, long straight hair, etc.). The prevalence of such a narrow portrayal of sex robots/dolls could be simply interpreted as a representation of the current market. It is true, most sex dolls and sex robots that currently exist represent a white or white passing, stereotypical “pornographic” female form (Alesich & Rigby, 2017; Bartneck & McMullen, 2018, Danaher, 2017). This is understandably worrisome and, unfortunately, a predictable and common issue. From pornography to Hollywood and even Disney movies, consistent overrepresentation of white women with stereotypically “beautiful” bodies is witnessed in sexual and non-sexual mediums alike (Lamb, & Brown, 2018; Rice, 2018). Therefore, we must acknowledge that if such forms are created, it is in part because, as the forms that our society overemphasizes as desirable, they are the forms that sell. It is not the sex robot *per se* that is the problem, but the underlying beauty and gender norms of Western culture that motivate developers to stay within these narrow constructions. Scholars such as Sparrow (2019) also point out that developers are in somewhat of a double bind given that creating robots that are identifiable as non-white races risks criticisms of racism and associations to slavery. Similarly, creators of sex robots that go against other standard beauty ideals risk being accused of fetishizing particular traits and/or identities.

Without proper context, many of the images of sex robots used in online news articles can evoke fear, disgust, and anger in the reader. The emphasis on dismembered and naked parts can conjure images of violence against women and objectification (e.g. Baggaley, 2017; Bates, 2017; Bowerman, 2017; Dart, 2018; Riotta, 2018; Ritschel, 2018; Wiseman, 2015 see Appendix A, *figure 13, figure 14, figure 15*). The use of these emotive pictures is likely to pull the reader in, but it also unfairly represents the complex relationships that individuals can have with these products, especially given that dismembered parts are a part of the fabrication process, and not typical to actual use. From these images only sex is extrapolated, and the caring and mundane activities commonly performed with sex dolls, such as bathing and watching T.V., are never represented (Döring & Pöschl, 2018; Lancaster-James & Bentley, 2018). The use of such images was also often excessive and redundant, with articles featuring multiple and/or very large images of the same thing, white-passing, female, naked bits and pieces (e.g. Baggaley, 2017; Dyer, 2018; Green, 2018; Shuggerman, 2018). The use of multiple images in the same article is an excellent opportunity to present a more varied range of robots/dolls, but instead the same imagery is repeated.

The focus on the most traditionally pornographic images of sex robots mirrors the way that radical feminists focused their criticism on the most disturbing examples of pornography to push their agenda (Kubes, 2019; Rubin, 1993). In educational slide shows, radical feminists strategically used generally inflammatory images, and images from BDSM pornography without context, to illustrate violence against women in porn (Comella, 2015; Khan, 2014; Rubin, 1993). In their writing as well, radical feminists chose specific examples that painted pornography in the worst light possible (Kubes, 2019; Rubin, 1993). The overemphasis of certain types of pornography by radical feminists is problematic because it generalizes all pornography (and by

association all porn consumers and producers), while (conveniently) ignoring pornography by and for anyone but cis males and refuting the possibility that pornography is a site of desire, empowerment, and liberation for many individuals, including women (Danaher, 2019; Kubes, 2019). The same can be said about the saturation of female pornographic images of sex robots.

Therefore, it is important to consider media as not only a site that reproduces problematic norms, but as a site of *production* as well. By choosing to only portray one type of robot, a narrative that only “pornographic,” “white” and “female” form robots can be created, used, or desired, is reinforced. Though they are not the norm, non-female, non-white, and non-stereotypical sex dolls *do* exist, and media outlets can and should make efforts to give these forms the spotlight they deserve. One brand in particular, Sinthetics, is specializing in creating the perfect male dolls for female customers (Sunderland, 2016). Also available are transgender sex dolls and “transgender converters”—penis-like attachments that can be switched in place of a female form doll’s vagina, indicating that there is an important interest in and demand for representations beyond cis bodies (Döring & Pöschl, 2018; “RealDoll-the world’s finest love doll, Lupe Fuentes”, n.d.). There also exist a few sex robots/sex dolls that seem to represent people of colour (e.g. see Appendix A, *figure 5*). These products were rarely, if ever, mentioned in my collected sample of online articles (one mentioned penis inserts), meaning that for a person with average sex robot/doll knowledge, information about such products is hard to come by unless it is specifically searched for.

Efforts to present sex robots in a way that better encapsulates the range of forms that sex robots are and *can be* developed to have were more common in academic texts than in online articles. For example, Danaher (2017a) defines sex robots as: “artificial entit[ies] used for sexual purposes that [have a] humanoid form, [perform] human-like movement[s]/behaviour[s], [and]

some degree of artificial intelligence” (p. 4-5). This definition, which I myself use in this work, is not only more accurate, but more inclusive than Richardson’s (2016b) or Soloman’s (2018). In their piece, Döring and Pöschl (2018) explain that “sex dolls can be further distinguished according to gender (male, female, and transgender), age, skin colour, and other characteristics” (p.53), and Sullins (2012) speaks to “at least two companies to enter [the sex robot] market who have released both male and female sex dolls” (p. 400). Gender neutral and gender inclusive terms such as “robot lovers” (Sullins, 2012) and “sex bots” (Levyb, 2017) are also used.

In their envisioned future, Yeoman & Mars (2012) describe a scene of a sex robot club that “offers a range of sexual gods and goddesses of different ethnicities, body shapes, ages, languages, and sexual features” (p. 367). This not only highlights the existence of male and female formed robots, but the use of the terms “sexual gods and goddesses”, accompanied by a list of variable characteristics such as ethnicity, body shape and age, implies that various representations of bodies are possible sites of desire. In this phrase, an imagined future where many types of bodies are represented in robot form becomes possible. It allows the reader the opportunity to imagine what *their* perfect sex robot would look like and accept that someone else’s may look completely different. With the use of the terms “gods and goddesses”, there is even a sense that sex robot forms could go beyond traditional human shapes—our own imagination is the only limit. This encourages readers to construct sex robots beyond traditional ideas of sex and gender and can help put pressure on developers to have a more inclusive approach to their creations. With the rise of sex doll enhancements such as horns, fangs, forked tongues, and elf ears, (“Customized options”, n.d.; see Appendix A, *figure 16.*), fantasy dildos such as the “CreatureCock” (*CreatureCock*, n.d.; see Appendix A, *figure 17.*), and alien themed

brothels (Dunn, 2019; Robitzki, 2019), it is evident that supernatural forms are and will be in demand.

Unfortunately, Yeoman and Mars (2012) later reinforce traditional ideas of beauty and sexual desire by stating that, in this future world “the most popular model is Irina, a tall, blonde, Russian exotic special who is popular with Middle Eastern businessmen” (p. 367). However, the efforts made by many academics to be more inclusive in their definitions, the imagery created by Yeoman and Mars (2012), and the availability of non-normative products, hints at the possibility that sex robots could become tools for encouraging sexual exploration beyond gender norms and heteronormative ideals—a physical technology to help us “queer” our sexuality (Kubes, 2019). By acknowledging the variety that does exist, and by demanding for more, authors can work towards undoing gender, sex, and beauty norms rather than contributing to their reproduction. Kubes (2019) has spoken at length about how sex robot forms need not be so typical and pornographic, and instead, could be built to maximize function in the same way that many modern vibrators are. As Danaher (2017) explains:

Sex robots need not be large-breasted, thin-waisted, porn star-esque waifs. No doubt there will be significant pressures in favor of this representation. But it is conceivable that one could create and design a sex robot... to represent a more progressive set of norms around sexual consent and beauty (p.115).

Personally, I see no inherent wrong in being aroused by a robot with alarmingly disproportionate breasts...if that is what you are into! Sex robots are a tool for exploring relationships, sex, and fantasies—which are at times exaggerated and surreal. However, we should be allowed and encouraged to ask for more. The criticism of the current popular forms of sex robots is warranted, but instead of being used to completely denigrate sex robot technology, it could be used as a starting point for improvement. Döring and Pöschl’s (2018) study found that *fictional* media represented a much greater variety of sex robot forms, demonstrating that it is not

impossible for us to conceive of a more diverse reality, and as previously mentioned, the demand for more varied representations is out there. Developers have an important responsibility in making these forms available, but the media, as a first point of contact with the technology for many, can play an important role as well.

Proponents of media ethics advocate that media practitioners should hold themselves responsible as active participants rather than disinterested or unbiased observers, and ask that long term consequences of publications be given due consideration (Black & Roberts, 2011). As research shows that news media in particular reinforces gender norms that contribute to inequalities and oppression, media practitioners reporting on sex robots may want to consider their role in perpetuating reductive sex and gender norms (Roth & Sanders 2018). Narrow portrayals of sex robots likely do little to encourage more inclusive and varied developments, and may actually contribute to a cycle of demand and supply for the “pornographic” type of robot. A potentially more productive and positive use of their space and influence would be achieved by the further integration of inclusive language, by highlighting variety where it exists, by acknowledging the varied physical forms robots can take, and by acknowledging the desire for more varied options. By doing so, media practitioners have an opportunity to spark critical conversations about the gender and beauty ideals of our society and contribute to an expanded appreciation of sexual variety and nonconventional beauty. As previously noted, some authors are already having conversations about the innovative forms that sex robots could have (e.g. Danaher, 2017; Danaher, 2019; Kubes, 2019), but unfortunately, these are generally limited to academic texts and so are not easily accessible to the general public. Of course, reporters and journalists are limited by their medium in ways that academic scholars may not be, for example by word count and the desire to capture the attention of readers in a saturated market. This may

explain the lack of diversity in these publications. However, there are journalists who do choose to report on more varied experiences (e.g. Sunderland, 2016, who reports on the development of male sex dolls for women). I am not suggesting that it is possible for every individual article to touch on every aspect of sex robots. Rather, that given that policymakers rely on the news as a source for academic findings (Hammersley, 2007; Weiss & Singer, 1988), a broader diversity in the news as a whole, that better reflects what is found in the academic research, would be especially useful and productive. My findings thus serve as a call for online media outlets to better reflect the existing and potential diversity in sex robot options.

The Male Sex Robot User

Sex robot users in my samples were often constructed as men, especially in online articles and in anti-sex robot academic texts. Above just associating the sex robot user to men or males, I noticed a tendency to avoid discussions about potential female users, even when the context invited it. On the occasion that male robots/dolls were mentioned in online articles, they were usually associated with bisexual or homosexual male clients rather than heterosexual female clients. For example, one online article discussed a sex robot brothel that offers “male dolls for bisexuals” and explained that the service was initiated to provide the experience of bisexual threesomes to men, but never mentioned a possible interest for women (Pandey, 2019). Some articles mentioned that brothels could offer penis inserts to be used with female formed dolls, but still in the context of options for male clients (e.g. Ritschel, 2018). This trend was also found in a few anti-sex robot academic texts; Richardson (2016a) mentions male sex robots, but they are attributed to homosexual men: “the development of sex robots is not confined to adult females, adult males are also a potential market for homosexual males.” (p. 291). The emerging discourse from sex robot representations in the media is not only that males are the “obvious”

sex robot users, but that women are “obviously” not: “There are male sex dolls, of course, but they are sold mostly to gay men. Women do not seem to have the same desire to cohabit with a polyethylene paramour. Go figure.” (Braun, 2018).

Research has found that, though less commonly than men, women do use sex dolls, making it likely that some women will be interested in sex robots too (Langcaster-James & Bentley, 2018; Valverde, 2012). Yet, the phenomenon is almost never addressed. I argue that this discourse is caused by and reinforces enduring Western narratives about sexuality that are maintained by radical feminist discourses against pornography and sex work: men’s sexuality is an uncontrollable, violent, and selfish force, while women’s sexuality is restrained, intimate, and loving (Echol, 1983; Ferguson, 1984; Morgan, 1977; Quinn, 2002). It is possible then, that anti-sex robot authors overemphasize male sex robot users and actively avoid acknowledging possible female interest to further their arguments against sex robots.

As discussed in chapter 2, radical feminist discourses on pornography and sex work clearly construct male and female sexuality on a binary. Men are associated with violence and physicality while women are associated with tenderness and intimacy (Echols, 1983; Ferguson, 1984). This narrative similarly informs contemporary associations between sex robots and men. When faced with a non-normative sexual practice, explaining it as just a typical bizarre animalistic violent contraption for men is all too easy. On the other hand, the idea that women would be interested in and even enjoy using a sex robot purely for sexual gratification, instead of seeking intimacy in a human sexual encounter, clashes with our beliefs that women are and should be sexually restrained and controlled (Crawford & Popp, 2003; Schwartz & Kempner, 2015; Szirom, 2017). By associating sex robots specifically with men, who are

constantly identified as naturally deviant and violent (Echols, 1983; Szirom, 2017), it makes it much easier to demonize or ridicule the practice, which makes for a much more salient piece.

Of course, differences in male and female sexuality, though present, are minor, and many of these are explained or at least tainted by sociocultural factors (Lehmiller, 2018). For example, women report higher instances of sexual partners, masturbation, and softcore and hardcore porn use when they believe their responses are anonymous, demonstrating the influence of sex and gender expectations (Alexander & Fisher, 2003). Interestingly, research has found that women are actually more erotically plastic than men, meaning that they are more flexible in their sexual responses (Lehmiller, 2018). Research has shown that women, more so than men, have sexual responses to sexual images and videos that do not match their sexual orientation (i.e. heterosexual women aroused by sexual images of women and homosexual women aroused by sexual images of men; Chivers et al., 2004). Women have even been found to have sexual genital responses to video footage of bonobos having sex, a phenomenon not examined in men (Chivers et al., 2007). The narrative that women will not or cannot be sexually aroused by sex robots simply does not align with our current knowledge about female sexuality. Yet, it would seem that anti-sex robot authors conveniently avoid suggestions of a female interest in sex robots, perhaps because it is in direct conflict with their underlying argument. According to their logic, a robot, as a representation and product of male sexism and female violence, should not feature in women's fantasies.

Historically, this is not the first time that certain genders or sexual minorities are conveniently left out. Returning to radical feminist arguments against pornography and sex work, the pattern is evident. As previously stated, the experience of women finding pleasure and empowerment through pornography was excluded from radical feminist critiques against

pornography (Danaher, 2019; Kubes, 2019). A perfect example is the exclusion of heterosexual women in the analysis of the harms of pornography by LEAF⁷ who only consulted lesbian women and essentially cherry-picked stories from women that fit their claims (Karaian, 2005). Similarly, even though many men practice sex work, they are consistently excluded from sex work conversations and research (Dorais, 2005; Redwood, 2013; Weitzer, 2005b).

Not only do male sex workers exist, they also have female clients, and they face stigma, discrimination, and violence that is often aggravated specifically by their status as male sex workers (Dorais, 2005; Levy 2007a; Minichiello et al., 2014; Redwood, 2013). As men, male sex workers are rendered invisible, are fiercely stereotyped and judged, and are not taken seriously in instances of sexual assault (Minichiello et al., 2014; Redwood, 2013). Transgender sex workers, who experience excessive stigma and violence, have also been historically excluded from conversations and research (Lyons et al., 2017; Weitzer, 2005b). Women who buy sex from male or female sex workers are almost never discussed, potentially because of the stigma attributed to women whose sexual appetites are deemed excessive by Western sex and gender norms (Caldwell, 2018; Crawford & Popp, 2003). However, the stories from the brave women who have come forward with personal stories about paying for sex demonstrate that motivations are quite varied: some are looking to be dominated by a professional, others use sex work as a solution to unmatched libido in their relationship, while others simply desire anonymous and easy sex (Caldwell, 2018; Kane, 2018; Lister, 2018). The exclusion of male sex workers, transgender sex workers and female clients in popular discourse is advantageous for radical

⁷ LEAF is a feminist organization dedicated to providing equality for women and girls through the Canadian Charter of Rights that was heavily involved in the incorporation of the concept of harm into Canadian obscenity laws (*Women's Legal Education and Action Fund*, 2014).

feminists who specifically define sex work as a form of violence and oppression *by men against women* and completely overlook the existence of female clients (Khan, 2018; Weitzer, 2005b).

Acknowledging these minority groups completely undermines radical feminists' arguments, because it forces a more nuanced and diverse view of male and female sexuality. The very notion of female sex work clients completely clashes with all of the stereotypes one must believe in order to comply with radical feminists' conceptualizations of sex work. Women are supposed to be motivated by intimacy rather than physical pleasure or power, and sex work is portrayed as an exertion of power that is void of compassion, empathy or intimacy; by this very definition, a woman should not have any desire to pay for sex. In the case of sex robots, it seems that female users are similarly being overlooked, because acknowledging them would too easily undo engrained beliefs about male and female sexuality and expose flaws in anti-sex robot arguments.

A prime example of this is Richardson's (2016a) assertion that "males are the chief buyer of human sex, females are more likely to purchase artificial nonhuman substitutes such as vibrators that stimulate a discrete part of the body rather than purchase an adult or child for sex" (p 291). The effort to contrast men and women's sexual buying habits is blatantly evident. Women are "discrete" and satisfied with a sex toy, while men cannot help but to buy... a child? Besides from the fact that assimilating the purchase of sex from an adult and a child is abhorrent and arguably disrespectful to victims of child sex abuse, Richardson compares men and women as if individuals can be strictly categorized as being either vibrator users or sex work clients/pedophiles. In this description only women are represented as making the "correct" "empathetic" choice. These associations are used by Richardson to make their argument that sex work is a bad thing done by men to women, and sex robots, which are designed as women for

men, are therefore also bad. Again, this reinforces sexist beliefs about essential differences between men and women and I argue further stigmatizes women who do not fit within these norms—whose sexuality is perhaps loud rather than “discrete” and who may not be satisfied with a traditional sex toy.

To support their argument, Richardson points to Levy’s (2007a) comparison of sex robots and sex work, but conveniently omits the extensive discussion about female sex work clients in Levy’s book. Levy (2007a) not only highlights the global existence of female sex work clients, they also explain the large disparity between male and female clients, not as evidence that women have zero interest in paying for sex, but rather as a result of historical economic difference between the sexes. Levy’s (2007a) acknowledgement of female sex work clients is an important contribution to dismantling sexist and stigmatizing beliefs about women’s sexuality and sex work. However this acknowledgment was not found in any online news articles, which supports research that demonstrates a lack of accurate and inclusive representations of sex work made available to the general public (van Brunschot et al., 2000; MacDonald & Jeffrey 2006; Weitzer, 2018). Given this, the construction of sex robots as sex workers in academic literature and online news articles is especially problematic; associating sex robots with sex work, especially when they are gendered in these ways, could further gendered beliefs about sex work relationships, which then reinforces sex work stigma that negatively impacts the wellbeing and safety of sex workers (Redwood, 2013).

On a more positive note, most academic texts did mention the possible use of male form robots by women, but no mention of a female interest in female formed robots was found in either academic samples or online news samples, indicating ongoing heteronormative constructions of sex robot-human relationships. Levy (2007a) is alone in devoting a substantial

part of their book to theorizing about women's desire to have sex with robots. However, their rational for the motivations of women wanting robot sex also reinforces heteronormative and constrictive ideas of female and male sexuality:

Another factor that might increase women's motivation for robot love and robot sex is the recent increase in unwillingness on the part of men to marry. It seems that since men are able nowadays to get sex much more easily than twenty or even ten years ago, they hesitate entering into long-term relationships. This trend will leave a lot of women faced with the prospect of a human lover uncommitted as to the long term. Instead many women might prefer to engage with a sexbot—always willing, always ready to please and to satisfy, and totally committed. This ever-availability of malebots could bring about a dramatic and positive change in the parameters of human love relationships, not necessarily for more sex but rather for sex at the right time (p. 296).

Once again, the stereotype that compared to men, women are mainly motivated by emotional, romantic, or committed aspects of sexuality, is reinforced. At times, Levy (2007a) does allude to more “superficial” sexual motivations for women that are usually attributed to men such as a focus on desirable body parts: “women for whom size matters will be able to demand for their malebot any girth and length of penis they desire” (p. 292). However, this implication exists in a very heteronormative framework that assumes that women will want sex robots with penises. Overall, in both academic and news samples, a form of sexual essentialism as described by Rubin (1984) was commonly witnessed. Sex is portrayed as a naturally violent force that exists in men, while love and intimacy is natural to women. These restrictive constructions of male and female sexuality promote harmful sex and gender norms and stigmatize those who do not fall under these strict binaries. Both academics and media practitioners need to be more conscientious of the way they represent gender and sexuality when discussing sex robots.

Men who Buy Sex: Pathologized and Dehumanized

A common theme amongst online articles was the stigmatization of sex robot/doll users. These individuals were pathologized and dehumanized, and often stereotyped as: lonely,

pervverted, foolish, deviant, pathetic, abnormal, disgusting, and socially awkward (e.g. Dunn, 2016; Hunter, 2019; Orr, 2016). These stereotypes were not found across all articles, but were especially common in online news articles that expressed negative views towards robots, as well as in many online neutral news articles and a few anti-robot academic articles. I suggest that this stigmatization of sex robot/doll users may lead to legal discrimination, and by association, sex work clients could be further stigmatized and criminalized. The stigmatization of sex robot/doll users also hinders efforts to genuinely understand sex doll/robot use and apply this knowledge towards the development of beneficial sex robots.

Pathologized

The stigmatizing labels against sex robot/doll users were at times blatant, as in a *Toronto Sun* article which captioned a picture of a man sitting with a sex robot: “L.O.S.E.R. A man cuddles with Roxxy, the worlds first sex robot.” (Hunter, 2019). Describing sex dolls users as “horndogs” and “kinkos” (Hunter, 2018), and those interested in sex robots as “narcissistic and sociopathic” (Orr, 2016) was also used to insinuate something wrong or “off” with users. At times, pathologizing was more inconspicuous, but came through specific language choices:

...a number of people have **unashamedly admitted**⁸ enjoying the company of life-like sex dolls... Senji Nakajima, **claims** he enjoys the 'perfect' relationship with 'Saori' - a rubber doll...He says he is in love with the **giant dummy**, which he takes out on shopping trips so he can buy it expensive outfits. Earlier this year, a three-time divorcee called Murray...**admitted** he was in love with a sex doll called Noni. **However, it took him more than a year to learn how to have sex with her** (Dunn, 2016).

The use of words such as “unashamedly” and “admitted” imply that men should feel ashamed, embarrassed, and guilty about their relationship with dolls. Furthermore, the use of the word “claim” infers doubt towards Nakajima’s statement that he enjoys the “perfect” relationship

⁸ Bolded words are used for emphasis and to direct users towards discussed words. These words were not bolded in the original quote.

with his doll. With the description of his doll as a “giant dummy,” this reinforces the idea that a romantic relationship with a doll is impossible and bizarre and that he is a “dummy” by association. The customer is portrayed as intellectually lacking for building emotional ties to a doll and attributing value to the relationship, even though research demonstrates that the development of deep, emotional connections to dolls and other anthropomorphized objects is common, often has positive effects, and does not indicate a lack of intelligence on the part of the individual (Langcaster-James & Bentley, 2018; Levy 2007a; Nyholm & Frank, 2017; Valverde, 2012). In response to Murray’s declaration of love for his doll, an unnecessary emphasis is put on the time it took him to learn to have sex with her. “However,” is used to undermine Murray’s feelings of love and further insinuate that sex doll owners are pathetic as well as sexually awkward. Although research has found that some sex doll users do report having sexual issues with human sexual encounters, most report great sexual satisfaction with the use of dolls (Valverde, 2012). And so, Murray’s delay does not mean that he is not sexually and emotionally satisfied in his relationship with his doll. This element is completely irrelevant to his statement that he is in love with Noni, as sex is obviously not a necessary component of a loving relationship.

Other online articles construct the use of sex robots/dolls as a choice that would only be made because all others have expired, further reinforcing the perception of users as abnormal. These individuals are characterized as not being able to achieve typical societal expectations, and thus turning to dolls/robots as a “last result”: “Yet there is something **degrading** in the notion of **settling** for a mechanical substitute **to assuage your loneliness and insecurity**” (Sibley, 2008). The very idea of sex robots/dolls is presented as disturbing, sad, disgusting, and perverted, which insinuates that interested individuals are tainted by these attributes:

there are also real concerns about...permitting the open advertising and promotion of what some may regard as **a perversion**; sex with robots” (Banzhaf, 2018).

“Residents spoke out at a City Council meeting that the ‘sex robot brothel’ was **‘perverse, crooked, evil and sleazy’**...’This is not a good business for our city. We are not **Sin City**’ (Sorto, 2018).

Before the City Council unanimously approved the change to the ordinance, council member Greg Travis called the proposed robot brothel **‘weird’ and ‘gross’** (Lozano, 2018b).

The dolls sell for anywhere from \$2,500 to \$10,000, with optional "body heat" and AI voice options. **(Can't ... unread.)** It's like *Westworld*, **but so, so much sadder**. Now, if you'll excuse us, we're gonna do that *Eternal Sunshine* mind wipe so we can **forget we ever heard about this** (Wagstaff, 2018).

What is a sex robot brothel? First, just take a moment and consider if you really want this information in your head before you proceed. Once you learn something, you can't unlearn it. **Are you certain that you want to know?** (Soloman, 2018)

The pathology portrayed in these texts must be critically evaluated. For one, the mockery of sex doll owners by implying a lack of intelligence is unfounded. Based on the research available, the average sex doll user is well educated, employed, and does not demonstrate a lack of self-awareness (Langcaster-James & Bentley, 2018; Valverde, 2012). Furthermore, though some sex doll users choose sex dolls because they are uncomfortable in human relationships, this is not always the case. Some users simply prefer or are particularly interested in dolls, and some users are also in human romantic relationships (Langcaster-James & Bentley, 2018; Valverde, 2012). Overall, the limited research on sex doll owners does not find that they are psychologically different than others or that sex doll ownership should be treated as pathological (Valverde, 2012).

Sex work clients have a similar history of being pathologized, they are portrayed as having troubled childhoods, relationship issues, being emotionally stunted and being addicted to masturbation, being sexually inadequate and clients themselves feel that they are perceived as “weak” “needy” “flawed” “weirdos” and “perverted” (Hammond, 2015; Khan, 2018; Kulick, 2005). As previously mention, the influence of radical feminist thought in Sweden has resulted in texts which pathologize sex work clients as having severe relationship, childhood, romantic and sexuality issues, and publications with stigmatizing titles such as “Buying Sex is a Cry for Help”

and “Now I Can’t Stop With the Filth” have had strong influences on sex work stigma and law (Kulick, 2005).

Again, these stereotypes are unfounded. The demographic distribution of clients reflects that of non-clients and studies have failed to find major personality differences between men who buy sex and men who do not (Benoit et al., 2014; Monto & McRee, 2005; Monto & Milrod, 2014). What specific distinctions *were* found reflected differences in income and education, with men who regularly seek out paid sex online having higher educational levels and higher income levels than those who do not (Monto & Milrod, 2014). Most importantly, men who purchased sex were not found to be psychologically particular or to display distinct pathologies (Monto & McRee, 2005; Monto & Milrod, 2014).

The stigmatization of sex robot/doll users seems to be justified by the rationale that the users are further hurting themselves by engaging in these behaviours despite the fact that research shows that the use of dolls has overall positive outcomes on users’ lives (Langcaster-James & Bentley, 2018; Valverde, 2012). Research finds that sex doll users as a group cannot be particularly defined as having mental health issues, but as with the general population, some sex doll users do suffer from mental health problems. For these individuals, relationships with dolls help them “get rid of loneliness,” “ease depression and anxiety,” and provide them with “intimacy, support, and connection,” ironically resolving the very problem that dolls/robots are accused of causing (Langcaster-James & Bentley, 2018, p. 9; Valverde, 2012). Furthermore, romantic bonds with humans may not be necessary for some. In fact, one could argue that if sex doll/robot users are actively trying to avoid human romantic/sexual relationships, it may be more harmful to force them into a normative lifestyle that does not meet their individual needs, as evidenced by Valverde’s (2012) research that found that the highest rates of depression were not

amongst doll owners, but amongst participants who wished to own a doll but did not. Moreover, there is no reason to indicate these people could not maintain relationships with family members, friends, and work associates, while satisfying romantic and sexual needs through sex robots/dolls. If anything, society's continued intolerance towards sex robots/dolls could cause more harm to the user than the robot/doll itself. Though, as previously mentioned, not all doll users feel ashamed, many do (Valverde, 2012). If users feel that they are judged for their use of sex robots/doll, which is likely, considering that sex doll users reported "not socially expectable" and "has to be secret" as cons to owning a doll, they may avoid seeking help if problematic behaviours do develop (Langcaster-James & Bentley, 2018, p.9). It is also possible that without access to sex robots/dolls, feelings of depression in desiring individuals will lead to further isolation.

Dehumanized

Along with pathologizing discourses, the dehumanization of sex doll/robot users was also witnessed in online articles. One article refers to sex robots as "critters," which insinuates that sex robot users are animal or insect like (Moore, 2017). In *The Guardian*, male masturbation, male use of sex toys and sex robots, and male purchase of sex work are pathologized and dehumanized through association:

There's always been a bit of sniggering about men who use prostitutes (though real contempt, counterintuitively, is directed at the women involved), or who "can't get a girlfriend." Blow-up dolls have always been a joke, as have "wankers." This too is pitiless, petty stuff. Maybe it's time to take **misogynistic sexual dysfunction** more seriously. Maybe people who want to buy sex robots **need to present the agreement of a couple of doctors**, before they are judged emotionally restricted enough to need to retreat to **such an inhuman fantasy** (Orr, 2016).

At first, this statement seems to criticize the mockery of sex work clients, sex doll users, single men, and men who masturbate ("wankers"), by labeling it as "pitiless" and "petty."

However, any attempt to criticize sexual stigma is completely negated: contempt is justified by lumping of all of these behaviours with the use of sex robots as “misogynistic sexual dysfunction.” Interest in sex robots is pathologized by insinuating their need to see a doctor, and male sexuality is pathologized and dehumanized especially when it is not coupled in a heterosexual relationship. Masturbation, the use of toys, or the purchase of sex is labeled pathetic because it is believed to demonstrate a man’s failure to secure a “girlfriend” and thus be made whole by the intimacy of female sexuality—in the same way that radical feminist Adrienne Rich suggested “that pornography impairs the ‘potential of loving and being loved by women in mutuality and integrity’” (Echols, 1983, p. 50).

This statement continues to dehumanize potential users by describing interest in sex robots as an “inhuman fantasy” to which one must “retreat” (supposedly away from normal, moral, healthy society). In same article, Orr (2016) celebrates the idea that sex robot enthusiasts may be less likely to reproduce (an unwarranted assumption): “You could even reflect for a moment on the idea that **at least people who prefer sex with machines are less likely to breed. Hooray!**” This exclamation is borderline eugenic⁹, suggesting that sex robot enthusiasts should not have children, and the choice of word “breed,” usually used to refer to the reproduction of animals, is further dehumanizing. The use of such animalizing and dehumanizing discourses is commonly used to denigrate non-normative sexual identities or practices, such as homosexuality, interracial sex and men buying sex (Calabrese et al., 2015; Hammond, 2015). Sex work clients have been associated to rats, crows, and “cockroaches that come out at night” (Campbell & Storr, 2001; Khan, 2018, p.75). Radical feminists have even used dehumanizing language to diminish men and male sexuality, calling them “mutants” because of their inability to bear children (Echols, 1983).

⁹ Eugenic is the adjective form of eugenics. Eugenics, a philosophy supported by Nazis, “is the belief that the human race can be improved by selective breeding or genetic engineering” (Eugenics, 2014, p.1653).

These statements also suggest that sex robots and sex work are appealing to men because, unlike women, they seek anonymity and have no interest in emotional or intimate connections. Again, research has found that men's motivations are much more varied and complex. Other than sexual acts, relaxation, mutuality, and emotional connection are common factors driving men to purchase sex, and many men seek and prefer what is called a "Girlfriend Experience"—sex that replicates the intimacy of monogamous non paid sexual encounters (Aimee et al., 2015 in Sharkey et al., 2017; Sanders, 2008; Levy, 2007a; Plumridge et al., 1997). Research on men who pay for escorts was unable to label any participants as "hummingbird" clients who go from one sex worker to another with the sole motivation of sexual variety (Jones & Hannem, 2018). Instead, the men were found to either be committed regulars, visiting certain sex workers on a regular basis but also visiting other non-regular escorts on the side, seeing multiple escorts in an effort to find the right one to become regular with, or deeply entrenched in the sex work community and therefore acquainted with almost all local sex workers (Jones & Hannem, 2018). This research contradicts simplistic binary views promoted by radical feminists that clients are sexually hungry men who want large amounts of anonymous sex. It is also important that we question ourselves as to why the desire to have large amounts of sex or anonymous sex is constructed as inherently deviant or immoral. Both promiscuous sex and anonymous sex can be consensual, mutual and respectful and I want to stress that framing sex work clients as only moral when they are normative can be problematic in that it hierarchizes a certain type of intimacy. Sex work clients who do not desire romantic intimacy should also be treated with respect. As Rubin (1984) explains, variations in sexual preferences and desires are usually benign and need not represent some sort of deviance. As long as mutual consent is present, anonymous encounters are not inherently immoral, harmful or lacking in intimacy. In fact, for

some sex work clients, anonymity helped them feel more intimate, because it helped them let go and be more open (Jones & Hannem, 2018).

As with radical discourses about sex work, dehumanizing stereotypes facilitate support for criminalization and promote discriminatory and ostracizing practices. The punishment or control of individuals is much more acceptable when the individuals are constructed as violent, sick, outcasts. Unfortunately, a desire to engage in discriminatory practices against robot/doll is already visible. Councilman Greg Travis from Houston has declared that if a robot brothel is allowed, he will film customers entering and exiting the establishment and post the footage onto social media:

Once councilman even said he would film everyone who goes in and post it on social media to "show everyone what kind of person goes in a place like this.'... 'If ever [this occurs], I'll be after [it] 24/7 with cameras filming everybody who goes in and everybody who goes out, [and] we will post it on social media so people can see who is using this'(Sorto, 2018).

In Canada and elsewhere, similar tactics are used to shame clients such as sending letters to suspects, releasing names of arrested men, and offering offenders the opportunity to escape trial by enlisting in "john school" (Khan, 2018; Sanders, & Campbell, 2008). These tactics further reinforce the narrative that purchasing sex is a shameful act done by "bad men" and encourage discrimination. In their research, Khan (2015; 2018) found john schools, which are meant to reform men who have been arrested for purchasing sex, to be overwhelmingly centered on shame. Various presenters such as ex-sex workers, nurses, and wives of ex-clients, spoke of horrifying sex trade stories, accused clients of making women feel unsafe and contributing to violence against women on a broad scale and stressed the dangers of sexually transmitted diseases (Khan, 2018). Commonly, an ex-client would speak to attendees, depicting his and their desires as symptoms of sex addiction (Khan, 2018). These workshops, by their very nature and by their content, construct clients as deviant and immoral. On a lunch break, a john school

student asked Khan (2015) if she was “[there] to investigate [them] as perverts?” (p.11), demonstrating that clients are aware of the stereotypes against them, and are perhaps internalizing them as well.

Overt stigmatization of sex robot/doll use was very rare in the academic sample, but Richardson (2016a; 2016b) indirectly stereotypes sex robot users through their construction of men who buy sex and watch pornography. They point to the “inability of the buyer of sex to have empathy with the seller of sex” and follow this with a definition of empathy from Simon Baron-Cohen who they highlight as an “expert of autism” (2016a, p.291). Buyers of sex (whether it be sex work, robots, or porn) are stereotyped as lacking empathy, and the reference to autism implies an abnormality or pathology. Richardson (2016b) also participates in the hierarchization of sexual acts by stating:

Fortunately not all men buy sex or consume pornography. There is a strong movement now with males turning away from prostitution and pornography as they recognize the detrimental effects on their intimate relationships, an issue I believe will gain more ground over the next decade (p.48).

This statement implies that men who do not engage in sex work or pornography are morally superior and have healthier relationships than those who do. It presents the choice of some men to renounce these activities as evidence of their deviant nature. There are many problematic assumptions underlying this logic. Undoubtedly, pornography has negative effects on certain individuals, in the same way that many behaviours that are normally unproblematic can when done in an excessive or unhealthy manner (e.g. working [Lichtenstein, 2019], shopping, and internet use [Kim & Seo, 2013]). However, the fact that certain individuals choose to stop a behaviour that has affected them negatively does not prove that the negative effects are generalizable to everyone, that everyone should now stop, or that the individuals who stopped are morally superior. Watching

sports, for example, can encourage aggressive behaviours and domestic violence in certain individuals (Adubato, 2016). This does not mean that everyone else must stop watching sports.

Furthermore, a closer look at Richardson's cited sources demonstrates a selection and interpretation bias unfortunately common in radical feminist stances against stigmatized sexual practices. One of the sources is a study that evaluated the success of gender inequity intervention programs worldwide in which successful outcomes were measured by evaluating the treatment of children, rates of STIs, use of condoms, communication with spouses, and self-reported physical and sexual violence...not the use of pornography (Barker et al., 2007). Another study cited by Richardson focused on the harm of exposing young children to pornography and mentioned that:

US studies found that a consistent **minority of female partners** of male **regular** pornography users find it damaging both for their relationships and themselves. They see their male partners' pornography use as a kind of infidelity, feel betrayal and loss, feel less desirable, and describe other negative effects on their relationships, sex lives and themselves (Flood, 2009, p. 393-394).

The information presented here is that for a minority of individuals, pornography seems to have a negative effect on the relationship, specifically from the women's perspective. Again, this does not mean that pornography can be generalized as harmful to all. The final source is a men's movement website, mensmovement.com. A search of the website for articles containing the words "porn," "pornography," and "prostitution" found no recommendations to turn away from either. There is no definitive evidence of a causal link between pornography and violence, and Richardson's praise of those who do not buy sex or watch pornography only serves to other those who do.

Thankfully, sex robot user stigma was not encouraged across all samples. Many academic authors avoided stigmatizing language, and even some online authors actively criticized the

shaming of sex robot/doll users, urging readers an effort to be more understanding of sexual desires that do not match our own:

If many (not all) of us are tolerant of dildos and Fleshlights – even if, like me, you find such items ill-inducing – is this not already a basis to accept sex robots?...it’s about accepting other people’s choices to do what they want with their bodies and obtain sexual satisfaction, without worry of stigma or shame. Using sex robots doesn’t harm anyone any more than using contemporary sex toys. (Moosa, 2014).

Unfortunately, such direct calls to readers to avoid stigmatization were few and far between amongst online articles.

Inherent Harm and Causality

The belief that certain sexual practices are inherently harmful and can encourage violent or sexist acts was one of the most common radical feminist discourses to emerge from sex robot representations. Though these discourses were rare in the academic sample, they were common in anti-robot and anti-sex work online news articles, possibly indicating that media practitioners are choosing to only represent academic arguments that further their personal agendas. Often, these claims were unsupported, or built from questionable interpretations of sources.

In online articles especially, many authors used quotes with slippery slope narratives of causality without providing any real evidence:

‘...this robot thing looks very similar to pornography, in that when men engage with pornography it sort of detaches them from any sort of human relation, and we’ve noticed that with sex buyers’...He fears that realistic sex dolls will increase, not lower, demand for human prostitution and embolden men to act out violent fantasies. (David Gamboa of Elijah Rising¹⁰; in Dart, 2018)

We have seen the progression as sex buyers go from pornography to strip clubs to purchasing sex – robot brothels will ultimately harm men, their understanding of healthy sexuality and increase the demand for the prostitution and sexual exploitation of women and children Elijah Rising wrote in its petition (Lozano, 2018).

¹⁰ Christian anti-sex trafficking and anti-pornography group.

The feminists said that the dolls allowed users to **play out their violent fantasies**, leading them to believe such things are possible with real women. With the dolls often having 'pornography' like physical features the [feminist] groups argue that they may be contributing to a 'sexualised and degrading attitude to women'. (Vincent, 2019).

These quotes associate sex robots to other sexual behaviours with established negative connotations, such as pornography and sex work, and make bold claims about their connections to each other and their effect on men, similar to those made by radical feminists. It is important that authors critically assess these tenuous claims as there is no evidence yet that supports that any behaviour with sex robots, good or bad, will be translated to humans. The use of pornography as an example to support these predictions is especially unfounded. As previously mentioned, a causal link between pornography and sexual violence has yet to be fully supported by research (Ferguson & Hartley, 2009; Lehmiller, 2018). Links between viewing porn and sexual violence have only been found in a minority of individuals who have a predisposition to violence to begin with (Fisher et al., 2013; Kingston et al., 2009). In fact, large scale analyses in many countries have demonstrated associations between increased availability and consumption of pornography and a decline in incidences of rape and sexual aggression (Ferguson & Hartley, 2009). Today, the internet has made pornography more easily available than ever before, yet sexual assault rates are not increasing to match this availability (Ferguson & Hartley, 2009). Furthermore, research has demonstrated that pornography users held more positive attitudes towards women in the workplace, women in power, and abortion, in comparison to non-pornography users, contradicting radical feminist beliefs that pornography encourages sexism and objectification (Kohut et al., 2015). By presenting these quotes without acknowledging the limits of current research on the negative effects of porn, and the lack of necessary evidence to determine a causal relationship between pornography and violence, the authors contribute to stigmatization and marginalization. The explicit and implicit associations to sex work also promote the belief that

sex work encourages violence, which stigmatizes clients and ultimately detracts from conversations of how stigma and law contribute to sex work violence (Armstrong, 2019; Benoit et al., 2018; Lowman, 2000; Sallmann, 2010).

As mentioned, the discourse of causality was less common amongst academics. Even Sparrow (2017), who finds the argument that “raping” sex robots could lead men to rape real women convincing, admits “that many other people have found it much less so” (p. 470). Richardson (2016a ;2016b) however, does use causality arguments. Given that Richardson and other feminists making similar arguments were commonly referred to in online articles (e.g. O’Neil, 2015; Orr, 2016), it is necessary to break these down. In their piece, Richardson argues that sex robots will cause an increase in sex work, which they conflate with sex trafficking:

The facts of prostitution are disturbing where violence and human trafficking are frequently interconnected. Moreover the industry is extensive and a recent European Union survey found...prostitution has a global dimension, involving around 40-42 million people worldwide, of which 90% are dependent on a procurer. 75% of them are between 13 and 25 years old. (Richardson 2016a, p.290)

Levy also proposes that sex robots could help to reduce prostitution. However, studies have found that the introduction of new technology supports and contributes to the expansion of the sex industry. There are more women employed by the sex industry than any other time in history. Prostitution and pornography production also rises with the growth of the internet. In 1990, 5.6 per cent of men reported paying for sex in their lifetime, by 2000, this had increased to 8.8 per cent. (Richardson, 2016a, p. 291)

Richardson’s statements that technology contributes to the expansion of the sex industry are vague. The definition of “sex industry” is unclear, as is the link between the growth of the internet and the number of women employed by the sex industry and amount of men reporting paying for sex. We know little of how this information is connected to each other. Increases in numbers could simply be a result of improved psychometrics. There is also no direct sources attributed to the statement that “studies have found that the introduction of new technology supports and contributes to the expansion of the sex industry” and it is unclear whether the

reported statistics are on consensual sex work, sex trafficking, or both, as the source from which they are taken from consider victims or trafficking as prostitutes. Also, Richardson uses world-wide statistics which include data from various socio-geographical locations, whose cultural and political contexts may play an important role in the experience and construction of sex workers. Again, the claim of causality between sex work, pornography, and trafficking is weaved with very little data to support it.

The conflation of sex work and sex trafficking and the use of sex trafficking statistics to portray sex work in a negative light is a common tactic amongst radical feminists (Belak & Bennett, 2016; Bernstein, 2012; Farley, 2004; MacKinnon, 2011; Weitzer, 2005a). This conflation is incredibly problematic because it not only misrepresents sex work, but it actively impacts sex workers and trafficked individuals in a negative way. Canadian sex workers and advocates stress that confounding sex work and trafficking is harmful because it discourages non-trafficked sex workers from reporting instances of violence, deters sex workers from getting needed support from friends and coworkers, falsely represents the experiences of racialized and indigenous sex workers, and hampers the conviction of actual cases of coercion (Belak & Bennett, 2016).

Equally problematic is the construction of robot/doll sex as an enactment of immoral fantasies. The act is presented as wrong by its very nature, regardless of whether tangible harm happens, which emboldens claims about the motivations of sex robot/doll users:

There is nothing less erotic than someone believing or insisting that whatever else might be going on in another person's mind – even “I do not want this” – they still have the right to have their “sexual needs” met. **The people who are attracted to the idea of sex robots are the people who look at women and sex in this way** (Orr, 2016).

‘The danger of sex robots lies in what we read into them, how we form fantasies that, in some respects, become a reality—a **reality where the human (male) user is expected to turn on his woman robot companion for his own, lone, pleasure.** I think most of us

would agree that this is very far from a healthy, mutual, sexual relationship.’ (Erik Billing from the Campaign against Sex Robots, in Hanson, 2015).

There are already more than a dozen [robot] brothels in major cities where men can engage in their sex fantasies – including activities so extreme that human prostitutes refuse to participate (Banzhaf, 2019).

With very little knowledge of the technology and no engagement with actual users, people are quick to construct robot/doll sex in the exact way that radical feminists have constructed pornography and sex work: *inherently* deviant, especially when practiced or fantasized by men. Radical feminists construct men’s fantasies in a reality-based way that women’s fantasies are not (Echols, 1983). If a man’s fantasies are violent or non-normative, they are believed to mirror his violent and distasteful nature, and possibly exacerbate it (Echols, 1983). Research actually demonstrates that both men and women have fantasies of submission and domination (Joyal, 2015). However, in radical feminist discourse, women’s fantasies are not subjected to the same debasing logic because their sexuality is constructed as a binary opposite: tame, controlled, emotional (Echols, 1983). This discourse is incredibly stigmatizing in that it stereotypes a sexual act or fantasy with no regard to the personality, motivations, or actual actions of the person who engages in the activity. For example, no evidence, example, or explanation is given to support Banzhaf’s (2019) statement that men are using sex robot brothels to engage in fantasies so “extreme” that sex workers “refuse to participate” in. This is accompanied by the statement that “dozens” of **robot** brothels exist, a claim that extensive research fails to support. For an informed reader, these statements are easily dismissed as either hyperbolic or pure fabrication; something that may not be obvious to the average internet browser.

There is a trend for critics of sex robots to assume that consumers are attracted to sex robots for their ability to reproduce non-consensual sexual interactions, without considering

other possible reasons. Similar statements about sex work have been made by radical feminists who have said sex work can never be consensual and is a form of serial rape, suggesting that sex work clients are attracted to non-consensual encounters and are essentially rapists (e.g. Mackinnon, 2011). However, there are many reasons why a person may want to experiment with a sex robot: perhaps the user has a specific fetish for robots or objects, wants to improve their sexual skills, is using the robot for therapeutic reasons, or to overcome sexual dysfunction. Perhaps users simply want to spice up their sex life...to name a few possibilities. In Lancaster-James and Bentley's (2018) qualitative questionnaire, sex doll owners indicated companionship, sex, difficulties with real relationships, masturbatory aid, mental health, and photography to be the main motivations for doll ownership, and the inability to respond was one of the most reported cons of the dolls. Additionally, as previously mentioned, people who use dolls engage in romantic, caring, and empathetic activities (Döring & Pöschl, 2018; Lancaster-James & Bentley, 2018). Sex doll research does not indicate that the reproduction of sexually violent fantasies is a generalizable motivation for use, and there is such scarce research on the demographics of the population that desires sexual relationships with sex robots specifically that it is highly inappropriate to simply assume that motivations are rooted in malice. As is typically the case with sexual minorities, the nuance, complexity, and moral spectrum allowed to "normal sexual activities" is not allowed with sex doll/robot use (Rubin, 1984). For sex robot critics, sex robots seem to only exist at the extreme of a moral/immoral sex binary.

Even if some individuals use sex robots to reproduce "unnerving fantasies," this tells us very little about the morality of these individuals. Assuming that sex robots remain non-sentient, robot/doll sex is not sex with another "person." It may "bring life" to a fantasy, but it does not actually make the fantasy real. A school girl costume may make a teacher/student fantasy feel

more realistic, but it does not actualize an illegal student/professor sexual interaction.

Representations of sex robots in anti sex robot academic and online news articles reproduce radical feminist constructions of male fantasies as based in reality (Echols, 1983). Fantasies are misconstrued and used as evidence of the sexual selfishness and non-empathetic nature of men.

This is an incredibly narrow understanding of sexual fantasy. Almost everyone has sexual fantasies, which are widely diverse, and vary in function (Lehmiller, 2018). They are used for arousal, reducing sexual anxiety, exploring nontraditional gender and sex roles, and can even provide self-protective functions (Birnbaum et al., 2012). Individuals primed to feel anxious or insecure are more likely to fantasize about emotionless sex compared to individuals primed to feel secure, demonstrating that they can be used as a tool to prevent further emotional harm (Birnbaum et al., 2012). Research contradicts the radical feminist construct that sexual fantasies are representative of real-life desires (Lehmiller, 2018). For example, though fantasies about forced sex are common among women (31-57%), this does not indicate a desire to be assaulted and is found to be associated with frequent consensual fantasies and sexual openness (Bivona & Critelli, 2009; Bivona et al., 2012). Similarly, most men and women in relationships fantasize about someone else than their partner, but this does not indicate that they have a real desire to cheat or that they will cheat (Hicks & Leitenberg, 2001). This is not to say that it is impossible for sexual fantasies to develop into obsessions, and that some individuals may try to carry out fantasies in real life. Psychologists stress that when problematizing fantasies, emphasis should be put on effect rather than content (Joyal, et al., 2015) Individuals should be given the tools and resources to recognize and seek help for problematic fantasies. Thus, besides shame, guilt, and ostracization, the limited perspective on fantasy promoted by radical feminist discourse has very little to offer individuals with “fringe” fantasies, neither does it do much societal good. Instead of

defining people by their fantasies, an open minded, non-stigmatizing dialogue could be used to help people navigate conflicting fantasies.

Sex Worker Victimization and Disposability

Though many of the online news articles and some of the academic literature (e.g. Richardson 2016a, 2016b; Sparrow, 2017) were lacking sex positive perspectives, a significant portion of the academic texts did use what can be identified as sex positive frameworks when discussing sex robots: sex robots were not constructed as inherently harmful, equal examples of possible advantages and disadvantages were provided, and the need for greater research was emphasized. Rather than making concluding statements on the morality of sex robots, authors prioritized the role of design, distribution, and education in creating positive outcomes (e.g. Danaher, 2017b; Döring & Pöschl, 2018; Sullins, 2012). Unfortunately, this balanced approach was peculiarly lacking in conversations about sex work. Across most sex robot academic texts, sex work was constructed as inherently harmful, and a phenomenon which needs to be eradicated, even when these texts were sex positive towards robots. The construction of sex work as inherently harmful is rather unsurprising when coming from anti-sex robot and anti-sex work authors such as Richardson (2016a; 2016b), but is intriguing when found in otherwise neutral articles or by seemingly sex positive authors. In many texts that speak positively about sex robots, the technological displacement of sex workers is presumed to be a positive societal outcome, and the eradication of sex work is presented as a desirable goal:

Robot sex offers a solution to a host of problems associated with the sex trade. Given the rise of incurable STI's...and the problems associated with human trafficking and sex tourism it is likely that we will see an increase in demand for alternative forms of sexual expression. In 2050, Amsterdam's red light district will be all about android prostitutes who are clean of sexual transmitted diseases, not smuggled in from Eastern Europe and forced into slavery. Android prostitutes will be both aesthetically pleasing and able to provide guaranteed performance and stimulation (Yeoman & Mars, 2012, p. 366).

By presenting this imagined future as a positive solution, Yeoman and Mars (2012) construct sex work as a problem needing to be stopped and reinforce stigmatizing narratives about both workers and clients. Notice once again the failure to distinguish between sex work and sex trafficking, as well as stereotyping sex workers as STI ridden—a stereotype sex workers are confronted with regularly (Bruckert & Chabot, 2014).

Later in the text, the possibility that sex workers may be upset by these changes is acknowledged, but the issue is quickly dismissed to further praise a new world free of human sex work while further stereotyping clients as liars and cheaters.

The only social issues surrounding the club is the resistance from human sex workers who say they can't compete on price and quality, therefore forcing many of them to close their shop windows. All in all, the regeneration of Amsterdam's sex industry has been about the success of the new breed of sex worker. **Even clients feel guilt free as they haven't had sex with a real person and therefore don't have to lie to their partner** (Yeoman & Mars, 2012, p. 367).

As has been discussed in this text, the construction of sex workers as victims and clients as deviants is heavily promoted by radical feminists and is foundational to prostitution laws that criminalize clients (Belak & Bennett, 2016; Bernstein 2010, 2012; Bruckert, 2015; Durisin, et al., 2018; Farley, 2004; MacKinnon, 2011). By contributing to these constructions, these authors (perhaps unknowingly) reaffirm ideologies at the root of criminalizing legal models that have been shown to fail to protect sex workers, have negative impacts on their livelihood and wellbeing, and increase violence by driving the market underground (Belak & Bennett, 2016; Benoit et al., 2014; Bruckert, 2015; Bruckert & Hannem, 2013; Durisin, et al., 2018; Ka Hon Chu & Glass, 2013; Krüsi et al., 2016). These narratives are reductive and insufficient representations of the expressed complex realities of sex workers and sex work clients.

Even Levy, who has gone to great lengths to rationalize the purchase of sex in his book, seems to have accepted the construction of sex work as inherently harmful by supporting the

technological displacement of sex workers. Though Levy (2007b) briefly mentions that sex workers may suffer from sex robot popularization, in trying to convince the reader of the benefits of sex robots, the complexity of sex work and the serious problems of current sex work law are discounted:

It is common perception that prostitution is a “bad thing” for the sex workers. This is because it is seen *inter alia*, as degrading them... If this is so...the introduction of robot prostitutes can only be a ‘good thing’, because it will most likely cause a dramatic drop in the numbers who ply their trade (Levy, 2007b, p.5).

With a robot prostitute, the control of disease is implicit—simply remove the active parts and put them in the disinfecting machine...Certainly, there are some questions to be answered by the lawmakers of the future regarding robot prostitution. Should it be illegal to have a bevy of robot prostitutes (a robot brothel)? Why should it be, since all current laws apply only to human prostitutes?” (Levy, 2007a, p. 300).

This is perhaps the most dangerous discourse to emerge from the sex robot literature. By portraying the reduction or elimination of sex work as a positive outcome, and by failing to fully engage with the legal complexities or consequences of sex work displacement, abolitionist discourses of sex work as inherently harmful are implicitly reinforced. This undermines ongoing efforts of sex workers to improve sex work law, ignores the expressed realities of sex workers, fuels narratives of victimization, reinforces client stereotypes, and supports discriminatory laws.

Positively representing the eradication of sex work is especially insidious when done by authors who seemingly promote sexual openness and positivity. Very little, if any, consideration is given to what consequences technological displacement could have on the lives of sex workers (or clients for that matter). Failing to question the impact of technological displacement on the incomes, livelihood, and safety of sex workers devalues their work. Worse, presenting sex workers as so easily replaceable reinforces a discourse of sex worker disposability that has been found to encourage violence against sex workers (Lowman, 2000). By assuming their

interchangeability, these statements also trivialize relationships between sex workers and clients, and relationships between sex robot/dolls and their users.

Missing Perspectives

The trivialization of the realities of sex workers, sex clients, and sex robot/doll users is further exacerbated by the exclusion of these populations in the samples. When analyzing both samples, it was clear that sex work and sex robot/doll use was discussed as a theoretical phenomenon rather than practices involving very real people. Sex workers, sex work clients, and sex robot/doll users were rarely, if ever, directly included in the literature. The academic articles in my samples especially failed to include diverse perspectives from workers, who were surprisingly more heavily featured in the online media sample. This may be caused by the larger sample size of the online articles, however, my extensive scan of the academic literature on sex robots has not produced any research that directly includes sex workers (through interviews or direct quotes). This is not to say that no such research exists, but if it does, it is scarce.

In the online news sample, only five articles featured the opinions of sex workers or sex work advocates on sex robots. Sex worker sentiment towards sex robots ranged from enthusiasm to concern. Some sex workers expressed excitement for the new technology, looked forward to including it into their work, or simply did not feel that it could threaten human services:

As an honest-to-goodness, flesh-and-blood, cougar-ific cuddle queen I am very excited about the addition of sex-bot playtime and remote interaction options at the brothel (Stella Renée, employee at Cathouse, a Nevada brothel; Robitzki, 2019).

I'm not really bothered by it. Sex toys have been around for centuries. Most customers come in for the human interaction. (Lisa Grace employee at Cathouse; Robitzki, 2019) The therapeutic value of it could be amazing," Davis said, noting she doesn't even view them as competition. "It's like a massage chair versus a masseuse. While they may claim to feel real, they're not, and there's no way those dolls feel real once you're doing it ...

They can't respond to the nuances of what you're looking for (Susan Davis, Vancouver sex worker and advocate, Green, 2018).

Others were against sex robots/dolls, fearing that they could encourage potential clients to treat them as objects:

I feel sex doll brothels support the idea that sex workers are mere objects, devoid of agency, to be used and abused by their patrons (Roxanne Price, employee of Sheri's Ranch, a Nevada brothel; "Nevada brothel workers fight back against sex robots," 2018)

Sex doll brothels encourage disrespect toward women and promote a lack of empathy in sexual interactions (Red Diamonds, employee of Sheri's Ranch; "Nevada brothel workers fight back against sex robots," 2018).

These statements are especially interesting in that they are reminiscent of the statements made against sex work. It is understandable that sex workers would have concerns about the impact of the development of sex robots on their livelihood, and given this, it is important that their perspectives are heard. Nevertheless, it remains essential that such perspectives continue to be critically evaluated. Even perspectives from sexual minorities can be misinformed and can encourage stigma, discrimination and unsupported criminalization of other sexual minorities. If sex workers were to actively stand against sex robots, it may give sex robot critics more motivation to push for bans and/or criminalization. Just as sex work abolitionists cherry picked violent stories of sex work and use "reformed" sex workers to shame clients, those hopping to ban sex robots may take advantage of anti-sex robot perspectives from sex workers to push their agendas (Bernstein, 2012; Bruckert, 2015; Khan, 2018). As is often the case with sexual stigma and discrimination, the negative consequences of anti-sex robot talk and law will likely most affect disenfranchised groups (Kulick, 2005; Fischer et al., 2002; Van Brunschot, 2008).

These small fragments of sex worker perspectives are not nearly enough to make any conclusions about the threat of sex robots to sex workers, however, they highlight that sex workers clearly view themselves as implicated by the issue. Given the reoccurring framing of sex robots as "positive" alternatives to sex work, sex workers absolutely need to be included in

impending legislation and case law. There is a seriously unsettling tendency to exclude sex workers from research and legal decisions, policy decisions, and debates that concern them (Bruckert, 2015; Clamen et al., 2013; Lowman, 2013; Mathieu, 2003). One sex work advocate was hopeful about the potential that sex robot brothels would open up conversations about discrimination: “I think it’ll open up a bigger conversation hopefully around...how decriminalization will allow sex workers to work in safety, to have rights, and to validate that it’s a form of work” (Monica Forrester in Shugerman, 2018b). Indeed, as sex robots will likely force us to consider sex laws, they are an excellent opportunity to rethink sex work law too. As hoped by Monica, the development of sex robots may help flip the script on sex work discrimination, but only if substantial efforts are made amongst scholars and media practitioners.

Similarly, the exclusion of sex work clients and sex robot/doll owners in this conversation further stigmatizes them as societal outcasts whose desires have no value and whose perspectives hold little weight. These individuals also need platforms to explain their relationships, desires, and concerns. Richardson (2016a; 2016b) includes a few quotes from sex work clients, but they are choice sentences presented with little context that further stigmatize the clients—quotes expressing empathy and care for sex workers are conveniently excluded. Levy (2007a; 2007b) does a relatively good job of presenting sex work clients in a neutral way through literary reviews of research on the motivations and demographics of clients, but does not speak to them directly, and makes many assumptions about their willingness to replace sex work with sex robots without any information about their opinions on the issue.

Sex work clients have also been historically left out of research, but many sex work clients feel they could bring an important perspective to sex work policy debates by explaining their own experiences, which they find often contradict popular discourses (Hammond, 2015;

Sanders, 2013). Unfortunately, stigmatization and a lack of perceived legitimacy from outsiders hinders their engagement with social movements (Hammond, 2015). In Hammond's (2015) interviews, sex work clients explained that they viewed their participation in research as an opportunity to have their voices heard, change public perception, and provide meaningful contributions. Clearly, sex work clients want to be included in the conversation and, as criminals under the law, research may be a safer way for them to do so. Sex work clients' perspectives would be especially valuable in helping us form educated predictions concerning the technological displacement of sex workers.

Conclusion

The goal of this study was to consider the construction of sex work in sex robot representations and how these representations reproduce or challenge sex and gender norms, radical feminist discourses, and sex work stigma. Through the use of discourse analysis and a sex positive theoretical framework, I hoped to contribute to the sparse literature on sex robots by critically considering the consequences of the surfacing discourses in this emerging field. My analysis revealed that in the academic literature and online news media, sex robots are being constructed as sex work through the use of specific terms and associations. These constructions are problematic because they fail to capture the complexity of sex worker-client and sex robot-sex robot user dynamics—a complexity that we must understand in order to ensure the production and development of sex robots and supporting laws that can undo restrictive sex and gender norms, dismantle sexual stigma, and protect sex workers.

My findings also demonstrated that many sex robot representations reproduced sex and gender norms and sex work stigma, often through the use of radical feminist discourses. Mainly, that certain sexual practices are inherently harmful, that certain sexual practices encourage

sexism and violence, and that male and female sexuality is fundamentally different, with male sexuality being generally more immoral, harmful, or “wrong.” These discourses further outdated sex and gender norms and stigmatize sex robots and their users. Because of the consistent parallel and comparison between sex robots and sex work, these discourses also directly and indirectly serve to further stigmatize sex workers and their clients. This is worsened by a failure to include opinions from sex workers, sex work clients, and sex robot/doll users into the conversation. Only a very small percentage of my sample included personal experiences from concerned populations, which is concerning given how these are the individuals who will likely be most affected by the development of sex robots and sex robot brothels.

Interesting to my findings were differences between online and academic articles. Overall, instances of stigma and stereotypes seemed most extreme in online media articles. Online articles were more direct and obvious because they often reinforced stigma and stereotypes directly through the use of mockery, insulting terms, and vivid imagery. This was uncommon in academic articles who likely gain more from presenting what they feel is an unbiased or neutral perspective. However, the media sample was better at including perspectives from sex workers than the academic sample, in which there were none.

Though some of these findings were disconcerting, my findings also offered hope that these representations can be shifted in a sex positive direction as many authors made significant efforts to present balanced arguments, use gender neutral and inclusive language, and refrained from making assumptions about individual’s sexual preferences and motivations. Some even spoke outright about the need to accept sexual diversity. The development of sex robots is a great opportunity to challenge our ideas of gender norms, sexual scripts, and dismantle sexual stigma. Instead of contributing to the reproduction of stigma, scholars and journalists have an

opportunity to begin a conversation about how sex robots can be designed, distributed, and used to improve our attitudes towards gender, sex, relationships, and sex work. Sex workers, sex work clients, and sex robot/doll users must be included into this conversation. Online news writers should exemplify academics who use more gender inclusive language, do not stigmatize or stereotype, and present more balanced arguments, while academics can learn from journalists who have made efforts to include sex workers into the conversation.

Limitations and Future Directions

Of course, this study was not without limitations. Though my samples were similar in terms of volume (amount of text) and representation (there exists more sex robot news articles than academic articles), there was still an important difference in terms of number of articles in each sample, and both samples were much smaller than the sample used by Döring and Poeschl (2019). Furthermore, with a limited sample of online articles, it is difficult to determine how representative the sample is, especially given the abundance of newly published articles on the web every day. However, I believe that these samples provided me with enough material to highlight some of the most problematic discourses emerging from sex robot representations, with the goal of cueing other writers and scholars into some of these patterns.

Though research finds that academic research and news media has historically influenced stigmatizing beliefs about sex work, given the method used in my project, it is difficult to know whether sex robot representations specifically impact individual beliefs about sex work. Therefore, the use of experimental designs that compare attitudes towards gender norms, sex norms and sex work before and after exposure to sex robot media, may be especially insightful.

One interesting outcome came not from my analysis but from the selection of samples. Unfortunately, I was unable to identify any particularly interesting discourses emerging from

Canadian articles, and this is likely a limitation of my design which did not allow for a true comparison between American and Canadian articles. However, I noticed that Canadian news sites produced dramatically fewer search results on the topic of sex robots than American news sites. The Toronto Star and Toronto Sun were exceptional, featuring substantially more sex robot articles than their Canadian counterparts, possibly because recent openings and closings of sex doll brothels in Toronto has had a significant impact on the city. It is also possible that the list of Canadian websites I developed through my research featured news sites that were less likely to report on this specific subject. However, given the current struggle in Canada over sex work law, the lack of available media on sex robots was concerning. Sex workers already lament that current Canadian sex work law puts their lives at a greater risk, further stigmatizes and discredits them, and makes their livelihood and work more difficult. Considering this, Canada should be especially careful that the development and distribution of sex robots does not further marginalize sex workers and use this opportunity to reconsider and renegotiate sex work laws. Bearing in mind this legal context, research on emerging sex robot discourses in Canada may be especially insightful. Future researchers should also consider using surveys or interviews to ask Canadian sex workers and sex work clients about their feelings on the issue. Of course, under current laws, sex workers and clients may be reluctant to participate, and researchers should take great care to ensure participant anonymity and safety.

On this same note, further research is needed to understand who would use sex robots and if they would use them as a form of “replacement” for sex work. In depth interviews could possibly illuminate researchers to the motivations of sex doll and potential sex robot users in a way that cannot be captured with surveys. Researchers will need to be empathetic to the stigma against sex doll/robot users and ensure that their research does not further stigmatize or

marginalize these groups. Research on sex work clients, and whether they would consider “switching” to sex robots, may also help inform whether sex robot policies should be developed with the technological displacement of sex workers in mind. Again, this will be difficult given that sex work clients are criminalized and stigmatized, but with proper ethics of care, the results of this research could be quite rewarding for both researchers and participants.

The field of sex robots is only beginning to emerge, making it the perfect opportunity for researchers, scholars, and media authors to centre destigmatizing narratives and peacemaking efforts. Determining whether sex robots will truly cause harm is near impossible. Efforts would be best directed towards motivating developers to make varied and inclusive robots, and on policy and legal bodies to seriously consider how they can ensure sex worker safety and livelihood through sex robot popularization. My hope is that my research can inspire future authors to be more inclusive in their work and reach out to sex workers, sex clients, and sex doll/robot users to help ensure that their perspectives are heard, their needs valued, and their rights respected.

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Appendix A: Figures



Figure 1. Vaucanson's Defecating Duck. Retrieved from <https://www.anfrix.com/2007/06/construyendo-la-vida-la-increible-obra-de-jacques-de-vaucanson/>



Figure 3. Hasbro's Baby Alive Doll "eats," "pees," and "poops." Retrieved from <https://babyalive.hasbro.com/en-us/product/baby-alive-happy-hungry-baby-black-straight-hair-doll:6AEE8BB7-3D39-48FE-989F-53E629504448>



Figure 2. Sybian sex toy. Featuring a motorized mountable rod onto which attachments can be placed. Retrieved from: <https://www.yourlifestyle.eu/sybian.html>

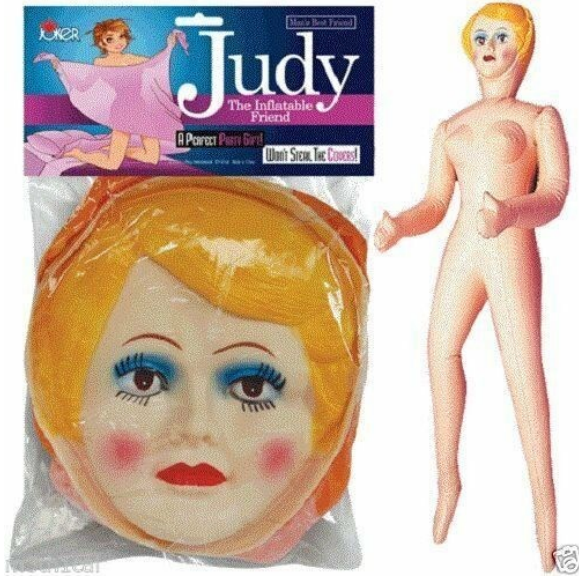


Figure 4. A “Judy Inflatable Friend” available on Ebay for \$19.99USD. Retrieved from <https://www.ebay.ca/c/27004692816?iid=253029608696>



Figure 5. Violet 2.0, a high quality sex doll offered by RealDoll. Retrieved from <https://www.realdoll.com/product/violet-2-0/>



Figure 6. Harmony^x, RealDoll's first sex robot: features a robotic head and accompanying A.I. application. Retrieved from <https://www.realdoll.com/product/harmony-x/>



Figure 7. Solanax, RealDoll's newest sex robot. Retrieved from <https://www.realdoll.com/product/solana-x/>



Figure 8. Roxxy with creator Douglas Hines. ROBYN BECK/AFP via Getty Images. Retrieved from <https://www.gettyimages.ca/detail/news-photo/engineer-inventor-douglas-hines-poses-with-his-companys-news-photo/95673215?adppopup=true>



Figure 9. Image of a male form sex doll found in one of the online article samples. Retrieved from <https://in.news.yahoo.com/japanese-sex-robot-brothel-offers-152406441.html>

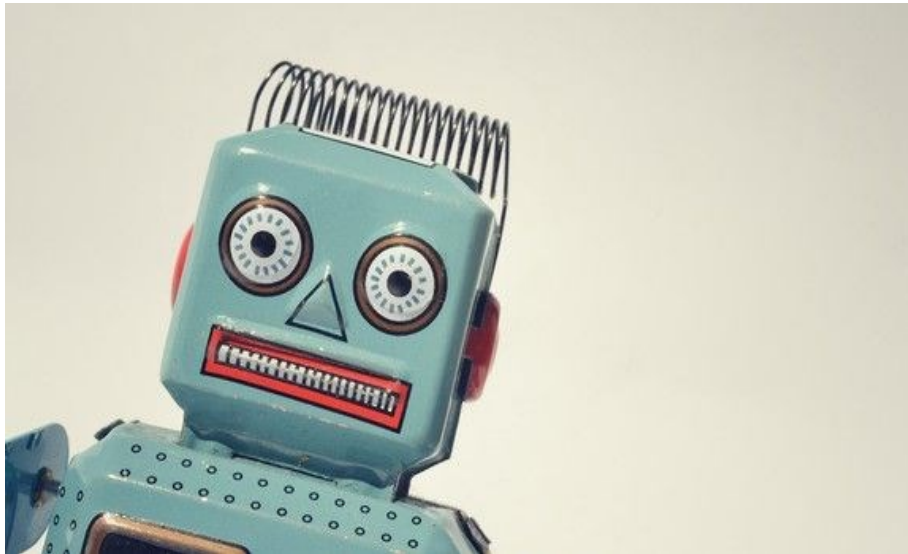


Figure 10. Image of robot with gender neutral form.
Retrieved from <https://finance.yahoo.com/news/looks-first-u-robot-brothel-001012917.html>

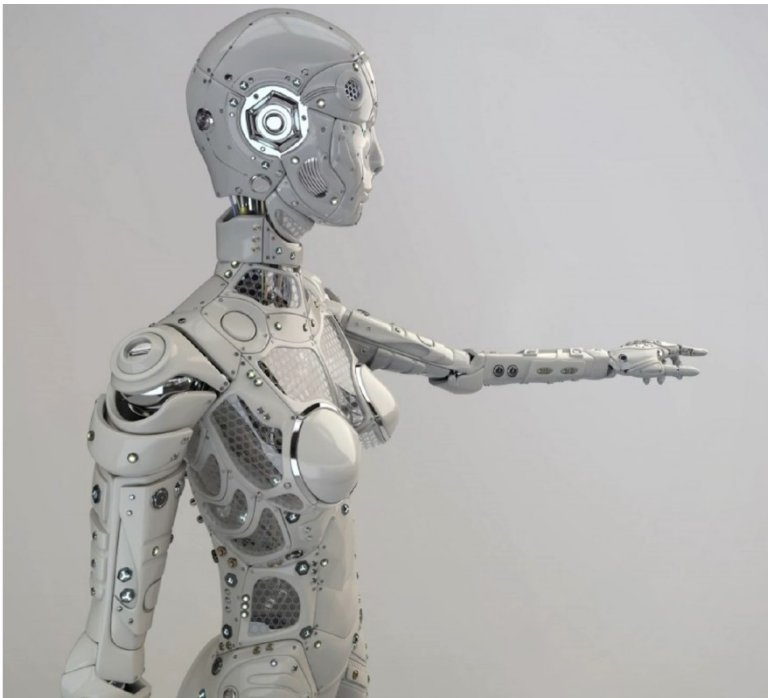


Figure 11. Image in online news sample that could be considered gender neutral but has cis female characteristics (i.e. breasts).
Retrieved from <https://www.yahoo.com/tech/looks-first-u-robot-brothel-001012917.html>



Figure 12. Image of legs wearing high heels in Solomon (2018). Retrieved from <https://www.texasmonthly.com/the-culture/everything-need-know-sex-robot-brothel-opening-houston/>



Figure 13. Image of a Realdoll ready for shipment in online news article. Photograph by Jonathan Becker. Retrieved from: <https://www.theguardian.com/technology/2015/dec/13/sex-love-and-robots-the-end-of-intimacy>



Figure 14. Image of sex doll legs in online news article. Photo by Rex Features. Retrieved from <https://www.independent.co.uk/life-style/love-sex/sex-robot-brothel-consensual-ai-california-flirt-virgin-first-consent-a8624201.html>



Figure 15. Image of sex doll in online news article. Retrieved from <https://torontosun.com/news/world/mon-dieu-first-sex-doll-brothel-opens-in-paris>



Figure 16. Synthetics clients can customize their dolls with non-human options. “Willow” has fangs, horns, cat like eyes and a forked tongue. Retrieved from <https://www.dsdoll.us/home>



Figure 17. “CreatureCock,” fantasy dildo by MonsterCocks. Retrieved from <https://www.monster-cocks.com/product/creaturecock/>

Appendix B: Sample Tables

Table 1

Sample of Academic Literature

Title	Author(s) (Year)	Score	Sex work ^a	Sex robots ^b
<i>Love + Sex with Robots: The Evolution of Human-Robot Relations</i>	Levy, D. (2007)	5670	Significant focus	Positive
<i>Robots, men and sex tourism</i>	Yeoman, I., & Mars, M. (2012)	1467	Significant Focus	Positive
<i>Robots, love, and sex: The ethics of building a love machine.</i>	Sullins, J. P. (2012)	993	Direct Reference	Neutral
<i>The asymmetrical “relationship”: Parallels between prostitution and the development of sex robots</i>	Richardson, K. (2016)	964	Significant Focus	Negative
<i>Robots, rape, and representation</i>	Sparrow, R. (2017)	613	Direct Reference	Neutral-Negative
<i>Sex robot matters: Slavery, the prostituted, and the rights of machines</i>	Richardson, K. (2016)	418	Significant focus	Negative
<i>Robot Sex: Social and Ethical Implications^c</i>	Danaher, J. & McArthur, N. (Eds; 2017)	390	Significant focus	Neutral-Positive
1. <i>Should we be thinking about robot sex?</i>	Danaher, J.			
2. <i>On the very idea of sex with robots</i>	Migotti, M. & Wyatt, N.			
3 <i>The Case for Sexbots</i>	McArthur, N.			
4. <i>Should we campaign against sex robots?</i>	Danaher, J., Earp, B. & Sandberg A.			
5. <i>Sex robots and the rights of the disabled</i>	Di Nucci, E.			
6. <i>Religious perspectives on sex with robots</i>	Herzeld N.			
7. <i>The symbolic-consequences argument in the sex robot debate</i>	Danaher, J.			
8. <i>Legal and moral implications of child sex robots</i>	Strikwerda, L.			
9. <i>Is it good for them too? Ethical concern for the sexbots</i>	Peterson, S.			

<i>10 Was it good for you too? The new natural law theory and the paradoxical good of sexbots</i>	Goldstein, J. D.			
<i>11. Automatic sweethearts for transhumanists</i>	Hauskeller, M.			
<i>12. From sex robots to love robots: Is mutual love with a robot possible?</i>	Nyholm, S. & Frank, L. E.			
<i>13. Intimacy, bonding, and sex robots: Examining empirical results and exploring ethical ramifications</i>	Scheutz, M. & Arnold, T.			
<i>14. Deus sex Machina: Loving robot sex workers and the allure of an insincere kiss</i>	Carpenter, J.			
<i>15. Sexbot-induced social change: An economic perspective</i>	Adshade, M.			
<i>Robot Prostitutes as Alternatives to Human Sex Workers</i>	Levy, D. (2007)	300	Significant focus	Positive
<i>Sex toys, sex dolls, sex robots: Our under-researched bed-fellows</i>	Döring, N., & Pöschl, S (2018)	288	Direct Reference	Neutral

Note. Ordered from highest to lowest cumulative score.

^aAmount that discussions of sex work are featured in the sample.

^bAttitude towards sex robot of the sample.

^cThis book contains chapters written by various authors, but was considered as a whole for scoring and categorization purposes. When specific parts are mentioned in the analysis, the author of the relevant chapter is cited.

Table 2*List of Online English News Sites by Country*

U.S. and Europe	Canadian
Yahoo News.com	The Globe and Mail
Google News.com	Yahoo News Canada
Huffington Post	Toronto Star
CNN	CBC
New York Times	Calgary Herald
Fox News	Hamilton Spectator
NBC news	The Province
Daily Mail Online	CTV News
The Washington Post	Huffington Post (Canada)
The Guardian	Global News
WSJ	Toronto Sun
ABC News	BlogTO
BBC News	Vancouver Sun
USA Today	MacLeans
LA Times	Ottawa Citizen

Table 3*Sample of Online News Articles*

Title	Author(s) (Date)	News outlet
A sex doll that can talk - but is it perfect Harmony?	Wakefield, J. (2017, May 15)	<i>BBC News</i>
A UFO-themed brothel is now providing remote services for its alien sex robots	Dunn, T. (2019, November 7)	<i>Boing Boing</i>
AI sex robots will turn down steamy encounters “if they’re not in the mood” or are being treated with disrespect, claims inventor	Weston, P. (2018, June 18)	<i>Mail Online</i>
An alien-themed brothel just bought a sex robot	Robitzki, D. (2019, November 15)	<i>Futurism</i>
As sexbot technology advances, ethical And legal questions linger	Mellgard (2015, September 22)	<i>HuffPost Canada</i>
At last, a cure for feminism: Sex robots.	Orr, D. (2016, June 10)	<i>The Guardian</i>
California cult leader Unicole Unicron plans sex-robot brothel—with a twist	Shugerman, E. (2018b October 1)	<i>The Daily Beast</i>
Canadian company plans robot brothel in Houston.	Lozano, J. A. (2018a, September 27)	<i>CTV News</i>
Claims about social benefits of sex robots greatly overstated, say experts. <i>The Guardian</i> .	Davis, N. (2018, June 4)	<i>The Guardian</i>
Controversial “consensual” sex robot brothel claims to be world’s first.	Ritschel, C. (2018, November 8)	<i>The Independent</i>
Country’s first “robot sex brothel” set to open in Texas prompts backlash: Report	Brown, B. (2018, September 25)	<i>Fox News</i>
Dad lets sex robot spend time with his kids	Pearce, A. (2018, January 31)	<i>Yahoo Lifestyle</i>
Do you take this robot...	Williams, A. (2019, January 19)	<i>The New York Times</i>
Don’t worry about sex robots. They won’t ruin sex.	Dickson, E. (2016)	<i>Washington Post</i>
Everything you should know about the proposed sex robot brothel in Houston.	Soloman, D. (2018, October 3)	<i>Texas Monthly</i>
First robot brothel opens in Russia aimed at Moscow’s city workers and entrepreneurs	Dyer, C. (2018, October 3)	<i>Mail Online</i>

FOXSexpert: Could robots be the future of love and sex?	Fulbright, Y. K. (2015, March 25)	<i>Fox News</i>
Houston has a problem with Canadian company's plan to build "robot brothel."	The Associated Press (2018, September 30)	<i>CTV News</i>
Houston lawmakers aim to block first U.S. sex-robot brothel	Shugerman, E. (2018b, October 1)	<i>The Daily Beast</i>
Houston mayor pushes back against "sex robot brothel": Not "sort of business that I want."	Bludau, J. (2018, September 27)	<i>USA TODAY</i>
Houston mayor wants to 'regulate' robot sex brothel coming to Texas	Riotta, C. (2018, September 27)	<i>The Independent</i>
Houston officials halt plans to open first US "sex robot brothel" in city	Barnes, T. (2018, October 1)	<i>The Independent</i>
Houston's 'robot sex brothel' faces city hurdle: Report.	N.A. (2018, October 1)	<i>Fox News</i>
Houston short circuits Canadian company's plan to open robot brothel	Lozano, J. A. (2018, October 3)	<i>Global News</i>
"Keep robot brothels out of Houston": Sex doll company faces pushback	Dart, T. (2018, October 2)	<i>The Guardian</i>
Looks like the first U.S. robot brothel isn't happening ... yet.	Wagstaff, k. (2018, October 3)	<i>Mashable Tech</i>
Love among the robots	Sibley (2008, January 28)	<i>Ottawa Citizen</i>
Mayor, community groups push back on Canadian company's proposed robot brothel in Houston.	Lozano, J. A. (2018b, September 27)	<i>The Associated Press</i>
Mayor says no to sex doll brothels in Michigan town	Reindl, J. (2019, February 7)	<i>Detroit Free Press</i>
MON DIEU! First sex doll brothel opens in Paris	Hunter, B. (2018, January 31)	<i>Toronto Sun</i>
Nevada brothel workers fight back against the rise of "dehumanizing and dangerous" sex robots, claiming the technology only promotes violence against women	N.A. (2018, September 19)	<i>Dailymail.com</i>
No, Houston won't be getting a sex robot brothel	Sorto, G. (2018, October 4)	<i>Business Insider</i>
North America's first known sex doll brothel opening in Toronto	Floody C. & Moon J. (2018, August 28)	<i>The Hamilton Spectator</i>
North America's first known sex doll brothel opening in Toronto.	Moon J. & Floody C. (2018, August 27)	<i>The Star</i>

PAGET: Why a sex doll ‘brothel’ might actually be a good thing.	Paget, S. (2018, September 17)	<i>Toronto Sun</i>
Proposed “sex robot brothel” blocked by Houston government: “We are not Sin City.”	Shannon, J. (2018, October 4)	<i>USA TODAY</i>
Robots and sex: Creepy or cool?	Moosa, T. (2014, April 7)	<i>The Guardian</i>
“Robot sex brothel” slated to open is not wanted, Houston’s mayor says	Brown, B. (2018, September 26)	<i>Fox News</i>
Robots may change the sex industry but could they replace intimacy?	Opray, M. (2017, April 5)	<i>The Guardian</i>
Scientists fear sex robots could be bad for society	Hanson, H. (2015, September 15)	<i>HuffPost Canada</i>
Sexbots will wreck marriage and save the economy	Kummer, L. (2019, November 21)	<i>Fabius Maximus Website</i>
Sex doll brothel opening in Toronto	Mok, T. (2018, August 25)	<i>BlogTO</i>
Sex doll brothel proposed for Vancouver raises eyebrows and objections	Little & Urquhart (2018, September 27)	<i>Global News</i>
Sex-doll brothels? Tacky, yes, but better than the human version	Bennett, C. (2018, March 25)	<i>The Guardian</i>
Sex, love and robots: Is this the end of intimacy?	Wiseman, E. (2015, December 13)	<i>The Observer</i>
Sex robots a reality by 2050, researchers predict.	Moye, D. (2012, May 3)	<i>HuffPost Canada</i>
Sex robots are coming, and they’re not as skeezy as you think	Baggaley, K. (2017, June 2)	<i>NBC News</i>
Sex robot brothels are to become commonplace on the streets of Britain says professor	Dunn, J. (2016, August 23)	<i>MailOnline</i>
Sex robot brothels proliferating, because they are legal	Banzhaf, J. F. (2019, November 18)	<i>ValueWalk</i>
Sex robots could “change humanity forever”: Expert warns the rise of realistic dolls may “take meaning out of our lives” by making sex “too easy.”	O’Neil, M. (2018, April 9)	<i>Mail Online</i>
Sex robots: Innovation driven by male masturbatory fantasy is no revolution.	Moore, S. (2017, July 5)	<i>The Guardian</i>
SEX ROBOTS: The future of sex.	Braun, L. (2018, March 11)	<i>Toronto Sun</i>

Sex robots will be 'detrimental' to society, ethicists say	O'Neil, L. (2015, September 17)	<i>CBC News</i>
SWEDE & SOUR: Feminists want 'dangerous' sex robots banned	Hunter, B. (2019, February 21)	<i>Toronto Sun</i>
Swedish feminists demand a ban on sex robots because they dehumanise women just like pornography	Vincent, M. (2019, February 21)	<i>Mailonline</i>
Swiss sex cafe considers using robotic prostitutes	Licata, E. (2016, November 27)	<i>The Daily Meal</i>
The Trouble With Sex Robots	Bates, L. (2017, July 17)	<i>The New York Times</i>
There's now a sex doll brothel in Mississauga	O'Neil, L. (2019, November)	<i>BlogTO</i>
This Japanese sex robot brothel offers male dolls for bisexuals	Pandey, S. (2019)	<i>NewsBytes</i>
Toronto sex doll brothel planning expansion to United States	Mok, T. (2018, September 21)	<i>BlogTO</i>
Vancouver's first 'sex doll brothel' could be opening soon	Robinson, M. (2018, September 26)	<i>Vancouver Sun</i>
Vancouver sex doll brothel a sign of diminishing demand for sex workers, says professor.	Green, M. (2018, September 26)	<i>The Star</i>
Will sex robots become the new norm? Report looks at uses of life-like robots.	Bowerman, M. (2017, July 5)	<i>USA TODAY</i>
WATCH: This Swiss brothel employs just sex robots.	Staff Reporter (2019, November 12)	<i>IOL</i>
Wired for romance	Lloyd, S. (2007, November 25)	<i>Los Angeles Times</i>

Note. Listed by title in alphabetical order.

Appendix C: Sample Statistics Tables

Table 4

Sex Work Reference in Academic Scholarship

Significant Focus	Direct Reference	Indirect Reference	Total
6	3	2	0

Table 5

Sex Robot Stance in Academic Scholarship

Positive	Negative	Neutral	Neutral-N	Neutral-P	Total
3	2	2	1	1	13

Table 6

Sex Work Reference in Online News Articles by Article Type

Article Type	Significant Focus	Direct Reference	Indirect Reference	Total
Opinion	3	7	2	13
News	30	7	0	37
Feature	6	10	1	17
Total	39	24	3	66

Table 7

Sex Robot Stance in Online News Articles by Article Type

Article Type	Positive	Negative	Neutral	Neutral-N	Neutral-P	Total
Opinion	3	5	3	1	0	13
News	1	2	23	11	0	37
Feature	0	0	12	3	2	17
Total	4	7	38	15	2	66

Table 8*Gender Featured in Images found in Online News Articles*

	Female (F)	Male (M)		Gender neutral (GN)		
		M	M + F	GN	GN + F	GN + Cis F
		1	1	5	2	2
Total	47	2		9		

Table 9*Race Representation in Images found in Online News Articles*

	W ^a	EA ^b		R/W ^c			POC ^d		
		Only EA	EA + W	Only R/W	R/W + W	R/W + W + POC	Only POC	POC + W	POC + R/W + W
		0	2	2	5	2	0	1	2
Total	46	2		9			3		

Note. Ordered from highest to lowest cumulative score.

^aWhite

^bEastern Asian

^cRacially ambiguous/white passing

^dPerson/people of colour