

# The Use and Abuse of Sex Robots: Where the Ethics Debate Goes Wrong

Noah T. Curran  
Computer Science & Engineering  
University of Michigan, Ann Arbor, MI  
ntcurran@umich.edu

**Abstract**—The area of robotics is saturated with controversy due to the rapidly increasing coverage of questionable applications. Chief among these applications is the use of robots for sexual purposes. In this paper, we first provide a broad overview of the current discourse surrounding the ethics of propagating sex robots throughout our society at large. More specifically, we review sex robots through: (1) a feminist lens; (2) a medicinal lens; (3) a free speech lens; (4) an abuse protection lens; and (5) a reproductive lens. This list, while non-exhaustive, covers the predominant areas of discussion in the conversation of sex robotic ethics. The purpose of this survey is to emphasize that there are several, equally important ethical considerations to answer before we, as a society, can ascertain the consequences of the normalization of sex robot production, ownership, and use.

Following this initial survey, we argue that the current debate format that widely employs speculative argument is unproductive. After we describe several reasons that the speculative argument format is unproductive, we propose for a complete rework of the debate structure, calling for a more rigorous scientific process when arguments are presented. We conclude our paper with the argument that sex robots are not inherently immoral in order to draw attention to the flaws in current arguments against sex robots.

## I. INTRODUCTION

The age of automation has brought several advances in robotics technology, from self-driving cars to factory lines entirely staffed by computers. Ultimately, this ubiquitous nature of robots has led to the entry of sex robots, which are tools that serve to automate the process of human sexual gratification. These sex robots encompasses both robots that are simply electronic objects that automate sexual pleasure (e.g., vibrators), and robots that hold humanoid characteristics. While the former are widespread in the United States [1], the latter are a more recent development. Amongst these developments are the sex robots Roxxy from True Companion [2] — the first sex robot with a humanoid personality — and Harmony from Realbotix [3] — the first humanoid sex robot that makes use of artificial intelligence.

Due to the presence of sexually conservative factions, it is unsurprising that sex robots are an increasingly controversial technology. While sex robots have been a popular topic of discussion in popular culture, such as in *Westworld* or *Ex Machina*, the growing interest in making them a reality has raised new pressure on the questions of how ethical they are to use and develop. Some argue that given some contexts of their use, a sex robot may be ethically sound to gratify sexual needs. However, others argue that sex robots will propagate ideals

that are harmful — or worse, dangerous — to the existence of humanity. Unfortunately, there is not much agreement about the best ways to approach the use of sex robots without much room for compromise.

In this paper, we first provide a thorough survey of the current literature with respect to the ethics of the use and development of sex robots. The survey includes a wide range of debates that occur in the sex robot ethics literature, including through: (1) a feminist lens; (2) a medicinal lens; (3) a free speech lens; (4) an abuse protection lens; and (5) a reproductive lens. For each separate topic, we describe where the majors points of contention lie, and which questions still need answered to come to a mutual consensus. Furthermore, following each individual survey, we provide additional high level questions pertaining to the use of sex robots that still remain to be answered.

Following this thorough discussion of the current literature of sex robots ethics, this paper argues that the current debate is wildly unproductive and needs a complete rework. More specifically, this paper argues that because of the common use of speculative arguments within the literature, the debate is unable to reach a proper conclusion. This paper further proposes a new approach for tackling these tough ethical questions pertaining to sex robots. Finally, this paper concludes with the argument that sex robots are not inherently immoral, and that their perceivable bad-making properties are a symptom of larger societal issues.

## II. SEX ROBOTS REINFORCE THE PATRIARCHY

From a feminist lens, sex robots are seen as a way for the patriarchy to assert dominance over a submissive sex object. The more realist the sex robot's physical appearance is and the more human-like its motions are, the line between robot and human becomes more muddled. Richardson, founder of the *Campaign Against Sex Robots*, advocates for their abolition due to this fear that they will further oppress women [4]. In her argument, she discusses that sex robots reinforce the worldview that the service they provide, sex, is a *thing* that can be bought. On the other hand, sex workers only recently won a battle to become more humanized when the terminology in the common lexicon has begun to shift away from *prostitution*, a term that implies a position of servitude, toward *sex work*, a term that implies an occupation of choice. However, Richardson asserts that sex robots would undo all of

this progress due to their *thing* status. There is some consensus on this: sex robots are made to mirror the stereotypes of female beauty [5].

Danaher, Earp, and Sandberg refute the claims of the *Campaign Against Sex Robots*, outlining several portions that they deemed unclear or defective [6]; however, they maintain the opinion that there are several, unaddressed concerns. First, they take note that Richardson concludes that sex robots have ethically problematic relations by extension of the ethically problematic nature of sex workers. They the authors argue that drawing an analogy between these two groups in such a way is a weak argument since the strength of the relation between the two groups is fairly weak.

Furthermore, the call for a *Campaign Against Sex Robots* is undoubtedly *prima facie*. There is no evidence that sex robots will reinforce sexist stigma toward sex work and no evidence to support Richardson's predictions that sex robots adoption will cause an increase in demand from the sex work industry.

Finally, Danaher, Earp, and Sandberg point out that Richardson makes three assumptions pertaining to sex work: (1) sex work has bad-making properties that are irreparable; (2) these bad-making properties will apply to sex robots in the same manner; and (3) the bad-making properties inherited by sex robots are worthy of an outright prohibition. They assert that these citations are wrong on the basis that Richardson's view of sex work is highly selective of only the bad parts. In fact, Sanders *et al.* note that it is actually just a minority who provide bad-making inputs to the sex work ecosystem [7]. Even if (1) and (2) were the case, sex robots simply need a change in regulation and social attitude — outright prohibition would be unproductive and extremist.

All this said, Danaher *et al.* notice that the objective of the *Campaign Against Sex Robots* is unclear, meaning that it has no clear indication of what kind of response should be taken. On one front, there could be an outright ban on sex robots, but on the other hand there could be a regulative approach. Richardson, neither in [4] or on her campaign's website, makes any indication of what the response should be.

From a feminist lens, there are several questions that need answering. Will more people seek the services of sex workers in a world of sex robots, or will sex robots meet human needs enough that sex workers may actually see a decline in demand? Previously, the introduction of the Internet appeared to invoke an increase in interest in sex work based on the trend over the decades [8], but it is possible the continued development of technology will reverse this trend. In another vein, will sex robots actually reinforce the patriarchal structures? Richardson thinks so, but there is clear disagreement from Danaher *et al.*. Perhaps it is too early to make an empirical argument, but time will reveal the answer.

### III. SEX ROBOTS ENABLE SEX AS A MEDICINAL TOOL

On the other hand, medical experts see sex robots as a chance to aid in medicine. In [9], Jecker asserts that sex robots would help older people with disabilities develop meaning

in life through sex's ability to provide physical, mental, and emotional health. While sex with a person would provide this need just as well, the purpose of sex robots is to increase accessibility to the benefits sex provides. Jecker argues that the marketability of sex robots should not stop just as a product for *younger, able-bodied people*; rather, they should be highly marketable to *older, disabled people*. By extension, sex robots would find use in other pockets of the disabled who struggle to find romantic partners. Therefore, there is an ethical argument to be made that sex robots have use as a tool in medicine. As a society, we have an obligation to care for the elderly and to ensure they live their final years as happy as they can be, including in their sex lives.

However, while it is certainly a great idea to utilize sex robots to meet the sexual needs of disabled people, Boni-Saenz rebuts that this sex may not be enough [10]. He points out that Jecker's argument that masturbation cannot replace real sex undermines her own argument. While having sex with a robot and masturbating are irrefutably different activities, the end result is the same — there is no sexual engagement with another living person. This begs the question: "are sex robots enough?" The answer to this question depends on the person having sex with the robot. If they desire sex with another person, then it is unlikely a robot will meet their sexual needs. However, if a person sees sex robots as a sufficient replacement for another person or prefers having sex with digital technologies, then it may not matter. Nevertheless, providing access to sex robots would certainly be a step toward improving the sex lives of some people; they just may not be the fix-all Jecker argues they could be. Boni-Saenz provides a solution for the rest of the population: apply this ethical argument to providing medical access to sex work. In fact, the Netherlands have already implemented such a system since sex work is legal there [11].

Furthermore, sex robots have the property of being non-biological. As a result, they are unable to become sick with sexual diseases. Therefore, with proper cleaning before and after use, sex robots would be able to provide sex without the risk of becoming infected by a sexually transmitted disease. This makes the adoption of sex robots in a medical environment all the more plausible, especially over medically prescribed sex workers. As a side bar, this may encourage the adoption of sex robots within sex work facilities, such as brothels, as the facility can guarantee the cleanliness of the robots.

Finally, there is argument that sex robots should follow the guidelines of machine medical ethics, a field of research that attempts to define the ethics of medicine with machines as the moral subjects [12]. Bendel argues that this is because "a sex life that fulfills the individual needs surely contributes to health and well-being." Thus, sex robots are medical robots because they promote human health and well-being. This falls in line with the argument that sex robots can and should be used as a medicinal tool. Since they exist to promote a fulfilling life, they can be leveraged as a medicine for therapy.

So it is clear: sex robots may have some benefits on human-

ity. Therefore, it seems it might be extreme to abolish their use altogether. However, are strict regulations the requirement? Or are sex robots not as bad as opponents make them out to be? From a medicinal perspective, what are the long term implications of utilizing robots to meet patients sexual needs? Will it actually promote their well-being? Or will it do more harm than good due to raising expectations of how sex with another person should be?

#### IV. OWNERSHIP OF SEX ROBOTS IS PROTECTED SPEECH

Within the United States, there are some who believe that regardless of the consequences of the ownership of sex robots, it is protected speech to possess one. At worst, one could argue that sex robots are obscene material. Even so, the Supreme Court ruled in *Stanley v. Georgia* that the private ownership of obscene material is a First Amendment right [13]. By this same token, one could then argue that there is an ethical duty to protect the ownership of sex robots. However, it should be noted that this does not protect the *distribution* of sex robots.

However, Maras and Shapiro point out that this would not protect the ownership of all sex robots [14]. Specifically, they point out that child-resembling sex robots (and sex dolls) could qualify for a ban. First, they argue that child-resembling sex robots are obscene. Then, they argue that they are "realistic virtual representations of children," which qualifies them for criminalization through the Child Pornography Prevention Act (CPPA) [15]. It is important to note that *Ashcroft v. Free Speech Coalition* ruled the CPPA as unconstitutional [16]. As a result, the PROTECT Act of 2003 was passed with several amendments to fit into the confines of constitutionality [17]. Finally, they state that in *Osborne v. Ohio*, where the Supreme Court held that "[child pornography] produced by child pornographers permanently record the victim's abuse. The pornography's existence causes the child victims continuing harm by haunting the children in years to come," [18] which serves as a strong argument for why child-resembling sex robots are also harmful. They contend that child-resembling sex robots are a moral harm, specifically for child victims.

Another point of contention is whether or not it is allowable to create sex robots that resemble the likeness of a celebrity or an ex-significant other, whether they are dead or alive. What is clear is that creating sex objects that use a person's name or likeness without their consent is a suable offense in several states in the United States [19]. However, there exists a legal question when the sex robot does not have the likeness of a real person, but is similar looking to them without their consent. On this topic, Real Doll and Realbotix founder Matt McMullen considers it an ethical concern to create a sex robot that looks even just remotely similar to another person without that person's consent, and refuses to create such a sex robot as a result [20]. However, some companies, such as True Companion, are willing to step into this realm of moral ambiguity and create sex robots that are similar looking to celebrities or other real people [21]. On the other hand, Levy believes the demand for sex robots will encourage some

celebrities to approve for their likeness to be used for the creation and sale of sex robots [22]. In sum, the likeness of an individual is protected and protected speech does not supersede this.

Maras and Shapiro further make the claim that sex robots in general actually erode the moral standards of society. They draw this conclusion because of their belief that all obscene materials contribute to the degradation of moral standards, mainly due to their tendency to jeopardize a decent society. They draw inspiration from *Roth v. United States* [23] — the predecessor to the *Stanley v. Georgia* case — namely that it decided that obscene materials were not protected speech. (This was later overturned by *Stanley v. Georgia*.)

Outside the scope of the United States, several other countries have followed similar lines of reasoning about the ownership of sex robots. While ownership in general is protected in some manner, child-resembling sex robots are commonly considered obscene material. Particularly, the United Kingdom [24], Australia [25], New Zealand [26], and Canada [27] have deemed child-resembling sex dolls (and by extension child-resembling sex robots) as obscene. As a result, their ownership in these countries has been banned, removing any sort of free speech protections.

This raises multiple remaining concerns. If child-resembling sex robots are obscene, then perhaps we can agree that *some* restrictions are necessary, but is a total ban on all sex robots too much? That said, from a medical perspective, would child-resembling sex robots be worth investigating as a form of therapy for known pedophiles? Therefore, following the Miller test for obscenity, their possession would not be obscene due to this application of science [28]. However, certainly there is an ethical concern here. Is it morally and ethically okay to utilize a child-resembling sex robot for the purpose of medicine and science? Certainly there would be push-back to this opinion, but who would it harm if this process was meant to heal someone? Do we even have a moral right to take these measures in the name of medicine? Regardless, would this context of the use of child-resembling sex robots still be protected speech? Finally, Maras and Shapiro argue that we should deem child-resembling sex robots illegal *a priori* to the crime against a real child; however, is this a suitable ethical argument? If this were extended to other forms of speech, such as books that write about child abuse — like *Lolita* — then this would be considered unconstitutional.

#### V. ABUSE OF ROBOTS FOR SEXUAL GRATIFICATION

There is an ethical argument to be made about the sexual abuse of robots for sexual gratification. The science fiction novel *Burn-In: A Novel of the Real Robotic Revolution* entertains a possible reality of this future [29]. In the book, the authors describe a brothel, where the main workers are robots. The patrons are able to do whatever they want with them — from having vanilla sex to tearing off their limbs while engaging in sexual activities. At the end of the time paid for by the patron, the robots rebuild themselves into their default configuration (if necessary) before leaving the room.

This raises an interesting question: if it is ethical to engage with sex robots, what sorts of limitations should be imposed on the kinds of sexual activities that take should place between person and robot? In other words, are some acts ethical and others not? Furthermore, this begs the question of if it is possible to rape a robot? And, if so, should we be concerned with the ethics of robotic rape? There are several ethicists thinking about these questions.

First, Danaher argues in [30] that engaging with a sex robot has symbolic consequences. That is, engaging with a sex robot in a certain way — such as rape or sexual assault — is not morally harmful per se, but it is symbolically harmful. During his argument, Danaher presents three claims: (1) sex robots have grounds for becoming symbolically problematic, but this problematic tendency is removable and reformable; (2) the consequences of this symbolism is important to understand; and (3) sex robots should be treated like a social experiment, and the development should be adjusted much in the same way as in medical or psychological experiments. Essentially, having sex with robots builds upon the ethical frameworks understood within the consent-driven person-person sexual interactions. In other words, in spite of sex robots being unable to be moral victims, having sex with them is only as problematic as the deviation from consent-driven sex due to their symbolism.

In separate writing [31], Danaher builds on this concept of consent. He discusses the ethical questions regarding the design and distribution of sex robots that are deliberately manufactured for replicating acts of rape and child sexual abuse. He argues that they should be criminalized under two claims. First, that the law can regulate ethical wrongdoings even if the wrongdoing does not harmfully impact others. Second, that while creating and using sex robots for replicating acts of rape and child sexual abuse do not extrinsically harm anyone, their development for these purposes is morally unacceptable. Furthermore, this implies that there may be intrinsic harm for conducting these acts of violence against robots, but Danaher leaves this to future debate. Given Danaher's opinions in [30], he may argue that there is a point to be made about the symbolically problematic nature of these actions.

Furthermore, Richardson concurs with this symbolic consequence structure, but she takes it one step further [32]. She argues that the treatment of robots as property, and engaging with them in human-like interactions — most notably sex — reinforces the structures that hold some groups of people — such as women and minorities — as property or servants. Instead, she calls for the treatment and development of sex robots as companions rather than as property. In this sense, sex robots must be treated in the same way as we treat humans regardless of the lack of a direct moral harm toward sex robots.

As a counter to these points, Grout argues that while there will exist disagreements on where the moral limits of our interactions with sex robots lie, there will almost certainly be no progress in coming to agreement anywhere [33]. Moreover, even if there is regulation, there is reason to believe that such regulation would be ignored. She draws parallels to the sex work industry, which has survived for millennium

despite several attempts to suppress its existence. Therefore, even if there is an ethical dilemma with sexually abusing sex robots and regulation is enacted, Grout argues that it will have minimal effectiveness in prevention and elimination. To summarize this point, she states that "we simply keep [what could be regulated] out of public view and individually choose whether or not to partake."

Finally, while the previous arguments perpetuate a doomsday narrative, Döring and Pöschl provide an alternative [34]: "instead of just criticizing dystopian visions of harmful sex robots, why not make a joint effort to develop robots with positive impact." Indeed, sex robots have the capability to provide harm to society, but Döring and Pöschl believe they do not have to be constructed this way. Instead, the manufacturing of sex robots should promote sex in a non-abusive lens. Perhaps legislative approaches can mandate how sex robots are manufactured and distributed to the public to ensure this model takes hold.

## VI. ROBOTS & THE EFFICACY OF HUMAN REPRODUCTION

The final implication worth noting is the impact of sex robots on human reproductive patterns. While this is a more conservative stance, it is an understandable concern in an era when birth rate is at a record low [35]. Nascimento *et al.* claim that sex robots is beyond just a conservative stance — it is a bioethical concern [36]. They argue that how to think about the future of reproduction may change entirely due to the emergence of sex robots. They argue that these relationships are not meaningful, making a point to criticise that science fiction movies like *Her* are nothing more than a fantasy.

However, others are unconcerned with the negative impact on the birth rate of the world. For instance, Atanasoski and Vora see sex robots as a safe way to engage with sex without the concern for biological reproduction, much like the purpose of contraceptives [37]. In fact, they point out that sex robots create a division between "biological reproduction and the act of intercourse. In an age where the world population is pushing its limits, perhaps we have an ethical duty to reduce and/or stabilize the growth of our population.

In the same vein, Sullins makes a point to describe how sex robots are not an ethical concern from a reproductive lens due to how sex as a whole has changed in recent decades [38]. For instance, birth control and other similar technologies have helped decouple reproduction from sex in many relationships. Sullins emphasizes how this change has created a sexual freedom of sorts. By this logic, the sexual revolution has already happened and reproduction is no longer a concern of sex. Therefore, sex robots no longer have an obligation to address the morality of possibly reducing biological reproduction.

Unfortunately, without knowing how good robots can get at having sex with a human, it is hard to make these ethical considerations. Therefore, until then, all arguments are pure speculation without any empirical evidence. As we face environmental disaster due to an overpopulation of people, perhaps it would not be such a bad thing if the growth slowed to a stop. Furthermore, do the same ethical considerations

that plague contraceptives also apply to sex robots? Robots do not currently have the capability to replace a human companion, but perhaps a future where some opt to have a robotic companion will become reality.

## VII. THOUGHTS ON THE CURRENT DISCOURSE

The debate among scholars in the area of sex robots is bountiful without any dominant consensus. On one hand, a final resolution would be helpful for leading how we, as a society, should allow robots to shape the sexual landscape. However, as Grout points out in [33], even if such a consensus existed, within private spaces, people would still continue to partake in what they believe to be the right course of action. Furthermore, there is no indication that sex robots would commonly receive an outright ban, especially in the United States, where private ownership of sex robots remain protected speech under obscenity protections [13]. More realistically, we may see a future where the production of sex robots is regulated to enforce healthy practices, such as mandating consent and preventing the production of child-resembling sex robots. Furthermore, there is indication that sex robots may pave way for a new field of sexual therapy, aiding those who are disabled or those who experience sexual abnormalities.

However, one thing nearly all of these articles fail to consider is how much the public actually favors the adoption of sex robots. While the ethical considerations are important, the public will ultimately lead the way in imposing wide-spread adoption. In the spirit of this debate, Scheutz and Arnold conducted a series of surveys to obtain a feel for the current status of public opinion regarding sex robots [39], [40]. What they found is that the acceptability of sex robots is fairly split depending on their hypothetical use. This indicates that people might be more inclined to support the option of adopting sex robots in a scenario where there is some regulation on their production and use. For instance, among those surveyed, there was support to utilize sex robots as a medical tool for those with disabilities, but there was very little support for their use in treating people who have pedophilic tendencies.

With the current literature in mind, in the following section, we discuss how the current debate format among the literature lends itself as an unproductive approach due to the speculative nature of many of the arguments. While this seems to be the rational choice of argument format for the field of sex robot ethics since sex robots have yet to permeate throughout modern society, we argue that speculative arguments actually hurt the efficacy of the debate and that a new debate format must be adopted.

## VIII. SPECULATIVE OPINIONS POLLUTE THE SEX ROBOT ETHICS DEBATE

In this section, we argue for a complete rework of the ethics debate surrounding sex robots, specifically to remove the speculative nature of many arguments present in the literature. We begin by addressing why speculative arguments are harmful to the ability for a free, healthy, and productive debate to take place. Then, in light of this unproductive debate

style, we present a new approach for future researchers to follow when they present their arguments about the ethics of sex robots. Finally, in order to add credibility to my claim against speculative arguments, we describe the flaws in the speculations pertaining to the future of sex robots that are presented in the literature. Specifically, we argue that sex robots are not inherently immoral and that the bad-making properties commonly attributed to sex robots are a symptom of larger societal problems.

### A. *Speculative Opinions Hurt Healthy Debate About the Ethics of Sex Robots*

The current debate surrounding sex robots produces an abundance of opinions; however, oftentimes they are provided without evidence as a purely speculative argument. We argue that this distracts the debate from reaching a logical conclusion, while simultaneously encouraging the dissemination of anti-scientific knowledge. While the status of sex robots is certainly a minor concern in the world of automation compared to the more pressing issues related to the large-scale tracking and predication of human behavior, it will become a more pressing issue as robotics technology develops. Therefore, it is paramount that a healthier debate is encouraged in order to determine the proper course of action. In this subsection, we will outline how the current speculative nature of the ethics of sex robots is hurting the ability for a healthy debate to proceed.

First, speculative arguments can produce a domino effect of sorts, where a speculation can prompt the opposing side to return with a speculative argument of their own. This can go back and forth between two or more positions obscuring the argument further and further from the truth. This may appear to be a slippery slope, but observe the discourse presented in the previously mentioned work: on one side, Richardson argues against sex robots, speculating that their use would perpetuate toxic masculinity [4], while on the other side Danaher *et al.* refute her claims, speculating that sex robots may have other bad-making properties separate from those Richardson cites (without example of what any such bad making properties might be) [6]. Richardson further speculated that sex robots will create a similar system as slavery, encouraging the colonial belief that some groups of people should live in servitude to other groups of people [32]. This debate has the potential to continue to volley back and forth with one speculation after another.

Second, from an ethics standpoint, it is simply bad science to present a claim as fact without evidence. It is the moral duty of an academic to present information in the most truthful light, which includes a proper assessment of all claims provided. This hurts the sex robot ethics debate because it inserts information into the conversation that can be partly untruthful, and hence lead to unproductive and/or false conclusions at the end of the debate.

Lastly — and what could be considered the most important consequence of speculative debate — there will be groups of people who take the speculative arguments as fact without

pursuing the evidence to back up the speculation. More simply, there will be people who lack critical thinking capability or fail to exercise critical thinking abilities, and continue to propagate speculation as fact. While one might argue that the onus lies on the reader to fact check any argument they read, this is simply unrealistic. On a week by week basis, one may read dozens of articles alongside their other responsibilities. On the contrary, within the academic community, the onus is on *us* to ensure the knowledge we are presenting to others is logically and empirically sound, and to present this knowledge in good faith. Otherwise, when the truth of the matter is revealed as time passes, the factions formed around the incorrect speculations may be unwilling to remove themselves from that opinion.

In the following subsection, we propose a solution for the arguments surrounding sex robots moving forward.

### *B. The "What Ifs" Pertaining to Sex Robots Require Scientific Attention*

Speculation is not an inherently bad action. In fact, it is usually one of the first steps in the scientific process: formulating a hypothesis (a speculation) to test. The problem, however, lies in an untested speculation. As the debate over sex robots continues, speculations of the impact of sex robots must receive treatment of the entire scientific process, not just the first step. Unfortunately, because sex robots are an up-and-coming technology that has yet to see wide-spread adoption, there is a dilemma of how to obtain empirical data regarding their use. In this subsection, we present an approach that future researchers in this field may follow in order to produce more convincing results.

To obtain insight of the efficacy of an argument, one should first reference the data for the inquiry as it pertains to sex dolls. The reason for this is because of the similarities between sex dolls and sex robots. Furthermore, unlike sex robots, sex dolls have already proliferated throughout the world, so the data should be easier to obtain. However, the comparisons made between the two are somewhat limited. While sex dolls are human-resembling like sex robots, they do not share the more animated behavioral aspects that sex robots have. It is crucial, though, that if any such comparison is made that these limitations must be made clear.

Following a survey of the data pertaining to sex dolls, one should survey the potential use of sex robots among the public at large. To accomplish this, one should provide a list of hypotheticals and ask how the one being surveyed would proceed with the scenario. While there is no way to confirm that what people say is the truth, it should give a decent metric of what *might* happen; this is a far better indicator than simply providing a speculation without evidence. The polls conducted by Schuetz and Arnold in [39], [40] prove to be a good example of one way to conduct these surveys.

Finally, the best course of action before cementing the argument is to simply wait for sex robots to become more wide-spread. Once they are widely accessible, more comprehensive surveys can determine their actual use. These results would best inform the ethics debate for their continued use and

development. This may seem to be unsatisfying to some, but we counter that it is more satisfying than simply banning sex robots *prima facie*. The perceived belief that sex robots have potentially bad-making properties leads this early effort to ban their use and production before we see their true potential. In the next subsection, we describe the problematic nature of this argument in order to make the proposed methodologies outlined previously more convincing.

### *C. Sex Robots Are Not Inherently Immoral*

Much of the current discourse surrounding sex robots wholly pits the blame for the abuse and misuse of sex robots on the existence of sex robots themselves. Should sex robots — or aspects of sex robots — be banned, some of the prior arguments would have you think that the problems they create will suddenly disappear. However, we argue that this is not even remotely the truth. In fact, as previously mentioned, some have advocated for the use of sex robots as a form of therapy, so the banning of sex robots would cause for this potentially remarkable treatment to disappear instead. Below, we provide a few case studies of how the misuse of sex robots — a symptom — receives the blame rather than underlying social issues that should actually receive the blame. Logically speaking, this makes sense; sex robots cannot think or feel, and thus cannot actively invoke harm from their own free will. People are responsible for the misuse of tools such as sex robots, so addressing the problems pertaining to people — the root problems, rather than the symptoms — should have priority.

For instance, there are advocates who honorably fight for the protection of children, and seek to eliminate child-resembling sex robots from production and private ownership. If someone is caught in the possession of a child-resembling sex robot, the advocates would fight for the labeling of this individual as a child predator. While the fight for child protection is an immensely important cause, banning child-resembling sex robots removes nothing more than a symptom of the true problem: pedophilia and the child sex slave trade, both human behaviors. One possible benefit child-resembling sex robots have is their use in therapy to heal this human behavior of pedophilia. Of course, medical experts would have to investigate this as a plausible course of action, but the point made here is that the outright ban of child-resembling sex robots may actually perpetuate the behavior that the ban seeks to destroy.

Another example pertains to the belief of some, such as Richardson [4], that sex robots will perpetuate social constructs enabled by the patriarchy. On a surface level, her logic that sex robots may exacerbate some of the bad-making properties of patriarchal structures, such as misogyny, seems plausible. However, we argue that these hypothetical bad-making properties of sex robots — for instance, encouraging the treatment of women as sexual objects — are nothing more than another symptom of larger societal problems. It is not the fault of sex robots that society (in general) fails to educate men of the historical oppression women have faced due to

toxic male behaviors. It is also not the fault of sex robots that these men who have not received proper education will misuse them to encourage their immoral treatment of women. Instead, it is the responsibility of society to work on the larger, harder problem of weeding out patriarchal structures. Scapegoating sex robots as a perpetrator of the problems surrounding the relationships between men and women and consequentially banning them is an easy solution. Yet, it will not dig out the root of the problem: toxic masculine social structures — a more difficult problem with an even harder solution to find.

A third (and certainly not the last) possible example concerns the possibility of a declining birth rate. Some might speculate that if sex robots are good enough at having sex that people would not reproduce as often due to not having sex with other people and instead with the sex robots. Aside from the fact this is a slippery slope, it is still a valid concern; however, there is no indication it will ever manifest itself in the real world. Even if sex robots meet the sexual needs of people, it will not meet the need many people feel to have a child. If anything, the declining birth rate is more of an indication of a changing culture, which is the true root of the problem — not the sex robots.

With these examples in mind, it is clear that sex robots receive far more criticism than they deserve. Much of the speculation pertaining to their problems revolves around societal problems that bleed their symptoms into the world of sex robots. Perhaps sex robots are an easy target because they do not have a large group of supporters. However, they are not intrinsically immoral; immoral people and societal structures perform immoral actions at the expense of sex robots. There is a clear difference between these two assertions.

## IX. CONCLUSION

In this paper, we present an argument for where the current ethics debate surrounding sex robots fails, and provide a solution for guiding future arguments. Prior to presenting my argument, we outline the sex robots debate as it currently stands through five lens: (1) a feminist lens; (2) a medicinal lens; (3) a free speech lens; (4) an abuse protection lens; and (5) a reproductive lens. Following each discussion, we present several questions left for consideration in the future.

Following the review of the current literature, we present my argument argue that speculative opinions surrounding the bad-making properties of sex robots hurt the essence of the debate of the ethics of sex robots. We think present future guidelines for how researchers in this field can move away from this speculative approach. Finally, we discuss why the speculations about the bad-making properties of sex robots are simply symptoms of larger societal problems and not due to the existence of the sex robots themselves.

## REFERENCES

- [1] D. Herbenick, M. Reece, S. Sanders, B. Dodge, A. Ghassemi, and J. D. Fortenberry, "Prevalence and characteristics of vibrator use by women in the united states: Results from a nationally representative study," *The journal of sexual medicine*, vol. 6, no. 7, pp. 1857–1866, 2009.
- [2] C. Dillow, "A customizable, anatomically correct robotic girlfriend with multiple personalities," *Popular Science*, 2010. [Online]. Available: <https://www.popsoci.com/technology/article/2010-01/customizable-anatomically-correct-robotic-girlfriend-multiple-personalities/>
- [3] J. Kleeman, "The race to build the world's first sex robot," *The Guardian*, 2017. [Online]. Available: <https://www.theguardian.com/technology/2017/apr/27/race-to-build-world-first-sex-robot/>
- [4] K. Richardson, "The asymmetrical relationship' parallels between prostitution and the development of sex robots," *ACM SIGCAS Computers and Society*, vol. 45, no. 3, pp. 290–293, 2016.
- [5] S. M. Gutiu, "The roboticization of consent," in *Robot law*. Edward Elgar Publishing, 2016.
- [6] J. Danaher, B. D. Earp, and A. Sandberg, "Should we campaign against sex robots?" 2017.
- [7] T. Sanders, J. Pitcher, and M. O'Neill, *Prostitution: Sex work, policy and politics*. Sage Publications Limited, 2009.
- [8] R. Balfour and J. Allen, "A review of the literature on sex workers and social exclusion," *London, the United Kingdom: University College Lodon (UCL), Institute of Health Equity*, 2014.
- [9] N. S. Jecker, "Nothing to be ashamed of: sex robots for older adults with disabilities," *Journal of Medical Ethics*, vol. 47, no. 1, pp. 26–32, 2021.
- [10] A. A. Boni-Saenz, "Are sex robots enough?" *Journal of Medical Ethics*, 2020.
- [11] M. Ward, "The surprising way the netherlands is helping its disabled have sex," *Mic*, 2014. [Online]. Available: <https://www.mic.com/articles/85201/the-surprising-way-the-netherlands-is-helping-its-disabled-have-sex/>
- [12] O. Bendel, "Surgical, therapeutic, nursing and sex robots in machine and information ethics," in *Machine medical ethics*. Springer, 2015, pp. 17–32.
- [13] *Stanley v. Georgia*, 1969, vol. 394 U.S. 557.
- [14] M.-H. Maras and L. R. Shapiro, "Child sex dolls and robots: more than just an uncanny valley," *Journal of Internet Law*, vol. 21, no. 6, pp. 3–21, 2017.
- [15] T. U. S. Congress, "Child pornography protection act," 1996.
- [16] *Ashcroft v. Free Speech Coalition*, 2002, vol. 535 U.S. 234.
- [17] T. U. S. Congress, "Protect act of 2003," 2003.
- [18] *Osborne v. Ohio*, 1990, vol. 495 U.S. 103.
- [19] D. M. L. Project, "Using the name or likeness of another," *Digital Media Law Project*, 2021. [Online]. Available: <https://www.dmlp.org/legal-guide/using-name-or-likeness-another>
- [20] P. Paul, "Sex dolls that look like ex-girlfriends and dead celebrities in demand, but makers are wary," *Media, Entertainment, Arts, Worldwide*, 2019. [Online]. Available: <https://meaww.com/sex-dolls-ex-girlfriends-dead-celebrities-marilyn-monroe-demands-rise>
- [21] Z. Mulroy, "Most requested celebrity sex doll lookalike revealed - but customers are banned from having it," *The Mirror*, 2017. [Online]. Available: <https://www.mirror.co.uk/tech/most-requested-celebrity-sex-doll-11014412>
- [22] T. Michael, "Sex robots modelled on your favourite celebs set to take over the market, expert warns," *The Sun*, 2018. [Online]. Available: <https://www.thesun.co.uk/news/2326917/celebrity-sex-robots-take-over-expert-warns/>
- [23] *Roth v. United States*, 1957, vol. 354 U.S. 476.
- [24] P. Association, "Man who tried to import childlike sex doll to uk is jailed," *The Guardian*, 2017. [Online]. Available: <https://www.theguardian.com/uk-news/2017/jun/23/man-import-childlike-sex-doll-uk-jailed/>
- [25] C. Media, "Man in possession of child sex doll sentenced to imprisonment. man who disseminated the child sex doll serves sentence by way of an intensive corrections order," *Commonwealth Director of Public Prosecutions*, 2016. [Online]. Available: <https://www.cdpp.gov.au/news/man-possession-child-sex-doll-sentenced-imprisonment/>
- [26] C. Penman, "Customs seize sex dolls with child-like faces," *New Zealand Herald*, 2017. [Online]. Available: <https://www.nzherald.co.nz/nz/customs-seize-sex-dolls-with-child-like-faces/PGQU7DGHUKT4TAP3E3V76MLNQ/>
- [27] C. News, "Sex doll is child porn, but judge finds kenneth harrisson not guilty," *Canadian Broadcasting Corporation*, 2019. [Online]. Available: <https://www.cbc.ca/news/canada/newfoundland-labrador/kenneth-harrisson-not-guilty-1.5146259/>

- [28] *Miller v. California*, 1973, vol. 413 U.S. 15.
- [29] P. W. Singer and A. Cole, *Burn-In: A Novel of the Real Robotic Revolution*. Boston, MA: Houghton Mifflin Harcourt, 2020.
- [30] J. Danaher, "The symbolic-consequences argument in the sex robot debate," 2017.
- [31] —, "Robotic rape and robotic child sexual abuse: should they be criminalised?" *Criminal law and philosophy*, vol. 11, no. 1, pp. 71–95, 2017.
- [32] K. Richardson, "Sex robot matters: slavery, the prostituted, and the rights of machines," *IEEE Technology and Society Magazine*, vol. 35, no. 2, pp. 46–53, 2016.
- [33] V. Grout, "Robot sex: Ethics and morality," *Lovotics*, vol. 3, p. e104, 2015.
- [34] N. Döring and S. Pöschl, "Sex toys, sex dolls, sex robots: Our under-researched bed-fellows," *Sexologies*, vol. 27, no. 3, pp. e51–e55, 2018.
- [35] C. I. Agency, "Field listing - birth rate," *The World Factbook*, 2021. [Online]. Available: <https://www.cia.gov/the-world-factbook/field/birth-rate/>
- [36] E. C. C. Nascimento, E. da Silva, and R. Siqueira-Batista, "The "use" of sex robots: a bioethical issue," *Asian Bioethics Review*, vol. 10, no. 3, pp. 231–240, 2018.
- [37] N. Atanasoski and K. Vora, "Why the sex robot becomes the killer robot. reproduction, care, and the limits of refusal," *spheres: Journal for Digital Cultures*, no. 6, pp. 1–16, 2020.
- [38] J. P. Sullins, "Robots, love, and sex: the ethics of building a love machine," *IEEE transactions on affective computing*, vol. 3, no. 4, pp. 398–409, 2012.
- [39] M. Scheutz and T. Arnold, "Are we ready for sex robots?" in *2016 11th ACM/IEEE International Conference on Human-Robot Interaction (HRI)*. IEEE, 2016, pp. 351–358.
- [40] —, "Intimacy, bonding, and sex robots: examining empirical results and exploring ethical ramifications," *Robot Sex: Social and Ethical Implications*, J. Danaher and N. McArthur, Eds., The MIT Press, London, 2017.