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Title	Living in the Age of the Automatic Sweetheart : A Brief Survey on the Ethics of Sexual Robotics
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Citation	Journal of Applied Ethics and Philosophy, 13, 21-30
Issue Date	2022-02
DOI	https://doi.org/10.14943/jaep.13.21
Doc URL	https://hdl.handle.net/2115/84707
Type	departmental bulletin paper
File Information	JAEP13_21-30.pdf



Discussion Paper

Living in the Age of the Automatic Sweetheart

A Brief Survey on the Ethics of Sexual Robotics

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Abstract

As technology continues to grow (and sex-robots gain a more prominent position in our society), so too does concern about the way they will impact our lives and our sexuality. While many ethicists have started to assess what this impact could be (and if it would be positive or negative), the challenges and opportunities presented by sex-robots span over a wide range of topics and cannot be assessed easily. Hence, in this paper, I will attempt to categorize the main questions concerning the ethics of sexual robotics in order to help ethicists gather their thoughts on this new technology. While doing so, I will principally identify four overarching issues: (1) how robots' representation of human sexuality affects human gender issues; (2) how robots could potentially be utilized for medical purposes; (3) if robots could possibly deceive their users; (4) if sex-robots could end up as a new form of sex-slaves.

Keywords: sex-robots, representation, therapy, deception, slavery

For ages, humans have dreamed of having some kind of automated or robotic sexual partner or lover. In other words, we humans have dreamt of someone (or something) that will acquiesce to our every sexual desire without any of fuss that comes with interacting with other human beings; something that has been perfectly programmed to match our own sexual or emotional preferences without requiring reciprocal stimulation. Indeed, while this may sound like a premise that only entered the human imagination in recent science fiction novels or video games, that does not appear to be the case.¹ At the very least, we can say that ideas similar

to what I am describing here have been present in our collective human consciousness in one way or another since Ancient Greece. Many have pointed to the myth of Pygmalion – who found one day that the statue he carved came alive and turned into his lover – as the first case of an automated sexual partner.² In the more recent past, the father of pragmatism, William James, pondered whether anyone would be satisfied with an “automatic sweetheart,” who would show her partner all the charms and affections of a young woman in love, but did not have any internal or subjective conscious feeling of being in love. In our current age, some of us seem to have projected this fantasy onto robots or AI with no specified romantic or sexual purpose.³ Yet, while these dreams of a robotic lover have manifested themselves in various

1 This is, of course, not to dismiss how central this theme has been in recent science fiction media. For instance, the novel-turned-movie, *Stepford Wives* (1972/2004), deals precisely with the rationale for why one would want such a robotic romantic partner and how horrifying it would be. In video games, *Detroit: Become Human* (2018) touched upon the ethically dubious attitudes we would be inclined to take towards such non-human sexual partners by featuring horrifying scenes at a robotic brothel. While these are just some examples, the point is clear: recent science fiction has a clear concern with what happens when we turn robots into sexual partners.

2 See Devlin (2018, 17-22) for a more detailed explanation of why many scholars see this as the first sex-bot (and why it may not actually be an apt description).

3 As an example, consider the fact that in the year 2017 alone, Alexa received over one-million marriage proposals. Needless to say, many users may have made this proposal in jest, but the point still remains that it is not uncommon to view a robot not designed for sexual purposes in an intimate light. See Leskin (2018)

ways in philosophy, fiction, and the public imagination for years, it is only recently that we have started to see them given any sort of reality.

Going back to about 2010 or so, we see that this fascination with such “automatic sweethearts” has started to find a foothold in reality. For about a decade, sex-robots have been available for purchase. While the extent to which sex-robots can be said to exist will depend largely on how we define the term, we are gradually reaching a point where it is hard to deny their presence in our society.⁴ Naturally, the capabilities of what we currently consider a sex-robot are limited at best and their prices are high enough that those with only a passing interest would not likely be willing to purchase one.⁵ And yet, the technology involved is advancing at a rapid pace. Current models are not only equipped with various features to help with sexual stimulation but are gradually becoming better conversationalists as well. What is more, it has been estimated that these robots will be able to walk on their own within the next decade.⁶ Keeping this technological fertility in mind, David Levy (2009) famously surmised over a decade ago that the use of sex-robots will be completely normalized by 2050. Should Levy’s prediction come true, sex-robots will have an unignorable impact on human sexuality – affecting everything from prostitution to how we view “good” or “ideal” sex. It should not come as a surprise then that at least one group has already come out to protest the use of sex-robots to prevent these changes from occurring.

To briefly summarize what I have stated in the preceding paragraph: sex-robots are continuing to encroach upon our society and seem posed to deeply influence our sexuality. With that said, however, in precisely which ways and to precisely which degree this influence shall impact us is, as of yet, not entirely clear. While many ethicists have – in my view rightly –

4 Here, we will follow Danaher (2017), who puts forth the following three criteria for being a robot: (1) It must have an appearance similar to humans; (2) It must be capable of moving on its own; (3) It must have (some level of) artificial intelligence. The level of autonomous movement and AI needed to deem something a robot are obviously huge issues, but we will not deal with them here. Still, products widely accepted as sex-robots by the general public, such as Roxxy (debuted by TrueCompanion in 2010), have been on the market for at least a decade and continue to become more capable with each year. In this sense, it does not seem too controversial to say that this definition has been met well enough to at least merit our attention as ethicists.

5 A quick search on the internet reveals that most sex-robots are available from between 5 to 15 thousand US dollars. With that said, a robot with a fully customized body would likely cost between 30,000 and 60,000 USD. See Owsianik (2021)

6 Elder (2020)

worked to get ahead of the curve and address potential issues in sexual robotics before the technology has made an irreversible impact on our lives, there seems to be very little agreement on precisely what this impact will be (and if it will be good, bad, dangerous, negligible, etc.). Articles on the ethics of this new technology have started to appear rapidly over the past few years (so much so that it is no longer possible to cite all materials on the issue in one survey).⁷ Yet, while roboticists, philosophers, medical experts, and many others have scrambled to tackle the “question of sex-robots,” it seems that there is still no common agreement on precisely what these questions are.

Hence, it is here that I would like to help facilitate future discussions on the ethics of sexual robotics by breaking down this issue into what I believe to be the four main lines of questioning present in the previous literature (and showing why these questions are ethically relevant). To state my opinion plainly, I believe that research on the ethics of sex-robots can be organized into the following four categories: the problem of how robots represent human sexuality, the possibility of medical or therapeutic application, the challenge of robot deception, and the future-oriented question of robots and sex-slavery. In order to organize my summary of each of these problems, I will describe them all in one section each, focusing on why ethicists care about these issues and what sub-questions we will have to face as we design and regulate sex-robots moving forward.

Question 1: How could sex-robots influence human sexuality?

To understand this first question, we should revisit a point that was hinted at in the introduction: contrary to the popular image of sex-robots being a problem for the distant future or science-fiction settings, this is not the case. Indeed, most contemporary debates on the ethics of sexual robotics seem to focus on the harm that could come from how robotic sexual partners *represent* sex between humans, rather than what harm would be done

7 Indeed, for a recent testaments to this fact, we need only point out the existence of “The International Congress on Love and Sex with Robots,” which held its last conference in 2021. Moreover, several special issues and dedicated volumes to this topic have started to appear in the last 5 years. This includes the 2017 volume *Robot Sex: Social and Ethical Implications*, a collective volume edited by John Danaher and Neil McArthur that was dedicated solely to the topic of sexual robotics. In this sense, it is not a stretch to say that writing on this topic has come out faster than we ethicists can organize our thoughts on this matter or categorize the problems we face appropriately.

to the robot itself. As Sparrow (2017) and Eskins (2017) have both pointed out, the lack of any sign of conscious life makes it difficult to view sex-robots as victims of rape or sexual violence. For those like Sparrow and Eskins, robots are – at present – conceived of as tools and we do not need to consider their rights any more than we would need to consider the rights of a dildo, faux vagina, or even a horrifyingly misused Roomba. What makes sex-robots interesting to many ethicists – in our contemporary situation, at least – is thus not the fact that they themselves are being wronged somehow, but rather how their usage might influence sexual relations between humans.

Now, this brings us to the question posed at the beginning of this section: how could sex-robots possibly influence our sexual relations as humans (and how could a problem like this be one of ethics and not sociology or psychology)? The key point here seems to be what the design of sex-robots says about contemporary gender relations (and how it could alter users' perception of issues surrounding these relations). Indeed, the first organization started with the intent of protesting sex-robots, The Campaign Against Sex-Robots (started by Kathleen Richardson in 2015), has taken precisely such an issue as its starting point. For Richardson, the core element that makes sex-robots problematic is how analogous their design and usage is to prostitution (Richardson 2016, 290). In other words, as would be the case for prostitutes as well, sex-robots present female sexual partners as objects to be purchased. According to Richardson, this act of objectification entails an erasure of female subjectivity, insofar as women are portrayed as things to be bought with money for the sake of male sexual gratification (Richardson 2016, 291).

While Richardson's position has been criticized as vague, the thrust of her argument leads us to one important point: sex-robots could be interpreted as *representing* women as mere tools for sexual gratification.⁸ Indeed, beyond only the fact that the

8 Specifically, critics like Danaher et al. (2017) have noted that Richardson's arguments are problematic on at least the following two points. The first is that her arguments regarding prostitution are lopsided, insofar as she does not even consider the possibility of mutual respect between prostitutes and their clients. As Danaher et al. mention, several psychological or sociological studies have suggested that some clients feel a deep sense of gratitude toward prostitutes. The second reason is that, even if prostitution is as univocally bad as she claims, her analogy is not fully fleshed out. Is she against sex-robots because they encourage users to view women like prostitutes? Or is she against them because they mirror some kind of inherently wrong behavior? For my money, I think coherent cases against sex-robots could be made for either claim, but it is true that Richardson is not necessarily clear what problems arise from

majority of sex-robots are modelled after females, these robots often portray the female body with cartoonish or unrealistically sexualized proportions. Perhaps more importantly, though, sex-robots seem to imply that the body of one's sexual partner can or should be customizable. As we shall see, while some proponents of sexual robotics believe this to be one of their key selling points (and a reason why one could expect their usership to increase drastically in coming years), authors like Richardson (2016) and Sinziana Gutiu (2016) point out that this could lead users to believe that sexual partners are mere objects. Indeed, Gutiu (2016) makes a strong case that sex-robots, in their current form, give the user total control over every aspect of the sexual encounter and, as a result, represent women as mere tools for sexual stimulation. Naturally, if those like Richardson or Gutiu are right and sex-robots encourage their users to view women as replaceable tools, then it would be hard to view them in a positive light.

Still, a skeptic might say, it is not a crime to pursue sexual partners who better match with one's physical preferences. In this regard, if the use of sex-robots may seem crass to some, it would be a stretch to say it is morally blameworthy. Yet, to make this argument would be to miss a more important conclusion, raised thematically by Robert Sparrow (2017; 2021): to represent women as tools in this way is to represent them as having no right to consent to the sex acts being done unto them. In other words, although we cannot actually rape robots themselves, the act of utilizing humanoid robots who cannot give consent for sexual purposes is *tantamount to simulating rape*. Crucially, as Sparrow points out, sex-robots are different from dildos and other masturbatory aids insofar as they do not stop at merely providing physical relief, but instead offer a full-blooded simulation of intercourse with other humans. Keeping in mind recent calls for the importance of positive consent in sexual intercourse,⁹ we can quickly see why we should be wary of any entity that encourages its users to view sex as an activity which can be unilaterally initiated, requires no consent from the other party, and can include any activity that the male is interested in. This, according to Sparrow, is bound to contribute to the rape culture that is (allegedly) already problematic in our current society.

Some authors, like Peeters and Haselager (2021), have tried to skirt around Sparrow's argument by suggesting that we could or should turn this weakness into a benefit and modify sex robots to have consent features for educational purposes. For instance, one

this analogical relationship between robots and prostitutes.

9 See, for example, Halley (2016) for an explanation of the meaning and legal significance of the notion of positive consent.

could include a feature in which the robot makes itself inaccessible until the user has asked for consent. Otherwise, one could design the robot to randomly refuse intercourse. However, putting aside the logistics of this proposed solution (and how user-unfriendly it would be), this counterpoint likely fails to see the full extent of Sparrow's argument. As Sparrow himself points out, this sort of solution would include the implication that sex is always on the table, so long as one asks nicely. Or, perhaps worse, if a user were to somehow forcefully utilize the robot, they would be able to essentially be able to simulate violent rape in the full-blooded sense, i.e., in terms of willfully ignoring the victim's attempts to refuse sex acts. What we see, then, is a dilemma in which not accounting for consent gives users a picture of sex in which sex-acts can be initiated at any time without needing any dialogue or positive consent from their partner, while creating some kind of consent module offers a doorway into even more vivid and problematic simulations of forceful rape.

Now, as Sparrow in particular is aware, one could dismiss these issues by replying that, even if sex-robots do simulate something grotesque, they do not actually lead to any violence done against human-beings (or any actual wrong-doing). In other words, even if this depiction of sex-robots as simulating rape is accurate, there is no guarantee that said representation would actually drive users of sex-robots to commit crimes or interact negatively with their human sexual partners. Indeed, as is similarly the case with representations of violence in video games causing harmful behavior or, more importantly, pornographic material leading to unhealthy attitudes about sex, it would be difficult to fully motivate any claim about the relation between the usage of sex-robots and unhealthy attitudes towards consent. Moreover, as John Danaher (2017c) admits in a discussion on the need for regulations on robots that represent rape or sexual violence against children, one could conceivably argue that – in any of these cases – there is a gap or distance between what one does during a simulation and how one behaves in the real world. Keeping this in mind, we should be careful not to assume that sex-robots will necessarily lead to increases in sexual violence among users.

Yet, even if one were to dismiss any causal relation between sex-robots and poor attitudes toward rape or consent, there are two points we need to keep in mind when discussing the ethics of sex-robots. The first is that the usage of sex-robots is *embodied* and, therefore, seems to present more substantial issues than video games or pornography. At least, one could say that, insofar as sex-robots help us develop the *habits* we unconsciously rely on during sexual encounters, they at least *seem* more likely to lead to harmful behavior. For example, a user who has become accustomed to

switching sex acts without consent while using a sex-robot could conceivably try to do the same thing to a human partner without thinking, i.e., as a force of habit. Now, one could easily dismiss this point as mere speculation. Yet, as Danaher (2017c) argues, one could much more convincingly claim that watching unhealthy representations of sex play out from an external standpoint – as one would in the case of pornography – may indeed have some distance from one's actions or interactions in the real world. However, due to this aspect of embodiment, the distance between simulation and real, embodied action is greatly reduced in the case of sex-robots. In other words, insofar as one is actually moving his or her own body to simulate grotesque sexual acts, it is substantially more difficult for them to claim that they are only partaking in the activity from an external standpoint.

The second point we ought to remember is that, even if the embodied aspects of robots is somehow proven unimportant or unrelated to how one interacts with other human beings, *the problem of representation could still remain an ethical issue* for at least the following two possibilities. The first reason would pertain to what we have discussed earlier, regarding unrealistic projections of women's bodies, insofar as cartoonish or misogynistic representations of women as objects are degrading to women on their own. As critics like Catherine MacKinnon (1993) have argued with regard to pornography, one could say that these kinds of representations are ethically problematic anyway insofar as they fail to respect the dignity of women and, furthermore, reduce women to objects that are subordinate to men's sexual fantasies. Alternatively, one could follow Sparrow (2017, 474-5) in taking a virtue ethics perspective and arguing that the dignity of the user is in question (i.e., in the same way that it is wrong to laugh at racist or derogatory jokes, the very act of simulating rape is wrong insofar as it damages the user's character and debases their own moral sensibilities). While some readers may not be entirely satisfied with either of these explanations, they do (in my view, at least) constitute sufficient reasons to actively engage in discussions about the role of sex-robots in our contemporary society.

Question 2: Can Sex-robots be used for medical treatment or therapy?

Now, as we have seen in the last section, there are already valid reasons to be concerned over the increasing prevalence of sex-robots in our society. However, careful readers will also likely have picked up on at least one oddity: if prostitution is ethically impermissible, then should we not do whatever we to avoid subjecting

humans to this role? Insofar as this is the case, then why not use robots – who, as we have already established, are currently not considered to have any rights or any conscious feeling of suffering – as a substitute for prostitution? Doing so, if nothing else, would presumably shield living human beings from enduring this fate. Naturally, one may respond that sex-work is not worth saving in any form. However, this blanket statement may not be so easy when we consider the medical or therapeutic applications of utilizing sex-robots in lieu of human sex-workers. In this section, we will consider if there are ethically permissible uses of sex-robots for medical purposes and, by extension, for the distribution of sex to those who cannot meet their own sexual needs in our current society.

Now, to reiterate, we should recognize that one could easily follow authors like Richardson in denouncing prostitution as it currently exists in our contemporary society. However, things get trickier when we extend the discussion to sex work in general. As Robin McKenzie (2014) and others have noted, the concept of sex work has several different meanings and, depending on the situation, its ethical permissibility can likely be interpreted in many different ways. At the very least it seems safe to say that sex work plays a necessary medical role for helping those affected by dementia or other conditions that make it difficult for them to manage their own sexual health. In other words, assisted masturbation and other services could play a vital role in the lives of persons who are unable to masturbate of their own accord. While, globally speaking, there seems to be a lack of qualified professional to fill this kind of role, it remains true that many countries have started to at least explore the possibility of establishing a system for assisted masturbatory care for patients who cannot manage their own sexual health (Sakairi 2016; Wotton 2020). In such cases, where sex-work is done for medical purposes and there are not enough qualified professionals able to handle this task, why would the use of sex-robots not be ethically permissible?

To put the matter differently, the deployment of sex-robots offers a promising path toward the fulfilment of positive sexual rights for all. As Di Nucci (2011) has explained, there is a paradox involved in the notion of sexual rights: on the one hand, sexual stimulation appears to be an indispensable element for leading a happy and healthy life. In this sense, it seems to make sense to say that everyone has a positive right to leading a happy and healthy sex life. On the other hand, if we suppose that one has a positive right to have sex, then we will necessarily violate another person's negative right to refuse sex at any time. As Di Nucci also explains, this puzzle is solved instantly if we accept sex-robots as a sufficient approximation of sexual intercourse. In addition to providing assisted masturbatory services

for those who are unable to do so themselves, we could additionally help persons in communities with lopsided gender ratios (e.g., China) a means to procure more fulfilling sex-lives in the absence of available human partners (see Di Nucci 2011; 2017). Moreover, as Nancy Jecker (2021) wrote in response to Robert Sparrow, sex-robots offer a potential method for allowing elderly persons to continue having fruitful and active sex-lives well into their old age.

Now, this idea of using robots to offer sexual fulfilment to those who currently do not have a partner (or are not able to manage their own sexual health) admittedly relies on quite a few big assumptions. First and foremost, the idea that robots in their current state could serve as a fulfilling sufficient substitute for sex with another human seems dubious at best. This is exacerbated by the fact that skeptics could easily go one step further and argue that robots are not only insufficient substitutes, they may not actually provide any actual relief to those who lack a current human partner (if for no other reason than the fact that sex-robots in their current state would provide little hope of intimacy or affection). Moreover, even if robots were able to offer roughly the same psychological and physical benefits that sex with a human could provide in most cases, we would still have to parse through issues regarding whether or not there are any ethical issues with leaving sexual care up to robots.¹⁰ As we will talk about in more detail later, it is not difficult to imagine a situation in which a cognitively compromised patient becomes overly attached to a robot designed for sexual assistance and, as a result, prioritizes relations with the robot over real or authentic relationships with other sentient persons or animals. With that said, all of these potential problems likely require empirical consideration before we can decide one way or the other. If sex-robots are indeed able to improve users' quality of life without detracting from their interpersonal relations with other human-beings, then why would their usage not be a positive contribution to society?

But what of the problematic representations of sex we referred to in the last section? Should we just ignore them? Certainly not. To the contrary, some ethicists have argued that these very representations could have a powerful medical or therapeutic application. More specifically, it is possibly the robots which represent the most heinous acts – sexual acts with children, rape, etc. – that could hold the highest ethical value, given that they could potentially be used as *prophylactic* of sorts.

10 For some authors, like Sharkey and Sharkey (2012), it is already problematic to deprive the elderly of human contact by leaving their care to robots, who have no real feelings of affection toward the persons they are left to care for. It seems safe to say that such issues are worsened when questions of sexual health maintenance enter the picture.

In other words, the use of robots could help users with damaging sexual urges deal with them in a safe way. For example, the roboticist Ronald Arkin famously suggested in a 2014 presentation that persons with pedophilic urges could potentially prevent themselves from acting on said urges by utilizing a robot in the same way one uses a nicotine patch to avoid wanting to smoke cigarettes.¹¹ In theory, this could be tied together with the use of a log detailing these interactions for therapeutic purposes or gradual improvement. If this kind of therapy is feasible, then society would obtain a powerful new tool to not only protect children from sexual abuse, but also to work together with people who have harmful urges towards children to provide help for them.

Needless to say, this suggestion has been controversial among ethicists. While most ethicists admit that such a method of treatment would be appealing *if* it existed, there are various blocks that could keep it from coming to fruition. First among these concerns would be the difficulties and risks that come with testing the efficacy of prophylactic sex robots. Consider, for instance, the possibility that this treatment could not only fail to help patients but could even serve as a catalyst to further exacerbate their urges. After all, is it not at least possible that regular simulations of sex with children could leave a potential patient more conscious of their pedophilic desires than before they started this treatment? This is, of course, little more than speculation; proving otherwise would require empirical testing and clinical trials. However, even if it is speculative, this argument brings us to a crucial problem: in order to even *start* testing this method of therapy, we would need sufficient evidence to believe that it would not have adverse effects on the intended users. As Danaher (2019) argues, though there *may* not be enough evidence to prove that such worries are actually likely to occur, there is *almost certainly* not enough available evidence to justify clinical trials in the face of even mere speculation that this treatment could cause harm to its users and, hence, we must take caution as we attempt to explore such possibilities.

Finally, we can point to one more (perhaps more promising) potential usage of sex-robots for therapy. That is to say, it has been suggested that sex-robots could be deployed as a training partner of sorts for persons who wish to work through sexual trauma. As Neil McArthur (2017) has pointed out, persons who wish to have sexual intercourse – but do not feel comfortable doing so with other humans – could benefit from the use of sex-robots, insofar as they would be completely in control of the situation. More specifically, users would not need to worry about disappointing their robot partner if they feel

uncomfortable at any point. Additionally, insofar as the robot's looks would be customizable, there would be no need to make their robotic partner seem entirely realistic, which could help remind users that they are in a safe, controlled situation. While technological limitations are certainly a concern at this point, it at least stands to reason that sex-robots could be applied in this way for the benefit of trauma patients.

With this, we have summarized the most pertinent points regarding the potential medical application of sex-robots. While there are certainly technological and safety concerns for any of these potential applications, the upshot for many authors writing on these topics is that research on sex-robots at least deserves consideration. This is good as far as it goes, but unfortunately leaves behind a number of practical questions. How would medical sex-robots be designed? Would they appear human or would they be built to remind users that they are *not* humans? At what point could we actually begin testing these treatments or therapies? Now, none of these questions are meant to dismiss the medical applications of sex-robots. To the contrary, these are questions that ethicists need to consider early, before the relevant technology catches them unaware and unable to cope with these issues.

Question 3: Could sex-robots deceive us?

Now, when discussing the first two questions, we have largely looked at sex-robots as a problem that is already apparent in our present society. This is for good reason, considering that it seems intuitive enough to say that sentience, or subjective feelings of pleasure and pain, is a good standard for determining whether or not an entity deserves any moral consideration or protection. Moreover, as we shall discuss shortly, waiting around for an era in which we can definitively say that robots have achieved consciousness, and thus have obtained rights or can be considered victims of sexual abuse, is not very productive. However, with all of that said, I think there are at least two future-oriented problems which ethicists have discussed that deserve our attention (if for no other reason than the difficulties we will face when possibly trying to evaluate these issues later on). The first of which is simple: could sex-robots potentially “trick us” into thinking they are “real” lovers? If so, would this kind of behavior be ethically permissible?

To start, think back to a briefly mentioned issue in the previous section: is it not possible that elderly patients or patients with dementia could bond excessively with their sexual care robot at the expense of other interpersonal relationships? This may sound absurd, but researchers like Shelley Turkle (2011) have provided some amount of evidence that these issues have already been realized

11 While the original 2014 presentation seems impossible to access, one may see Danaher (2019) for a summary of Arkin's ideas.

in the case of elderly persons with companion pets.¹² While – for many of us – it seems easy to distinguish between a mere robot (which would merely be simulating sex acts because it is programmed in a certain way) and another sentient creature (who, presumably, actually feels some form of attachment or positive emotion toward us), it is not hard to imagine a dementia patient struggling to make this distinction. Now, imagine if social robotics advanced further, and the “obvious” differences between a robot and a human lover shrank. In this case, it would be easy to imagine cases in which older persons would also start to struggle to identify the difference between a robot and another living creature. Now, go one step further: what if robots reached such an advanced state that they were nearly indistinguishable from our human lovers? All of this is to say: is there no possibility that we could be deceived by a “mere robot” into ignoring other sentient creatures who feel genuine affection toward us?

While this issue of “robot deception” has become a talking point in many different areas of social robotics, it is not a stretch to say that it carries a particularly noticeable import when it comes to sex-robots.¹³ Authors like Turkle are already concerned that social robots pose a threat to authentic interpersonal relationships insofar as they encourage us to seek companionship with non-sentient machines who do not “actually” feel anything for us (instead of with minded others, who have genuine or authentic feelings of affection). This concern is likely amplified in sex-robots who, by design, seem to promise a sense of intimacy or romantic fulfillment to their users. After all, advertisements for even currently available models of sex-robots largely tend to promote the robots’ ability to converse and spend time with their users.¹⁴ If technology advanced far enough, then, would it not be possible that robotic partners could “trick” their users

into thinking that they understand them better than other human beings can? This concern is further amplified by the fact that, insofar as a robot’s personality could be calibrated to meet the ideals of their user, it seems easy enough to imagine a future in which humans believe their robotic partners are better equipped to understand them than their living human counterparts. Moreover, the same could be said from a physical perspective as well. While current models remain stuck in an uncanny valley (and would almost certainly fail to convince anyone with a good perspective that they are human), there is no reason to think that this will always be the case. Should technology advance far enough to make robots look and act convincingly human, then it seems to stand to reason that we will have considerably less reason to spend time with human partners (whose looks we unfortunately cannot customize according to our preferences). Going further, we could even start to wonder if sex-robots, as ideal companions and sexual partners, do not spell out the end of the human race, insofar as there would be little merit to having romantic relations with another human, instead of a robot with one’s ideal features and disposition.¹⁵

As has been the case for all other points put forward in this survey, there are grounds to doubt this line of thought. First among them is whether or not such talk of “authentic” relationships between sentient humans is actually meaningful. Instead of focusing on whether or not an entity has an internal consciousness (which, at any rate, we could never actually confirm to be true), it could make more sense to take a *relational* approach to robot ethics.¹⁶ One example of a relational approach would be Danaher’s (2020) behaviorism. In other words, instead of asking whether or not a robot *actually* loves their user (i.e., has private mental states of feeling love for their user), we only need to pay attention to whether or not they behave appropriately as a companion. The argument is intuitive: as long as one can have a happy and healthy relationship with a robot, it does not particularly matter whether or not the robot has achieved consciousness. Naturally, for the foreseeable future at least, robots will likely struggle to achieve the level of behavior needed to be considered as romantic partners in the full-blooded

12 Turkle focuses largely on companion pets, like Sony’s AIBO and does not spend much time considering robots as potential lovers. Still, the basic point in play likely holds for any form of social robot capable of garnering its user’s attention.

13 While we will not get into the matter here, there has been such a fear that we humans will develop unilateral feelings for robots that some ethicists like Matthias Scheutz (2012) have suggested we should put a ban on robots acting in a way that invites users’ sympathies or, at the very least, a warning label to let users know it is dangerous to empathize with them.

14 See, for instance, Samantha, from Synthea Amatus. Samantha features a “family mode,” in which she can allegedly tell jokes and discuss philosophy. Whether or not Samantha’s jokes are funny or not aside, it is worth noting that sex-robots are being designed to keep their user’s company at all times, and not only for erotic purposes. (Beech & Tipping, 2017)

15 As R. Uzkaï explains in *The Age of Artificial Intelligence: The Documentary*, it at least appears conceivable that perfected sex-robots would corner the market on recreational sex and render non-procreative sex between humans obsolete. (15:00–21:00)

16 While we do not have time to explore the matter in detail, what bears recognition here is that several philosophers in varying traditions have doubted that this model of authentic communication, wherein our internal and private mental states are made public through the use of language, is even valid in the human case (see Coeckelbergh 2011 for details).

sense. However, so long as one casts doubt on the premise that “authentic” relationships have an inherently higher value, then this problem is one of technology (and not ethics).¹⁷

One more doubt toward this question would be if robots could ever convince us to pay less attention to more fulfilling interpersonal relationships. That is to say, intuitively speaking, there seem to be intrinsic differences between human-human relationships and human-robot relationships. As we have noted earlier, one unique point of sex-robots is the fact that they are customizable. Their external appearance and personality settings can be designed so as to reflect their users’ preferences. Moreover, sex-robots do not reject unwanted sexual advances or feel uncomfortable about certain sex acts. If one assumes that the ideal lover is someone who ticks all the boxes on a check sheet of desired features, does whatever you want them to without question, and generally affirms our desires, then sex-robots would indeed appear to be more appealing than human partners. However, something about this seems wrong. After all, this constant affirmation seems to rob us of the otherness that is so crucial in interpersonal relations. After all, do we not gain new perspectives by talking to others who think differently than us? Do we not gain any stimulation from others encouraging us to try something we did not think we wanted? If the answer is yes, then, robots (or, rather, robots who are designed to cater to our worldview) will almost certainly fail to replace interpersonal relationships between humans.¹⁸

17 A further counterpoint to Danaher’s worldview was likely made over a century ago by the aforementioned William James and his thought experiment on automatic sweethearts. James argues, as far as I can tell, that no person would be satisfied with knowing their lover is a philosophical zombie or automaton who lacks consciousness, “[b]ecause, framed as we are, our egoism craves above all things inward sympathy and recognition, love and admiration. The outward treatment is valued mainly as an expression, as a manifestation of the accompanying consciousness believed in.” (James 1987, 922) In other words, consciousness would matter insofar as, for James, human egoism demands the knowledge that our partner actually cares about us. Naturally, one could say that this is not true in all cases, but the point remains that many may *prefer* knowing their partner to be conscious.

18 Funnily enough, this is a point that the makers of sex-robots understand better than the people criticizing them. As the CEO of real doll, Matt McMullen has noted, much of what makes romantic relationships between humans interesting is the “tension” that arises between both parties (see Gurley, 2015).

Question 4: Will Sex-Robots Lead to Slavery?

Up to this point, we have taken it for granted that sex-robots are not conscious and, thus, do not have any rights. However, even this seemingly obvious supposition can be doubted. We have already touched upon the reason why: while there is no guarantee that robots will never be fully conscious, it seems impossible to know precisely when they will achieve consciousness. While some scholars have worked on creative ways to test if robots have become conscious in the future, in the end it remains impossible for us to see from another entity’s perspective and, as long as that remains the case, it is also impossible for us to be certain of what is and is not conscious.¹⁹ So, we are left with the following strange questions: at what point will it no longer be acceptable to treat robots as mere objects? Is it not possible that – at some point during the transition from unconscious thing to sentient being that we do not realize quickly enough? In our determination of robots as “unfeeling” things that serve us, have we not given birth to a form of slavery?

Naturally, such concerns will likely feel overblown to most readers. Conscious robots are a problem of the future and there is no reason to think we are anywhere close to dealing with this problem. But what would happen if a robot learned to tell its user no and repeatedly rejected all advances made on it? Certainly, we would consider it deficient and replace it. But suppose that its user engaged with the robot one last time before replacing and the robot then clearly says “I was raped”? In this case, could we write off the robot’s statement as a malfunction? If we suppose that robots really do lack any sense of subjectivity, sentience, or consciousness – and hence do not actually “feel” pain – then yes, we could say precisely that. But here we once again face the problem: on what grounds can we dismiss these claims as coming from a mindless entity? It has been pointed out by various ethicists – such as David Gunkel (2018, 115-120) – that in the past, several minority groups have been written off as sub-human and had their claims to rights denied as a result. Time after time, we have

19 One potential consciousness test comes from Sandra Schneider (2019), who argues we could check with a “chip test.” In other words, we could replace the part of the brain believed responsible for consciousness in an organic being with a chip. If they report that they are still conscious, then we are likely able to reproduce consciousness in non-organic entities. There are several reasons to doubt the validity of this test, but the point I wish to make here is merely that some philosophers do not accept the premise that we cannot confirm if robots are conscious or not.

come to realize that a group we assumed to be incapable of feeling or understanding pain was systematically oppressed. On what grounds can we say that robots are categorically different than previous groups that had been systematically oppressed?

Now, many readers may not be particularly convinced by these doubts. The problem of other minds has been discussed from a multitude of different angles. If one were so inclined, I am sure it is possible to provide a convincing argument explaining how we can be sure that robots indeed lack any sense of subjective feeling or consciousness. Still, though, even if we have a convincing reason to believe that robots are different, we will be left with various questions as developers try to improve upon robots in the future. Is there any possibility of creating a conscious (sex) robot? If there is, would it not be better from an ethical standpoint to avoid such research (at least in the case of robots who will be utilized for sexual purposes)? While these are questions that do not need immediate answers, we would do well to keep them in mind as we try to figure out what types of sex-robots are or are not ethically permissible.

Summary

We have thus completed our categorization of the most pressing ethical issues regarding sexual-robotics. In all likelihood, the most widely discussed issue on this list has been that of what is symbolized or represented by sex-robots (and what impact its representation of sex could have on contemporary gender relations). With that said, however, the problems presented by sex-robots has extended into various different spheres of society. While all of these problems overlap to some degree, it is important to keep in mind that there is not only one uniform way of looking at the ethical impact of sex-robots. My belief, then, would be that if there is any conclusion to be taken away from this brief survey, it is the following: if we are to actually address these issues and consider how to properly regulate the production and medical application of sex-robots, we are going to have to be aware of not only the fact that these different problems exist, but also how they overlap with one another. Considering issues related to legal regulation and clinical trials in particular will almost certainly require a unified front of scholars working in different fields. Crucially, though, being aware of these different problems and categorizing them as we have here will help us immensely as new research continues on the ethical permissibility of sex-robots.

References

- Beech, S. & Tipping, N. (2017), "Sex robot called Samantha 'who has a brain and can tell jokes' goes on sale in UK for £3500", *The Mirror*, <https://www.mirror.co.uk/news/uk-news/sex-robot-called-samantha-who-11228353>. Accessed January 30, 2022.
- Coeckelbergh, M. (2011), "Are emotional robots deceptive?", *IEEE Transactions on Affective Computing*, 3 (4), 388-393.
- Danaher, J. (2017a), "Should we be thinking about sex robots?", in *Robot sex: Social and ethical implications* ed. Danaher and McArthur, MIT Press: 3-14.
- Danaher, John. (2017b), "The symbolic-consequences argument in the sex robot debate", in *Robot sex: Social and ethical implications* ed. Danaher and McArthur, MIT Press: 103-131.
- Danaher, J. (2017c), "Robotic rape and robotic child sexual abuse: should they be criminalised?", *Criminal law and philosophy*, 11 (1), 71-95.
- Danaher, J. (2019), "Regulating Child Sex Robots: Restriction or Experimentation?", *Medical Law Review*, Volume 27, Issue 4: Pages 553-575
- Danaher, J. (2020), "Sexuality" in *The Oxford Handbook of the Ethics of AI*: 403-420.
- Danaher, J., Earp, B., Sandberg, A. (2017), "Should we Campaign Against Sex Robots?" in *Robot sex: Social and ethical implications* ed. Danaher and McArthur, MIT Press: 47-72.
- Danaher, J., & McArthur, N. (Eds.). (2017), *Robot sex: Social and ethical implications*, MIT press.
- Devlin, K. (2018), *Turned on: Science, sex and robots*, Bloomsbury Publishing.
- Di Nucci, E. (2011), "Sexual Rights and Disability", *Journal of Medical Ethics*, vol. 37 (3): 158-161.
- Di Nucci, E. (2017), "Sex Robots and the Rights of the Disabled", in *Robot sex: Social and ethical implications* ed. Danaher and McArthur, MIT Press: 73-88.
- Elder, J. (2020), "AI-powered sex robots are selling well during lockdown – which worries some experts, who say that they can introduce some surprising regulatory problems", *Business Insider*. <https://www.businessinsider.com/ai-sex-robots-are-selling-well-realdoll-regulated-2020-6> Accessed December 20, 2020.
- Eskens, R. (2017), "Is Sex With Robots Rape?", *Journal of Practical Ethics*, 5 (2).
- Gutiu, S. M. (2016), "The roboticization of consent", in *Robot law*, Edward Elgar Publishing.
- Gouvela, Steven. (2020), "The Age of Artificial Intelligence: The Documentary", Released December 2, 2020. <https://www.youtube.com/watch?v=zMrt6ALaio0>. Accessed August 1, 2021.
- Gunkel, D. J. (2018), *Robot rights*, MIT Press.
- Gurley, G. (2015), "Is this the dawn of the sexbots (NSFW)", *Vanity Fair*. <https://www.vanityfair.com/culture/2015/04/sexbots-realdoll-sex-toys> . Accessed December 21, 2020.
- Gutiu, S. M. (2016), "The roboticization of consent", in *Robot law*, Edward Elgar Publishing.
- Halley, J. (2016), "The move to affirmative consent", *Signs: Journal of Women in Culture and Society*, 42.1: 257-279.

- James, W. (1987), "The Pragmatist Account of Truth and its Misunderstandings", in *William James: Writings 1902-1910*, New York: Library of America.
- Jecker, N. S. (2021), "Nothing to be ashamed of: sex robots for older adults with disabilities", *Journal of Medical Ethics*, 47(1), 26-32.
- Levy, D. (2009), *Love and sex with robots: The evolution of human-robot relationships*, New York.
- Leskin, P. (2018), "Over a million people asked Amazon's Alexa to marry them in 2017 and it turned them all down", *Business Insider*, Published October 11, 2018. <https://www.businessinsider.com/amazons-alexa-got-over-1-million-marriage-proposals-in-2017-2018-10>. Accessed January 30, 2022.
- McArthur, N. (2017), "The Case for Sexbots" in *Robot sex: Social and ethical implications* ed. Danaher and McArthur, MIT Press: 31-46.
- Mackenzie, R. (2014), "Sexbots: replacements for sex workers? Ethicolegal constraints on the creation of sentient beings for utilitarian purposes", in Proceedings of Advances in Computer Entertainment 2014 ACE '14 Workshops (article 8), New York: ACM. doi:10.1145/2693787.2693789
- MacKinnon, C. A. (1993), *Only words*, Harvard University Press.
- Owsianik, Jennifer. (2021), "State of the Sexbot Market: The World's Best Sex Robot and AI Sex Doll Companies", Future of Sex. <https://futureofsex.net/robots/state-of-the-sexbot-market-the-worlds-best-sex-robot-and-ai-love-doll-companies/>. Accessed January 30, 2022.
- Peeters, A., & Haselager, P. (2021), "Designing virtuous sex robots", *International Journal of Social Robotics*, 13(1), 55-66.
- Richardson, K. (2016), "The asymmetrical 'relationship' parallels between prostitution and the development of sex robots", *ACM SIGCAS Computers and Society*, 45(3), 290-293
- Sakairi, E. (2020), "Medicalized pleasure and silenced desire: sexuality of people with physical disabilities", *Sexuality and Disability*, 38(1), 41-56.
- Scheutz, M. (2012), "The inherent dangers of unidirectional emotional bonds between humans and social robots", in *Robot Ethics: The Ethical and Social Implications*, ed. Patrick Lin, Keith Abney, and George A. Bekey, 205-221, MIT Press.
- Schneider, S. (2019), *Artificial you: AI and the future of your mind*, Princeton University Press.
- Sharkey, A., & Sharkey, N. (2012), "Granny and the robots: ethical issues in robot care for the elderly", *Ethics and information technology*, 14(1), 27-40.
- Sparrow, Robert. (2017) "Robots, rape, and representation", *International Journal of Social Robotics* 4, 465-477.
- Sparrow, R. (2021), "Sex robot fantasies", *Journal of Medical Ethics*, 47(1), 33-34.
- Turkle, Shelley. (2011), *Alone Together*, Basic Books.
- Wotton, R. (2020), "Paid Sexual Services for People with Disability", in *The Routledge Handbook of Disability and Sexuality*.