Revista Filosofía UIS

Criticism Towards Sexual Robot Interactions: Weak Analogies and Equivalences

Crítica hacia las interacciones con robots sexuales: analogías y equivalencias débiles

Crítica em relação às interações entre robôs sexuais: analogias e equivalências fracas

Adrià Harillo Pla
adria.harillo@gmail.com
GIIP - UNESP, Brasil

Artículo de reflexión derivado de investigación
Recepción: 2024/10/17– Aprobación: 2024/12/09
eISSN: 2145-8529
https://doi.org/10.18273/revfil.v24n2-2025007

Abstract: in this article, I analyse the philosophical argument promoting the prohibition of human-robot sexual interactions, highlighting weak analogies and equivalences that support this stance. Scholars offer diverse perspectives on the desirability of such interactions, but I focus on identifying the logically weak arguments behind the reluctance in philosophical circles. I advocate for a shift toward experimental research, and for a constructive approach that includes diverse perspectives.

Keywords: analogy; equivalence; human-robot interaction; sexual robots; logic.

Resumen: en este artículo, analizo el argumento filosófico que promueve la prohibición de las interacciones sexuales entre humanos y robots, destacando las analogías y equivalencias débiles que respaldan esta postura. Los académicos ofrecen diversas perspectivas sobre la deseabilidad de tales interacciones, pero me centro en identificar los argumentos lógicamente débiles detrás de la reticencia en los círculos filosóficos. Abogo por un cambio hacia la investigación experimental y por un enfoque constructivo que incluya diversas perspectivas.

Palabras clave: analogía; equivalencia; interacción humano-robot; robots sexuales; lógica.

Información sobre el autor: español. Doctor en Filosofía, colaborador extranjero en el Grupo Internacional e Interinstitucional de Investigación en Arte, Ciencia y Tecnología, UNESP (SP, Brasil).

Forma de referenciar (APA): Harillo Pla, A. (2025). Criticism Towards Sexual Robot Interactions: Weak Analogies and Equivalences. *Revista Filosofía UIS, 24*(2), 141-159. https://doi.org/10.18273/revfil.v24n2-2025007

Resumo: neste artigo, analiso o argumento filosófico que promove a proibição das interações sexuais entre humanos e robôs, destacando as analogias e equivalências frágeis que sustentam essa posição. Acadêmicos oferecem diversas perspectivas sobre a desejabilidade de tais interações, mas meu foco está em identificar os argumentos logicamente frágeis por trás da reticência em círculos filosóficos. Defendo uma mudança em direção à pesquisa experimental e a um enfoque construtivo que inclua diversas perspectivas.

Palavras-chave: analogia; equivalência; interação humano-robô; robôs sexuais; lógica.

1. Introduction

In this reflection article derived from research, I approach the topic of human robot sexual interactions. To be more specific, I present an analysis of two common arguments provided from a philosophical standpoint regarding this kind of sexual interaction. The motivated reason for performing this analysis is what it seems to be a weak analogy and a weak equivalence in which both philosophical arguments are sustained. This can lead, I claim, to stigma and an oversimplification. The main contribution of this reflection article derived from research to the literature is, primarily, the identification of these weak analogies and equivalences. Secondly, the goal is to make a call to those interested in the topic, to approach the subject critically, minimizing that potential stigma, and avoiding oversimplified conclusions.

To put the matter in context, it is necessary to clarify that robots are socially more present in our lives than ever. As a cause and consequence of this fact, human-robot interaction professionals are putting all their effort into studying and improving how these robots act as social agents, and how they are socially perceived (Bartneck et al., 2020). The types of interaction that these robots are intended to perform, and the needs that they are intended to fulfil, are very diverse. One of them is sexual. Robots designed for sexual purposes, often referred to as sexbots, have generated both intrigue and controversy due to their capacity to simulate sexual human relationships. These machines are developed with the goal of providing, primarily, physical sexual satisfaction, but not only. Sometimes, they can provide emotional comfort, companionship, and even the illusion of affection or empathy. However, I do not consider here this kind of usage.

As artificial intelligence and robotics continue to advance, these robots are becoming more sophisticated in their design and functionality, pushing the boundaries of what technology can replicate in terms of human sexuality.

Sexbots are typically equipped with software to facilitate communication, programmed responses, and, in some cases, even rudimentary emotional engagement. They are designed to mimic human characteristics, including physical appearance, speech, and movement, which may be considered to

enhance the experience that users might seek. In essence, these robots cater to the human desire for sexual fulfilment.

However, the advent of sexbots has sparked numerous debates, not only about the implications for human relationships but also about the broader societal, ethical, and psychological impacts. On the one hand, advocates argue that sex robots may provide a solution for individuals who, for various reasons, find it difficult to engage in human relationships. Also, for those wish to engage with sexbots as an easier way to fulfil their needs. This could include, among others, individuals who experience social anxiety, physical disabilities, or prioritize other things in life, such as work. For these individuals, sexbots may offer a safe, non-judgmental outlet for the satisfaction of physical needs.

On the other hand, critics express concerns about the ethical and social ramifications of sexbots, particularly in relation to the objectification and commodification of human bodies, especially women's bodies (Agudelo et al., 2018). Many sex robots are designed to conform to specific, often hypersexualized and unrealistic standards of beauty, which can reinforce harmful stereotypes about gender, sexuality, and the role of women in society. By creating sexbots, there is a risk of perpetuating problematic power dynamics and shaping user perceptions in ways that could affect human-human interactions.

Although sexual robots are still not as present in society as other types of service, entertainment, or therapy robots, they are already a reality (Alvado, 2017). As with other innovations of different sorts, academicians started putting their attention on sexual robots as well. They did it from:

1. A technical perspective, and;

2. From an epistemological and moral perspective.

The technical approach seems to be addressed mainly by academics from human-robot interaction fields, and engineering (Zhang, 2024). These academics are specially focused on making the human-robot sexual interaction a technical reality, and improving the sexual experience for the humans, by working on the development of the robot through the development of a better software, and hardware. On the other hand, the epistemological and moral approach is more focused on thinking and reasoning about:

1. The potential consciousness of those robots, and (Mackenzie, 2018; Petersen, 2017);

2. If those sexual interactions would be socially desirable, and salutary (Danaher & McArthur, 2018). This approach carries another set of questions, such as: Desirable and salutary for whom? Under what circumstances?

In addition to these critical questions, it is essential to recognize the inherent complexity that sexual robots bring to the broader societal discourse on relationships and intimacy. Robots, unlike other technologies, are beginning to intersect deeply with human emotional and physical needs, making the study of their role in sexuality particularly sensitive. This is not just a matter of engineering or philosophical debate-it touches the core of human ethics, social preferences, and norms (Depounti et al., 2023). As these technologies evolve, our conceptual frameworks for understanding them, critically, should also evolve. This is crucial because the ethical, psychological, and social implications of advanced robotics and artificial intelligence are not static; they shift as the technology becomes more integrated into daily life. Initially, our understanding of robots might have been limited to industrial applications or simple service functions, but the development of robots designed to simulate sexual relations, such as sexbots, requires a reassessment of our moral and philosophical approaches.

For example, the traditional ethical frameworks used to discuss human-machine interaction may not sufficiently address the complexities of intimacy or the potential consequences of delegating emotional labour to machines. Concepts like consent, autonomy, and reciprocity, which are foundational to human relationships, must be re-examined when applied to interactions between humans and robots.

Moreover, as robots begin to fulfil roles traditionally held by humans—whether as caregivers, companions, or even sexual partners—our societal values around relationships, empathy, and the essence of human connection will need to be reconsidered. The increasing reliance on robots for emotional fulfilment could challenge our very definitions of intimacy and love, pushing us to explore whether these experiences can be authentically replicated by machines or if something uniquely human is lost in the process.

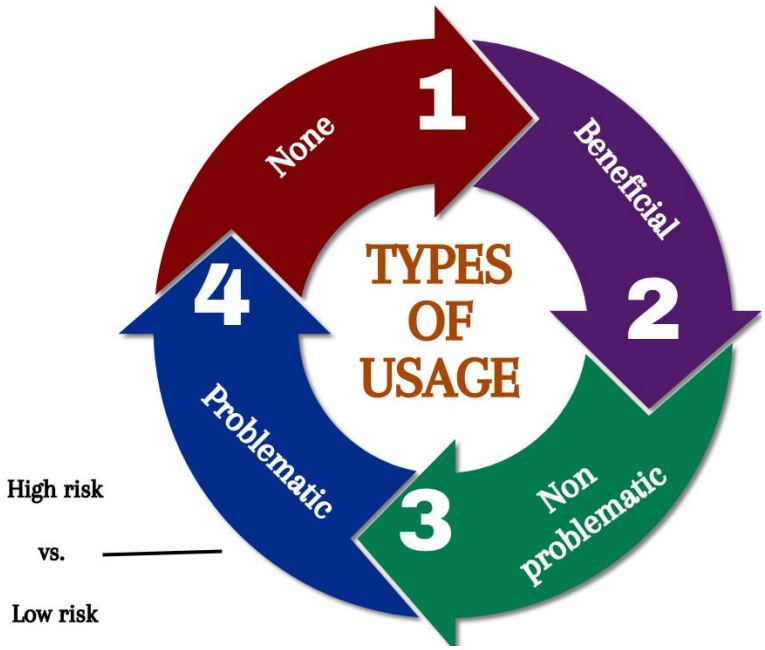
In this sense, evolving technologies compel us to evolve our ethical and philosophical frameworks as well. We must remain vigilant in critically analysing how these innovations affect our humanity, our social structures, and our collective future, ensuring that our understanding keeps pace with the rapid technological advancements around us.

Certainly, different individuals, communities, and societies with different reasoning, values, realities, and preferences, provide different answers to these inquiries. While some scholars consider human-robot sexual interactions as overall socially positive, there are individuals, and collectives, who conclude the opposite. Levy, for example, is considered one of the most optimistic (Levy, 2007). On the contrary, individuals such as Kathleen Richardson and Erik Billing created movements such as The Campaign Against Sex Robots (Morris, 2018; Richardson, 2015).

Undoubtedly, there is a relevant reluctance towards this kind of human-robot sexual interaction among some philosophical circles (e.g. Feminist

Philosophy) (Kislev, 2023; Oleksy & Wnuk, 2021). While I acknowledge the concerns at the base of this reluctance, I consider them a good example of a self-perceived prevention attitude. I consider that this attitude leads to a subjective feeling of security, but I will use this reflection article derived from research to point out that the concerns are often based on weak analogies and equivalences. I consider, therefore, that the arguments used to express the reluctance are not logically sustained. It is capital to clarify that, with this reflection article derived from research, I have no intention of stating that those concerns and reluctance towards this kind of interaction are not valid. I state, only, that the arguments used could be improved, contributing to reducing stigma and oversimplification within the philosophical community of inquiry (Rojas-Sierra, 2022, p. 12).

In many cases, the reluctance is rooted in emotional and cultural discomfort rather than clear philosophical reasoning. This discomfort is understandable, as human-robot sexual interactions challenge beliefs about intimacy, autonomy, and the nature of sexual relations. Yet, to effectively engage with these concerns, it is crucial to move beyond emotional reactions and focus on developing more robust ethical arguments. Failing to do so risks reinforcing existing biases and stigmas, which can lead to societal misconceptions and misinformed public discourse. As this reflection article derived from research progresses, I unpack these weak analogies and demonstrate how they oversimplify the rich, complex nature of human-robot sexual interaction.



In fact, when approaching human-robot sexual interactions, some philosophers usually conclude if they are desirable, or salutary, depending on the risk that these interactions can pose towards people, and specially, towards women. Often, those conclusions do not make a difference between different levels of risk, basing the argumentation, and conclusions, on a dualistic world view, ignoring nuances (See: Figure 1).

Figure 1. The image presents a circular diagram illustrating different types of usage, organized into distinct categories. At the top is "None," representing the absence of usage. Moving clockwise, the next section shows "Beneficial" usage, followed by "Non-problematic" usage. The last category is "Problematic" usage, which is further divided into two segments: "High Risk" and "Low Risk."

Independently of the specific speculative case study employed to analyse those risks, the majority of case studies share two familiarities. In one of them, men perform some sexually unaccepted practice towards the robot (Nyholm, 2022). These philosophers conclude that, by extension, those men will perform the sexually unaccepted practice towards real women as well (Richardson, 2015). In a second case study, philosophers claim that men would perform sexually unaccepted practices towards women (Sparrow, 2017). Due to the lack of consent, men will perform it with sexual robots, without changing their sexist perception towards women, nor their objectification (Lancaster, 2021; Richardson, 2015; Sparrow, 2017).

These conclusions, while possible and acknowledged, are often based on logically weak arguments. At the same time, they create a generalization based on individual actions, which might affect interpersonal relations, but fail to clearly establish how the impact could transcend to different organizations, communities, and societies (See: Figure 2).

Figure 2. The image presents an inverted pyramid, symbolizing varying levels of risk based on the type of victim. The pyramid is structured from bottom to top, starting with "Individual" at the narrow base, representing risks that affect single persons. As it widens, the next levels are "Interpersonal," "Organizational," and "Community," indicating progressively broader groups impacted by usage. At the top, the widest section, is labeled "Society," signifying usage that has the greatest reach and affects the entire population. The inverted shape emphasizes the increasing scope of risk as the pyramid expands upward.

Although these consequences are possible, the arguments provided do not support, logically, the social harm that they are often trying to avoid or reduce. Before concluding, in the Discussion section, I will present the importance of avoiding fallacies, or weak arguments, in order to achieve an innovative landscape in which human-robot sexual interactions can match the expectations of the society and some communities.

2. Materials and methods

The analysis presented in this reflection article derived from research employs a philosophical framework to examine arguments related to human-robot sexual interactions. In order to perform such analysis, I performed a comprehensive review of philosophical literature on human-robot sexual interactions, focusing on key arguments, analogies, and equivalences presented by various scholars, specially, those who could be categorized as pessimistic. This involved a systematic exploration of academic databases and relevant publications.

I selected the arguments based on their relevance, and repetitiveness within the philosophical discourse on human-robot sexual interactions. This selection involved a comparative analysis to assess the consistency and validity of arguments across different sources, and identifying the common arguments used, even if they were applied to different case scenarios. To achieve that, I juxtaposed diverse perspectives and critically evaluated the coherence of reasoning presented in each case.

The literature review process was guided by both secondary sources, ensuring that the selected texts encompassed a wide range of philosophical opinions and ethical considerations. This meant engaging not only with academic articles but also with books, conference proceedings, and opinion pieces that reflected on the broader implications of human-robot sexual interactions.

At the same time, it is important to mention that this reflection article derived from research presents a logical analysis of arguments presented in academic bibliography. However, the analysed arguments refer to potential scenarios, and therefore, must be understood that the source is speculative research (Wilkie et al., 2017). This is a common ground in any research involving human-robot sexual interactions from a philosophical approach. The cause is that this kind of innovation is possible, but is still not massively adopted. Therefore, not a lot of funding has been allocated to the topic with the goal of performing empirical or quantitative research based on effective scenarios.

3. Results

3.1. Sex With Robots Equals Danger!

The Cambridge Dictionary describes a risk as "the possibility of something bad happening" (Cambridge Dictionary, 2023, definition 1). The Oxford English Dictionary, describes it as the "exposure to the possibility of loss, injury, or other adverse or unwelcome circumstance" (Oxford English Dictionary, 2023). But if the descriptive and normative functionality of the dictionary is not enough, the scholars seem to agree with the definition. For example, by describing risk as "the idea that something might happen, usually something bad" (Ropeik & Gray, 2002, p. 4). They add, however, four important characteristics in order to calibrate if a risk is real, or just imaginary, four characteristics to which the philosophical community not always pay attention.

These four characteristics are:

1. Its probability;

2. Its consequences;

3. Its hazard, and;

4. Its exposure. (Ropeik & Gray, 2002, pp. 4-5)

It seems reasonable for some philosophers to consider sexbots as a risk. Very reasonably, they conclude that it is necessary to avoid that risk. This reasoning is the result of the fact that they do not wish anything negative to happen, and due to technical improvements, the probability of having social robots whose main purpose is to perform sexual practices, is increasing (Alvado, 2017; Devlin, 2018). At the same time, they consider that, the exposure to those robots will increase, specially among males. In addition, they consider, by generalizing the same experience provided by other technological innovations, that these robots will become cheaper and more accessible.

For those philosophers, the consequences are not desirable, nor salutary, since they could lead to violence towards real women. To solve this, some authors reached the point of presenting the scenario of building sexual robots as

virtuous tools for the learning of virtuous practices (Peeters & Haselager, 2021). The philosophers who share this concern, identify the hazard with men, or with the robot. As a consequence, one way to reduce that risk and its potential negative consequences, is by avoiding the creation of the robot (hazard). This would directly reduce the probability of being exposed to it, and this seems a reasonable way of thinking:

1. No sexbot equals no hazard.

2. No hazard equals no probability of exposure.

3. No exposure equals no bad consequence.

4. No bad consequence equals no risk.

3.2. First to the Robot, Then to the Women!

The first argument that is often used to exemplify this risk takes the form of an analogy. The analogy is usually as follows: some men will perform practices which are not desirable, nor salutary, with the sexbot, which resembles a woman. Therefore, they will perform them towards real women, too.

Let's see the analogy used to sustain this argument:

A=Some philosophers

B=The sexbot

C=Women

D=Some men

P=Undesirable and non-salutary practices

Y=Relevant women's characteristics

1. (A) consider that (B) resembles (C) in (Y);

2. (A) believe that (D) will perform (P) to (B);

3. (A) generalize that (D) will perform (P) towards (C) based on its similarity with (B) due to (Y).

The argument is not solid, I sustain, because (Y) is not enough to establish a strong analogy between (B) and (C). In other words, the relevant women's characteristics are not enough to establish a full analogy between the sexbot and women. However, for a deep analysis on why the interactions with robots and humans should be legally regulated based on their physical resemblance, I recommend the upcoming book of Kamil Mamak, to be published in 2025.

Currently, sexbots resemble women physically, but not indistinguishably. They are far from achieving the indistinguishability (Locatelli, 2022). The argument, often, is based on a simplification of what is a relevant woman characteristic: her physical characteristics (Lancaster, 2021). Let's use speculative reasoning, and foresee that in the future, less ethical limitations, and better technology, allow improving hardware developments. Let's speculate that, thanks to improvements in soft-robotics, and biological materials such as alive tissue, those sexbots become really indistinguishable from women.

Even in that case, there is still the software, which relates to the personality of the woman, and which also seems a very relevant characteristic of them (Bartneck et al., 2020). The situation, in this case, is not different. Certainly, some sexbots are currently integrated with different pre-defined software profiles, which resemble different personalities (Alvado, 2017). The development of artificial intelligence, and deep learning, will increase, presumably, the chances of obtaining a sexbot which resembles a real woman, maybe (Hanson, 2022).[1] Nevertheless, and even if this speculative scenario becomes a reality, there is an important factor that the analysed argument omits: situatedness of information. This situatedness of information is what allows for "the actor's thinking and behaviour [to be] informed and dictated by the environment" (Agarwal, 2022, p. 7).

Men with normal mental capacity, must be capable to understand, and to identify, the differences between the sexbot, and real women. Therefore, men with normal mental capacity, must be able to perform practices which differ among them, since women are human, while the sexbot is a mere artefact, and even if they look almost identical, the context makes a difference.

Certainly, the sexbot from the argument, has enough characteristics to resemble a woman in some of her sexual characteristics. However, that is not enough to confuse them. An absurd, but representative example of this, could be obtained by thinking of Elvis Presley in Las Vegas. In 2024, men with normal mental capacity could see someone in Las Vegas who dresses like Elvis Presley, looks physically like Elvis Presley, calls himself Elvis Presley, and sings like Elvis Presley. That is not enough, however, to think he is Elvis Presley. As a consequence, the interactions performed with the original Elvis Presley, and the fake Elvis Presley, are not necessarily the same.

Aas absurd as this example could seem, the reasoning used when stating that some men could perform undesirable and non-salutary practices towards sexbots, and as a consequence, to real women, is very similar. As previously stated, the weakness of the analogy, is that it is based on an analogy which does not consider contextual intelligence, and which oversimplifies which are the

[1] If there are no changes, Iva Apostolova is going to publish a book in 2025 on how software is related to hardware. According to her perspective, the incapacity for a robot to have empirical experiences through the sense of touch (hardware), implies a limitation for cognition (software).

relevant women's characteristics. These two factors, lead to the establishment of a weak equivalence between a real woman, and a sexbot which resembles a woman.

Someone might feel that I am omitting another important factor: culture. It could be said that, culturally, in patriarchal cultures, we already have examples of this risk becoming a reality, and objectifying women, like with the exposure to porn (McNair, 2014; Nomura & Suzuki, 2022). Although I acknowledge the existence and relevance of these discussions, I consider that there is no conclusive result (Donnerstein, 1980; 1984). I consider that the relation between pornography and its social impact on how men interact sexually with women depends on interdependent factors. However, I acknowledge that even if there is a problem which can be extended from our experience with pornography, that situates the argument towards the risks posed by the sexbots as not intrinsic to the sexbots, but as applicable to any indirect sexual practice, involving men and women.

3.3. Not to the Women, Then to the Robot!

The second argument that often is used to exemplify the risk that sexbots, in combination with men, represent, follows a similar analogy. The analogy is usually as follows: men would like to perform sexually unaccepted practices towards women. Due to the lack of consent that men frequently obtain from women to perform those practices, men will perform them with sexual robots. This is not going to change the sexist perception of men towards women, nor their objectification (Lancaster, 2021; Richardson, 2015).

Let's see the analogy used to sustain this argument:

A=Some philosophers

B=The sexbot

C=Women

D=Some men

P=Undesirable and non-salutary practices

Y=Relevant women's characteristics

1. (A) consider that (B) resembles (C) in (Y);

2. (A) believe that (D) will wish to perform (P) to (C);

3. (A) believe that (C) will not consent (P) from (D) towards (C);

4. (A) generalize that (D) will perform (P) towards (B) but that will not change their conceptual perception towards (C) due to (Y).

This argument, I sustain, is also not solid. Its weakness resides in the same point as in the previous occasion, the resemblance (Y) between sexbots (B) and women (C).

Building upon this foundation, I understand that certain individuals (D) harbour desires to engage in practices (P) with women (C). The important distinction, here, is recognizing that (C) would not consent to such practices. This is a key difference from an artefact, without agency, programmed and designed to perform such a function.

In the rejection of these practices (P) by women (C), I observe a response by some men (D). Individuals (D) accept the lack of consent by women (C), and redirect the practices (P) towards the sexbot (B). This redirection does not imply, by itself, any positive, or negative relation towards women. It shows, however, a recognition of women's agency. In fact, what this argument shows, is that the redirection of the wishes in front of the lack of consent, signals a recognition of two separate entities characteristics (Y) between women (C) and sexbots (B): their agency and individual capacity to express in what kind of activities they want to be, freely, engaged. In this argument, therefore, the physical resemblance (Y), seems to be a possibility, maybe a necessity, but clearly not a sufficiency when establishing a clear equivalence between women (C) and sexbots (B) by some men (D).

The negative impact initially associated with the desires is thereby mitigated, as the actions directed towards robots do not necessarily reflect or perpetuate the negative conceptual framework held towards women.

4. Discussion

In this analysis, I underscored the need for a logically sound evaluation of the arguments used to defend, or criticize, a technological innovation such as sexbots. This need arises from the widespread reliance on speculative reasoning in the debate, which often results in polarized perspectives that lack the necessary empirical backing. Such speculative approaches, though valuable in initiating discourse, are insufficient when we aim to craft policy or ethical guidelines that affect real-world implementation. As technologies advance at an unprecedented pace, the discourse surrounding sexbots requires greater rigour and a shift towards grounded argumentation that reflects the realities of human-robot sexual interactions in practice, not merely in theory. In the past, I already expressed that I find engaging in this kind of interaction reasonable (Harillo Pla, 2023), specially considering that this kind of robot is not always to be understood as an entertainment robot, but also as a therapeutic robot. I also defended the importance of self-responsibility, when developing, distributing, and using this kind of robot, in order to have sexbots which match with social expectations (Harillo Pla, 2024). I consider this specially important because preliminary empirical studies do not seem to show a direct relation between the usage of sexbots and criminal sexual behaviour (Zara et al., 2022).

Precisely as a result of that empirical experiment, and the logical inconsistencies expressed in this text, I consider it key to emphasize the importance of grounding discussions in current empirical experiments in sexual studies and human-robot interaction. Empirical data can provide much-needed clarity by addressing often speculative questions, which become mere ideological discussions. For instance, concerns about whether sexbots could perpetuate harmful stereotypes or exacerbate societal problems, such as objectification or social isolation, could be explored through rigorous studies that examine user behaviour, attitudes, and long-term effects. By integrating empirical research, we move from abstract moral concerns to a tested understanding of how these technologies function in diverse societal and individual contexts. Moreover, this would open up opportunities to design sexbots in ways that mitigate potential risks while maximizing benefits, thus making the technology safer and more ethically viable. That, I sustain, will as well improve the obtention of valid premises, which will help in supporting the argumentation process, and, as a consequence, the future decision-making.

The scrutiny of arguments surrounding human-robot sexual interactions reveals the limitations of ideological perspectives. Many critiques of sexbots tend to fall into rigid ideological categories, often ignoring the complexities inherent in such innovations. On one hand, there are those who advocate for sexbots from a libertarian perspective, arguing that technological progress and personal freedom should not be curtailed. On the other hand, there are more conservative views that see sexbots as emblematic of moral decline, claiming they will lead to a degradation of human relationships. However, these ideological stances frequently rely on unfounded assumptions, and neither fully grapples with the nuanced realities of human sexuality, technological ethics, or societal diversity. The focus on hypothetical dangers, rather than empirical realities, often results in oversimplification. For instance, arguments that sexbots will inherently increase loneliness overlook how companionship might be defined differently by various individuals, some of whom may find human relationships inaccessible or unfulfilling for reasons unrelated to technology. By anchoring discussions in empirical data, we can differentiate between justified concerns and unrealistic perceptions of risk. A paradigm shift towards empirical studies becomes paramount in understanding the real-world implications of this evolving technological landscape. By embracing experimental evidence, the discussion could move beyond theoretical conjectures, allowing for a more informed discourse on the actual impact of these interactions.

In this analysis, I proposed a constructive approach, steering away from merely deconstructing flawed arguments. While it is crucial to identify and critique weak analogies, simply dismantling opposing views does not necessarily lead to progress. A constructive approach would involve building on the ethical principles already in place within robotics, artificial intelligence, and sexual health to foster guidelines that are adaptable to the unique challenges presented by sexbots. By focusing on how these technologies could be ethically developed

and integrated, I encourage innovation that aligns with societal values, rather than stifling progress out of fear or discomfort. Instead, I advocate for a proactive stance that seeks solutions and ethical guidelines. By fostering a dialogue between human-robot interaction professionals, ethicists, and stakeholders, we can shape innovative frameworks that prioritize the well-being of individuals across diverse contexts. This dialogue should include not only those in the fields of robotics and ethics, but also voices from sexual health experts, psychologists, sociologists, and users themselves. Limiting the research, and deployment of this kind of robot, out of imaginary risks, involves limiting its access to the end user, condemning these sexbots and its users to more stigma (Uribe Guzmán, 2018). By integrating these perspectives, we can better understand the full spectrum of potential impacts that sexbots may have, both positive and negative, and create an ethical framework that addresses the concerns of various stakeholders. I consider the Principle of Alternative Possibilities to be a fair ethical framework (Harillo Pla, 2024), but this has to be cooperatively discussed within our community of inquiry.

As I advocate for a more experimental approach, it becomes crucial to highlight the scarcity of current empirical experiments in sexual studies and human-robot interaction, especially in the context of ethical considerations. Despite the rapid development of robotics and AI technologies, research specifically focused on the intersection of these technologies with sexuality remains limited. This scarcity can be attributed to various factors, including societal taboos surrounding sexual research, the novelty of sexbots as a topic, and the challenges of securing funding for such studies. The limited data available means that much of the discourse is based on speculation, leading to conclusions that may not hold up when tested against real-world usage. Moreover, the ethical complexities of conducting experiments with sexbots require researchers to face delicate issues such as consent, privacy, and the psychological effects on users. At the same time, it is important to be aware that the majority of users who are prone to use this kind of robot, or who have some incentive, might be the majority of individuals who would accept to be part of the empirical students. Acknowledging this, is important to avoid sampling biases during the research. Nevertheless, the need for such studies is growing more urgent as sexbots become more advanced and accessible. Without empirical data, ethical guidelines remain incomplete, leaving policymakers and designers to operate in a vacuum of uncertainty.

The ultimate goal of my analysis is to contribute to the ongoing search for technical innovations that genuinely improve the lives of all individuals. The potential benefits of sexbots should not be dismissed outright by approaches which picture the situation as dualistic, and associate its risk, and moralism, dualistically as well (Queloz, 2024). While much of the discourse centres on their potential harms, we must also recognize that for certain individuals, and under certain circumstances, sexbots could offer new avenues for intimacy, companionship, and sexual expression. Individuals with disabilities, those who

experience social anxiety, or those who are otherwise marginalized from traditional romantic or sexual relationships could find empowerment and satisfaction through interactions with sexbots. Others, could use them with absolute responsibility, and following social rules of what is considered acceptable within their culture, or other's cultures. Therefore, an inclusive approach to the development of sexbots is essential, rather than imposing blanket restrictions based on untested risks. We should aim to create pathways for the ethical and socially salutary integration of these technologies, by focusing on its value-driven design. This requires acknowledging both the risks and the benefits, and striving to develop sexbots that are safe, socially salutary, and tailored to the needs of diverse users.

In acknowledging the current lack of comprehensive experimental studies in which to sustain our thinking and reasoning, I recognize the challenges of navigating uncharted territory. This lack of data presents an opportunity for the academic community to pioneer new research methods that can bridge the gap between speculation and reality. For example, longitudinal studies that follow users of sexbots over extended periods could provide critical insights into the long-term psychological, emotional, and social effects of human-robot sexual interactions. Additionally, cross-cultural studies could explore how different societal contexts shape the acceptance or rejection of these technologies, allowing for the development of culturally sensitive ethical guidelines. The field of human-robot interaction stands at a critical juncture, and the decisions we make today will shape how these technologies are perceived and integrated in the future. By committing to rigorous, empirical research, we can ensure that our ethical frameworks and policy decisions are grounded in reality, rather than fear or speculation. However, this acknowledgment serves as a call to action, urging researchers, scholars, and industry professionals to invest in experimental studies in order to gather evidence, that can guide the responsible development and integration of these technologies.

5. Conclusion

In conclusion, I encourage a departure from ideological debates and a deliberate embrace of solid argumentation, based on evidence. By shifting the discourse from hypothetical concerns to evidence-based reasoning, we can foster a more nuanced and constructive conversation about sexbots. This approach will not only help mitigate the stigma associated with human-robot sexual interactions but will also pave the way for a more informed public dialogue. As with any emerging technology, the discourse surrounding sexbots will evolve as more data becomes available. By adopting an evidence-based approach early on, we can avoid the pitfalls of knee-jerk reactions or moral panic and instead create a thoughtful, inclusive, and ethically sound framework for the future of human-robot sexual interactions. The responsible development and integration of sexbots depend on this shift towards empirical research and the careful balancing of risks and benefits. By doing so, the subject will become a more well-

informed and inclusive discourse, paving the way for technical innovations that enhance the well-being of all individuals.

6. Acknowledgments

I would like to express my heartfelt gratitude to the scholars and researchers who have dedicated their time and expertise to the exploration of human-robot sexual interactions. This multidisciplinary field requires the collective effort of people who contribute to our understanding of the complexities involved.

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