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Robot Prostitutes as Alternatives to Human Sex Workers

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Abstract – Recent discussions on roboethics have introduced the subject of sex with robots. The first sexbots are likely to be operational around the end of the current decade, their development being based on technologies that already exist in different types of commercially available artifact. The very high cost of the early generations of sexually functioning robots will cause the *hire* of robots for sex, rather than their purchase, to become commonplace. The most often stated motivations for hiring human sex workers are discussed in relation to how these motivations could be satisfied by robots. Five ethical aspects of robot prostitution are introduced and discussed.

“I pay for sex because that is the only way I can get sex. I am not ashamed of paying for sex. I pay for food. I pay for clothing. I pay for shelter. Why should I not also pay for sex? Paying for sex does not diminish the pleasure I derive from it.”

– Hugh Loebner² [1]

1 Introduction

Recent discussions on roboethics have introduced the subject of sex with robots [2], [3], [4]. In particular, one authoritative statement on this topic received worldwide media publicity during 2006 – the prediction by Henrik Christensen, chairman of EURON, the European Robotics Research Network, that “People will be having sex with robots within five years.” [5]

The arrival of sexbots³ seems imminent when one considers recent trends in the development of humanoids, sex dolls and sex machines of various types. Sophisticated humanoids such as the Replée Q1 [6] and Replée Q2 [7] have already been developed that are humanlike in appearance. Advances in materials science have enabled sex doll manufacturers to improve significantly on the inflatable products of the preceding decades, creating dolls with prices in the region of \$5,000-\$7,000 [8]. Low cost sexual devices, designed mostly for use by women, now sell tens of millions annually in the USA [9]. Far more intricate and more expensive machines are manufactured that actually simulate sexual intercourse, and are sold on web sites such as *www.orgasmalley.com*, whose prices range from \$140 to \$1,800.

It takes little imagination to appreciate that it is already technically possible to construct a robot that combines the look, feel and functions of all three of these product categories. The huge commercial potential of such a combination is what will drive the rapid development of sexbots, to the point where Christensen’s upper bound of the year 2011 might turn out to be a conservative estimate.

When sexbots first appear on the market they will most likely be beyond the pockets of all but the wealthy. The current cost of construction of a sophisticated humanoid dwarfs the cost of purchasing an upmarket sex doll, as can be seen from the \$130,000 starting price of the robot heads designed by industry leader David Hanson and manufactured by his company Hanson Robotics Inc. With the first sexbots costing a six figure (dollar) sum, or possibly more, their hire will be the only way for most of us who want to experiment with the joys of robot sex to do so.

¹ David Levy is a private artificial intelligence researcher.

² Hugh Loebner is the founder and sponsor of the annual Loebner Prize in Artificial Intelligence, a Turing Test contest to find the best conversational computer program.

³ In common with accepted practice this paper employs the term “sexbot” to mean *any* robot with sexual functionality, and “malebot” or “fembot” to indicate a sexbot with artificial genitalia corresponding to a particular sex.

2 Sex Dolls for Hire

In terms of sales volumes, Japan leads the way with the current generation of high priced sex dolls [8]. Their popularity on the retail market has also spawned a doll variant of the more traditional form of “escort” service. In a 2004 newspaper article entitled “Rent-a-Doll Blows Hooker Market Wide Open.” [10], the *Mainichi Daily News* explains how one leading purveyor, *Doll No Mori* (Forest of Dolls), started their 24/7 doll escort service in southern Tokyo and the neighbouring Kanagawa prefecture. “ ‘We opened for business in July this year,’ said Hajime Kimura, owner of *Doll no Mori*. ‘Originally, we were going to run a regular call girl service, but one day while we were surfing the Net we found this business offering love doll deliveries. We decided the labor costs would be cheaper and changed our line of business.’ Outlays are low, with the doll's initial cost the major investment and wages never a problem for employers. ‘We’ve got four dolls working for us at the moment. We get at least one job a day, even on weekdays, so we made back our initial investment in the first month,’ Kimura says. ‘Unlike employing people, everything we make becomes a profit and we never have to worry about the girls not turning up for work.’ *Doll no Mori* charges start at 13,000 yen (around \$110) for a 70-minute session with the dolls, which is about the same price as a regular call girl service. The company boasts of many repeat customers. ‘Nearly all our customers choose our two-hour option.’ ”

Within little more than a year of the doll-for-hire idea taking root in Japan, sex entrepreneurs in South Korea also started to cash in. Upmarket sex dolls were introduced to the Korean public at the Sexpo exhibition in Seoul in August 2005, and were immediately seen as a possible antidote to Korea’s Special Law on Prostitution that had been placed on the statute books the previous year. Before long, hotels in Korea were hiring out “doll experience rooms” for around 25,000 Won per hour (\$25), a fee that included a bed, a computer to enable the customer to visit pornographic web sites, and the use of a doll. This initiative quickly became so successful at plugging the gap created by the anti-prostitution law that, before long, establishments were opening up that were dedicated solely to the use of sex dolls, including at least four in the city of Suwon. These hotels assumed, quite reasonably, that there was no question of them running foul of the law, since their dolls were not human. But the Korean police were not so sure. The news web site *Chosun.com* reported, in October 2006, that the police in Gyeonggi Province were “looking into whether these businesses violate the law. . . Since the sex acts are occurring with a doll and not a human being, it is unclear whether the Special Law on Prostitution applies.”

The early successes of these sex-doll-for-hire businesses is a clear indicator of things to come. If static sex dolls can be hired out successfully, then sexbots with moving components seem certain to be even more successful. If vibrators can be such a huge commercial success, then malebots with vibrating penises would also seem likely to have great commercial potential.

3 Paying a (Human) Sex Worker

Prostitution is known as “the world’s oldest profession”, and is one that continually attracts controversy because of the ethical issues involved in selling sex. On the one hand there are arguments such as: prostitution harms women, exploits women, demeans women, spreads sexual diseases, fuels drug problems, leads to an increase in organised crime, breaks up relationships, etc. In contrast there are those, including many of the clients themselves, who acknowledge and praise the social benefits of prostitution and the valuable services performed by the profession for its clients. These supporters employ arguments such as: prostitutes have careers based on giving pleasure, they can teach the sexually inexperienced how to become better lovers, they make people less lonely, they relieve millions of people of unwanted stress and tension, they provide sex without commitment for those who want it. The ethical issues surrounding all these and other arguments related to prostitution have been debated for centuries.

In order to gain some insight as to why people will be willing, even eager, to hire the services of malebots and fembots, it is useful first to investigate the reasons for paying for the services of human sex workers. A comprehensive analysis of the principal reasons is given by Levy [8], discussing not only men hiring female sex workers but also the far less prevalent but increasing phenomenon of women hiring men.

Several reasons have been identified as to why men pay women for sex – what the men want or expect from these sexual encounters. The reasons most commonly stated by male clients include:

Variety — The opportunity to have sex with a range of different women [11], [12]. A robot will be able to provide variety in terms of its conversation, its voice, its knowledge and its virtual interests, its virtual personality, and just about every other aspect of its being, including its appearance and size. While variety in these characteristics of sex workers is one major reason for men paying for sex, variety in the sexual experience itself is, for many clients, another important factor, often *the* most important. Many clients are interested in sexual practices to which they do not otherwise have access, such as oral sex, often because their partners are unable or unwilling to accommodate their desires [13]. An electro-mechanically sophisticated robot that can indulge in oral sex will be able to satisfy this particular human motivation.

Lack of Complications and Constraints — The literature has identified a small group of motivations that might collectively be described as a lack of complications and constraints. For many clients the principal benefits of the commercial sex exchange include the clear purpose and bounded nature of the arrangement, as well as its anonymity, its brevity and the lack of emotional involvement [14], [15]. Sexbots, almost by definition, will be able to satisfy these particular human motivations.

Lack of Success with the Opposite Sex — For a variety of reasons many men experience difficulty in developing relationships with women. In some cases this is because the man is ugly, physically deformed, psychologically inadequate, a stranger in another town or a foreign land, or simply lacking in the necessary social skills and/or sexual assurance. Such men, with normal male desires, have a need for sexual intimacy that they cannot satisfy because of their lack of sexual effectiveness – they simply cannot attract a mate, or are afraid to try, or suffer from a combination of both. By paying for sex they reduce the risk of rejection to an absolute minimum, thereby almost guaranteeing themselves sex on a plate. For these men prostitution is the only sex available, a reason for paying for sex that was indicated by almost 40 percent of the clients in one study [16]. None of these problem categories will present any difficulty to sexbots, which will be immune to any ugliness or physical deformity in their clients, and to their clients' psychological inadequacies.

In contrast to the relatively well-researched topic of men paying for sex, there is almost no systematic published research on the reasons why women pay, on what exactly they are seeking. But what little published evidence there is on this topic suggests that the reasons are close to those that motivate the male clients of sex workers, principally a lack of complications and constraints and a lack of success with men [8].

In summary, sexbots-for-hire will be able to satisfy the motivational as well as the sexual needs for those (of both sexes) who would otherwise be the clients of sex workers – to provide variety, to offer sex without complications or constraints, and to meet the needs of those who have no success in finding human sex partners. In addition, there is one significant health benefit for the clients in hiring a sexbot instead of a sex worker, namely the relative ease with which hirers can assure themselves of freedom of infection from sexually transmitted diseases. The sexual hygiene of a robot could and should be undertaken by the clients, as a case reported in *Genitourinary Medicine* testifies [17].

4 Some Ethical Aspects of Robot Prostitution

Here we consider five aspects of the ethics of robot prostitution:

The ethics of making robot prostitutes available for general use. The prime purpose of a sexbot is to assist the user in achieving orgasm without the necessity of having another human being present. This is the same purpose as female vibrators, which are now so popular that they are openly sold on the shelves on some of the biggest and most reputable drug store and pharmacy chains in the U.S.A. and Europe. It would seem anomalous, in view of this widespread tacit acceptability of vibrators, to brand their use immoral, just as it is difficult to argue that the design, development, manufacture and sale of sexbots is unethical.

The ethics, vis à vis oneself and society in general, of using robot prostitutes. With most of the clients of sex workers, self-respect is an important issue. There are those, like Hugh Loebner, who are so proud of the use they make of the services of sex workers that they happily publicize their commercial sex activities, but they represent a small minority. The majority feel that there is still a moral stigma attached to their encounters, and they will go to some length in their attempts to avoid being found out by those close to them or, even worse, being named-and-shamed in public as some police forces do. For this majority the issue of self-respect will be much better catered for by hiring robot prostitutes instead of sex workers, because robots are not generally perceived as being alive, but as artifacts, and the same moral stigma does not therefore apply. Yet there will, at least for some time, be a moral stigma of a different sort. We understand sex with a person but most people do not appreciate the concept of sex with a robot, and what we do not understand we tend to stigmatize.

In contemplating how the use of robot prostitutes might affect society, it is also important to consider the legal issues. Most of us in a free-thinking society are unlikely to feel that the use of sexbots by adults in private is a practice that should be prevented by legislation, yet in Alabama, Texas, and some other jurisdictions in the U.S.A., the sale of vibrators has been deemed illegal [8], so who knows how the law will view the sale and hire of sexbots in the more conservative minded states. Amongst those who have argued that people should have the right to avail themselves of the services of sex workers, David Richards [18], makes a strong case: "... we are able to understand the humane and fulfilling force of sexuality *per se* in human life, the scope of human autonomous self-control in regulating its expression, and the implications of these facts for the widening application of the concept of human rights to the sexual area. . . . sexual autonomy appears to be a central aspect of moral personality through which we define our ideas of a free person who has taken responsibility for her or his life." Clearly Richards's arguments carry even more force when related to robot prostitutes rather than to human sex workers.

The ethics, vis à vis one's partner or spouse, of using robot prostitutes. How the use of a robot prostitute is perceived by a spouse or partner is open to many possibilities. Will a spouse or partner who considers infidelity with another human to be reasonable behaviour, be likely to be upset by the hire of a sexbot? Certainly there will be many who feel that the sexual demands placed on them within their relationship are excessive, and who will therefore appreciate a night off now and then, in the knowledge that what is taking place is nothing "worse" than a form of masturbation. There will also be some who positively relish the idea of robots, programmed to be sexually adept, teaching their partner to improve their lovemaking skills. And there will be couples, both of whom derive pleasure and sexual satisfaction from a threesome in which the third participant is willing to indulge in whatever sexual activity is asked of it (subject of course to its programming and engineering). In contrast there will some partners and spouses who find the very idea of sex with a robot to be an anathema. The ethics of using a robot prostitute within a relationship will depend very much on the sexual ethics of the relationship itself when robots do not enter the picture.

The ethics, vis à vis human sex workers, of using robot prostitutes. It is a common perception that prostitution is a "bad thing" for the sex workers. This is because it is seen, *inter alia*, as degrading them, encouraging them into a lifestyle in which an addiction to hard drugs often forms an integral part, and strongly increasing the likelihood of their catching AIDS or some other possibly fatal sexually transmitted disease. If this is so, and not all sex workers agree with this perception of their profession as a bad thing, then the introduction of robot prostitutes can only be a "good thing", because it will most likely cause a dramatic drop in the numbers who ply their trade in whichever countries robot prostitutes are made available. This eventuality was predicted as long ago as 1983, when *The Guardian* reported [19] that New York prostitutes "share some of the fears of other workers – that technology developments may put them completely out of business. All the peepshows now sell substitutes – dolls to have sex with, vibrators, plastic vaginas and penises – and as one woman groused in New York 'It won't be long before customers can buy a robot from the drug-store and they won't need us at all.' ". This problem, the compulsory redundancy of sex workers, is an important ethical issue, since in many cases those who turn to prostitution as their occupation do so because they have literally no other way to earn the money they need.

The ethics, vis à vis the sexbots themselves, of using robot prostitutes. Up to now the discussion in this paper has been based on the assumption that sexbots will be mere artifacts, without any consciousness and therefore with no rights comparable to those of human beings. Recently, however, the study of robotics has taken on a new dimension, with the emergence of ideas relating to Artificial Consciousness⁴ (AC). This area of research is concerned with “the study and creation of artifacts which have mental characteristics typically associated with consciousness such as (self-)awareness, emotion, affect, phenomenal states, imagination, etc.” [20].

Without wishing to prejudice what will undoubtedly be a lively and long-running debate on robot consciousness, this author considers it appropriate to raise the issue of how Artificial Consciousness, when designed into robots, should affect our thinking regarding robot prostitutes. Should they then be considered to have legal rights and ethical status, and therefore worthy of society’s concern for their well-being and their behaviour, just as our view of sex workers is very much influenced by our concern for *their* well-being and behaviour? David Calverley asserts [21] that natural law mitigates in favour of an artificial consciousness having intrinsic rights, and therefore, simply by virtue of having an artificial consciousness, a robot should be ascribed *legal* rights. If this is held to be so, then concomitant with those legal rights will come legal responsibilities, and robot prostitutes might therefore become subject to some of the same or similar legal restrictions that currently apply to sex workers.

The legal status and rights of robots is but one aspect of their ethical status. Torrance [22] discusses our responsibility in, and the ethical consequences of, creating robots that are considered to possess conscious states, and he introduces the notion of Artificial Ethics (AE) – the creation of “systems which perform in ways which confer or imply the possession of ethical status when humans perform in those ways. For example, having a right to life, or a right not to be treated merely as an instrument of someone else’s needs or desires, are properties which are part of the ethical status of a human being, but a person doesn’t acquire such rights just because of what they *do*. This may extend to ethics when applied to artificial agents.”

These questions from Calverley, Torrance and others in this nascent but already fascinating field, are certainly issues that will form part of the coming debate on the ethics of robot sex and robot prostitution. This author does not pretend to have any answers as yet, but for the time being rests content to have raised the profile of these issues for the awareness of the roboethics community.

5 Conclusion

With the advent of robot sex, robot prostitution inevitably becomes a topic for discussion. The author believes that the availability of sexual robot partners will be of significant social and psychological benefit for society, but accepts that there are important ethical issues to be considered relating to robot prostitutes. This paper has highlighted some of these issues. The debate is just beginning.

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