



Research Article

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Sex with robots: A not-so-niche market for disabled and older persons

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Abstract: In this article, we present our experiences from research into the healthy ageing and well-being of older people and we report on our personal opinions of robots that may help the elderly to have sex and to cope with isolation and loneliness. However, and while there is a growing industry for sex robots and other sex toys and gadgets, there is also a growing concern about the ethics of such an industry. As is the case with pornography, the concept of sex robots may be criticized, yet it has deep roots in human civilization, with erotic depictions that date back to the Palaeolithic and Mesolithic Ages. So the need for an artefact that would offer sexually relevant functionality is not new at all. But what might be new and worrying is the potential for using artificial intelligence in sex robots in ways that might cause a repositioning of our entire value system. Such a threat is not related to the proliferation of sex robots per se but to the use of robots in general and in a variety of other fields of application.

Keywords: human-robot interaction, sex, older persons, healthy ageing

1 Introduction

We have acquired certain experiences from our involvement and participation in the context of European research projects such as the MARIO project (<http://www.mario-project.eu>). MARIO was a robot project that would facilitate the care of people with dementia [1]. In that project, the main idea was to design and offer apps that are intended to serve as reminders for those affected, and which can

relieve the burden on families, relatives and carers. In order to provide companionship for people with dementia, several games have been developed, which encourage patients to focus and engage. These include a painting game, which was the game most selected by the participants in a residential care home; Scopa, an Italian card game, which was the most selected game at a hospital; and Bingo, the most selected game among people in the community.

However, this is insufficient. There is plenty of time to fill within the 24 h of every day and then on each of the 7 days in every week, 365 days a year. Filling all these time with activities for the elderly is a somewhat Sisyphean task, but one that could mistakenly appear to be simple. The work and results of renowned researchers in this field indicate that the greatest dangers to the quality of life of old(er) people in general, and dementia patients, in particular, are isolation and loneliness.

Irvin Yalom, a famous psychoanalyst and well-known writer, who himself will be 88 this year, includes a passage about sex and death in one of his fictional writings entitled *Staring at the Sun: Overcoming the Terror of Death* [2]. There Yalom writes about an elderly man, panicking because of his fear of death, who developed an atypical sex drive and as a result had many sexual encounters with women who lived in his senior citizens' community.

Those who favour the advent of sex with robots are often perceived as being sexually deviant, even perverted. But a future with robots as sex partners is perfectly understandable, if one studies the past. Sex robots and other devices that have a sexually relevant functionality are nothing more than interactive sex dolls. And the latter are no novelty for our civilization – the first of these gadgets was invented during the seventeenth century by Dutch sailors who suffered from isolation and a lack of sex during long voyages at sea.

These dolls, known as *dames de voyage*, were made of sewn fabric or old clothes and were a precursor of today's sex dolls. And although one might not feel comfortable in admitting this, these "Dutch wives" are an example of a need leading to a solution.

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2 A little bit of background

2.1 The story behind the story

The origins of our interest in this subject came unexpectedly when one of the authors was involved in a study, assigned in 2010 by a supranational institution, which concerned the future of accessibility and e-accessibility. The exact title of the study was “Study on Implications from Future ICT Trends on Assistive Technology and Accessibility”. There the question of sexual accessibility appeared at some point as a part of the discussions that took place, with the participation of external experts. With a little research, it was easy to recognize that this was not a new issue at all. Gary Karp, an accessibility expert and author who himself is disabled and with whom we had been in contact at that time, had also written a book on this subject *Disability and The Art of Kissing: Questions and Answers on the True Nature of Intimacy* [3]. Karp had also been active in giving lectures on this subject, with exciting and attention-grabbing titles such as “Sex on Wheels” [4]. While Karp himself conceded that the subject was sensitive, there is absolutely no reason, in our opinion, for leaving this subject untouched. What we did, and what we present in the following sections of this article, is embark on a type of technology and innovation monitoring process, where we have selected for highlighting some recent (and not so recent) technology news postings. Our aim for doing this was to help recognize that *though their common denominator is sex, disability is only partly a framing parameter*. It is therefore a case where all these sex gadgets, sex toys and other sex innovations are actually bridging the gaps in thinking on this subject, rather than letting the gaps grow bigger, which is a rather positive development in our view.

2.2 To see and to believe

We shall now explore some articles which have appeared in recent years – the oldest one dates back to January 2012.

The first article we consider presents a type of Internet-based sex toy, which is promoted as “A Thousand Dildos for Military Wives” [5]. The aim was to help bring military families together through the use of what is known as teledildonics technology.

The second article, which appeared in March 2013, presents Love-Palz, “A Real-Time Virtual Sex Toy for Long-Distance Couples” [6]. There are actually two toys,

named Hera and Zeus, which are interesting because, although they were ancient Greek deities, the husband Zeus and the wife Hera were often separated by long distances because Zeus was away from home, having sex with everyone in the universe besides Hera. To our thinking, Hera resembles a dildo, while Zeus is like a sleeker.

The third article appeared in January 2014 and is about a connected item of underwear that promises to turn on its users sexually [7]. This item has been developed by a company dealing with connected sex toys – the idea is that one can have his or her underwear controlled by his or her partner who operates an iOS or Android app. We find particularly interesting a remark by the founder of the company “Technology can drive couples apart, but this is using technology and gadgets to bring them closer together”, adding also that he came up with the concept together with his wife when they noticed they were spending too much time on their smartphones and less time being intimate [7]. We are aware of the limits of decency and would not wish to approach those upper limits, but we are tempted to comment that to us this remark does not seem rational at all, even though there are many couples who live in the same home but, sadly, run parallel lives. It can even be argued that in the trenches of the First World War the two sides may have had closer physical and emotional closeness than many of us do in our modern or postmodern lives.

The fourth article appeared in June 2015 and is about a wearable device for men [8]. What distinguished it at least at that time was that it collected data to provide its user with statistics recorded by the device, including the number of calories the user has burned during sexual activity, the force of their thrusting and even the user’s top speed. It can be argued that there could not be a better textbook example for bringing the “quantified self” trend to people’s sex lives. And these features of the product represent only one small part of its functionality – the software even examines the individual user’s performance and suggests one of 120 new positions that the user could try out the next time.

The fifth article is about a “VR-Based Pleasure Machine For The Lads” – a sex toy designed only for men [9]. Although the name of the device is rather vulgar – eJicatorator is rather too unmystifyingly descriptive – the author makes an appropriate comment, wondering:

In your life, why should you give valuable time to this thing? [9]

And immediately comes up with an answer:

Well if science fiction has taught us anything it's that those possessing of a shyness that is criminally vulgar will eventually turn to robotic helpmates in their time of need. While it will never be a heavenly way to die by the side of a robotic sex toy, it can keep you busy while you're cruising Tinder. [9]

This may remind us of one of the experiences that Irvin Yalom had with one of his patients, who was constantly afraid that she would die and her daughters would find her next to her vibrator. The aesthetics of the language used by Irvin Yalom, and that of the article's author, John Biggs, may be very different from each other, but what the two of them have in common is their views on the issue of human loneliness.

Be it in distant living couples – military [5] or not; be it for people with a need that might be situational, temporal or, in many cases, permanent, there is a well-articulated human need to push forward the frontiers of our experience by the way of using technology. These technologies might sometimes extend or augment our experience of reality or expose us to a different reality that is both virtual and artificial.

The author of the article on the eJaculator device, John Biggs, in another article that appeared in November 2015 (2 months after the original), and which is entitled “Inside (the) Robot”, asserts that “before robots replace us we will make love to them” [10].

Biggs concludes in a way that reminds us of a person thinking aloud:

Am I worried about Kiiroo? No. When we give robots power over the last thing that makes us human we risk losing everything to them. I have no fear that we'll be lost to Kiiroo any time soon but its forthcoming offspring, coupled with VR and whatever else we invent, will lull us into strange worlds that will be increasingly difficult to escape. Perhaps, dangerously, many of us will want to make the trip and some of us will want to stay longer than we should. [10]

3 A type of conclusion: connecting the dots

We do not share the pessimism expressed above. We would rather prefer to agree with Bryan Clark who, in his opening sentence in [12], wrote that “the only possible culmination of AI research is packing it neatly inside a synthetic body and having sex with it”.

It is also not uncommon for researchers and scientists to make predictions. Some of us may not use a crystal ball but employ something similar, namely scenarios. Some of

these scenarios predict that by 2050, sex with robots is expected to become so commonplace that it will overtake human-on-human intercourse [16].

It might take longer – so instead of 2050 it might happen by 2070 – or it could be even earlier if the technologies and the marketing of sex robots assist the growth of this product category.

For the mainstream market, it is not difficult to see that robots will provide a great way to spice up couples' love lives as well as improve their skills in the bedroom. But everything comes at a cost: sex dolls manufactured by company RealDoll [11] currently sell for more than US \$6,000, without artificial intelligence (AI). Also, let us be honest here, the target demographic does not seem to be couples.

So what might have been invented a few hundred years ago as a result of a necessity, i.e. to accompany sailors in their long trips around the world, and that concept is still here but in a different form. The next feature that the sex robot industry is looking to add is AI, in order to create human-like sexbots. Such a creation would have a customizable personality and possibly even a sense of humour.

The authors do not see this industry as perverted or sinister. (See also Section 4.) Quite the opposite. We think that as long as there is the potential to offer comfort to anyone, irrespective of age, abilities or disabilities and any other characteristics, it is something that we should all consider in a positive way, if not a welcome one.

Are there threats? Of course there are! One would not like to imagine the human species having sex with robots as a result of a failure to develop relationships with other humans. However, imagine the case of an extremely shy person not wanting to disclose his or her shyness to an expert – would it be better for him or her to have no sexual relations at all rather than having sex with a robot?

Technology changes our lives. Calligraphy is now not as much of a skill in demand as are typing and digital literacy. For couples who share a life but are unable to share a common sex life – why should divorce be their only option? If they prefer to stimulate each other with connected underwear and vibrating panties, let them do so.

We are so much afraid of abnormality, but in the end most of us recognize that we are all, in some ways, abnormal, with the risk that abnormality may hold for all of us. Perhaps this is the new normality. While it might seem as teleologically consistent if an old(er) or a disabled person has sex with a robot, it might equally

seem unusual, and be criticized as sad or strange, if someone young and able-bodied has intercourse with a robot. They might be criticized for failing to have a “normal” physical relationship with another human.

Our response is – why care at all? A saying that dates back to the times of the so-called “Iron Curtain” and the Cold War asserts that socialism works only in two places: Heaven where they don’t need it and hell where they already have it. We would like to close this contribution by paraphrasing it as follows:

Sex with robots will suit all of us: *those of us who have enough of it* and do not seem to need it, and *those of us who miss it* greatly and therefore shall have easier access to it!

4 Aftermath

Although the authors do not see this industry as perverted or sinister, we are aware that the position we take might be biased as a result of our own unintended short-sightedness (or worse: naivety). Professor Kathleen Richardson has published on this topic (see, for example, [14] and also her Campaign Against Sex Robots [13]) and offers several good reasons why sex robots are not a good idea at all. Among her arguments are the facts that “sex robots further sexually objectify women and children”. One might of course think that sex robots similarly objectify men as well, but her argument is, of course, quite correct and valid.

All of Richardson’s views on the parallels between prostitution and sex robots are, again, very correct. One could even dare to go one level beyond and say that while in the past perversion may have been only an accident, generations of young people who will be trained to have sex with robots for various reasons (because it is easier, it is less complicated; and because it gives them more degrees of emotional freedom than “real” sex and so on) will be trained in such a way as to develop a psychological disability. However, this is no reason to perceive women as being sex objects and therefore inferior. And Richardson’s views are not only related to prostitution. The advent of sex robots might affect, to some extent, the role of women (or humans) in sex in general. On this topic, see also Cindy Gallop’s presentation [15] on how young people develop an opinion according to which “real sex should look like hardcore porn”.

And for the authors of this article, there is no worse “immense horror”, to use an expression of Richardson’s, that is limited only to the field of prostitution. Other bad

or horrible uses for bots might be to employ robots for confession purposes, thus replacing the human priest. This could happen even if such a robot might have been trained to outperform the average intellectual and spiritual capabilities of a “normal” (i.e. human) priest. Another possibility that has already been with us for many years is a robot to replace human blue-collar workers on the production line of an automotive company.

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