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**FUTURE OF SEX REPORT**

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*THE RISE OF THE ROBOSEXUALS*

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*Author: Futurologist, Dr Ian Pearson BSc DSc(hc) FWAAS CITP  
FBCS FWIF FRSA, Futurizon, in partnership with Bondara.*



## Opening statement

Chris Simms, Managing Director of Bondara

The industry we work in is developing at a pace we could have never have imagined, and this is mostly down to the developments and evolution in technology which has sparked innovation in the market. This is something as a business that really excites us, and we have created a team dedicated to researching and sourcing the most ground-breaking and down-right crazy sex technology. Last year we even dipped our toes into product development when we created a prototype activity tracker the “SexFit” specifically for the bedroom (a cockring Fitbit), which received global interest!

One thing that has always stuck with me before I even started Bondara is the idea of virtual reality sex. I remember watching Demolition Man in the early nineties, there is an iconic scene based in the year 2032 where Sandra Bullock’s character dons a headset and attempts to have virtual intercourse with Sylvester Stallone’s male lead. Back then I laughed at how crazy a future world would be where no one had physical relations anymore –it seemed completely absurd. However, now with internet-enabled products and virtual reality headsets on the rise this future that I thought was unfathomable could actually be a reality much sooner than predicted in the film.

This new world of sex technology throws up so many questions. When are we all going to be having virtual reality sex? Could we fall in love with robots in the future? What is this all going to mean for our relationships? With this in mind we have partnered with Futurologist Dr Ian Pearson who has written the “Future of Sex” report to help us answer some of these questions. The future is looking pretty sexy!



Your friend John has just overtaken you on the leaderboard with 20 more sexual activity points

Congratulations Level One Foreplay is now complete and you have been awarded bonus points for longevity, do you wish to share your progress with your followers or on social media?

# The Future of Sex: The Rise of the Robosexuals

*A Futurizon Report – September 2015*

*Author: Dr Ian Pearson BSc DSc(hc) FWAAS CITP FBCS FWIF FRSA*

## INTRODUCTION

Sex needs no introduction, but the ways we enjoy it will evolve significantly in coming years. Vibrators have been around for over a century but now the vibrant sex toy industry doesn't just make standalone devices but teledildonic devices that bring all the fun and functionality of computing and networks to sex too. This will certainly include rapid spread of augmented and virtual reality technology, which we've all been waiting for, ever since the cult classic Lawnmower Man. As well as toys and apps, we'll also get direct nervous systems links, dream linking and even body sharing. You'll be able to link your dream sex to other people, feel their sensations as well as your own, and directly stimulate orgasms by the touch of an icon, or even send someone an orgasm over messaging. Sex will be easier, safer, more frequent and a lot more fun.

This report will look at how sex will evolve alongside the development of technology, making predictions on adoption behaviour and market growth, as well as the social impact of all these changes. Key predictions include:

- By 2030, most people will have some form of virtual sex as casually as they browse porn today
- By 2035 the majority of people will own sex toys that interact with virtual reality sex
- We will start to see some forms of robot sex appearing in high-income, very wealthy households as soon as 2025
- We will start to see robot sex overtaking human-human in 2050
- Leisure spending could grow by a factor of five, and the sex market in 20 years could be three times bigger than today and seven times bigger by 2050.
- Sex toys will account for a UK market of over £1bn
- Love and the act of sex to become increasingly separate, relationship will become more than just sex

## MARKET POTENTIAL

Sex will always be a big market. It drives a lot of technology on the web, accounting for a quarter of all searches for example, as well as providing a healthy real life market in areas such as strip clubs, massage parlours, brothels etc and it will help drive progress in VR and augmented reality just the same. By 2030, most people will have some form of virtual sex as casually as they browse porn today.

The private sex market includes not just kinky lingerie, ropes, lubricants, condoms and sex toys but all the things that precede it, such as dating, eating out, flowers, chocolates, clothes, makeup, jewellery and perfumery. These collectively occupy a market sector that expands at up to 6% per year. That rate of growth can't continue forever or it would soon be our entire spend, but underlying economic growth could stay around 2% for the next few decades at least, tripling incomes, and basic survival will take a smaller share of that due to automation and other technology reducing costs. That means that leisure spending could grow by a factor of five, and the sex market in 20 years could be three times bigger than today and seven times bigger by 2050.

The diversity of offerings within that will increase as new technology arrives too. Sex toys alone will account for a UK market of over £1bn! As well as the porn films, there will still be various innovative porn subscriptions and the pay-as-you-go webcam sites that we already have, but augmented and virtual reality will create lucrative 3D opportunities that offer lots more fun and feeling or personal involvement. It will need tools to adjust appearance and behaviour, and a range of devices to connect bodies to IT for the sex experience, as well as all the related social applications of course.

Although most people will have virtual sex by 2030, some might only use straightforward VR without the sex toys as part of that. By 2035 toys will be better developed and most people will be well used to VR sex by then, so will have acquired a collection of sex toys that interwork with VR. It will be some time later again before robots become very commonplace and sexually attractive.

A lot of people will still have reservations about sex with robots at first but gradually as they get used to them, as the AI and mechanical behaviour and their feel improves, and they start to become friends with strong emotional bonds, that squeamishness will gradually evaporate.

While some people will enthusiastically embrace relationship-free robot sex as soon as they can afford one, as early as 2025, it won't have much chance of overtaking sex with humans overall until 2050.

## EVOLUTION

The path of evolution for sex technology is already obvious. As hook-up sites become better established, we're just seeing the dawn of virtual reality with clumsy headsets and a rich variety of stimulators. Next will be lighter weight glasses and then active contact lenses, with active skin coming in to record and replay sensations. Finally, we'll end up with direct links to the brain, and finally the ability to directly stimulate the septal area to create an orgasm at the touch of a button. Along the way we'll get technology to let you share experiences, inhabit other people's bodies, even lock them in place or control them electronically.

Brothels and strip clubs will soon include robots and themselves will be a specific fetish for some people as well as a potentially cheaper replacement for real life interaction. Robotic dancers are already in use on a cruise ship and they will soon feature in strip clubs and bars too. Holographic and other 3D displays will also add to the opportunities. Even sex films could be rendered in real time CGI by future PCs, so you could pick the appearance of the stars and what they get up to rather than making do with the real stars on offer. The global £10Bn/year profit from the porn film market will very likely be absorbed and expanded threefold by real time personalised CGI. £30Bn/year is an attractive market!

## VIRTUAL REALITY (VR)

Virtual reality's potential for sex is already much anticipated. Instead of meeting and playing directly with a real person, you use a 3D immersive environment to interact with graphics and environment customised to your preferences, with a variety of gadgets providing the physical sensations. At one end of the spectrum, you can play with an AI character you've designed to fulfil your wildest fantasy and nobody but you need ever know. At the other, you can indulge fantasies with real people as themselves or in fantasy avatars in exciting environments. VR offers to combine the best of imagination and reality. You could have real sex in a real bed wearing VR contact lenses and be seeing a totally different person than the one you are having sex with if you wanted, or change their face or costume every couple of minutes. Inevitably, many people will be with one person but seeing a celebrity, and imagining it is them that are having sex with. Your partner could appear as many different partners or roles during the same session. The obvious question is who controls their appearance, them or you? That will be for each couple to discuss.



## ROBOPHILIA OR ROBOSEXUALS

Virtual sex with AIs or robots will compete with human sex but robots will be expensive; if you want a convincingly humanlike sexbot covered in soft materials, agile enough to do anything a human can, and AI to offer a customisable personality with only the emotional baggage you want. An AI doesn't have to live in a robot, it can be anywhere, so you could use your favourite AI with any robot. It might feel very pleasant, and will be perfect for those people who want to live their ultimate fantasy without all the strings and emotional commitments of real relationships.

On the other hand, that will appeal to some people, who just want sex without the hassle. We already see people who want to have sex with AIs and robots, and the robo-sexuality genre of fantasies is already very well developed, including the desire to convert real people to robots, or be converted. The related fetish of forniphilia, or the sexual desire for statues or mannequins, is also developed and becoming feasible. It is now known that the brain can effectively be 'switched off' temporarily by feeding electric currents into the right region of the brain. This is another area we'll need to protect from hackers.

People will certainly fall in love with robots and AIs and they might fall in love with each other too. It is hard to predict what sorts of sex AIs will invent for their own amusement, but likely they will do so.

## VR FOR HUMANS

For humans, VR can enhance appearance and the appearance of ability. Your partner could have the perfect physique and entertain you with the sexiest moves, or they could just be their regular selves. They could use celebrity downloads to use with their own avatar to emulate the sexual behaviour of your favourite star. So you'd get the best of both worlds - the security, affection and hopefully love of being with a real partner, along with the option to indulge your wildest human fantasy. In VR, only some of that needs their knowledge and cooperation, even getting them to do things they wouldn't normally agree to.

VR will allow people to have sex who might otherwise have few opportunities: people who are too old or restricted in what they can do in reality. In VR, real appearance and ability cease to be barriers, since AI can fill any gaps.

VR offers the potential for infidelity too, even during sex. VR images only need to go into your eyes, so partners could be seeing a different environment. If your partner wants to see what you are seeing, you could let them, or show a censored version to conceal that you're actually pretending to be with the person next door. Technology will evolve but human nature won't.

Relationship-free pleasure is easy with AI and robotics, and with risk reduction, we can expect a huge rise in casual sex between humans too, even between people who never meet. Sex hook-up sites and webcam chat rooms will use VR links. AI will allow emulation of presenters' sexual interactivity to as many as want it.

## FULL-SENSATION

Special gloves can already convey some aspects of touch and texture, and various sex toys and attachments such as Bondara's Kiirou Couple Set can be connected to IT to include them in VR experience; just another area of the 'internet of things', with all the monitoring and customisation apps to go with them. The VR of tomorrow will link directly to the nervous system, extending IT to the internet of bodies. Thin membranes on the skin could link to other devices embedded in the skin itself, implanted using painless air jets. They could monitor signals passing along nerves, recording sensations and later recreating those same signals to replay that sensation. Celebrities and porn stars may record sex sessions for others to buy them. As connection technologies develop, people could experience each other's sensations and obviously improving pleasure-giving, so that future sex will be three times as good. Similar technology could inflict pain too, so you could feel the tap when you get VR spanked. Jamming nerve signals via active skin will

enable digital bondage, immobilising someone without needing to learn how to tie ropes or denying them an orgasm.

## HEADSETS

The VR headset will be replaced by active contact lenses, using tiny lasers or LEDs to write images directly onto the retina, giving an ultra-high definition display overlaying or replacing whatever you're looking at, so you can see who and what you like, whoever you're with. Control could use thoughts, eyebrow muscles or simply blinking. With earphones, active contact lenses, and active skin on your hands, fingers, and all your erogenous zones, virtual sex could be a legitimate sensory experience and real sex greatly enhanced, but it goes further. Contact lenses lie under your eyelids, so you can still see images with your eyes closed. When you fall asleep, they could be linked to a computer that detects when you are in a dream state, what images you are seeing, and then injects images or video to enhance your dream. It could link your dreams to those of others dreaming at the same time, with a sort of dream-based sex hook-up. Sleep sex toys will enhance this further and active skin will be part of that.

## GENDER PLAY & BODY SHARING

Many people like to roleplay as the opposite sex, and virtual will transform gender-hopping. Brain-mapping signals will allow people to physically feel as if they actually have the body of the gender they're emulating as well as the appearance. Sometimes you might have sex in one gender, sometimes in another. After experimenting, people might become accustomed to gender transitions and sexuality will be more fluid. With the flexibility of brain mapping, new sexes can also be created too, with new kinds of genitalia and new kinds of gender roles and behaviours. The whole nature of sex is up to engineering and imagination. Augmented reality allows people to present any gender as their real world avatar too, so people passing by would see them as they would like to be seen.

This same technology will enable sharing sensations with others, effectively inhabiting someone else's body. If you are in theirs and they are in yours, you'd effectively swap bodies, though coordinating physical activity between you would certainly take some practice! On the other hand, you'll need to keep your security up to date to stop voyeurs enjoying your body and sensations too.

## SOCIAL IMPACT

Morality is inherently cultural and the path of VR could take our habits anywhere. However, sex partners are likely to share the same ideas of morality so matters such as



what constitutes cheating will evolve too. People may accept partners having sex with AI, virtual people and robots, or just pushing 'O!' for an orgasm if they are doing the same. Some might consider sex with other people OK as long as it's just sex, not an emotional commitment. The emotional bond and its importance in a relationship is likely to remain the most resilient factor, driven by basic human nature. Even in 50 years, people will still need to feel that their partner values them above anyone or anything. Love and sex will become increasingly separated and independent. Relationships will still be more than just sex, people will still date, still eat out, still pour love on each other, and occasionally even still have sex because they want to have a baby.

## CLOSING REMARKS

Sex and the pleasure it provides has been fundamental to the human race for three billion years, and it isn't going away any time soon. Rather, new technology and increasing wealth will stimulate the market enormously to three times its current size in 20 years, and seven times by 2050.

VR and AI will together transform opportunities, allowing people safely and privately to explore their full desires. Social values will adapt to these new possibilities and subsequent behaviours, and loving relationships will remain important in spite of these shifts in values. If we can keep love and our emotional human relationships but have more, better and safer sex, what's not to like?

## ABOUT THE AUTHOR

Dr Ian Pearson BSc DSc(hc) CITP FBCS FWAAS FWIF FRSA

Ian Pearson is a full time futurologist, tracking and predicting developments across a wide range of technology, business, society, politics and the environment. He is a Maths and Physics graduate, a Doctor of Science, and has worked in numerous branches of engineering, from aeronautics to cybernetics, sustainable transport to electronic cosmetics. His inventions include text messaging and the active contact lens. He was BT's full-time futurologist from 1991 to 2007 and now runs Futurizon, a small futures institute. He writes, lectures and consults globally on all aspects of the technology-driven future. He has written several books and made 600 TV and radio appearances. He is a Chartered Fellow of the British Computer Society and Fellow of the World Academy of Art and Science, the Royal Society of Arts and Commerce, and the World Innovation Foundation.