

How to Get In Early in This "Dirty" Sector

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[Yesterday](#), we started looking at the companion robot space. We concluded by identifying the controversial topic of sex robots as an interesting investment field to explore – although a potentially troubling one. Today we'll look at the commercial opportunities, and the risks.

Sci-fi is rich with portrayals of sexually enabled robots, but they're hopelessly unrealistic. Most depictions are based on humans pretending to be robots – not the other way round. Forthcoming sex-bots will have far more in common with a giant Barbie, than with Gemma Chan in *Humans* or Alicia Vikander in *Ex Machina*.

If you can overcome your squeamishness over this odd investment category, how could you back companies working in this space?

From one point of view, you could look to invest in the existing doll manufacturers – in the hope their early lead will persist. This is still a fairly obscure market, but there are several firms you could target. Brands such as Lumi Dolls and Realdoll already make life-size sex dolls.

Lumi Dolls even has its own "brothel" – demonstrating different ways to invest in the proposition. However, the fact that other companies haven't rushed to set up such establishments rather suggests that the market for pre-enjoyed dolls is a little flat. (Now, I wonder why that might be...?)

Alternatively, you could find other ways into this market. You might be keen on backing firms making general-purpose companion robots, such as Pepper (from SoftBank Robotics). Such companies will be able to provide the brains behind life-like companion androids – whether sexual, or otherwise. It may turn out that a natural conversation is more important to buyers than the nuts-and-bolts mechatronics. From media reports, it seems that some customers of sex dolls do seem to form a curious type of projected relationship with their purchases – even without movement or speech. If you're the kind of person who's willing to spend thousands on a not very life-like companion, then any amount of interactivity would probably be a step up.

Finally, cutting-edge robotics firms might be the best way into the market. After all, being able to move like a human is a very important characteristic in a sex robot – perhaps more so than the currently unachievable goals of natural conversation and appearance. To this end, investing in general robotics firms may be a better bet – with companies such as Boston Dynamics or Hyundai Robotics offering a starting point for your research.

It's important to understand how controversial this space could be. There's already an NGO working on the issue – the Campaign Against Sex Robots.

Then there's the understandable concern about firms like Trottla – manufacturers of child dolls. While UK courts currently take a dim view of this, various experts are cautiously positive (eg, Michael Seto, quoted in *NewScientist*).

Could prescribing child sex robots reduce contact sex offending?

The percentage of men with paedophile tendencies is believed to be in the low single figures. That's currently a huge social problem: these men are hard to control or treat; difficult to find; and expensive to lock up. Globally, tens of millions of people worldwide may ultimately be allowed (or even forced) to keep child sex robots, in an attempt to stop them harming real children. If the strategy works, it would have a significant economic impact: freeing up police officers; reducing prison populations; and saving the costs of dealing with very damaged victims – many of whom go on to have intractable problems in adult life.

Nevertheless, the status of child dolls and robots presently remains legally controversial. While doll manufacture (as well as sexual artwork) is seemingly tolerated in parts of Asia, the Anglophone world typically takes a sterner line. Just like the UK case we discussed [yesterday](#), a man has gone on trial in Canada for ordering a Harumi Designs doll. It's unclear how this legal framework will evolve; there appears to have been no verdict in this case, at the time of writing. Furthermore, there is currently no UK law designed specifically to address child sex dolls and robots.

By contrast, adult-type sex robots may still be controversial – but there's no reason to think they'll be made illegal. Their future is potentially bright – although it hinges on considerable technological progress, before widespread adoption becomes a realistic possibility. Rapid developments are inevitable, in many of the crucial enabling technologies. Economies of scale means dolls will get better and cheaper; AI advances mean they will get smarter; and robotics advances will mean they will get more realistic in their movements.

Despite the inevitability of progress, mainstream consumers may not be interested. This is a fascinating area for technology and

ethics – but, from an investment point of view, it could well remain a niche opportunity. Nevertheless, I don't want to end up like the IBM's Thomas J Watson, who allegedly said "I think there is a world market for about five computers".

I can genuinely envisage a future where a significant proportion of the world's single men might have such a robot squirrelled away in a closet – but I'm not sure I find that a comfortable or pleasant idea. However, in a world where any form of flirting is increasingly regarded as harassment, it's possible to imagine that many men might view robots as a safer and more convenient alternative – as well as being more affordable and reliable.

Data shows that young people are increasingly turning away from sexual relationships. Therefore, it's possible we might soon see a generation emerge where robots are seen simply as one of a range of "normal" ways to express their sexuality.

Personally, I think that we're a long way from a time when most people will want to have any kind of meaningful emotional connection with such a machine – particularly as they won't be at all convincing for many decades. However, most of us can probably recall personal experiences where emotional connection has played a relatively small part in the proceedings. If robots can offer something comparable, then maybe quite a few of us will be tempted to hide one in our bedrooms – just like 20th century teenagers hid copies of Playboy.

I'd really like to hear your thoughts on this challenging subject: andrew@southbankresearch.com.

Best,

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