# "Regulated or Not, Here I Come"

## Regulating Sex Robots in New Zealand

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## *Introduction*

Sex robots are here and advancing; bringing with them a wealth of moral, ethical and legal considerations, and sparking polarising debates as to their development and use. Exploiting technology for sexual gratification is not a new phenomenon – archaeologists have revealed dildos originating from the Upper Palaeolithic period, and vibrators and sex dolls can be dated back to the early 20th century.[1] This dissertation concerns the latest development in this realm – human-like sex robots, which are promised to provide a uniquely realistic sexual experience, potentially pushing sexuality into genuinely new and unchartered terrain. Sex robots have attracted considerable attention from the public, media and academics. A sex robot brothel set to open in Houston, Texas, was shut down by the City Council before opening due to public outrage.[2] Robotics ethicist Kathleen Richardson launched the *Campaign Against Sex Robots* in 2015, calling for their outright prohibition; though the boundaries of criminalisation are slim, and restrictive regulation requires clear social justification.[3] In the face of non-consensual evidence, and prospective remote harms, I will decipher the ultimate question of whether sex robots merit a regulatory response in New Zealand, and if so, what form that may take.

Chapter I provides background into the technology and sets out the parameters of this dissertation. I will define sex robots, explain the state of current technology and how it might develop, as well as underscore the novelty in sex robots and why they warrant consideration.

Chapter II considers some of the prima facie challenges of regulating new technology. I will outline Brownsword and Goodwin's four key regulatory challenges, namely:

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[1] Mark Migotti and Nicole Wyatt "On the Very Idea of Sex with Robots" in John Danaher and Neil McArthur (eds) *Robot Sex: Social and Ethical Implications* (The MIT Press, London, 2017) 15 at 15.

[2] Florian Martin "Is This The End for a Sex Robot Brothel in Houston?" (17 October 2018) Houston Public Media <https://www.houstonpublicmedia.org/articles/news/in-depth/2018/10/17/308292/is-this-the-end-for-a-sex-robot-brothel-in-houston/>.

[3] AP Simester and WJ Brookbanks *Principles of Criminal Law* (5th ed, Thomas Reuters, Wellington, 2019) at 1004.

regulatory prudence and precaution, regulatory legitimacy, regulatory effectiveness, and regulatory connection; highlighting how such challenges are pertinent to sex robots.

Chapter III considers the extent to which existing legal frameworks in New Zealand are applicable to sex robots, particularly concerning health, safety, and similar technology. I will determine that whilst relevant in some respects, there are regulatory gaps.

Chapter IV sets out the prospective benefits and harms that sex robots may bring, in order to draw out the competing interests and give consideration to the legitimate concerns of others. I will discuss arguments for and against ordinary sex robots, and arguments for against child-like sex robots and rape robots.

Chapter V analyses whether the purported harms justify a case for restrictive regulation. I will consider two competing theories of criminalisation: liberalism and legal moralism, in order to show that ordinary sex robots do not warrant criminalisation, but there are a number of plausible grounds favouring the criminalisation of child-like sex robots and rape robots.

Chapter VI sets out the options for regulation, broadly categorised as: precautionary, experimental, or permissive. I ultimately recommend we adopt a permissive, but consistent regulatory tilt, prohibiting child-like sex robots and rape robots through a minor modification of the Films, Videos, and Publications Classification Act 1993.

## *Chapter I Setting the Scene*

### *A Defining Sex Robots*

There is no universally accepted definition of "sex robot", given the emergent nature of the technology, which in itself presents a challenge to regulation.[4] Thus it is necessary to set out a working definition for this dissertation in order to determine the scope of regulation. The term "robot" is derived from the Czech term "robotnik", meaning worker, coined by Karl Čapek to refer to "an artificial humanoid made from synthetic organic matter".[5] The concept developed and is now used to describe effectively any embodied artificial being, though defining "sex robot" brings us nearer to the original definition.[6] John Danaher, a legal academic concerned with the development of sex robots, defines "sex robot" as: [7]

> any artificial entity that is used for sexual purposes (i.e., for sexual stimulation and release) that meets the following three conditions:
>
> **Humanoid form**, i.e., it is intended to represent (and is taken to represent) a human or human-like being in its appearance.
>
> **Human-like movement/behaviour**, i.e., it is intended to represent (and is taken to represent) a human or humanlike being in its behaviour and movements.
>
> **Some degree of artificial intelligence**, i.e., it is capable of interpreting and responding to information in its environment. This may be minimal (e.g., simple preprogrammed behavioural responses) or more sophisticated (e.g., human-equivalent intelligence).

Whilst this definition is useful, it is not without controversy. The requirement that the sex robot take on a humanoid form and be human-like in movement and behaviour may be subject to debate; though Danaher defends these conditions on two grounds. Firstly,

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[4] Francis Shen "Sex robots are here, but laws aren't keeping up with the ethical and privacy issues they raise" (12 February 2009) The Conversation <https://theconversation.com/sex-robots-are-here-but-laws-arent-keeping-up-with-the-ethical-and-privacy-issues-they-raise-109852>.

[5] Jeannie Suk Gersen "Sex Lex Machina" (2019) 119 Columbia Law Review 1793 at 1798.

[6] John Danaher "Should We Be Thinking about Robot Sex?" in John Danaher and Neil McArthur (eds) *Robot Sex: Social and Ethical Implications* (The MIT Press, London, 2017) 3 at 4.

[7] At 4-5.

considerable motivation for developing sex robots is to create an artificial substitute for a human, to replace or complement human-human sexual relations. Further, most of the ethical concerns raised in response to sex robots allude to their symbolic representation of humans and the consequences thereof. Thus, these considerations would be redundant if the robot was, for instance, animalistic in form or likeness.[8] It is worth noting that an animal-like sex robot may also generate concern, though it is not something I am considering in this dissertation.[9]

The third condition is ambiguous given that there is no widely recognised definition of "artificial intelligence" (AI). Turner notes:[10]

> Defining AI can resemble chasing the horizon: as soon as you get to where it was, it has moved somewhere into the distance. In the same way, many have observed that AI is the name we give to the technological processes which we don't understand.

The word "artificial" is relatively clear, meaning something synthetic which does not naturally occur. The key contention is in the word "intelligence" which can describe a vast range of capabilities.[11] "Intelligence" is typically associated with cognitive functions such as reasoning, problem solving, or learning from past experience.[12] Danaher's definition is purposefully wide so as to include sex robots as they exist now in their primitive form, and to account for future developments in AI whereby sex robots may one day mimic human intelligence. It is a realistic possibility that sex robots will be able to exercise a degree of autonomy, by learning and responding to their users. However, society is a long way from building sex robots that are indistinguishable from humans, insofar as having internal life, or an ability to genuinely think and feel. Thus,

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[8] Danaher, above n 6, at 5.

[9] Publications that promote, support, or tend to promote or support bestiality are deemed objectionable under s 3(2)(e) of the Films, Videos, and Publications Classification Act 1993.

[10] Jacob Turner *Robot Rules: Regulating Artificial Intelligence* (Springer Nature, Switzerland, 2019) at 8.

[11] At 7.

[12] B.J. Copeland "Artificial intelligence" (11 August 2020) Britannica <https://www.britannica.com/technology/artificial-intelligence>.

I am not concerned with the myriad of issues this will pose to traditional concepts of liability and agency. I am specifically focussing on sophisticated, non-sentient sex robots that we have today, or can build in the conceivable future.

I add a fourth condition that the sex robot be **physically embodied**, in that it must take on a tangible form. This can be justified in the same terms as the first two conditions, as physically embodied robots are more closely representative of humans and thus warrant the relevant concerns. However, there are developments in virtual reality technology such as teledildonics, a mechanism for remote sex whereby touch-like sensations are replicated and transmitted through virtual networks.[13] Danaher notes that if such technology was exploited for sexual interactions with virtual beings, then it would constitute a sex robot.[14] I am neutral as to whether virtual reality technology raises analogous issues, though I am limiting the regulatory target to embodied sex robots.[15]

### B Current Technology

It is worth considering the state of current technology and how it might develop. Sex robots are here, albeit in their infancy. There are a number of sex robots on the market, including Abyss Creations' *Harmony*, Android Love Dolls' *Android Love Doll*, Sex Bot Company's *Suzie Software* and *Harry Harddrive*, and TrueCompanion's *Roxxxy* and *Rocky*.[16] These range in price from USD $5,000 to $15,000. *Roxxxy* was hailed as the first sex robot, presented to the public at the 2010 AVN Adult Entertainment Expo.[17] David Levy, a leading scholar in the world of robot sex, is highly sceptical of this technology.[18] The TrueCompanion website no longer appears to exist, though other writers have referred to the company's website descriptions (which I have included)

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[13] See Kiiroo "Teledildonics" <https://www.kiiroo.com/pages/teledildonics>.

[14] Danaher, above n 6, at 5-6.

[15] Further, virtual reality technology is subject to the Films, Videos, and Publications Classification Act by virtue of s 2(d).

[16] Noel Sharkey, Aimee van Wynsberghe, Scott Robins and Eleanor Hancock *Our Sexual Future with Robots* (Foundation for Responsible Robotics, Consultation Report, 5 July 2017) at 4.

[17] Danaher, above n 6, at 6.

[18] See David Levy "Roxxxy the 'Sex Robot' – Real or Fake?" (2013) 1 Lovotics 1.

and note that the technology was purchasable online at the time of writing. TrueCompanion clearly has some kind of prototype of the technology, which was presented at the Expo, and is shown in a number of videos on the company's YouTube channel.[19]

*Roxxxy* has several programmed personalities to choose from, including: "Wild Wendy", "S&M Susan", "Mature Martha", "Young Yoko", and "Frigid Farah".[20] "Young Yoko" was advertised with the tagline "oh so young (barely 18) and waiting for you to teach her". "Frigid Farrah" was described as "reserved" and "shy", and the company's website noted that "if you touch her in a private area, more than likely, she will not be too appreciative of your advances".[21] This setting allows the sex robot to resist sexual advances, raising concerns about rape fantasies.[22] *Roxxxy* has moving parts, motors in her vagina, mouth and anus, a pulse, a heated body and silicone human-like skin. *Roxxxy* can participate in "sex talk" and display orgasms, though these responses are pre-programmed.[23] She has limited movement, including the ability to "move her private areas inside" during intercourse, turn and tilt her head, and move some of her face when responding, though she cannot move on her own.[24] Other sex robots, such as *Android Love Doll* and *Harmony*, appear to be available for purchase online.[25] Their features include: a heated body, neck articulation, facial expression, moving eyes, face and head, an ability to perform automated sex positions, respond to

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[19] TrueCompanionLLC "New Roxxxy Sex Robot Discusses Features with Dr OZ" (22 January 2018) YouTube <https://www.youtube.com/watch?v=guhDjpDAqJU>.

[20] Gersen, above n 5, at 1803.

[21] Kelly Wilz *Resisting Rape Culture through Pop Culture: Sex After #MeToo* (Lexington Books, Lanham, 2019) at 118.

[22] Walter S. DeKeseredy "Enhancing Feminist Understanding of Violence Against Women: Looking to the Future" in Sandra Walklate, Kate Fitz-Gibbon, JaneMaree Maher and Jude McCulloch (eds) *The Emerald Handbook of Feminism, Criminology and Social Change* (Emerald Publishing, Bingley, 2020) 337 at 344.

[23] Gersen, above n 5, at 1803.

[24] Danaher, above n 6, at 7.

[25] Silicone Dolls "Android" <https://www.siliconedolls24.com/en/liebespuppen/android.html>; and Realbotix "Harmony Artificial Intelligence Application" <https://realbotix.systems/>.

touch with moans, and lip sync to spoken audio.[26] *Harmony*'s intelligence is described as cloud-based like Apple's Siri.[27]

Current technology is relatively unsophisticated, though it can be expected that developments in AI and animatronics will continue to be exploited for sexual purposes, and sex robots will become more human-like in their ability to converse, and exercise sexual awareness and responsiveness.[28] Developments are likely to be contingent on market demand, and the question of how accepted and ubiquitous this technology will become is contested. There is one certainty though, and that is – sex sells. Sex technology has developed over centuries, and given successes in the industries of pornography, sex toys, and sex dolls, it is not absurd to expect a similar trajectory for sex robots. Peterson underscores the need to trust reason over gut, as "when confronted with the unfamiliar, our guts can panic and sound alarms".[29] It was not long ago that our guts rebelled at the thought of other aspects of sexuality such as masturbation or same-sex relations. Prado predicts that by 2050, humans will have more sex with robots than other humans.[30] Levy suggests that sexual relations between humans and robots are set to become commonplace, and that sex robots are bound to take over the adult sex work industry.[31] Whether this is true or not, the market is taking shape quicker than ethical resolutions and sex robots are indeed a present-day reality. The technology as it stands produces novel dynamics and uncertainties.

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[26] Sharkey, Wynsberghe, Robins and Hancock, above n 16, at 4.

[27] Danaher, above n 6, at 10.

[28] Sinziana M. Gutiu "The robotization of consent" in Ryan Calo, A. Michael Froomkin and Ian Kerr (eds) *Robot Law* (1st ed, Edward Elgar Publishing, Cheltenham, 2016) 186 at 193.

[29] Steve Peterson "Is It Good for Them Too? Ethical Concern for the Sexbots" in John Danaher and Neil McArthur (eds) *Robot Sex: Social and Ethical Implications* (The MIT Press, London, 2017) 155 at 167.

[30] CG Prado *How Technology is Changing Human Behaviour: Issues and Benefits* (Praeger, California, 2019) at 22.

[31] See David Levy *Love and Sex with Robots: The Evolution of Human-Robot Relations* (Harper Collins, New York, 2007).

## C   Underscoring Novelty

Migotti and Wyatt highlight that "if our sexual relations with sex robots can be understood in just the same terms as our sexual relations with vibrators and RealDolls, it is unlikely that their impact… will be deep", so it is important to consider how they are distinct.[32] Typical sex toys tend to replicate parts of the body which may be human-like, though do not take on a humanoid form, and whilst some are equipped with AI it is very limited. Sex dolls may take on a humanoid form though they are passive, inanimate and unintelligent, closer to sex toys, or masturbation devices.[33] Whilst there are similarities, a sex robot is promised to provide a sexual experience that is markedly more realistic, interactive and intense than that which can be obtained through a sex toy or sex doll, though it is not clear how this sexual experience can be understood in philosophical terms. Migotti and Wyatt consider what it means to have sex, concluding that it requires a form of shared sexual agency, and "is the epitome of doing something sexual together".[34] Thus, the obvious corollary is that one cannot have sex with oneself. If sex toys and sex dolls are typically conceived as aids to masturbation, it is worth considering whether sex robots, and their promise to provide a more realistic experience, offer something more – can we ever have sex with a robot? If so, they must be able to have sex with us.[35] According to Migotti and Wyatt, this would require the robots to have real agency, which they do not possess. However, it is perhaps the close illusion of agency, or the ease with which we assign agency to a sex robot, that presents the pertinent considerations.[36] Whilst sex robots may not ever be considered genuine sexual partners, it is their analogy to humans, capability to move and respond through AI, and their ability to create sexual experiences that closely mimic human-human sex, which makes the technology qualitatively different; warranting consideration.

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[32] Migotti and Wyatt, above n 1, at 15.

[33] Neil McArthur "The Case for Sexbots" in John Danaher and Neil McArthur (eds) *Robot Sex: Social and Ethical Implications* (The MIT Press, London, 2017) 31 at 31.

[34] Migotti and Wyatt, above n 1, at 21.

[35] At 23.

[36] At 24.

## *Chapter II    Challenges of Regulating New Technology*

Brownsword and Goodwin set out four key regulatory challenges in respect to emerging technology: regulatory prudence and precaution, regulatory legitimacy, regulatory effectiveness and regulatory connection.[37] Given that there are likely to be "more unanswered questions about sex robots than there are actual sex robots" these challenges are pertinent.[38]

### *A    Regulatory Prudence and Precaution*

The first consideration is regulatory prudence and precaution. Sex robots attract a level of suspicion and unease; thus, the first step is identifying their potential risk, and justifying a precautionary response whereby that risk is deemed to be held at an acceptable level.[39] This presents a challenge given the level of uncertainty as to just how risky sex robots are. Related to this is the Collingridge Dilemma, which purports that the impacts of technology cannot be predicted until the technology is extensively developed and widely used; however, by this stage, regulation is expensive, drastic, or impossible. Policymakers are thus faced with a problematic choice, either to encourage technological development, risking uncontrollable consequences, or constrain development in an attempt to avoid unnecessary risk.[40]

The measurement of risk is further complicated by prudential pluralism, which recognises that some communities are more risk averse than others; and inevitably, within those communities, individuals vary significantly as to what they consider an acceptable level of risk. In the face of uncertainty, the regulatory starting point is ambiguous. It is not clear whether the regulatory tilt should be permissive or precautionary. A precautionary tilt may be weak or strong. The weak version allows

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[37] Roger Brownsword and Morag Goodwin "Four key regulatory challenges" in *Law and the Technologies of the Twenty-First Century: Text and Materials* (Cambridge University Press, New York, 2012) 46 at 46.

[38] Shen, above n 4.

[39] Brownsword and Goodwin, above n 37, at 47.

[40] See David Collingridge *The Social Control of Technology* (1st ed, Frances Pinter, London, 1980).

preventative measures to be taken and places the burden of proof on regulators to adduce evidence as to the risk of harm. The strong version requires precautionary measures to be taken and places the burden of proof on innovators to prove the technology is safe for use. Sex robot opponents adopt a strongly precautionary tilt, calling for restrictive regulation. However, in order to adopt a precautionary starting point, there needs to be some initial evidence of harm, which is difficult when technology is in its early stages.[41] Ultimately, regulators need to respond in a way that best serves our interests individually, and as a collective.[42] There is no set formula to determine this, though potential benefits should be weighed against feared harms, in order to determine where our interests lie; further complicated by competing ethical considerations.

## B    *Regulatory Legitimacy*

Regulatory legitimacy presents a triple challenge for regulators: ensuring there is procedural legitimacy; legitimacy of regulatory means; and legitimacy in regulatory purposes and standards. In terms of procedure, regulators are to foster transparency and accountability; as well as facilitate stakeholder and public engagement.[43] However, democratic processes are difficult and not always conducive when technology is in its embryonic form. Competing convictions make it difficult to facilitate meaningful debate, and public participation can slow down decision-making, absorb regulatory expenditure, and does not guarantee a consensual result.[44] In ensuring legitimacy of regulatory means, the mode of regulation must be legitimately accepted.[45]

In order to promote legitimacy in regulatory purposes and standards, regulators must adopt an ethically defensible position, by giving weight to the legitimate interests of

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[41] Deryck Beyleveld and Roger Brownsword "Complex Technology, Complex Calculations: Uses and Abuses of Precautionary Reasoning in Law" in Paul Sollie and Marcus Düwell (eds) *Evaluating New Technologies: Methodological Problems for the Ethical Assessment of Technology Developments* (Springer, New York, 2009) 175 at 179.

[42] Brownsword and Goodwin, above n 37, at 48.

[43] At 48.

[44] At 50.

[45] At 60.

others. This is complicated when operating against a backdrop of ethical pluralism, whereby regulators have to account for a multiplicity of views.[46] It is particularly challenging in the case of sex robots, given the inherently intimate nature of the technology which triggers polarising positions. This complicates the question of which regulatory option best reflects net benefit over harm.[47] This assessment also engages the question of whether the prospective harms justify restrictive regulation, which requires an analysis against two competing theories of criminalisation: liberalism and legal moralism.[48]

## 1    Liberalism

Liberal theories of criminalisation stem from John Stuart Mill's liberal harm principle: "the only purpose for which power can be rightfully exercised over any member of a civilised community, against his will, is to prevent harm to others".[49] Mill did not define harm and thus the application of the harm principle is greatly indeterminate.[50] Joel Feinberg, in his exposition of the harm principle, suggested that harm can be understood in terms of set-backs to legitimate interests.[51] This does not necessarily resolve contention, it merely shifts the controversy to determining which interests are in fact legitimate. A minimalist liberal approach accepts criminalisation of wrongful conduct which causes direct harm to an individual or individuals. However, the harm principle can be, and is, applied prospectively to prevent conduct that would cause harm.[52] Given that sex robots cannot themselves be harmed, we are moving into this less clear-cut assessment of remote harms, requiring stronger justification for criminalisation.[53] These justifications are contingent on one's appeal to the principle of autonomy, or the principle of welfare. The principle of autonomy puts the utmost emphasis on the

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[46] Brownsword and Goodwin, above n 37, at 51.

[47] Prospective benefits and harms are considered in Chapter IV.

[48] Liberalism and legal moralism form the context of the analysis in Chapter V.

[49] John Stuart Mill *On Liberty* (2nd ed, J.W. Parker and Son, London, 1859) at 59.

[50] Simester and Brookbanks, above n 3, at 1005.

[51] Joel Feinberg *Harm to Others: The Moral Limits of the Criminal Law* (Oxford University Press, New York, 1984) at 36.

[52] Andrew Ashworth *Principles of Criminal Law* (5th ed, Oxford University Press, New York, 2006 at 49.

[53] At 31.

protection of individual liberties, whereas the principle of welfare gives more weight to collectivist goals within a societal context.[54]

## 2 Legal Moralism

A less commonly accepted theory is legal moralism, which at its most basic level, purports that immoral conduct provides justification for criminalisation.[55] This position was mounted by Patrick Devlin, who posited that a society's moral values are an essential component of its structural framework, thus if harmless immoralities were allowed, it would undermine social structures and ultimately cause harm in the form of social disintegration.[56] Legal moralism is criticised due to the lack of empirical link between immoral conduct and social disintegration.[57] Further, it is difficult to determine what is immoral; such an assessment takes place within a vacuum and is entirely contingent on the prevailing social norms within a particular place, at a particular time.[58] As popularised by the Hart critique, legal moralism is often affiliated with an authoritarian, and expansive wish to subject private acts of vice to the criminal law.[59] However, there are more modern and less extensive versions of legal moralism which tend to adduce a more critical and objective view of morality as giving *some* reason to favour criminalisation.[60] Whilst legal moralism should be considered with caution and carefully articulated given its potentially boundless scope, modest legal moralism does form relevance in the sex robot debate.

## C Regulatory Effectiveness

Regulation must be effective, economical, and efficient. As purported by Lon Fuller, rules should be published, clearly communicated, not overly complicated, and not

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[54] Ashworth, above n 52, at 28.

[55] John Danaher "Regulating Child Sex Robots: Restriction or Experimentation?" (2019) 27 Med Law Review 553 at 558.

[56] Simester and Brookbanks, above n 3, at 1018.

[57] At 1018.

[58] At 1019.

[59] John Danaher "Robotic Rape and Robotic Child Sexual Abuse: Should They be Criminalised?" (2017) 11 Crim Law and Philos 71 at 77.

[60] See for example, R.A. Duff "Towards a Modest Legal Moralism" (2014) 8 Crim Law and Philos 217; and Steven Wall "Enforcing Morality" (2013) 7 Crim Law and Philos 455.

repeatedly subject to review.[61] It is also essential for regulation that regulatees respond effectively. Regulators must anticipate non-compliance and respond to this; attempting to mitigate resistance *ex ante* or having a strategy for dealing with it *ex post*.[62] Sex robots present a particular challenge in this respect, as they potentially have two regulatory targets: the AI and the physical body. The regulatory strategies available for each differ significantly, and the former is more difficult due to the adaptive nature of AI. Policymakers must not only consider regulation from a pre-market perspective but may have to also consider effective post-market regulation, given the potential for software to be re-programmed by the user, or the potential for the sex robot to learn, adapt, and respond to its user. Regulators need to be aware of this and respond in an effective way.

## D    *Regulatory Connection*

Regulatory connection presents a three-fold challenge: regulators must make an initial regulatory connection to the target technology; sustain this connection; and stay connected, or where regulation becomes disconnected, make an appropriate reconnection.[63] In the first stage, there needs to be an assessment of relevant existing regulation.[64] Whilst there may not be regulation specific to sex robots, the technology does not exist within a complete regulatory void. The next challenge will be to stay connected, which as mentioned, will be difficult due to the changing nature of AI. If the regulation becomes disconnected, regulators must work to close the gap, which may require reassessment and debate as to whether the technology has outrun its regulatory framework.[65]

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[61] See Lon Fuller *The Morality of Law* (Yale University Press, New Haven, 1969), as cited in Brownsword and Goodwin, above n 37, at 61.

[62] At 62.

[63] At 63.

[64] Assessed in Chapter III.

[65] Brownsword and Goodwin, above n 37, at 67.

# *Chapter III   New Zealand's Existing Legal Frameworks*

There has been no consideration of how sex robots, or any robots, are to be regulated in New Zealand, nor do we have a nationally coordinated policy for AI.[66] However, sex robots do not exist within a regulatory vacuum. The purpose of this chapter is to assess the applicability of existing legal frameworks in New Zealand, particularly concerning health, safety, and similar technology.

## *A   Consumer Protection and the Accident Compensation Scheme*

Insofar as there are concerns regarding safety and injury, general product safety regulations and the Accident Compensation Scheme will be applicable.[67] Sex robots, like other products on the market in New Zealand will be subject to product safety standards; holding suppliers, manufacturers, importers, distributors and retailers accountable. Government agencies such as the Trading Standards and Commerce Commission enforce product safety rules; and consumer rights are protected through numerous legislative instruments including the Consumer Guarantees Act 1993 (CGA) and the Fair Trading Act 1986 (FTA). The CGA creates minimum standards of quality for goods, and provides remedies where guarantees are breached.[68] The FTA prohibits unfair conduct, promotes fair conduct and practices, provides for the disclosure of information for consumers, and sets safety standards for products.[69] The Accident Compensation Scheme covers personal injuries caused by accidents.[70] This includes physical injuries and subsequent mental injury suffered as a result of the physical injury.[71] Thus, if a person sustains a personal injury due to an accident involving a sex robot, the scheme will cover costs associated with this.

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[66] The Artificial Intelligence Forum of New Zealand *Artificial Intelligence: Shaping a Future New Zealand* (May 2018).

[67] Stephanie E. Galaitsi, Christine Hendren, Benjamin Trump and Igor Linkov "Sex robots – A Harbinger for Emerging AI Risk" (2019) 2 Front Artif Intell 1 at 2.

[68] Consumer Guarantees Act 1993, s 1A.

[69] Fair Trading Act 1986, s 1A.

[70] Accident Compensation Act 2001, ss 20(2)(a).

[71] Subsections 26(1)(b)-(c).

## B    Therapeutic Product Regulation

A potential use for sex robots is in a therapeutic context, such as for the treatment of sexual disorders or sexual trauma. Thus, it is worth briefly examining regulation of therapeutic products. Currently, medical devices used for a therapeutic purpose are weakly regulated through the Medicines Act 1981 (MA).[72] However, there is no requirement for pre-market approval of such devices. The New Zealand Government has proposed a comprehensive regulatory scheme, the Therapeutic Products and Medicines Bill 2006 (the Bill) intended to replace the MA, which would bring more stringent regulatory standards for therapeutic products.[73]

The purpose of the Bill is to:[74]

protect personal and community health by –
(a)     ensuring acceptable safety, quality, and efficacy or performance of therapeutic products across their lifecycle; and
(b)     regulating the manufacture, import, promotion, supply, and administration or use of therapeutic products.

Two relevant principles guiding regulation are, firstly, to ensure the likely benefits of a product outweigh the likely risks, and secondly, that regulation is proportionate to the potential risks.[75]

A therapeutic product includes medical devices that are used for a therapeutic purpose or are specified in the regulations to be therapeutic products.[76] A therapeutic purpose includes "influencing, inhibiting, or modifying a physiological process".[77] There is

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[72] Sections 3A and 4.

[73] Ministry of Health "Therapeutic products regulatory regime" (20 December 2019) <https://www.health.govt.nz/our-work/regulation-health-and-disability-system/therapeutic-products-regulatory-regime>.

[74] Ministry of Health *Draft for Consultation: Therapeutic Products and Medicines Bill* (December 2018) at 12.

[75] At 13.

[76] Ministry of Health, above n 74, at 24 and 25.

[77] At 23.

scope for argument that a sex robot influences a human physiological process. In ordinary terms, sexual arousal and orgasm are both physiological processes. Regular sex robots would likely not be subject to this scheme in light of the clear medical context of the Bill and purpose to protect "health". However, sex robots specifically introduced for a therapeutic function, may be regulated through the Bill upon enactment.

If so, the person wanting to introduce sex robots for this use must apply to the Regulator for approval.[78] The Bill automatically creates a precautionary starting point, putting the burden on those wanting to introduce therapeutic sex robots to prove they are safe for use. The Regulator will have regard to the criteria for approval, consider whether the product complies with the relevant standards, and whether the person named in the application as the sponsor meets the adequate criteria.[79] After this evaluation, the Regulator may grant or refuse approval.[80]

## C  *Classification System*

As will be considered, many of the concerns and debates regarding sex robots mirror the debates on media effects, thus it is necessary to provide a brief overview of regulation in this area and determine its applicability. New Zealand's classification system governs films, video games, pornography and other publications, subjecting them to a legal standard of objectionability.[81] Publishing objectionable or obscene material has long been criminalised. The concept of obscenity was first propounded by the 1868 United Kingdom decision in *R v Hicklin*: "the test of obscenity is this – whether the tendency of matter is to deprave and corrupt those whose minds are open to such immoral influences".[82] New Zealand generally applied this standard, until the enactment of various statutes which refined the test to focus on injury to the public good, and in application centred on some capacity for *actual* harm.[83] The enactment of the Films, Videos, and Publications Classification Act 1993 (Classification Act)

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[78] Ministry of Health, above n 74, at 66.

[79] At 66-67.

[80] At 66.

[81] Films, Videos, and Publications Classification Act, s 3.

[82] *R v Hicklin* (1868) LR 3 QB 360 at [371].

[83] Indecent Publications Act 1963; Films Act 1983; Video Recordings Act 1987.

established a comprehensive legal framework for New Zealand's classification system. The Classification Act set up a Classification Office (Office) comprised of the Chief Censor, Deputy Chief Censor and such classification officers as are required.[84] The Office is charged with examining and classifying publications as either unrestricted, objectionable, or restricted.[85]

### 1 *"Objectionable"*

Publications are prohibited if they are deemed to be "objectionable", which is defined as follows:[86]

> (1) For the purposes of this Act, a publication is objectionable if it describes, depicts, expresses, or otherwise deals with matters such as sex, horror, crime, cruelty, or violence in such a manner that the availability of the publication is likely to be injurious to the public good.

Section s 3(2) codifies certain types of material that is automatically deemed to be injurious to the public good. This includes material that promotes or supports, or tends to promote or support:[87]

> (a) the exploitation of children, or young persons, or both, for sexual purposes; or
> (b) the use of violence or coercion to compel any person to participate in, or submit to, sexual conduct;…

Any person who makes, imports, supplies, distributes, possesses, or advertises an objectionable publication is liable to criminal conviction. Any person who does so without knowledge, is strictly liable to a fine not exceeding $10,000.[88] Those who do so with knowledge, face a term of imprisonment not exceeding 14 years.[89]

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[84] Films, Videos, and Publications Classification Act, s 76.

[85] Sections 23 and 77.

[86] Section 3(1).

[87] Subsections 3(2)(a)-(b).

[88] Section 123.

[89] Section 124.

## 2    *"Publication"*

Sex robots will only be subject to this standard if they are deemed to be a "publication", which includes the following subsection:[90]

> (d)    a thing (including, but not limited to, a disc, or an electronic or computer file) on which is recorded or stored information that, by the use of a computer or other electronic device, is capable of being reproduced or shown as 1 or more (or a combination of 1 or more) images, representations, signs, statements, or words.

The AI within the sex robot is likely to be deemed a publication by virtue of this subsection, as is other software. However, this highlights the issue of whether there are in fact two regulatory targets: the physical body of the sex robot, and the AI, and whether the physical body of the robot would also be deemed to be a publication under this subsection. The definition of publication has evidently always been given a wide capture. Even before the addition of s 2(d), the courts deemed information stored on the hard drives of computers to be a publication, evidencing their propensity to keep up with technological development even before it was considered by Parliament.[91] With the new definition, the judiciary continues to interpret this term in a wide manner.[92] Given that there cannot be a sex robot without the AI, then sex robots would potentially be deemed a publication. It would perhaps be absurd to regulate the AI alone, so as to say – prohibit sex robots that were child-like in behaviour, but allow a sex robot that looked child-like, and was adult-like in behaviour. However, deeming a sex robot as a publication as the definition stands would be an interpretive stretch for the Office and the courts.

## D    *Customs and Excise Law*

The Customs and Excise Act 2018 (CEA) prohibits the importation of objectionable publications, other indecent or obscene articles, and goods for a dishonest purpose; and

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[90] Films, Videos, and Publications Classification Act, s 2.

[91] See *Goodin v The Department of Internal Affairs* [2003] NZAR 434 (HC).

[92] Ursula Cheer *Burrows and Cheer Media Law in New Zealand* (7th ed, LexisNexis, Wellington, 2015) at 630.

the exportation of objectionable publications and goods for a dishonest purpose.[93] Given the reference to the broader term "articles", which is not specifically defined in the CEA, this regime more clearly applies to sex robots. The New Zealand Customs page specifically notes that, "bringing or importing other items such as sex toys or dolls that are considered to be indecent or obscene could… result in seizure and prosecution".[94] The recent New Zealand case of *Heppleston v R* [2019] marked the first prosecution for the importation of a child-like sex doll, deemed to be an obscene article.[95] Thus, by corollary, importing sex robots that are considered indecent or obscene would be prohibited through this regime.

## E   Conclusion

Existing legal regimes are applicable in limited respects; they ensure product safety and account for some liability. However, they do not account for the typical concerns raised by sex robot critics, as will be considered in the following chapter. Sex robots used in a therapeutic context are likely to be subject to the relevant Bill upon enactment, which automatically places the burden of proof on innovators to prove that the benefits outweigh the harms. Physical sex robots being imported into New Zealand will be subject to a standard of obscenity through the CEA, though it is contentious as to whether sex robots made, supplied, distributed, possessed, or advertised within New Zealand will be subject to a standard of objectionability through the Classification Act. I have suggested that it would be an interpretive stretch to deem the entire sex robot a publication in this respect, which is a regulatory gap. There is no one regime that applies comprehensively to sex robots. Thus, whether the concerns raised regarding sex robots warrant an entirely new regulatory response, or whether an adequate regulatory response would be to remedy this gap in respect to objectionable sex robots, forms the focus of the following half of the dissertation.

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[93] Customs and Excise Act 2018, s 95.

[94] New Zealand Customs Service "Prohibited and restricted items" (26 February 2020)

<https://www.customs.govt.nz/personal/prohibited-and-restricted-items/>.

[95] *Heppleston v R* [2019] NZHC 3297.

## *Chapter IV   Prospective Benefits and Harms*

An assessment of prospective benefits and harms forms an inherent part of devising an appropriate regulatory response. In terms of regulatory prudence, regulators must be sensitive to potential benefits and harms and ultimately determine where our interests lie as a collective. In terms of regulatory legitimacy, regulators need to give proper consideration to the legitimate interests of others by examining competing ethical positions. This complicates the assessment of net benefit over harm. The purpose of this chapter is to consider how sex robots may benefit or harm individuals, or wider groups in society; or what rights and values are paramount that may be furthered or restrained by sex robots. First, I will consider arguments for and against ordinary sex robots, then I will outline arguments for and against child-like sex robots and rape robots.

### *A   Arguments Supporting Ordinary Sex Robots*

#### *1   Liberalism and Individual Rights*

Irrespective of any benefits, some proponents emphasise the importance of liberalism and individual rights in the debate regarding sex robots. On the basis of Mill's liberal harm principle, the robot cannot be harmed, nor is there evidence to suggest harm to the user, or others. Thus, McArthur suggests that regulation into an intensely private domain of an individual's sexual life, that causes no harm, would be an illegitimate use of state power insofar as it subjects private activities to moral condemnation.[96] Levy refers to the modern epoch of expanding sexual freedom, positing that sex with robots will inevitably become acceptable; delegitimising any form of regulation.[97] This liberal position advances notions of sexual freedom, privacy and autonomy; rights strongly valued in a liberal democratic society.

McArthur concedes that individual rights are never absolute, and are limited in a commercial context, which may justify regulation in the supply chain of sex robots.[98]

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[96] McArthur, above n 33, at 32.

[97] Levy, above n 31, at 300-301.

[98] McArthur, above n 33, at 32-33.

Further, appealing to a rights-based argument alone only establishes that we tolerate sex robots, though a stronger case must be made to "actively encourage their development, support their distribution, and work to overcome stigmas associated with them".[99]

### 2   Hedonic and Distributive Benefits

McArthur argues that sex robots will bring hedonic benefits to the individual user, and wider benefit by improving the general wellbeing of society. The basic proposal is that sex is good and brings a wealth of positive health effects including "weight loss, lower stress levels, better heart and blood-pressure outcomes, lower rates of prostate cancer for men, and better sleep".[100] This is not entirely convincing, given that such benefits may be reaped equally through masturbation. However, McArthur insists that some benefits are associated with the physical aspect of sex and the sense of psychological wellbeing from partnered sex.[101] Whilst it is unlikely that without agency, sex with robots will ever amount to genuine partnered sex, the close analogy may provide reason to believe that the health effects will exceed those available through masturbation. In maximising hedonic satisfaction, sex robots may well increase individual happiness and contribute to overall wellbeing, a consideration that is often overlooked.

Further, McArthur, Levy and Di Nucci highlight the need to recognise sexual deprivation as a harm worth addressing, which may be remedied through the use of sex robots. There are various barriers in finding sexual companionship, including anxiety, physical disability, and lack of experience.[102] A letter from the Observer newspaper offers a moving opinion from a man in such a position, who seeks pleasure from sex workers:[103]

> As a single man who visits prostitutes, I object to being branded … a sad creature
> who must pay for his thrills. Most clients of these patient, sympathetic, and

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[99] McArthur, above n 33, at 33.

[100] At 34.

[101] At 34.

[102] At 40.

[103] Ezio Di Nucci "Sexual rights and disability" (2011) 3 Journal of Medical Ethics 158 at 160.

compassionate ladies are, like me, disabled, elderly, disfigured, ugly, or socially
or sexually inadequate. The prostitute provides the only opportunity for a brief,
life-enhancing taste of physical affection. God bless her.

Levy notes, "many who would otherwise have become social misfits, social outcasts,
or even worse will instead be better-balanced human beings".[104] Thus, according to this
argument, sex robots could ameliorate loneliness and contribute to the general health
and wellbeing of individuals who would not otherwise have access to sex.[105] McArthur
draws a link between sexual deprivation, and social instability on a wider scale.
Evidently, single men are more likely to be depressed than any other demographic, as
well as more likely to commit crime; thus, McArthur argues that sex robots may
alleviate some of the social costs associated with this.[106] There are significant
difficulties in proving causation between being single and committing crimes or being
depressed, thus this argument is questionable. Further, given the expense of sex robots,
their most likely use would be in a brothel context, so it is difficult to conceive how
robotic sex workers could provide any more benefit in this respect than real human sex
workers.

## 3    Relationship Benefits

Sex robots may have an educational value in helping prepare inexperienced users for
sex in relationships, as well as benefit couples already in a relationship. Therapists
suggest that sexual desire discrepancy is one of the most common problems
experienced within relationships.[107] Sexual desire discrepancy can be defined as "the
point in which two partners in an intimate relationship desire different levels, or

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[104] Levy, above n 31, at 277.

[105] N. Döring and S. Pöschl "Sex toys, sex dolls, sex robots: Our under-researched bed-fellows" (2018)
27 Sexologies 51 at 54.

[106] McArthur, above n 33, at 40; See for example, Jon Hurwitz and Shannon Smithey "Gender
Differences on Crime and Punishment" (1998) 51 Political Research Quarterly 89 and David T.
Courtwright *Violent Land: Single Men and Social Disorder from the Frontier to the Inner City*
(Harvard University Press, Cambridge, 1998).

[107] McArthur, above n 33, at 41; See for example, S. Davies, J. Katz and J. L. Jackson, "Sexual Desire
Discrepancies: Effects on Sexual and Relationship Satisfaction in Heterosexual Dating Couples"
(1999) 28 Archives of Sexual Behavior 553.

frequency, of sexual activity".[108] Thus, the partner who desires more sex, or has sexual fantasies that are not reciprocated, could use a sex robot. This has the potential to significantly reduce tension in relationships and lower the rate of infidelity.[109] Whilst some may view sex robots as a threat to their relationship, others will see their benefit. Thus, there is strength in the proposition that we should allow couples to make that choice for themselves, and as one sex therapist notes, "navigate this brave new world together".[110]

## 4   Therapeutic Benefits

Lastly, sex robots may carry a therapeutic benefit, and be used as a tool in the treatment of sexual trauma, or a range of sexual related disabilities such as erectile dysfunction, ejaculation praecox (pre-mature ejaculation), and anorgasmia (difficulty reaching orgasm).[111] Eichenberg and others conducted a study to ascertain the attitudes of sex therapists and physicians toward the therapeutic use of sex robots. Forty-five percent of respondents could imagine recommending sex robots in therapy.[112] Other studies show a split between clinicians, with some positing that using sex robots could be a helpful and healing transitional process following trauma, particularly when accompanied by therapeutic care.[113] Others caution against the sex robot industry, as

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[108] Kristen P. Mark "The relative impact of individual sexual desire and couple desire discrepancy on satisfaction in heterosexual couples" (2012) 27 Sexual and Relationship Therapy 133 at 134.

[109] McArthur, above n 33, at 41.

[110] Ian Kerner "What the sex robots will teach us" (13 March 2018) CNN <https://edition.cnn.com/2016/12/01/health/robot-sex-future-technosexuality/>.

[111] Leonardo M. Gomes and Rita Wu "Neurodildo: A Mind-Controlled Sex Toy with E-stim Feedback for People with Disabilities in Adrian David Cheok and David Levy (eds) *Love and Sex with Robots: Third International Conference, LSR 2017 London, UK, December 19-20, 2017 Revised Selected Papers* (Springer Nature, Switzerland, 2017) 65 at 65.

[112] Christiane Eichenberg, Marwa Khamis and Lisa Hübner "The Attitudes of Therapists and Physicians on the Use of Sex Robots in Sexual Therapy: Online Survey and Interview Study" (2019) 21 J Med Internet Res 1.

[113] Nicola Döring, M Rohangis Mohseni and Roberto Walter "Design, Use, and Effects of Sex Dolls and Sex Robots: Scoping Review" (2020) 22 J Med Internet Res 1; and Danielle Knafo "Guys and Dolls: Relational Life in the Technological Era" (2015) 25 The International Journal of Relational Perspectives 481.

marketing products with health claims that are "rather specious".[114] Robotics are already being integrated into healthcare to assist a range of conditions including dementia, autism and physical disability, thus it is reasonable to conceive the beneficial use of sex robots in a therapeutic context.[115]

## B   Arguments Opposing Ordinary Sex Robots

At the 2017 Austrian Arts Electronic Festival, Samantha the sex robot was savagely destroyed by a group of men and had to be sent back to Spain for repairs.[116] Her inventor, Santos, reported that the sex robot's breasts, legs, arms and fingers were broken, "she was heavily soiled…people can be bad… they treated the doll like barbarians".[117] This provokes a feeling of discomfort, though given the sex robot lacks the ability to be harmed, why does it feel wrong, or trigger unease? Danaher suggests that the answer lies in the symbolism and consequences of the act; an idea shared by most opponents of sex robots.[118] The following arguments purport that sex robots represent something ethically problematic, which will have negative consequences, in the form of harm to the user, women and society, warranting restrictive regulation. Notably, these positions only address female sex robots.[119]

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[114] Chantal Cox-George and Susan Bewley "I, Sex Robot: the health implications of the sex robot industry" (2018) 44 BMJ Sex Reprod Health 161 at 163.

[115] A. Bilyea, N. Seth N, S. Nesathurai, H.A. Abdullah "Robotic assistants in personal care: a scoping review" (2017) 49 Med Eng Phys 1.

[116] DeKeseredy, above n 22, at 344-345.

[117] Dami Olonisakin "Sex Robot Has Traumatic Experience At Technology Festival And Is Forced To Retire Many Body Parts" (28 September 2017)  IFL Science <https://www.iflscience.com/technology/samantha-the-sex-robot-was-groped-by-austrian-men/>; note that he calls Samantha a doll, though it has AI capabilities and thus constitutes a sex robot.

[118] John Danaher "The Symbolic-Consequences Argument in the Sex Robot Debate" in John Danaher and Neil McArthur (eds) *Robot Sex: Social and Ethical Implications* (The MIT Press, London, 2017) 103.

[119] Likely because most sex robots are representative of females, and opponents assume this is where the likely market demand is.

## 1   Ethically Problematic Symbolism

Gutiu purports that sex robots symbolically represent ethically problematic sexual norms.[120] The mere presence of female sex robots is problematic by virtue of their physical structure and demeanour. They are primarily targeted at heterosexual males, and thus represent hyper-sexualised, porn star-like women and are portrayed as "delicate, obedient, and physically attractive".[121] It is symbolically problematic to have hyper-sexualised female representations that act as ever-consenting sexual partners, eliminating any need for communication, mutual respect and compromise.[122]

Richardson draws concern primarily from the symbolically problematic analogy between human-sex robot interactions and interactions between buyers and sellers of sex.[123] Richardson argues that sex robots promote a non-empathetic encounter between the user and the robot, whereby the user's interests dominate. She argues that this interaction symbolises the relationship between buyers and sellers of sex which is ethically problematic.[124]

## 2   Harm to the User

Gutiu argues that sex robots, through their ethically problematic symbolism will facilitate submissive companionship and thus bring harm to the individual user. Gutiu notes that through relationships with other humans, individuals learn to "empathize, compromise and communicate".[125] However, the representation of sex robots as passive, ever-consenting females expose users to a dehumanised form of sex and intimacy.[126] This can have multiple effects on the user, including inhibited emotional

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[120] See Sinziana Gutiu "Sex Robots and Roboticization of Consent" (paper presented to We Robot Conference, Miami, April 2012).

[121] At 6.

[122] At 2.

[123] Kathleen Richardson "Sex Robot Matters: Slavery, the Prostituted, and the Rights of Machines" (2016) 35 IEEE 46 at 48.

[124] At 48.

[125] Gutiu, above n 120, at 15.

[126] At 2.

development, an inability to compromise or face rejection, reinforcement of antisocial tendencies and alienation and seclusion from society.[127]

This argument is supported by multiple scholars. Turkle suggests that the use of sex robots will encourage complacency and make humans hostile to forming sexual and social relations in real life.[128] Users will become accustomed to sexual companionship without demand or compromise and thus the thought of forming real sexual relations will be overwhelming.[129] Kaye posits that sex robots will "desensitize humans to intimacy and empathy, which can only be developed through experiencing human interaction and mutual consenting relationships".[130] It is worth considering that if sex robots are used for people with disabilities, they may be further vulnerable to social isolation. Facchin and others note the possibility that someone with a sexual dysfunction, who may already be isolated, "might become even more isolated by the illusion of having a substitute for satisfaction".[131]

## 3   Harm to Women and Society

Opponents argue that through the representation of ethically problematic sexual norms, sex robots will cause harm to women and society more generally. Gutiu asserts that the physical representation and demeanour of sex robots embodies gender inequality by perpetuating negative stereotypes.[132] It places unrealistic beauty standards on women and reinforces a one-way power dynamic whereby women are believed to be subordinate to men, contributing to a culture of sexism. Sullins argues that sex robots are built in a grotesque human form that mocks the female body in ways that are

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[127] Gutiu, above n 120, at 15.

[128] See Sherry Turkle *Alone Together: Why We Expect More from Technology and Less from Each Other* (Basic Books, New York, 2011).

[129] Noreen Herzfeld "Religious Perspectives on Sex with Robots" in John Danaher and Neil McArthur (eds) *Robot Sex: Social and Ethical Implications* (The MIT Press, London, 2017) 91 at 98.

[130] Lydia Kaye "Challenging Sex Robots and the Brutal Dehumanisation of Women" (10 February 2016) Campaign Against Sex Robots <https://campaignagainstsexrobots.org/2016/02/10/challenging-sex-robots-and- the-brutal-dehumanisation-of-women/>.

[131] Federica Facchin, Giussy Barbara and Vittorio Cigoli "Sex robots: the irreplaceable value of humanity" (2017) 358 BMJ 1.

[132] Gutiu, above n 28, at 205.

designed to alienate and intimidate women.[133] Thus, one of the greatest harms according to this position is the "overall long-term damage on women's self-image and societal worth".[134]

Gutiu further notes that sex robots will erode notions of consent.[135] Identifying consent is already a complex social and legal question that hinges on communication.[136] Sex robots further distort this by embodying the idea that women are passive, ever-consenting sexual playthings. The programming reinforces the idea to users that "only no means no" and fails to highlight any body language or positive affirmation which are also central to consent, thus making it difficult to identify the rejection of sexual advances in real life, contributing to rape culture.[137]

Richardson argues that the problematic style of interaction (based on buyers and sellers of sex) that is promoted through using sex robots, brings harm to women. It represents a relationship based on an asymmetry of power whereby the man's interests are dominant, and there is no concern for the woman's internal life, wants, or needs.[138] The sellers of sex are seen by the buyers as *things* and not human subjects, which "legitimises a dangerous mode of existence where humans can move about relations with other humans but not recognise them as human subjects in their own right".[139] Sex robots approve, and legitimise this non-empathetic encounter and one-way power dynamic, contributing to the objectification of women, according to Richardson.[140] Further, this style of interaction is said to reveal a coercive attitude towards women's

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[133] John P. Sullins "Robots, Love, and Sex: The Ethics of Building a Love Machine" (2012) 3 IEEE Transactions on Affective Computing 398 at 402.

[134] Gutiu, above n 28, at 205.

[135] Gutiu, above n 120, at 11.

[136] At 14.

[137] At 15.

[138] Kathleen Richardson "The Asymmetrical 'Relationship': Parallels Between Prostitution and the Development of Sex Robots" (2015) 45 SIGCAS Computers & Society 290 at 291.

[139] At 290.

[140] Richardson, above n 123, at 48.

bodies and perpetuate a negative view of women, reinforcing a misogynistic and patriarchal culture in which women are subordinated and oppressed.[141]

The aforementioned considerations embrace values of equality and respect for women's rights. However, they appear to reject the possibility that some women may want to use sex robots. Further, whilst symbols are undoubtedly significant in facilitating human life, they are both highly polysemous and contestable.[142] Symbols are particularly contingent on individual interpretation; thus, these narrow feminist interpretations may not gain widespread support.

## C    *Child-like Sex Robots and Rape Robots*

A child-like sex robot is a sex robot with child-like features, i.e., takes on child-like form, and/or is child-like in movement and behaviour. Child-like in this instance would be representative of a person under the age of 16.[143] Roxxxy's "Young Yoko" setting is described as "barely 18" and is thus not likely to meet this definition.[144] To my knowledge, there are no child-like sex robots available on the market, though there are a number of child-like sex dolls, thus it is conceivable that child-like sex robots will be created.[145] Rape robots are more difficult to define. Consent is an inherently contentious legal and philosophical issue. I am not considering what constitutes non-consent or downplaying the seriousness of other forms of non-consensual sex, however I am concerned with sex robots that explicitly mimic non-consent.[146] Thus, rape robots are sex robots equipped with behavioural repertoire such as programmed verbal refusals or forcible resistance such as struggling or screaming when sexual advances are made.[147] It is not clear whether Roxxxy's "Frigid Farrah" setting constitutes this. The website description suggests she will "not be too appreciative" of the user's sexual advances.[148]

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141 Richardson, above n 123, at 48.

142 Danaher, above n 118, at 118.

143 The legal age for consensual sex in New Zealand is 16, pursuant to s 134 of the Crimes Act 1961.

144 Wilz, above n 21, at 118.

145 See for example, Trottla "Lifelike Baby Dolls for Adults"
<http://ww25.trottla.com/?subid1=20200927-1835-0623-9612-91af9f1cffa9>.

146 Danaher, above n 59, at 74.

147 Robert Sparrow "Robots, Rape, and Representation" (2017) 9 Int J of Soc Robotics 465 at 466.

148 Wilz, above n 21, at 118.

Whilst this is not detailed enough to warrant a conclusive opinion, it suggests a signal of non-consent and thus is likely to be considered a rape robot.

### 1   Cathartic Benefit

Supporters argue that child-like sex robots and rape robots have a cathartic benefit, and are thus capable of mitigating psychological pathologies. Cathartic theorists suggest that such robots will allow users to play out their socially and morally unacceptable desires (rape / child abuse) on a non-sentient being, allowing a tangible outlet for people to direct their desires away from real people.[149] Thus, according to this position, these sex robots would bring benefit to the individual user who cannot control their unwanted, problematic desires; as well as benefitting society, by lowering the incidents of rape and child abuse; and specifically children and women who are typically subject to this type of crime.

### 2   Indulgent Consequence

Opponents alternatively argue that these sex robots are capable of indulging and intensifying psychological pathologies.[150] A causal link is drawn between enjoying the representation of an act and committing it in real life. Sparrow argues that using rape robots will positively reinforce the problematic behaviour and lower the barrier to committing illicit sexual practices against real people, by conditioning the user and increasing the attractiveness of such conduct.[151] Thus, child-like sex robots and rape robots pose danger to society by increasing the risk of rape and child abuse, and specifically bringing harm to women and children.

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[149] Suggested by Roboticist Ronald Arkin at the 2014 Conference on Robotics, see Danaher above n 55 at 553; and argued by Shin Takagi, founder of Trottla which manufacturers child-like sex dolls, see Roc Morin "Can Child Dolls Keep Pedophiles from Offending?" (11 January 2016) The Atlantic <https://www.theatlantic.com/health/archive/2016/01/can-child-dolls-keep-pedophiles-from-offending/423324/>.

[150] Danaher, above n 118, at 118.

[151] Sparrow, above n 147, at 469.

## *D    Conclusion*

There are evidently a number of competing interests, values, and legitimate concerns at stake within the sex robot debate. Regarding ordinary sex robots, supporting arguments embrace notions of liberty, autonomy, and sexual freedom. Further, they stress that opposing concerns should be weighed against other important considerations such as sexual deprivation, sexual disabilities, and desire discrepancy. Opposing arguments alternatively encompass respect for women's rights and values of equality. Arguments regarding child-like sex robots and rape robots both concern the rights of children, women, and society generally, though diverge in their view on how these are to be advanced.

## *Chapter V   Justifications for Restrictive Regulation*

Having set out the prospective benefits and harms, it is necessary to determine whether there are any plausible grounds to restrictively regulate sex robots. This requires an analysis of two competing theories of criminalisation: liberalism and legal moralism. The criminal law stands as the highest form of public disapproval and represents the most severe infringement on a person's liberty.[152]  Designation of a crime represents "a community's most emphatic denunciation of conduct".[153] Thus when contemplating how far to extend the criminal law, there needs to be careful consideration and clear social justification.[154] I will consider whether ordinary sex robots, or child-like sex robots and rape robots are apt for criminalisation under the liberal harm principle or the alternative ground of legal moralism.

### *A   Liberalism*

Recall that the liberal harm principle deems that in the absence of harm, or risk thereof, there is no justification for criminalisation.[155] In cases of direct, victimising wrongs, justification for state intervention is clear. However, the feared harms regarding sex robots are prospective and remote, clouding the justification. There needs to be some evidential link between the conduct (using sex robots) and the proposed harm (to the user, women, or society). The question of how strong this evidence needs to be is contentious, though the benchmark will vary inversely based on the likelihood versus the magnitude of the prospective harm, with reference to the value (benefit) of the said conduct.[156] At this early stage of the inquiry, there is no evidence as to the effects of sex robots. We can however, draw analogy to similar conduct which threatens to cause similar prospective harms, in order to determine whether sex robots, or child-like sex robots and rape robots, are apt for criminalisation under the liberal harm principle.

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[152] Danaher, above n 59, at 78.

[153] Simester and Brookbanks, above n 3, at 1004.

[154] At 1004.

[155] At 1005.

[156] Feinberg, above n 51, at 216.

### 1   Ordinary Sex Robots

#### (a) Sex work analogy

Richardson, in her criticism of sex robots, draws the explicit analogy between human-sex robot interactions and the relationship between buyers and sellers of sex, resting her argument on the premise that sex work itself is unethical and causes social harm to women.[157] The primary issue with this argument is that Richardson does not adduce any evidence to substantiate the link between sex work and harm to women. This indirect and vast social harm does not meet the evidentiary threshold required for liberal theories of criminalisation.

Further, it is based on a problematic view of sex work that is not consistent with New Zealand's attitudes as reflected by our law. New Zealand was the first country to decriminalise sex work in 2003.[158] The purpose of the Prostitution Reform Act 2003 is to advance the protection of sex workers and their rights, and explicitly does not endorse or morally condemn the practice.[159] The reform recognised the potential harm to sex workers within the practice and sought to remedy this through decriminalisation. This does not suggest that New Zealand is pro-sex work, or that sex robots would require the same protection, however the law does not reflect the view that sex work is unremittingly bad or causes harm to women to an extent that justifies restrictive regulation. New Zealand's liberal position reflects a divergent view to Richardson, who strongly criticises New Zealand's law for legitimising the practice.[160] Thus, in terms of consistency, and the lack of evidentiary link between sex work and harm, this analogy does not justify a case for restrictive regulation of ordinary sex robots from a liberal perspective.

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[157] Richardson, above n 123, at 49.

[158] New Zealand Parliament "Prostitution law reform in New Zealand" (10 July 2012) <https://www.parliament.nz/en/pb/research-papers/document/00PLSocRP12051/prostitution-law-reform-in-new-zealand>.

[159] Section 3.

[160] Richardson, above n 123, at 51.

(b) Media effects analogy

The sex robot debate mirrors the debates in media effects literature. Arguments concerning harm to the user, particularly prospective social isolation, have been employed by academics regarding the effects of pornography.[161] Concerns regarding harm to women and society more generally, largely draw on feminist literature on pornography. Most famously, Catharine MacKinnon purports that through the eroticisation of inequality, and degradation of women, pornography legitimises a culture by which women are objectified and subordinated.[162] On this basis, MacKinnon argues to extend the liberal harm principle to include social harm. Whilst concerns for social isolation, harm to women, and society more generally are certainly valid, there is an evidentiary gap between the concerns and the actual harms purported. Despite over 40,000 academic studies, the effects of pornography remain elusive.[163] Extending the concept of harm to such vast and indirect levels, makes it near impossible to discern a causal link between using pornography and the prospective harm, which is not compatible with liberal theories of criminalisation.[164]

Further, New Zealand does not take a generally restrictive stance towards pornography. Pornography, like other media, is subject to a standard of objectionability and is otherwise allowed freely or age-restricted.[165] This liberal jurisprudential approach, does not encompass the view that representations of ever-consenting, hyper-sexualised women, or asymmetries of power, translates into quantifiable harms that makes the enjoyment of such representations apt for criminalisation. Thus, the lack of evidential link between symbolism and its effects, along with New Zealand's legal approach to these issues, makes the analogy insufficient to justify restrictive regulation for ordinary sex robots. Whilst sex robots may be distinguished due to their embodied and

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[161] Vincent Cyrus Yoder, Thomas B. Virden III and Kiran Amin "Internet Pornography and Loneliness: An Association?" (2005) 12 Sexual Addiction & Compulsivity 19 at 19.

[162] See Catharine A. MacKinnon *Feminism Unmodified: Discourses on Life and Law* (Harvard University Press, Cambridge, 1987).

[163] Danaher, above n 118, at 130; and Jisuk Woo "The Concept of 'Harm' in Computer-Generated Images of Child Pornography" (2004) 22 J Marshall J Computer & Info L 717 at 723.

[164] Woo, above n 163, at 724.

[165] Films, Videos, and Publications Classification Act, s 23.

interactive nature, compounding the risks of harms, there is not yet evidence to substantiate this link.

## 2    *Child-like Sex Robots and Rape Robots*

### (a) Media effects analogy

The cathartic versus indulgent arguments related to child-like sex robots and rape robots draw on the debates regarding the causal effects of violent video games and virtual child pornography.[166] The evidence related to the effects of such media appears similarly inconclusive and uncertain. Some studies conclude that there is a causal link between playing violent video games and violence in real life through the priming of aggressive thoughts.[167] But many critics lament the poor quality of evidence in proving this conclusion and highlight the fact that violent crimes have significantly plummeted since the advent of violent video games, which is difficult to reconcile with the causal links theory.[168] A study conducted by New Zealand Internal Affairs suggests there is "an association between child pornography and committing child sex abuse".[169] However, other studies attempt to prove that virtual child pornography tends to reduce sexual offending against children.[170] Ultimately, there are significant difficulties in proving causation, as all the evidence is indirectly drawn from individual surveys or statistical deductions from crime data.[171] It is difficult to draw an empirical link between enjoying representations of an act, and committing it in real life, thus the prospective harms do not appear to warrant criminalisation on basis of the liberal harm principle.

Despite this, New Zealand law automatically deems objectionable, any publication that, "promotes or supports, or tends to promote or support, the exploitation of children, or

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[166] Virtual child pornography depicts children but uses no real children in the production.

[167] See Craig A Anderson and Karen E Dill "Video Games and Aggressive Thoughts, Feelings, and Behaviour in the Laboratory and in Life" (2000) 78 Journal of Personality and Social Psychology 772.

[168] Christopher J Ferguson and John Kilburn "Much Ado About Nothing: The Misestimation and Overinterpretation of Violent Video Game Effects in Eastern and Western Nations: Comment on Anderson et al (2010)" (2010) 136 Psychological Bulletin 174 at 176.

[169] See Angela Carr *Internet Traders of Child Pornography and other Censorship Offenders in New Zealand* (Department of Internal Affairs, April 2004).

[170] Danaher, above n 55, at 565.

[171] At 570.

young persons… for sexual purposes; or the use of violence or coercion to compel any person to participate in, or submit to, sexual conduct".[172] Thus, the Classification Act appears to endorse the causal links theory, deeming that the enjoyment of representations (of rape and child abuse) are causative of harms (rape and child abuse) apt for criminalisation. The Classification Act is framed in terms of the prospective liberal harm principle, as emphasised by Shipley before the Bill was enacted:[173]

> [T]he Government has undertaken a major shift in its philosophy on censorship, away from moral indignation ... towards concern about the likely impact of ... material on our community, and, in particular, on our young people.

In determining whether material is objectionable, the Office similarly casts their decisions in this liberal light. The Office often draws an indirect reference to the causal links theory, such as in deeming the video game *Manhunt* objectionable, the Office noted that "the game immerses the player in violent gameplay" which "has the potential to inure players to brutal violence generally". [174] In deeming *RapeLay* objectionable, the Office expressed concern about the way in which the material legitimised sexual violence in a way that intended to arouse the player.[175] Similarly, virtual child pornography is deemed objectionable in New Zealand.[176] In 2013, Ronald Clark was convicted for possessing Japanese anime pornography that depicted child-like pixies having sex. Dare notes, "the justification for punishment are likely to be worries about the tendency of the images to promote harm to real people in the future".[177]

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[172] Films, Videos, and Publications Classification Act, ss 3(2)(a)-(b).

[173] Reporting to Parliament from the Select Committee on the Films, Videos, and Publications Classification Bill (22 June 1993) 536 NZPD 15989, as cited in in Elle Crump "Turn That Game Back On: Video Games, Violence and the Myth of Inquiry to the Public Good" (2014) 20 Auckland U L Rev 171 at 173.

[174] At 187.

[175] At 187.

[176] *Pattison v Police* [2019] NZCA 48.

[177] Ian Steward "Man sent to jail for watching 'pixie sex' (21 April 2013) Stuff <http://www.stuff.co.nz/national/crime/8577037/Man-sent-to-jail-for-watching-pixie-sex>.

(b) Overseas law in respect to child-like sex robots

Notably, the United States of America (US) and Australia are responding to the issue of child-like sex robots and similarly frame their justification in terms of the prospective liberal harm principle. The US House of Representatives introduced the Curbing Realistic Exploitative Electronics Pedophilic Robots Act of 2017 (CREEPER), to ban the distribution, importation, transportation, and sale of child-like sex dolls and robots. In considering the Bill Referred in Senate, Congress drew links between the possession of child-like sex dolls and robots, with the possession of and participation in child pornography.[178] The close resemblance to real children was given weight in the findings.[179] Congress referred to the fact that some robots have settings that simulate rape, which encouraged such behaviour: "the dolls and robots not only lead to rape, but they make rape easier by teaching the rapist about how to overcome resistance and subdue the victim".[180] Congress reasoned that such robots would, "normalize sex between adults and minors" and "cause the exploitation, objectification, abuse, and rape of minors".[181] Multiple states have passed or considered similar bills, including Florida, Tennessee, and Kentucky.[182]

In 2019, the Australian Parliament proposed the Combatting Child Sexual Exploitation Legislation Amendment Bill. The Bill proposes to expand the definition of "child pornographic material" in various existing legislation to criminalise the possession and dissemination of child-like sex dolls (and child-like sex robots).[183] The Explanatory Memorandum notes that this new form of material must be criminalised in order to:[184]

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[178] Curbing Realistic Exploitative Electronics Pedophilic Robots Act of 2017 (US) (HR 4655-2 RFS, 2018) at [7]-[9].

[179] At [10]-[12].

[180] At [16]-[21].

[181] At [22]-[24].

[182] Gersen, above n 5, at 1797.

[183] Ministry for Home Affairs *Explanatory Memorandum: Combatting Child Sexual Exploitation Legislation Amendment Bill 2019* (House of Representatives, Australia) at [11].

[184] At [11].

prevent children from being abused, as the dolls normalise abusive behaviour towards children, encourage the sexualisation of children and increase the likelihood that a person will engage in sexual activity with or towards children.

### 3 *How Far Can the Liberal Harm Principle Extend?*

The analogy to sex work and pornography do not provide sufficient ground for the criminalisation of ordinary sex robots under the liberal harm principle. However, New Zealand's objectionable standard for media, as well as the view taken by other liberal democratic societies regarding child-like sex robots, provide reason to believe that child-like sex robots, and rape robots, are apt for criminalisation. Whether this can legitimately be justified by the liberal harm principle, in the absence of any provable link between the conduct and the proposed harm, is questionable.

#### (a) Dimensions for risk threshold

In considering the dimensions for risk threshold, the likelihood of harm is evidently indeterminate, though it is perhaps because of the magnitude of the prospective harm, namely, sexual violence against women and children, that the less probable the prospective harm needs to be. This is distinguishable to ordinary pornography, or ordinary sex robots, whereby the prospective harm of social isolation, harm to women, or society more generally, whilst potentially serious, is far more vague, indirect, and incomparable, thus the likelihood needs to be greater, and stronger evidence is required to be adduced. Further, in considering the potential value of the said conduct, there is nothing inherently valuable about allowing the use of child-like sex robots and rape robots, unless one adheres to the cathartic theory. Conversely, determining the nature and scope of harm caused by ordinary sex robots is compounded by the need to recognise their possible benefits, a number of which have been outlined in the previous chapter.[185]

#### (b) Principles of autonomy and welfare

Ashworth purports, "the use of state power calls for justification by reference to democratic principles, and justification in terms of sufficient reasons for invoking this

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[185] Woo, above n 163, at 724.

coercive and censuring machinery against individual subjects".[186] Justifications depend on one's appeal to the principle of autonomy, or the principle of welfare. If one views individual rights to be of utmost importance within a legal structure, then the criminalisation of child-like sex robots and rape robots would appear to be an over-reach. Without clear evidence of harm, this significantly impedes on individual autonomy and the right of individuals to make their own decisions in their own interests.[187] However, this individualist principle is limited, and other liberal theorists such as Raz, recognise autonomy as a positive liberty, whereby the State has an obligation to create the necessary conditions for individuals to exercise full autonomy.[188] Thus, in criminalising child-like sex robots and rape robots, it may remove the risk of adverse abuse towards women and children and create conditions which ultimately advance the autonomy of women and children.

Adhering to principles of welfare puts more weight on collective goals within a societal context.[189] Thus in light of the principle of welfare, criminalising child-like sex robots and rape robots gives weight to the societal context whereby it may be deemed entirely proper for individuals to restrain from using them. Ashworth notes that such welfare-based principles may provide justification for criminalising conduct that risks remote harm such as the possession of dangerous articles.[190] However, such an approach should engage in a cost-benefit analysis and be informed by proper statistical evidence.[191] There is a tighter link between possessing a gun and the resulting harm, than possessing a child-like sex robot or rape robot, and the resulting harm of child abuse or rape. Even by reference to welfare principles, justification on the basis of the liberal harm principle without an evidential link is difficult. Thus, from a policy perspective, it is necessary to look further afield as to whether it could be a legitimate function of the criminal law to regulate conduct by virtue of its moral wrongness.

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[186] Ashworth, above n 52, at 22.

[187] At 27.

[188] Joseph Raz *The Morality of Freedom* (Clarendon Press, Oxford, 1986) at 425.

[189] See Nicola Lacey "Community in Legal Theory: Ideal or Ideology?" (1996) 15 Studies in Law Politics and Society 105.

[190] Ashworth, above n 52, at 49.

[191] At 50.

## B   Legal Moralism

Legal moralism provides a moral ground for criminalising conduct that is inherently wrongful independent of any adverse effect.[192] Duff distinguishes between ambitious and modest forms of legal moralism. The former subjects all immoral conduct to the criminal law, the latter reserves specific sub-types of immoral conduct for the criminal law's concern.[193] Ordinary sex robots are not likely to fall within such modest justifications; however, academics have adduced arguments for criminalising child-like sex robots and rape robots on the basis of modest legal moralism.

### 1   Virtue

Strikwerda posits that child-like sex robots could be justifiably banned as is virtual pornography on the basis of legal moralism, by reference to virtue ethics. Strikwerda incorporates McIntyre's theory of virtue which holds that virtue is connected to the intrinsic good of particular activities, in order to justify that using child-like sex robots is non-virtuous as it normalises and encourages an incomplete form of sex.[194] Strikwerda purports that ideal or complete sex is based on mutual recognition and reciprocity.[195] This illustrates the intrinsic good of sex and is thus virtuous. This can be contrasted to incomplete sex which lacks reciprocity, is unresponsive, passive and imposed. Accordingly, this does not exemplify virtue and may even corrode it.[196] Strikwerda purports that virtual child pornography, and child-like sex robots, depict this form of incomplete sex, "therefore, the production, distribution, and possession thereof flout our preferred sexual mentality, which is based on equality".[197] This, according to Strikwerda, provides basis for finding behaviour morally objectionable and in turn providing justification to prohibit it on the basis of legal moralism.[198]

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[192] Simester and Brookbanks, above n 3, at 1017.

[193] Duff, above n 60, at 222.

[194] Litska Strikwerda "Legal and Moral Implications of Child Sex Robots" in John Danaher and Neil McArthur (eds) *Robot Sex: Social and Ethical Implications* (The MIT Press, London, 2017) 133 at 135.

[195] At 140.

[196] At 140.

[197] At 142.

[198] At 143.

Presumably, the same argument can be applied to rape robots. However, it could also be applied to ordinary sex robots, and all representations that depict non-virtuous behaviour. Appealing to this argument alone would subject a number of representations (including most pornography, many films, and television shows) to ethical scrutiny. It suggests that the criminal law should enforce positively virtuous behaviour, and that any conduct that is non-virtuous is apt for criminalisation. Thus, whilst it is framed as a form of modest legal moralism, it appears rather expansive, and the requirement that behaviour be positively virtuous sets a very high bar, thus it is necessary to go further and assess what makes child-like sex robots and rape robots particularly immoral as distinct from their anti-virtuousness.

### 2   *Public Wrong and Moral Character*

Duff defends a modest form of legal moralism by appealing to the idea of "public wrongs", proposing that some immoral conduct, which concerns the collective public, requires condemnation and accountability.[199] Wall alternatively suggests that in some instances, it is a legitimate function of the criminal law to concern itself with an individual's moral character.[200] Danaher draws on these theories to suggest that purely robotic representations of rape or child abuse could be wrong in a way that makes them apt for the criminal law. Danaher suggests that "those who engage in acts of purely robotic rape and child sexual abuse either demonstrate an immoral desire for the real-world equivalents of those acts", pursuant to Wall's theory, "and/or a disturbing moral insensitivity to the social meaning of those acts" falling within the domain of public wrongs proposed by Duff.[201] Danaher notes that these arguments are derived from work done in respect to virtual acts (such as playing violent video games or watching virtual child pornography), though relevantly apply *a fortiori* to the sex robot debate. This is due to their interactive and immersive nature, resulting in a "tighter connection between moral character and robotic acts than between moral character and virtual acts".[202]

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[199] Duff, above n 60, at 217.

[200] Wall, above n 60, at 455.

[201] Danaher, above n 59, at 89.

[202] At 89.

Whilst it is difficult to posit that those who enjoy the representation of rape or child abuse through the use of sex robots are thereby rapists or child sex offenders, it is not difficult to perceive such enjoyment as somewhat problematic, or unethical, as a result of the "morally repugnant attitudes that it expresses".[203] Using a child-like sex robot or rape robot, is so representative of enjoying rape or child abuse, it could almost be conceived as a rehearsal for the real act; a fantastical engagement with conduct that we deem so wrongful in society.[204] There is a tight mental and physical connection between this act and the real world equivalent. The rehearsal type nature of the act on an interactive, embodied robot, combined with the intention to obtain pleasure, directly reflects an immoral desire for the real-world equivalent, and utterly disparages the social meaning of rape and child abuse.

Rape robots potentially pose further challenge than child-like sex robots under these grounds, given the prevalence of non-consensual roleplay.[205] I acknowledge that enjoying the representation of non-consensual sex may not be as morally repugnant as enjoying the representation of child abuse. However, rape robots are distinct from non-consensual fantasy between two consenting adults. One modern feminist perspective is that women may "consent to being objectified" and enjoy non-consensual role play as a form of empowerment.[206] This draws on the important point, that it is in fact women who have been systematically oppressed and marginalised, and thus non-consensual role play is a way of reclaiming power – in a safe, consensual, sexual context. It is one thing to accept non-consensual roleplay whereby a woman drives the desire, but to by corollary accept sex robots specifically designed to scream and resist, for men to enjoy the representation of raping women, is another. The necessary paradox of non-consensual role play is that the sex is ironically and by definition, consensual. Thus, I posit that using rape robots distinctively expresses an immoral desire for rape, and/or a

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[203] Sparrow, above n 147, at 474.

[204] I note that, a rehearsal is distinct from a criminal attempt whereby an intention to commit the full offence and conduct that is immediately or proximately connected to the offence is required. The close resemblance to the act however, is relevant to the analysis of legal moralism.

[205] Gersen, above n 5, at 1806.

[206] Tina Horn "What the Rape Scenes in *Westworld* Say about Rape Culture" (25 December 2016) Refinery 29 <https://www.refinery29.com/en-us/2016/10/125731/westworld-sex-robot-rape-culture-hbo>.

moral insensitivity to the social meaning of rape, within Duff and Wall's versions of modest legal moralism.

These grounds of public wrong and moral character are not vastly expansive, and do not readily apply to ordinary sex robots. Whilst using an ordinary sex robot may not be realistically reflective of sex between two consenting adults, it does not express an immoral craving for a wrongful, criminal act, or denigrate from a shared social meaning that is worthy of public concern. This may appear entirely subjective, which is the primary issue with legal moralism. However, there are strongly articulated justifications as to why child-like sex robots and rape robots fit within these limited contexts of modest legal moralism favouring criminalisation. Further, by virtue of media regulation in New Zealand, we have evidently already determined these categories. Whether this is based on the liberal harm principle, or more likely, moral concerns; representations that support or promote, or tend to support or promote child abuse and rape are criminalised.[207] Thus, again, there is an argument in consistency.

## C   Conclusion

An analysis of liberalism and legal moralism suggests that ordinary sex robots do not justify criminalisation, however there are plausible arguments which support the criminalisation of child-like sex robots and rape robots. A harms-based argument for criminalising child-like sex robots and rape robots is likely to be the most compelling, though it is difficult without an evidential basis. New Zealand has seemingly moved beyond traditional conceptions of liberal harm in respect to media regulation, which provides an argument based on consistency. However, without consensual evidence, it suggests that concerns are largely moralistic. Thus, in order to form a more defensible position, I have provided two further legitimate grounds on the basis of modest legal moralism; concerning public wrongs and moral character.

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[207] Films, Videos, and Publications Classification Act, s 3(2).

## *Chapter VI   Options and Recommendations*

This chapter assesses the regulatory options and provides a recommendation for regulating sex robots in New Zealand. In light of the uncertain future we face with sex robots, we need to decipher an adequate regulatory starting point by embracing precaution, uncertainty, or liberty. First, I will assess the precautionary approach, alluding to recommendations proposed by Richardson and Gutiu. I will briefly explore Danaher's recommendation that we embrace uncertainty and take a deliberately experimental approach to sex robots. I ultimately recommend that we embrace liberty by adopting a permissive, but consistent starting point – allowing the development and use of sex robots, with adequate limitation through an amendment of the Classification Act. Finally, I will consider the possibility of a comprehensive regulatory regime for robotics and advanced AI in the future.

### *A   Precautionary*

Richardson proposes a strong precautionary approach, calling for the outright prohibition of all sex robots.[208] This would criminalise the use, manufacture and distribution of sex robots. Whilst I have explored a number of plausible grounds to criminalise child-like sex robots and rape robots, the same justifications do not apply for ordinary sex robots. Sunstein cautions against this type of knee-jerk precautionary approach, as it fails to consider any of the benefits foregone by imposing a prohibition.[209] Imposing an outright prohibition is short-sighted as it rejects any possible benefits of the technology. Whilst it embraces respect for women's rights and values of equality, it oversteps interests of autonomy, liberty, privacy, sexual freedom, as well as the freedom to innovate and a commitment to scientific advancement. Further, women's rights and equality are not likely to be best served through a prohibitive approach; as this may lead to a black market and block any research and legitimate discussion about sex robots.[210]

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[208] Kathleen Richardson "About" Campaign Against Sex Robots <https://campaignagainstsexrobots.org/about/>.

[209] See Cass R. Sunstein *Laws of Fear: Beyond the Precautionary Principle* (Cambridge University Press, Cambridge, 2005).

[210] Gutiu, above n 120, at 21.

Gutiu alternatively suggests various restrictive regulatory interventions to control the use or design of sex robots.[211] Removing problematic symbolism and enforcing a more positive set of sexual norms may require sex robots to conform to more realistic beauty standards or show positive affirmations of consent. However, a realistic beauty standard is a very contentious benchmark, and positive signs of consent are unlikely to reconcile the issue of consent norms if the sex robot is nonetheless ever-consenting. A sex robot that randomly refuses is not likely to be popular and will not be effective in a brothel context.

It is an unrealistic and over-reaching approach for the law to determine adequate regulations in this respect. Further, it is inconsistent with regulation of other media.[212] Whilst these are legitimate ethical concerns, and society should work to reduce inequality and promote understandings of consent, these problems are rooted in social institutions and understandings, not the sex robots themselves.[213] The concern is that sex robots will exacerbate these issues. However, there needs to be some evidence to substantiate this. As seen, there is a gap between technology being a potential problem, and the law stepping in to regulate it. Brownsword notes, "there is scope for endless argument about just how strong the evidence needs to be before precaution kicks in", however at this stage of the inquiry there is none.[214] Thus, a general precautionary response to ordinary sex robots is not warranted.

## B   *Experimental*

Danaher alternatively proposes that we embrace uncertainty by taking an intentionally experimental and incremental approach to the development of sex robots.[215] This approach draws on Ibo Van de Poel's suggestion that we approach new technologies as

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[211] Gutiu, above n 120, at 22.

[212] We do not require porn stars, models, or actors, to conform to certain beauty standards or show positive signs of consent.

[213] Danaher, above n 118, at 120.

[214] Beyleveld and Brownsword, above n 41, at 179.

[215] This is in respect to ordinary sex robots. As seen as Chapter V, Danaher suggests there may be grounds to criminalise child-like sex robots and rape robots.

social experiments, which have both epistemic and ethical features.[216] Danaher argues that we should put practical mechanisms in place to gather useful data on the effects of sex robots, such as tracking and surveillance of users. Such experiments, however, must comport with ethical principles, such as those used in medical experimentation (non-maleficence, beneficence, autonomy, justice).[217] Whilst this approach is less knee-jerk, its effectiveness should not be overstated. An experimental approach still requires evidence of risk, as well as potential benefits and harms, thus it does not resolve regulatory challenges related to emergent sex robots. The ability to gather evidence poses threat to privacy and autonomy, and even if reconciled with data protection and informed consent laws, consensual evidence on the effects of sex robots will still be difficult, particularly with respect to causation, as reflected in media effects debates.[218]

## C   *Permissive but Consistent*

I propose that the most adequate regulatory starting point is permissive, but consistent. We should embrace liberty by allowing the development and use of sex robots, though be consistent in respecting the objectionable limitation we have already placed on liberty with respect to publications like pornography and video games. As evidenced in Chapter V, there are a number of plausible grounds pointing in the direction of pre-emptively criminalising child-like sex robots and rape robots, though current frameworks do not effectively guarantee this.

As assessed in Chapter III,  the physical sex robot is likely to be subject to custom laws and thus a standard of obscenity when being imported into the country. Further, the AI within the sex robot is likely to be subject to the Classification Act and thus a standard of objectionability. However, I have suggested that it would be an interpretive stretch for the Office or courts to deem the entire sex robot a publication as it is currently defined in the Classification Act. Thus, the core regulatory gap, which the law can legitimately fill, is in respect to objectionable sex robots that are made, supplied, distributed, possessed, or advertised within New Zealand.

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[216] Danaher, above n 118, at 121-122.

[217] At 122.

[218] At 124.

*1   Amendment of the Classification Act*

I propose that the most effective way to reconcile this issue, foster clarity, and promote consistency is through a minor modification of the Classification Act. This would require amending the s 2 definition of "publication" to include "any item (including, but not limited to, a sex doll or sex robot)". The revised section would be as follows:[219]

> **publication** means—
>
> (a)   any film, book, sound recording, picture, newspaper, photograph, photographic negative, photographic plate, or photographic slide:
>
> (b)   any print or writing:
>
> (c)   a paper or other thing that has printed or impressed upon it, or otherwise shown upon it, 1 or more (or a combination of 1 or more) images, representations, signs, statements, or words:
>
> (d)   a thing (including, but not limited to, a disc, or an electronic or computer file) on which is recorded or stored information that, by the use of a computer or other electronic device, is capable of being reproduced or shown as 1 or more (or a combination of 1 or more) images, representations, signs, statements, or words
>
> **(e)   any item (including, but not limited to, a sex doll, or sex robot)**

*2   Effect*

Sex robots will thus be subject to the same examination and classification process as other publications pursuant to Part 3 of the Classification Act.[220] The Office will examine sex robots with regard to matters set out in s 3 to s 3D of the Classification Act (such as the meaning of objectionable).[221] Then the Office will classify the sex robot as – unrestricted, objectionable, or restricted.[222] It is likely that child-like sex robots and rape robots will be deemed objectionable.[223] Any person who makes, supplies, distributes, possesses, or advertises an objectionable sex robot would be liable to criminal conviction. Any person who does so without knowledge, would be strictly

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[219] Amendment bolded.

[220] Films, Videos, and Publications Classification Act, Part 3.

[221] Section 23(2).

[222] Section 23(2).

[223] By virtue of s 3(2); and the Chapter IV analysis.

liable to a fine not exceeding $10,000.[224] Those who do so with knowledge, would face a term of imprisonment not exceeding 14 years.[225]

### 3   *Benefits and Limitations*

It is necessary to determine how this regulatory approach meets the regulatory challenges set out in Chapter II. With respect to regulatory prudence and precaution, regulators will be subject to criticism if they do not take a suitably prudent approach.[226] Though regulators must also recognise the limitations of the law in governing private lives without evidence of risk. Thus, a permissive but consistent starting point most effectively achieves this. This regulatory starting point places the burden of proof on opponents to adduce evidence as to the substantive risk of harm in respect to ordinary sex robots, but automatically criminalises child-like sex robots and rape robots. It deals with both sides of the pendulum – the permissive stance recognises the extent to which intruding in people's bedrooms and private sex lives is a cost, but the consistent element respects the objectionable limitation we have already placed on this. There is a strong case for consistency in this respect, as we have already acknowledged the possible consequences of condoning sexual arousal associated with representations of child abuse or sexual violence. Whether grounded in substantive evidence, or influenced by largely moralistic concerns, the risk is one society is not willing to take.

In terms of procedural legitimacy, and legitimacy of regulatory means, it may be argued that the classification process is not sufficiently democratic. Where matters are determined under the Classification Act, the question of whether a publication is objectionable is for the expertise of the person or body authorised under the Act.[227] Unless reviewed, the findings of the Classification Office are authoritative.[228] Thus, considerable discretion lies with the Chief Censor and "the Office is the judge of its own expertise".[229] However, I am not proposing anything novel per se, and if we accept

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[224] Films, Videos, and Publications Classification Act, s 123.

[225] Section 124.

[226] Brownsword and Goodwin, above n 37, at 47.

[227] Section 4.

[228] See *R v Spark* [2009] 3 NZLR 625 (CA).

[229] Cheer, above n 92, at 644.

the legitimacy of the role of the Classification Office in dealing with other media, this is a suitable approach. The Office has considerable experience in dealing with matters of objectionability; transparency is effectively promoted through the Register of Classifications Decisions; there are adequate review processes; and accountability is provided for.[230] Thus, I purport that this approach adequately meets the challenges of procedural legitimacy and legitimacy of regulatory means. Insofar as this approach is legitimate in purposes and standards, it comports with a number of reasonably held ethical positions. It is limited in that it does not address feminist concerns regarding all ordinary sex robots, though these positions do not provide sufficient justification for restrictive regulation, by virtue of the analysis in Chapter V.

In terms of regulatory connection and effectiveness, this approach fills in the most obvious gap in existing law and effectively accounts for the two regulatory targets: the physical body and the AI. Amending the Classification Act is the most effective, economical and efficient way to deal with this. The re-programmable and adaptive nature of AI will pose challenge to both regulatory effectiveness and connection. However, regulation under the Classification Act is on-going in nature in that it does not simply require publications to gain pre-market approval. The technology will thus be subject to ongoing regulation like the internet, and as soon as a sex robot *becomes* objectionable it will be prohibited accordingly.[231] As the nature of adaptive AI advances, this will pose significant challenge to regulatory effectiveness and connection. However, this forms part of the question of sophisticated AI more generally and it may be that as sex robots evolve, they will outgrow this regulatory scheme and a revised regulatory approach for AI may be required (as discussed below). However, at this stage of the inquiry, this recommendation most effectively deals with the challenges of prudence and precaution, legitimacy, effectiveness and connection. A permissive but consistent starting point embraces liberty and the limitations we have placed thereon, fosters clarity and upholds consistency.

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[230] Office of Film and Literature Classification "NZ Register of Classification Decisions" <https://register.classificationoffice.govt.nz/Pages/Screens/DDA/WelcomePage.aspx>; and Films, Videos, and Publications Classification Act, Part 4.

[231] Department of Internal Affairs monitor the internet and enforce the Classification Act; Department of Internal Affairs "Online Digital Child Exploitation" (2019) <https://www.dia.govt.nz/digital-child-exploitation>.

## D   Re-Thinking Policy for AI Down the Line

As AI and robotics advance down the line, a revised comprehensive regulatory approach may be required. This dissertation has focussed on the distinct concerns regarding sex robots and the most effective regulatory response for New Zealand at this stage. However, I want to acknowledge that there is scholarly debate regarding how sophisticated AI should be regulated more generally, and there are global initiatives towards a revised regulatory approach. The core concerns are in respect to advanced machine learning, and the ability of robots to make choices and develop independently; posing challenge to existing legal concepts such as causation and legal agency.[232]

Leenes and others highlight the need to adopt a framework of responsible innovation, grounded in a strong framework of rights and values.[233] They stress the requirement to shift from classic regulation, to "smart regulation" that is more dynamic, cyclical, and involves a diverse range of stakeholders, in order to meet the distinct challenges that robots pose.[234] Tutt proposes that advanced AI requires an agency analogous to the FDA. The agency would act as a standards-setting body, classifying technologies based on complexity and implementing standards for performance, design and liability.[235] Further, it would require transparency, and pre-market approval of algorithms.[236] The FDA is currently considering a revised regulatory framework for machine-learning medical devices, that allows for continuous monitoring and modifications to be made throughout the product's lifecycle.[237] This may complement Tutt's proposal, and allow for continuous, post-market regulation for adaptive AI, meeting challenges of regulatory effectiveness and connection.

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[232] Turner, above n 10, at 39.

[233] Ronald Leenes, Erica Palmerini, Bert-Jaap Koops, Andrea Bertolini, Pericle Salvini and Frederica Lucivero "Regulatory challenges of robots: some guidelines for addressing legal and ethical issues" (2017) 9 Law Innovation and Technology 1 at 30.

[234] At 43.

[235] Andrew Tutt "An FDA for Algorithms" (2017) 69 Admin L Rev 83 at 106.

[236] At 109-111.

[237] US Food and Drug Administration *Proposed Regulatory Framework for Modifications to Artificial Intelligence/Machine Learning (AI/ML) – Based Software as a Medical Device (SaMD)*: *Discussion Paper and Request for Feedback*.

In assessing numerous government proposals regarding AI across the United Kingdom, the European Union, France, Japan, and China, Turner draws out four major trends across the board: liability rules for harm caused by AI, safety standards, transparency/explainability, and a requirement that AI comports with established human values.[238] As evidenced, there are moves towards a comprehensive AI regulatory approach to meet the challenges of advanced AI. This dissertation has focussed on the specific concerns related to sophisticated, non-sentient sex robots. However, it could be that as AI develops, a standards body or agency will be required, to which sex robots will be subject.

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[238] Turner, above n 10, at 303-304.

## *Conclusion*

In approaching this dissertation, sex robots appeared vastly different to any technology we have seen before – they are interactive, embodied, human-like, and potentially transformative of sexuality. Though upon closer examination, the issues that are raised are not all that distinct from things we already regulate, particularly media, with largely analogous risks, and a similar absence of conclusive evidence. From a legal perspective, ordinary sex robots do not warrant a restrictive regulatory approach, as the grounds do not fall within the parameters of justification for criminalisation. However, there are a number of plausible grounds suggesting that child-like sex robots and rape robots are apt for criminalisation.

On this basis, I recommend that we adopt a permissive, but consistent starting point, by subjecting sex robots to a standard of objectionability. Given that sex robots do not clearly fit within the categories of regulated publications, this regulatory response requires the law to be brought into line through a minor modification of the Classification Act.

The law is not a particularly imaginative vehicle, it tends to react rather than anticipate. Thus, it may well be necessary to keep a watchful eye on the development of sex robots. However, this permissive but consistent starting point places the burden of proof on opponents to substantiate the risks of harm in respect to ordinary sex robots and provides clarity and consistency in criminalising child-like sex robots and rape robots. This regulatory response recognises the extent to which intruding on private sex lives is a curtailment of liberty, but recognises the objectionable limitation we have already placed on such liberty.

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