

THE FUTURE OF SEX ROBOTS IN INDONESIA: LAW, SCIENCE, AND TECHNOLOGY

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Abstract

Sex robots are humanoid machines used to fulfill sexual desires of their users. Their presence has created debates around the world. Currently, sex robots are not sold freely in Indonesia. Although, the future of such an innovation must be scrutinized through the Indonesian laws. From the proponent side, the existence of such robots has possibly several justifications: (1) their usage has no implications on other people other than their users; (2) the market is potentially high; and (3) the use of this object entails some psychological benefits for those in need of them. Conversely, the opposing group will potentially argue that this technology is not in line with the religious values, decency, and even the laws in Indonesia. We did not find any journals that had discussed sex robots, especially through a law, science, and technology approach, so there is still a research gap. This article scrutinized sex robots through the law, science, and technology perspective in the context of Indonesia in order to bring up their impacts that may require legal involvement. In principle, the use of sex robots that are used individually does not mean that they cannot be prohibited, especially if they are against the law, violate moral values, and/or disrupt the public interests in Indonesia.

Keywords: Existence; Sex Robots; Symbolic; Technology.

1. INTRODUCTION

Technology is one of the concrete efforts of humans to facilitate their survival in terms of effectiveness and efficiency.¹ Information and communication technology has been very beneficial due to its ability to manage, process, and store data without the human limitations of memory and the number of activities that can be performed at a time. Also, technology allows humans to communicate regardless of distance and time.²

Artificial intelligence planted in human-shaped robots is one of the most recent developments and has continued to undergo refinement. This type of robot processes, manages, stores, independently uses, and communicates data.³ An

¹ J Anderson and L Rainie, "The Positives of Digital Life," *Pew Research Center*, 2018, 52–68, <https://www.pewresearch.org/internet/2018/07/03/the-positives-of-digital-life/>.

² Anderson and Rainie.

³ Michael Haenlein and Andreas Kaplan, "A Brief History of Artificial Intelligence: On the Past, Present, and Future of Artificial Intelligence," *California Management Review* 61, no. 4 (2019): 5–14, <https://www.pewresearch.org/internet/2018/07/03/the-positives-of-digital-life/>.

example is a robot named “Sophia”, which is extraordinarily intelligent and can interact with humans. The presence of this robot is expected to assist in human activities that are increasingly complex and potentially laden with errors.⁴

The current development of humanoid robots is also oriented toward the sexual interests and fulfillment of humans. In 2018, Realbotix, a robot manufacturing company in the United States, launched a generally female human-shaped robot named “Harmony”.⁵ This robot is capable of interacting with humans and functions as a tool for fulfilling sexual needs. Due to its realistic design, this robot is one step ahead of human-shaped *sex dolls* that are unable to communicate. However, several pros and cons appeared following its existence.

The creator of this invention presented at least 3 (three) main arguments. First, sex robots can bring huge economic benefits due to the ever-growing market share of the industry.⁶ Second, these robots can be a solution for people who are physically or socially “incapable” of having sex with other humans.⁷ Third, the use is not harmful to others.

The oppositions of these machines have at least 3 counter-arguments. Despite the large market share, these inventions objectify women sexually and are considered contrary to religious values and decency.⁸ The presence of these robots is also regarded as unbeneficial or thought to increase the problems in society.

Although academic discussions about sex robots have been conducted for a few years,⁹ there has been no comprehensive legal examination in Indonesia. This is because their sale in the country is restricted and yet to become a highly debated issue. Therefore, this research approached the existence of these objects in a normative-hypothetical way to highlight the norms that will be imposed when the technology becomes applicable. This is important to anticipate the reality of the innovation and ensure Indonesia will handle the situation appropriately.

The problem discussed in this research was the future of sex robots in Indonesia from a normative perspective. In the first part, the reality of these machines was dissected to obtain an accurate picture of the technology, and the debate regarding its existence was examined to understand the dynamics of the current technology. This was followed by the application of a normative approach to identify the relevant provisions.

The dissection of this reality employed a scientific approach, as a normative or legal methodology was inappropriate. The relationship between law, science, and technology

⁴ “Hanson Robotics, ‘Sophia,’ Accessed September 2, 2022, <https://www.hansonrobotics.com/sophia/>,” n.d.

⁵ “Jon Rogers, ‘The TALKING Sex Robot: Meet the World’s Most Realistic Intercourse Doll with Integrated AI,’ Accessed September 2, 2022, <https://www.express.co.uk/news/world/787867/Sex-Doll-Robot-Harmony-2-0-RealDoll>,” n.d.

⁶ Barney Cotton, “Sex Robots—A Disturbing Look inside One of the World’s Fastest Growing Industries,” *Business Leader*, 2018, <https://www.express.co.uk/news/world/787867/Sex-doll-robot-Harmony-2-0-RealDoll>.

⁷ Chantal Cox-George and Susan Bewley, “I, Sex Robot: the health implications of the sex robot industry,” *BMJ Sexual & Reproductive Health* 44, No. 3 (2018): 162.

⁸ James Temperton, “Campaign Calls for Ban on Sex Robots,” accessed September 2, 2022, <https://www.wired.co.uk/article/campaign-against-sex-robots>.

⁹ Carina Soledad González-González et al., “Human-Robot Interaction and Sexbots: A Systematic Literature Review,” *Sensors* 21, no. 1 (2020): 216.

was examined using related approaches.¹⁰ For instance, genetics, drones, and artificial intelligence are technologies that are often analyzed. The relevant science surrounding the reality of these technologies was explained first.

After achieving a clear and specific picture, a juridical normative approach was used. Since sex robots are currently absent in Indonesia, assessing their existence normatively will be useful to regulate their potential appearance in the market and ensure all parties are prepared for a response.

2. ANALYSIS AND DISCUSSION

2.1. Description of Sex Robots

2.1.1. Understanding Robots

The American Heritage Dictionary of the English Language defines a robot as a mechanical device that, on particular occasions, resembles human beings and can perform related tasks. These tasks are executed based on programs designed in advance. The term “robot” was first used in a 1921 science fiction melodrama by the Czechoslovak artist Karel Čapek, entitled *Universal Rossum Robot (R.U.R.)*. The word robot originated from the Czech word “*robot*”, meaning forced labor.¹¹ In conjunction with his brother, Josep Čapek, a painter and graphic artist, Karel fashioned a robot as a humanoid, which is an object that visually resembles a human but is made of synthetic organic matter.¹²

The visualization was inspired by Karel’s observation of humans jostling on a train, such as a bunch of machines. Therefore, the artist imagined humans, not as individual figures, but as machines that worked without thinking or reasoning. Karel wrote a drama about a manufacturer that produces robots to replace and liberate humans from tedious routine work.¹³

Robots originated from automata objects, such as cuckoo clocks and digesting ducks created by Jacques de Vaucanson in 1735, to chess-playing automation in 1770, and others.¹⁴ The subsequent development was industrial robots, designed to help humans work. Industrial robots were solely created with concepts that mimic human muscles and bones.¹⁵ “*Unimate*”, the first industrial robot completed in New Jersey in 1961, functions as human hands (robotic arms) and assists in lifting heavy loads.¹⁶

¹⁰ Simon A Cole and Alyse Bertenthal, “Science, Technology, Society, and Law,” *Annual Review of Law and Social Science* 13 (2017): 351–71.

¹¹ David Levy, *Love and Sex with Robots: The Evolution of Human-Robot Relationships* (New York, 2009). 10.

¹² John Danaher and Neil McArthur, *Robot Sex: Social and Ethical Implications* (MIT press, 2017). 4.

¹³ History Computer, “Karel Capek and the Robot (Complete History),” accessed August 22, 2022, <https://history-computer.com/karel-capek-and-the-robot-complete-history/>.

¹⁴ John M Jordan, *Robots* (MIT Press, 2016)., 28.

¹⁵ Jordan., 72-4.

¹⁶ Robotnik, “History of Robots and Robotics,” accessed August 22, 2022, <https://robotnik.eu/history-of-robots-and-robotics/>.

Subsequently, robotic arms were produced and used in large companies that needed the help of machinery, such as automotive industry plants. An example is the IRB-6 robotic arm 1974, the first industrial robot a microcomputer could control.¹⁷ Previously, robots were controlled by a simple program. This concept fit the definition according to the Robot Institute of America in 1978 that a robot is a multifunctional manipulator designed to move materials, parts, tools, or special devices, through varied programmatic movements to perform various tasks.¹⁸

Experts continue developing robots' capabilities by designing Artificial Intelligence (AI), which attempts to recreate some level of human reasoning or intelligence with nonhuman elements or devices.¹⁹ In 1984, Cyc was an AI machine with common knowledge, such as "rain is water" and "humans feel wet when exposed to water". This statement is subsequently processed by a computer to denote that "when I get caught in the rain, (I) will be wet."²⁰ Therefore, AI can process information within the framework of causality.

Presently, scientists are generating robots planted with AI, which increases their similarity to humans. A well-known AI-capacity humanoid robot model is the "Sophia", which was designed for research, education, and entertainment, can display human-like expressions, and interact with humans.²¹ Therefore, the definition of robots has evolved. According to Maja Matarić in her book *The Robotics Primer* (2007):

*A robot is an autonomous system that exists in the physical world, can sense its environment, and act on it to achieve some goals. True robots ... may be able to take input and advice from humans, but are **not completely controlled** by them.*²²

The development of robots is quite diverse and depends on human needs or the creator's intention. For example, some robots are designed in such a way as to perform dangerous, demanding, repetitive, and dirty tasks, such as cleaning toxic waste, underwater and space exploration, and my searches. Others are formulated for household hygiene and entertainment. These realities explain that robots are not always designed according to the human form but may be shaped like tractors, vehicles, and even animals, such as dogs.

According to George Bekey, the characteristics of a robot include the presence of sensors, processing capabilities that mimic some cognitive aspects, and actuators.²³ The

¹⁷ SciShow, "A Brief History of Robotics," Youtube, August 22, 2022) 00:03:29-00:03:56, n.d., <https://www.youtube.com/watch?v=uoC2ZGRI8a8>.

¹⁸ Douglas M Considine and Glenn D Considine, "Robot Technology Fundamentals," in *Standard Handbook of Industrial Automation* (Springer, 1986), 262–320.

¹⁹ Jordan, *Robots.*, 70-71.

²⁰ Jordan.

²¹ Zara Stone, "Everything You Need To Know About Sophia, The World's First Robot Citizen," accessed August 22, 2022, <https://www.forbes.com/sites/zarastone/2017/11/07/everything-you-need-to-know-about-sophia-the-worlds-first-robot-citizen/?sh=640b437846fa..>

²² Maja J Matarić, *The Robotics Primer* (MIT press, 2007), 2.

²³ George A Bekey, *Autonomous Robots: From Biological Inspiration to Implementation and Control* (MIT press, 2005). 2.

National Geographic Society also stated that robots must have three elements, namely sensors, actuators, and autonomy.²⁴

A sensor is a device for sensing objects to be processed using a chip or some “*brain*”. These sensors are designed to mimic the 5 (five) human senses, namely see, smell, taste, feel, and hear. For example, humans have eyes to capture light, ears to hear sounds, noses to smell scents, tongues to taste, and skin to feel textures, while robots are fashioned with some sensors depending on their goal.

The second element is an actuator that allows robots to move. Humans have legs with complex structures consisting of different bones, joints, and muscles. These organs are also found in other parts of the body, such as the hands, arms, and fingers. The creators strive to include mechanisms to ensure similar mobility. These include parts, such as the upper and lower thigh, which are connected by a hook, alongside a finger-like gripper to pick up objects.

The third element, autonomy, which is the ability to act independently, serves as a differentiator from other types of machines. Humans have the sense to think, while robots need a program to enable the performance of specific tasks. The most advanced robot program currently is aided by the presence of AI, which is the origin of its creation and development. However, AI is not the same as the mind, as the former is manmade, while the latter is God’s creation. This precedes several limitations as AI empowers robots to become autonomous based on computer programs created by humans.

2.1.2. Sex: Definition and Its Relation to Masturbation

According to Oxford Languages, the term “sex” can be distinguished in two contexts. These are (1) the biological sense of genitals, consisting of men and women, and (2) sexual activity performed against the genitals, specifically sexual intercourse. This section focused on the second context. Although sex is generally comprehended as the copulation between the sexes, particularly the penetration of the male genitals into the female,²⁵ intercourse can also occur between the same sex.

The definition of sex has blurred with human advancement because it depends on the individual’s sexual orientation and choice.²⁶ Currently, sex is interpreted as a relationship between sexes as well as an activity performed using the genitals. In 1999, Anders and Reinisch conducted a research to ask, “would you say you ‘had sex’ with someone if the most intimate behavior you did was...?”²⁷

Based on the survey results, 95.5 % and 81 % considered *vaginal* and *anal sex* as sex, 40.2 % were receptive or *willing to consider oral sex* as sex, while 39.9 % agreed.

²⁴ National Geographic, “What Is a Robot?,” accessed July 2, 2022, <https://education.nationalgeographic.org/resource/what-robot..>

²⁵ Fedwa Malti-Douglas, *Encyclopedia of Sex and Gender* (Farmington Hills: Macmillan Reference, 2007), 308.

²⁶ Gary Gute et al., “Sex for You, but Not for Me: Discontinuity in Undergraduate Emerging Adults’ Definitions of ‘Having Sex,’” *Journal of Sex Research* 45, no. 4 (2008): 329–37.

²⁷ Ava D Horowitz and Louise Spicer, “‘Having Sex’ as a Graded and Hierarchical Construct: A Comparison of Sexual Definitions among Heterosexual and Lesbian Emerging Adults in the UK,” *Journal of Sex Research* 50, no. 2 (2013): 139–50.

A small percentage of participants considered manual or self-genital stimulation as sex, with 15.1 % rated receptive and 13.9 % agreeing. Several other activities listed in the research by Sanders and Reinisch obtained a low percentage of advocates. This includes deep kissing, which 2 % of the participants categorized as sex. The data of this research did not intend to generalize but illustrate the various definitions of sex.

Although the interpretations of sex differ, the scope of sexual activity can be defined. Sex comprises activities performed on the sex organs to fulfill sexual and/or reproductive needs. It is broadly subdivided into two, namely sex in the limited sense and masturbation. The first category refers to sexual activity between individuals and requires a partner, while masturbation stimulates the genitals to achieve an orgasm and does not necessitate a partner.

Masturbation can be defined as the stimulation of the genitals independently to fulfil sexual desires and obtain satisfaction, usually performed until the point of orgasm.²⁸ The process varies and may involve using one's hands or tools, such as sex toys, vibrators, etc. Although masturbation is generally defined as self-stimulation to fulfill sexual desires and largely unrelated to the availability or frequency of sex partners,²⁹ *mutual masturbation* is an offshoot of this term that involves sexual partners. Such activity entails manually stimulating the genitals of the couple and is called a non-penetrative form of sex.³⁰

2.1.3. Sex Robots: Sex in a Limited Sense or Masturbation

Classifying sexual activity with a sex robot in a limited sense or as masturbation will have different legal implications and consequences depending on the differences in the identification of the machines (see section C). The main instrument for appropriate categorization is determining whether sex robots can be called sexual partners.

Giving an affirmative answer indicates that these inventions can be categorized as sexual partners, while a negative answer means its use is identical to masturbation, similar to *a sex toy* or other similar tools. Therefore, a definitive answer is necessary to accurately delineate the meaning of sex partners and justify the equalization or distinction of robots from humans.³¹

Robots are not human beings because they lack functional biological genital organs.³² Although innovators can create particular features that are similar to the structure of human genitals, that particular body part cannot be referred to as genitals in the generally understood sense of sexuality. The part has no reproductive function,

²⁸ The Encyclopedia of World Problems & Human Potentials, 'Masturbation,'" accessed August 9, 2022, <http://encyclopedia.uia.org/en/problem/masturbation..>

²⁹ Paul R Abramson, "The Relationship of the Frequency of Masturbation to Several Aspects of Personality and Behavior," *Journal of Sex Research* 9, no. 2 (1973): 132-42.

³⁰ "The Encyclopedia of World Problems & Human Potentials, 'Masturbation,'"

³¹ "The Author Does Not Assert That There Is a Reality in Society That Is Afflicting Entity Gaps Sex Robot and Sex Doll as a Sex Partner. One of the Figures Who Agreed with This Was David Levy, Who Said That "We Have a Quasi-Human Relationship with the Machin," n.d..

³² Jinchang Wang, "Will a Robot Be a Human?," in *Artificial Intelligence and Soft Computing: 11th International Conference, ICAISC 2012, Zakopane, Poland, April 29-May 3, 2012, Proceedings, Part II* 11 (Springer, 2012), 519-27.

nor the inherent function of sexual gratification. The genitals trigger the robot's program to make a sound similar to an orgasm. The robots have no sexual needs, as confirmed by the founder of Realbotix that these machines could not replace humans as real sexual partners.³³

Some futuristic groups have other views, where robots are considered sexual partners, and the activity is classified as sex in a limited sense. One of the reasons is the existence of AI, which causes robots to think like humans and possess intelligence that surpasses the human mind. Experts also argued that robots in the future may have emotions and feelings.

In 2017, a survey that showed nearly half of the American population believed sex with robots would be common by 2050.³⁴ Humans have begun to perceive that sexual activity with robots could be termed as sexual intercourse. Japanese robot scientists, who have led research in "partner robots", admitted that "robots are increasingly likely to interact with people in daily life". Based on these abilities, they will play an important role in human society in the near future.³⁵ Meanwhile, Alexander and Elena Libin affirmed that "*Recent research showed that people see and treat robots as machines as well as artificial counterparts or partners*".³⁶ However, this view is currently only realized in films such as in *Ex-Machina* or *Her*.

2.1.4. Sex Robots, Sex Dolls, and Sex Toys: Entities Distinction

Based on the previous explanation, the term "sex" in sex robots refers to the broad concept of sex, including masturbation activities. Since specifying sexual activity with these machines as sex in a limited sense has proven difficult, the robots are stated to have very similar functions as other masturbation tools, such as sex dolls and sex toys.

However, three aspects that distinguish these objects from other masturbation devices are shape, movement, and intelligence.³⁷ Sex robots are designed alike humans (humanoid form), with similar physical structures, shapes, and appearances of the face and other organs. This form is intended to create a sensation of interaction or contact with a real human. Meanwhile, sex toys only resemble male or female genitalia.

The second distinction is related to human-like movement. They are designed to move their upper or lower bodies. In some designs, the genital part is made to vibrate, thereby creating sexual sensations. This is unlike sex dolls or toys, which lack such features and can only move when driven by the users.

The last aspect of distinction is some degree of artificial intelligence. Several creators implanted a chip that functions as AI and enables these machines to process and

³³ ABC News, "You Can Soon Buy a Sex Robot Equipped with Artificial Intelligence for about \$20,000," n.d., <https://www.youtube.com/watch?v=-cN8sJz50Ng>.

³⁴ Yael Bame, "Sex with a Robot? 1 in 4 Men Would Consider It," accessed August 20, 2022, <https://today.yougov.com/topics/society/articles-reports/2017/10/02/1-4-men-would-consider-having-sex-robot>.

³⁵ Takayuki Kanda et al., "Interactive Robots as Social Partners and Peer Tutors for Children: A Field Trial," *Human-Computer Interaction* 19, no. 1-2 (2004): 61-84.

³⁶ Alexander V Libin and Elena V Libin, "Person-Robot Interactions from the Robopsychologists' Point of View: The Robotic Psychology and Robototherapy Approach," *Proceedings of the IEEE* 92, no. 11 (2004): 1789-1803.

³⁷ Danaher, *Robot Sex*, 4-5.

respond to information. These processes and responses are tuned to meet the needs of an orgasm. For example, the robot “Harmony” has a chip connected to a smartphone application to facilitate interaction. The creator designed several answers to be elicited when triggered by some questions. However, sex dolls and toys lack these abilities.

2.1.5. Raison d’etre of Sex Robots

The reasons humans have sex are for reproduction, sexual gratification, or to fulfill sexual desire. The submission of Leigh Barbara Critchlow (1989) in the *Journal of Sex Research* mentioned at least seven reasons humans have sex, namely pure pleasure, expression of emotional closeness, reproduction, desire for one’s partner, to please one’s partner, show control/power, and to relieve sexual tension/desire.³⁸

The impulse to satiate sexual desire is frequently imbalanced with the presence of sexual partners for people with certain difficulties or limitations, such as the elderly and people with disabilities, chronic diseases, low social abilities, etc. Sex therapist, Chanta Blue, stated that although masturbation or self-stimulation can fulfill sexual needs, humans as social beings still require partners, except for asexual persons.³⁹ Therefore, the projected sex robot resembles a human in terms of sexual intercourse functions and can satisfy the sexual needs of the mentioned groups.

The reality of sex robots arose from the inexistence of sexual partners as well as technological advances. In his book “Love and Sex with Robots: The Evolution of Human-Robot Relationships”, David Levy hypothesized that by 2050, robots would become human companions because of their human-like talents, senses, and abilities. These machines will also be able to develop feelings and fall in love with humans as well as change the ideas about love and sexuality. However, Levy believed humanoid robots will not completely replace humans’ love and sexuality functions but will broaden the existing views about these qualities and foster the development of new forms of relationships.⁴⁰

Levy’s idea in 2008 slowly became embodied with the creation of “Roxxxy”, the first real sex robot ever unveiled in public, by Douglas Hines. Initially, Hines intended to create a robot with AI capabilities to serve as a talking companion for his father, who had suffered a stroke. After assembling the machine, Hines saw the potential market for robots with AI capabilities. Subsequently, he established the company True Companion with sex robots as his first product,⁴¹ with the primary aim of creating a companion for humans lacking such relationships.

Another creator is Matt McMullen, the CEO of Realbotix and producer of RealDoll, a famous sex doll. McMullen is also developing a sex robot with AI called “Harmony”,

³⁸ Barbara Critchlow Leigh, “Reasons for having and avoiding sex: Gender, sexual orientation, and relationship to sexual behavior,” *The Journal of Sex Research* 26, No. 2 (1989): 199–209.

³⁹ Natalie Arroyo Camacho, “Can Regularly Masturbating Replace a Person’s Desire for Partnered Sex? Sexologists Weigh In,” accessed August 22, 2022, <https://www.wellandgood.com/can-masturbating-replace-sex/>.

⁴⁰ Levy, *Love and Sex with Robots*, 22.

⁴¹ Jenny Kleeman, *Sex Robots & Vegan Meat: Adventures at the Frontier of Birth, Food, Sex & Death* (Pan Macmillan, 2020), 33.

and his goal is to bring friends, partners, and lovers to certain groups with limitations in interacting with others.⁴²

*My goal, in a very simple way, is to make people happy. There are many people who have difficulty forming traditional relationships with others. It is really all about giving those specific types of people some level of companionship – or the illusion of companionship.*⁴³

McMullen created Harmony not to replace humans but as an alternative for persons who were unable to cultivate ideal relationships with other humans.⁴⁴

A British sex robot creator, Arran Squire, is currently developing a similar machine, named “*Samantha*”, to help humans without partners fulfill their sexual needs.⁴⁵ His intention aligns with a bio-analysis that associated sexual needs in the elderly with the existence of sex robots. Research showed that 53 % of the elderly aged 65-74 are sexually active,⁴⁶ with chronic conditions, such as arthritis, dementia, diabetes, heart disease, and stroke interfering with the sexual function of some. This is one of the needs these technologies are expected to satisfy.⁴⁷

However, some other creators focus more on sexual intentions than on associating with humans, such as Roberto Cardenas and his brother, Noel Aguila, who are working to develop the sex robot “*Eva*”. Roberto claimed the sex robot can perform more than twenty different sex positions, crawl, moan, and is ready for use at any time.⁴⁸ Noel added that *Eva* could help dispel rape against women, and consumers can make the robot an object for venting anger, as it can hit or serve as a receptacle for other activities.⁴⁹ The idea of sex robots is disapproved by feminists and some other groups because it is believed to normalize rape culture.⁵⁰

The reports above indicated that the innovators of these machines had different views and goals. Some aim to develop robots that can fulfill the sexual needs of persons with social and/or biological limitations, while others created their products purely for sexual purposes.

Despite the different objectives, these creators are still entrepreneurs who intend to exploit the market’s needs and obtain economic benefits. As Matt McMullen stated, “*It will be built when there is enough demand. When people are lining up to buy*

⁴² Matt McMullen, “‘Sex Robot Companion & Future of AI Speaker,’ Prophets of AI,” n.d. accessed on 22 August 2022, <https://prophetsofai.com/speakers/matt-mcmullen>.

⁴³ Kleeman, *Sex Robots & Vegan Meat*, Chapter 1.

⁴⁴ ABC News, “You Can Soon Buy a Sex Robot Equipped with Artificial Intelligence for about \$20,000,” n.d.

⁴⁵ “The Future of Sex,” BBC Three, accessed August 22, 2022, https://www.youtube.com/watch?v=k-GTI2_O9v_Y.

⁴⁶ Stacy Tessler Lindau et al., “A Study of Sexuality and Health among Older Adults in the United States,” *New England Journal of Medicine* 357, no. 8 (2007): 762–74.

⁴⁷ Nancy S Jecker, “Nothing to Be Ashamed of: Sex Robots for Older Adults with Disabilities,” *Journal of Medical Ethics* 47, no. 1 (2021): 26–32.

⁴⁸ Kleeman, 50-51.

⁴⁹ Kleeman, 52.

⁵⁰ Meghan Murphy, “Sex Robots Epitomize Patriarchy and Offer Men a Solution to the Threat of Female Independence,” *Feminist Current*, n.d. accessed on 22 August 2022, <https://www.feministcurrent.com/2017/04/27/sex-robots-epitomize-patriarchy-offer-men-solution-threat-female-independence/>.

something, then you build it."⁵¹ According to research on the population of the United States with an average age of 33 years, showed that about 40 % of men and 17 % of female respondents, wanted to try a sex robot.⁵² Therefore, the presence of demand will precipitate supply, leading to the conception of a sex robot market. Even without having the same reason for their inventions, the main orientation of the *sex robot* industry is undeniably to gain profit.

The findings above indicated that men and women have a different tendency to try sex robots. This explains the differences in supply, as these machines are generally created in the form of females, leading to their consideration as entities perpetuating women as merely sexual objects for males.⁵³ Although the veracity of this statement is questionable, the goal of this production is to meet the market's needs, thereby justifying the focus on developing more female sex robots than male.

2.1.6. Existing Pros and Cons of Sex Robots

The existence of sex robots as technological development has several pros and cons, which can be examined through the lens of sex robot creators, users, and other observers, including laypeople and academics. As John Danaher mentioned, the bone of contention lies in the issue of symbolism and consequence.⁵⁴

The first rejection emanates from an argument attributed to the symbols these creations represent. Some consider sex robots as the representation of slavery and inequality. Slavery is an unequal relationship between two or more subjects, where one party can do anything without the others' consent, similar to the ownership of goods. An example is the colonization and enslavement of Indonesians by the Dutch government in the form of forced labor, with the threat of death following the failure to comply.

This perspective argues that users can do anything to the robot without asking for permission. The flexibility of use is not due to economic or life dependence factors but that the machines lack the *freedom* to act autonomously. The robot is unable to offer any form of resistance, as it is designed to accept any action from the user. According to Kathleen Richardson, this is an asymmetrical relationship in which the owner has all the power and right to treat the object as desired.⁵⁵

A further explanation of the reality of slavery is related to the appearance of the majority of sex robots. Sinziana Cutiu explained that the products that have been

⁵¹ "Rise of the Sex Robots," The Guardian, Accessed on 27 April 2017, https://www.youtube.com/watch?v=6vN0cs_RSSs," n.d.,

⁵² Matthias Scheutz and Thomas Arnold, "Are we ready for sex robots?" *11th ACM/IEEE International Conference on Human-Robot Interaction (HRI)* (2016): 355.

⁵³ Andrea Morris, "Meet The Activist Fighting Sex Robots," Accessed on 2022-08-22, <https://www.forbes.com/sites/andreamorris/2018/09/26/meet-the-activist-fighting-sex-robots/?sh=4b-b868866e79>,"

⁵⁴ John Danaher, "Is One of the Editors of the Book Entitled 'Robot Sex: Social and Ethical Implications'. He Explained This Distinction in the TEDxTalks Event. TEDxTalks, "Symbols and Their Consequences in the Sex Robot Debate | John Danaher | TEDxWHU," accessed March 7, 2017, <https://www.youtube.com/watch?v=32-IWF66Uu4>.

⁵⁵ Kathleen Richardson, "The Asymmetrical Relationship: Parallels between Prostitution and the Development of Sex Robots," *Acm Sigcas Computers and Society* 45, no. 3 (2016): 290-93.

offered and used are mostly in the form of women in terms of facial appearance and anatomy, such as breasts and vaginas. The symbolic implication is that women are passive subjects that must always accept sexual advances from men when, in fact, sexual intercourse should be a reciprocal relationship based on mutual consent. However, newer editions of sex robots have been created in the form of men.⁵⁶

For the innovators and users of sex robots, this symbolic argumentation is considered absurd and unfounded. The aspect to be distinguished is that the users are performing a “whatever” action on an object, not a human being. Performing these acts on sex robots does not justify the same being done on humans. An analogy is that children playing video games with elements of violence does not equate to supporting violence. Rather than supporting hostility in reality and/or hoping for a war to occur, such games are played for entertainment and recreational purposes.

There is a difference between desiring that an imaginary realm should be realized in reality and simply having an experience for pleasure or personal interests. In the first context, there is an orientation, followed by efforts to actualize the imagination in the hopes that the symbolic realization will be fulfilled in the real world. However, that reality is not expected by sex robot creators and users, as their orientation is for individual interests without harming others.

The debate over the existence of sex robots can also be traced consequentially to the impacts on users, society, and its creators. These impacts can be viewed from medical, psychological, and sociological perspectives.

For the creators and users, these robots seek to help certain groups, such as people with sexual needs that experience difficulties finding partners but are averse to prostitution. Some prefer using these machines over relating with humans whose personalities and judgment patterns can be destructive. Although these characteristics are not common to all humans, using sex robots may be preferred, as no party is harmed in the process.

Sex robots can also replace commercial sex workers and prostitutes. Prostitution is the process where temporary sexual services are provided to recipients in exchange for economic compensation. According to the WHO Consultation on Prevention and Control of Sexually Transmitted Diseases in Population Groups at Risk, prostitution is one of the main arenas for the spread of sexually transmitted diseases.⁵⁷ Participation is usually triggered by the fulfillment of mere sexual needs without the burden of a relationship. Therefore, the existence of sex robots is expected to replace prostitution, thereby eliminating a major medium for the spread of sexually transmitted diseases.

This first argument was rejected by the assumption that the creators and users of sex robots have deliberately isolated humans despite their social nature. Every human

⁵⁶ Sinziana Gutiu, “Sex Robots and Roboticization of Consent,” in *We Robot Conference*, 2012, 1–24.

⁵⁷ WHO Consultation on Prevention and Control of Sexually Transmitted Diseases in Population Groups at Risk (1988: Geneva) & World Health Organization. Programme of Sexually Transmitted Diseases. (1989). STD control in prostitution: guidelines for policy / WHO Consultation on Prevention and Control of Sexually Transmitted Diseases in Population Groups at Risk, Geneva, 24-27 October 1988. World Health Organization.

being has ⁵⁸*free will* and different social experiences, signifying that the dynamics in relationships between people are a necessity. The solution is not to shy away from these dynamics but to understand how to ensure efficient interpersonal communication.

Meanwhile, the second argument regarding the problem of prostitution was countered, as sex robots are believed to cause new problems. The basic question is whether replacement with sex robots is the only way to solve this problem. The major factor that supports prostitution is satisfying demand and need, as the providers of this service aim to fulfill their daily economic needs while the recipients seek to satiate their sexual needs freely without ties. This means finding alternative sources of income for commercial sex workers and ways to ensure prostitution customers stop seeking these services. There is also no guarantee that sex robots will eliminate the spread of sexually transmitted diseases, though this argument was refuted by the assertion that cleaning the item guarantees safe reuse. Therefore, the normative solution for eliminating prostitution is placing a ban on the act.⁵⁹

2.2. Sex Robots in a Positive Legal Perspective in Indonesia

2.2.1. The Material Status of Sex Robots: Goods that Violate Decency

Although the Constitution provides that everyone has the right to benefit from science and technology,⁶⁰ the ensuing question is whether sex robots are one of the innovations that can be used or obtained. From the perspective of material law, these inventions can be subject to rights and categorized as part of the treasury regulated in Book II of the Civil Code (KUHPer). The Criminal Code defines goods as items that can be the subject of property rights.⁶¹ This includes products that are widely traded by various companies in the sex robot industry.

Articles 504 to 518 of the Criminal Code regulate various types of objects that are recognized and can be subject to legal status.⁶² Sex robots are moving and tangible objects⁶³ because they have an element of mobility and are capable of moving.⁶⁴ Also, these items are regarded as tangible because they are visible.

This research attempted to question the ability to own a sex robot, as not all objects can be owned. The most likely provision to be reviewed is related to pornography because the term “sex” is a part of the entity’s name. Supposing sex robots are included in pornographic goods, the actions regulated in Law Number 44 of 2008 concerning

⁵⁸ “What Are the Dangers of a Sex Doll Brothel,” The Doctors, accessed 6 September 2022, <https://www.youtube.com/watch?v=MkF5ODhPiCw>.

⁵⁹ The Doctors.

⁶⁰ “Indonesia, The 1945 Constitution of the Republic of Indonesia, Art. 28C,” n.d.

⁶¹ “Kitab Undang-Undang Hukum Perdata (Burgerlijk Wetboek) Diterjemahkan Oleh R. Subekti Dan R. Tjitrosudibio, Kitab Undang-Undang Hukum Perdata” (1983).

⁶² Letezia Tobing, “Mengenal Benda Bergerak Dan Benda Tidak Bergerak,” accessed July 6, 2022, <https://www.hukumonline.com/klinik/a/mengenal-benda-bergerak-dan-benda-tidak-bergerak-cl4712..>

⁶³ “Muhammad Bayu Firmansyah, ‘Konvergensi Hukum Robot Dalam Sistem Hukum Nasional Indonesia Pada Masyarakat 5.0,’ (Thesis of the Master’s Program at the Islamic University of Indonesia, Semarang, 2021), 96” (n.d.).

⁶⁴ Fraser McLeay et al., “Replaced by a Robot: Service Implications in the Age of the Machine,” *Journal of Service Research* 24, no. 1 (2021): 104–21.

Pornography can be used as a basis to prohibit their existence. However, exclusion from pornographic items means there is no legal justification for prohibiting their existence.

The Law *a quo* defines items that can be classified as pornographic goods. Article 1 of the Pornography Law mentions two main elements of pornography.⁶⁵ First, the form, such as still or moving images, sketches, illustrations, photos, writing, sounds, animations, cartoons, conversations, gestures, or other forms of messages through various forms of communication media and/or public performances. Second, the nature of its form that promotes obscenity or sexual exploitation and violates the norms of decency in society. This denotes that porn is an item that violates decency.

Regarding the first element, sex robots are not images, sketches, illustrations, photographs, or related to any of the features stated in Article 1 of *the Law a quo*. A sex robot is an item shaped like a human that can be directly sensed in all its components. Therefore, the more important concern is their visualization as obscene entities that violate the norms of decency, as images that contain sex robots fall into the category of pornographic goods.

The Big Indonesian Dictionary (KBBI) defines obscenity as vile, dirty, and indecent.⁶⁶ R. Soesilo also explained that obscene acts are heinous actions or behaviors that violate decency.⁶⁷ These actions are related to lust, such as kissing, groping the pubic member, breasts, etc.

Meanwhile, *Black's Law Dictionary* described decency as a teaching of morality, appropriate circumstances, or a combination of the values of propriety in society.⁶⁸ Decency is generally regulated outside the positive law and enforced with human conscience, though crimes against decency have also been accommodated in criminal provisions. Acts that violate decency are very much dependent on the public opinion of the act at the time and location of its occurrence.⁶⁹

An example is kissing by lovers on the highway. This act is considered ordinary and within the rules of decency in some places such as Melbourne, New York, or areas where similar behaviors are condoned, such as movie scenes. In other areas, such as some Indonesian regions, including Aceh and Padang, this act will lead to different responses. R. Soesilo stated that the occurrence of similar acts in Indonesia must be questioned because they violate decency.⁷⁰

However, R. Soesilo's argument about the meaning of decency needs to be criticized,⁷¹ as there is a fundamental difference in his definition. Morals are governed by the conscience regardless of the relationships and influences of others, while politeness refers to the treatment of others based on the moral values existing in society. This

⁶⁵ "Indonesia, Pornography Law, Law No. 44 of 2008, LN No. 181 of 2008, TLN No. 4928. Art. 1," n.d.

⁶⁶ The Great Dictionary of Indonesian.

⁶⁷ R. Soesilo, *Kitab Undang-Undang Hukum Pidana Serta Komentar-Komentarnya Lengkap Pasal Demi Pasal* (Bogor: Politeia, 1995). P. 12

⁶⁸ Black's Law Dictionary.

⁶⁹ Soesilo, *Kitab Undang-Undang Hukum Pidana Serta Komentar-Komentarnya Lengkap Pasal Demi Pasal*, 205.

⁷⁰ Soesilo.

⁷¹ Soesilo.204.

means the consequence of actions contrary to the norms of decency is the disruption of the balance in society. Although the two norms differ in the context of relationships with others and consequences, they are communal measures and depend on the dimensions of space and time of action.⁷²

Jurists and sociologists, such as Roeslan Saleh, Leden Marpaung, Sianturi, and R. Soesilo, argued that decency is closely related to sexuality. Roeslan Saleh posited that the norms of decency govern many sexual spheres.⁷³ However, sexuality is associated with sensitive parts of the body and can trigger shame and provoke lust, and such do not directly cause harm in society.

Depicting *sex* robots as objects that contain pornographic elements depends on their contradiction with the description of decency in Indonesia.

First, the intent of creating sex robots should be examined. These machines were invented to replace the role of humans in performing sexual acts. Their components are specified and designed to facilitate and meet all human biological needs in terms of sexual acts, copulation, and cooperation, with the added sophistication of AI. Sex robots that resemble women are designed with breasts and an imitation vagina as well as are equipped with sound and communication responses, including a sighing mode that can arouse sexual desire. The purpose of these features and components denotes that the object is devoted to sexual activities.

These robots also contain elements or impressions of nudity as well as genitals. *The framing* of the robot has established the view that the object was designed for the act of association. Advertisements also involve naked sex robots customized with feminine parts, such as breasts and vaginas. Despite being a machine, its personification as a human being is enough to increase lust when displayed to the public, which will lead to violating the norms of decency.

This is analogous to hentai, a type of cartoon animation. Although these programs are not played by humans, the personification of human beings can trigger lust that contradicts decency, leading to its view as a form of pornography as well as its prohibition. Therefore, Article 4 paragraph (1) of the Pornography Law includes sex robots as one of the objects containing pornographic elements. The Law *a quo* has also been intensified to prevent any graphic behavior that is deliberately intended to stimulate lust.

2.2.2. Ownership and Dissemination of Sex Robots in Indonesia

The previous section described sex robots as items that violate decency by examining their manufacturing intentions and inherent components. This section reviewed the actions that can be taken against sex robots.

⁷² A person wearing a bikini outfit in the school environment, in fact, will not harm others directly. But in Indonesia, dressing a bikini at school is an act that violates decency. Because of the show, the impression of nudity in school is an unjustified thing. Therefore, such actions are called contrary to the norms of decency. It is different when a child calls his mother by his real name. Terse behavior but enter into disrespectful acts because it is a measure drawn from how one treats others. Consequently, the act could have hurt his mother's heart.

⁷³ Roeslan Saleh, *Perbuatan Pidana Dan Pertanggung Jawaban Pidana* (Jakarta: Aksara Baru, 1983).

According to the fuqaha rule of Shaikhul Islam Ibn Taimiyyah Rahimahullah, all objects are permissible or halal. The rule of jurisprudence refers to the nature of an object that has not been subjected to any action as halal. This means any object made by humans is allowed, as the status of permissibility or prohibition cannot be ascribed to an entity that has not been exposed to human actions.⁷⁴

For example, Law Number 35 of 2009 concerning Narcotics does not prohibit narcotics but forbids human actions on the object. Article 8 of *the Law a quo* stipulates that Class I Narcotics are prohibited from being used in health services. This indicates that the article does not forbid these items but prohibits humans from using them in health management.⁷⁵

Another instance is the prohibition of pork consumption in Islam. The norm does not describe pork as illegitimate but its ingestion. This means maintaining and looking at this form of meat is not a problem. The approach can be applied in scrutinizing the law governing *sex robots* in Indonesia.

Based on this argument, the discussion that *sex robots* are pornographic items or objects that can violate decency should be dependent on the perspective of the actions. In Indonesia, the act of producing, reproducing, duplicating, disseminating, broadcasting, importing, exporting, offering, selling, renting, or providing pornographic goods, *mutatis mutandis*, is prohibited by Article 4 paragraph (1) of the Pornography Law. Therefore, companies that focus on producing *sex robots* are prohibited in the country.

This indicates that these objects can only be accessed from companies outside the Indonesian territory. The possession of *sex robots* through direct purchase, sale, exportation, and/or other forms of transfer of control is completely prohibited under the Pornography Law. Article 6 of the Pornography Law stipulated that every individual is prohibited from using, possessing, or storing pornographic products as referred to in Article 4 paragraph (1), unless authorized by laws and regulations. This arrangement comprehensively prohibits the ownership of any form of⁷⁶*sex robots* in Indonesia.

In addition, the dissemination of *sex robots* is also regulated in Article 282 of the Criminal Code (KUHP). R. Soesilo stated that this article contains 3 prohibitions on certain actions, namely:⁷⁷

- a. Broadcasting, displaying, or blatantly pasting writings, images, or objects that violate decency;
- b. Creating, directly transmitting, bringing in or out, or otherwise making available, writings, images, or objects to be broadcast, performed, or pasted in a blatant manner; and

⁷⁴ Islamqa.info, "Kaidah 'Hukum Asal Terhadap Benda Adalah Boleh'," accessed July 6, 2022, <https://islamqa.info/id/answers/231261/kaidah-hukum-asal-terhadap-benda-adalah-boleh>.

⁷⁵ Narcotics Law, Law No. 35 of 2009, LN No. 143 of 2009, TLN No. 5062, Art. 8 subsection (1).

⁷⁶ Pornography Law, Law No. 44 of 2008, LN No. 181 of 2008, TLN No. 4928, Art. 6.

⁷⁷ Bernadetha Aurelia Oktavira, "Hukumnya Jual Sex Toys Di Indonesia," accessed July 7, 2022, <https://www.hukumonline.com/klinik/a/hukumnya-jual-isex-toys-i-di-indonesia-lt519344d537b5d>.

c. Blatantly broadcasting unsolicited shows, writing, image, or objects.

This means disseminating objects that violate decency is a criminal offense. The stipulations of the article will be imposed on people who create objects that violate the norms of decency. Therefore, the purchase, sale, and manufacture of sex robots have been banned in Indonesia through the provisions of Article 282 of the Criminal Code. Persons who attempt to create sex robots for personal use may be labeled sexual offenders and even charged with articles related to the crime of indecency.

2.2.3. Robotic Sex Use: Adultery from the Legal Perspective

Sex robots are produced to satisfy sexual needs. Therefore, the relationship between humans and sex robots can be reviewed normatively through association with three behaviors, namely (1) adultery, (2) prostitution, and (3) masturbation.

2.2.3.1. Adultery

Zina is a *mala in se*, which is considered a despicable act according to the religious and customary norms and laws in Indonesia. In the formal law, adultery is a criminal act regulated in Article 284 paragraph (1) of the Criminal Code.⁷⁸

Based on this Criminal Code, the prerequisite for criminal punishment for adultery is that one of the perpetrators is bound in a valid marriage. The basis of this punishment is that the act is a crime against decency. During the formation of the *WvS* (*Wetboek van Strafrecht*), adultery was considered a private matter and was exempt from regulation. However, it was listed as an offense in the *WvS* after the consideration and proposal of Mr. Modderman that failing to regulate this act will normalize the violation of decency.⁷⁹

This article is essentially aimed at protecting the rights and feelings of the aggrieved party when his partner commits adultery. This view is based on the type of complaint, as the charge can only be made based on the complaint of the legal husband or wife of the adulterous party.⁸⁰ The law stipulates that the act is only subject to the crime of adultery when the complaint is lodged by the spouse of the person concerned.⁸¹

There are several instruments to determine the applicability of the adultery article to sex robots. First, declaring that sex robots can be likened to humans is

⁷⁸ “Andi Hamzah, KUHP & KUHP, Ed. Revision (Jakarta: Rineka Cipta, 2019), 114. The Redactions of the Article Are;” n.d.

“Dihukum penjara selama-lamanya sembilan bulan:

a. Laki-laki yang beristri, berbuat zina, sedang diketahuinya, bahwa pasal 27 Kitab Undang-Undang Hukum Perdata (sipil) berlaku padanya; b. Perempuan yang bersuami, berbuat zina;

a. Laki-laki yang turut melakukan perbuatan itu, sedang diketahuinya bahwa kawannya itu bersuami; b. Perempuan yang tidak bersuami yang turut melakukan perbuatan itu, sedang diketahuinya, bahwa kawannya itu beristri dan pasal 27 Kitab Undang-Undang Hukum Perdata (sipil) berlaku pada kawannya itu.”

⁷⁹ Ahmad Bahiej, “Tinjauan Yuridis atas Delik Perzinahan (Overspel) dalam Hukum Pidana Indonesia,” *Socio-Religion Diary* 2, No. 2 (February, 2003): 5.

⁸⁰ Hamzah, KUHP & KUHP, 114.

⁸¹ Lamintang, *Delik-Delik Khusus: Kejahatan Melanggar Norma-Norma Kesusilaan Dan Norma Kepatutan* (Jakarta: Sinar Grafika, 2011), 97. However, According to Prof. Oemar Seno Adji, *This Viewpoint Does Not Consider the Religious and Moral Values in Indonesian Society*. Beca, n.d. Because after all, an act of adultery is a despicable act, even if it is not bound by a marriage with another person, especially if the worst-case scenario depicted oleh Lamintang regarding his partner’s consent occurred. Oemar Seno Adji, *Hukum Pidana Pengembangan* (Jakarta: Erlangga, 1985), 27.

difficult, as they are objects alike sex dolls or toys. This indicates that in terms of subject and legal *adresat*, the robot cannot be concluded to be the party referred to in the adultery article. This is even more apparent when referring to the theory of monistic criminal acts, which requires an attachment of the offense to the liability. There is no criminal act without establishing accountability, and the current positive legal *status quo* in Indonesia does not consider robots to be subjects that can be held criminally accountable.

Supposing *a rechtsvinding* in the future equates robots with humans and their criminal liability, the next debate is related to the teleological interpretation of the purpose of formulating the adultery article. The basis is ‘does man who is having sex with a robot result in jealousy or violation of the rights of his wife?’

First, no current research in Indonesia showed that this occurrence results in jealousy. Observations in other countries during the Covid-19 pandemic (April 2020 publication) revealed an increase in the purchase of sex robots because these items enhance people’s comfort and tendency to stay at home. Findings also revealed that many buyers married couples living together, with no reports of jealousy. Another group of fans and buyers consists of unmarried persons who use sex robots to satisfy their sexual needs. This shows that establishing sex with these machines as adultery that is punishable by Article 284 of the Criminal Code is difficult.⁸²

However, interviews with some married women showed that this data is not entirely correct. A feeling of fallen self-esteem was reported to potentially occur at the thought of a partner resorting to sex robots rather than his wife. This led to the question of why a husband would prefer to channel his sexual needs to an imitative object instead of his wife. Perhaps the resulting problem is not jealousy for having been cheated on, but rather the issue of self-esteem, and the continued presence of the sex tool could potentially damage the conjugal relationship.

Using a futuristic approach to examine the formulation in Article 415 paragraph (1) of the Criminal Code, which already prohibits adultery outside of marriage, also increases the complexity of proving that sex robots can be categorized and equated with humans. This means adultery cannot be attached to an association with a sex robot. Although the existence of jealousy has created an avenue for categorizing *intercourse* between humans and robots as adultery, viewing and punishing a robot as a legal subject entity is difficult. This is because the premise of adultery provides that the perpetrators will be punished according to applicable regulations.

2.2.3.2. Prostitution

Prostitution is regulated in the Criminal Code, namely Articles 295, 296, 297, 506, and 284, which have different characteristics and settings. Therefore, the arrangements of each article related to prostitution can be elaborated as follows.⁸³

⁸² Jalmeé Bell, “‘In 2020, More Men and Women Are Likely to Consider Sex With a Robot,’” accessed July 18, 2022, <https://bigthink.com/the-present/robot-sex-doll-study/>.

⁸³ Soesilo, *Kitab Undang-Undang Hukum Pidana Serta Komentar-Komentarnya Lengkap Pasal Demi Pasal*. 216-218.

Table 1

Articles relating to prostitution

Article	Distinctive	Threat of Punishment
295 Criminal Code	Aimed at the person who facilitates lewd acts or copulation against his child, his stepson, adopted son, as well as other immature individuals under his care	Imprisonment is a maximum of five years with the option of adding one-third when it is made a habit or livelihood
296 Penal Code	Making prostitution/ obscene acts a job or habit	Imprisonment for a maximum of one year and four months or a maximum fine of Rp15,000,-
297 Criminal Code	Trafficking of immature women or men	Maximum imprisonment is six years
506 Criminal Code	Pimping females for prostitution	Confinement for three months

Source: the Criminal Code of Indonesia

The articles above describe the subject and object as humans and make no mention of sex robots. In Articles 295 and Article 297, the subject to be protected is an immature human. However, the maturity of sex robots cannot be determined because these objects have no recognition or legally administrative statehood, such as age. These machines can only be measured by the time they were produced or purchased, which cannot be considered a measure of maturity. This means that this article cannot be a basis for categorizing sexual activity with robots as an act of prostitution because the interests of robots are not required to be protected.

The prohibition of obscene activities by Article 296 of the Criminal Code also cannot be imposed. In Spain and Japan, sex robots have been used to replace humans in the prostitution industry. Assuming similar objects are created in Indonesia, these dealers cannot be subject to criminal sentences because the basic argument is that sex with robots cannot be classified as an obscene act. R. Soesilo explained that the *marwah* of this article is to eradicate people who engage in prostitution. The aim is to dissuade the sale of virginity or sex for financial gain, which is not the case with sex robots, as they have no virginity and cannot make a living for themselves.⁸⁴

⁸⁴ Soesilo., 215.

Finally, Article 506 of the Criminal Code is not aimed at people involved in prostitution but at the persons who solicit these services, known as pimps. In the context of a sex robot, the subject is the person who rents a sex robot to another person and obtains profits. The resemblance to a woman makes the machine comparable to a prostitute based on the construction of the article. Since robots cannot be equated with humans and do not have the associated criminal liability, engaging in sex with these objects cannot be categorized as prostitution.

2.2.3.3. Masturbation

The final aspect to be examined is the masturbation activity associated with the use of sex robots. This is the most appropriate description of the use of sex robots because these objects cannot be called sex partners. They are similar to other masturbation tools and have more realistic and sophisticated designs for satisfying sexual needs. The main difference lies in the existence of AI that can respond to and visualize humans. However, this activity remains with the concept of masturbation as *self-stimulating*, denoting that the use of sex robots is a form of masturbation.

The Indonesian law, other than the provisions of jurisprudence in religion, does not regulate masturbation, as such a highly private realm is irrelevant to control. This means *human intercourse* with robots is considered masturbation, which has not been banned in the country.

However, the legal construction has explained that the purchase and ownership of sex robots in Indonesia are not justified. This implies that the possession of a sex robot, and not masturbation, is prohibited.

3. CONCLUSION

Sex robots are objects created and used to meet sexual needs. The use of these objects is more appropriate to be described as masturbation rather than as sex in the limited sense. Therefore, sex robots are considered the same as other masturbation tools, such as sex dolls and toys, with the difference being heightened realism and sophistication.

The problem surrounding the existence of sex robots concerns legal issues that can be imposed. Sex robots are argumentatively inconsistent with moral values, thereby leading to the formulation of several punishment articles related to decency, such as pornography. The possession and dissemination of sex robots are prohibited under the provisions of Indonesian laws and regulations. However, there is no strong argument supporting the prohibition of sex robots for masturbation activities because there are no positive legal provisions forbidding the activity. These objects are also regarded as machines, not humans, and cannot be subject to adultery or obscenity.

The pros and cons, legal aspects, and long-term impacts of this technology need to be addressed wisely. Although there is huge market potential, the economic benefit should not undermine other aspects in order to prevent the creation of new problems.

REFERENCES

- Abramson, Paul R. “The Relationship of the Frequency of Masturbation to Several Aspects of Personality and Behavior.” *Journal of Sex Research* 9, no. 2 (1973): 132–42.
- Anderson, J, and L Rainie. “The Positives of Digital Life.” *Pew Research Center*, 2018, 52–68. <https://www.pewresearch.org/internet/2018/07/03/the-positives-of-digital-life/>.
- “Andi Hamzah, KUHP & KUHAP, Ed. Revision (Jakarta: Rineka Cipta, 2019), 114. The Redactions of the Article Are;,” n.d.
- Bame, Yael. “Sex with a Robot? 1 in 4 Men Would Consider It.” Accessed August 20, 2022. <https://today.yougov.com/topics/society/articles-reports/2017/10/02/1-4-men-would-consider-having-sex-robot>.
- Bekey, George A. *Autonomous Robots: From Biological Inspiration to Implementation and Control*. MIT press, 2005.
- Camacho, Natalie Arroyo. “Can Regularly Masturbating Replace a Person’s Desire for Partnered Sex? Sexologists Weigh In,,” Accessed August 22, 2022. <https://www.wellandgood.com/can-masturbating-replace-sex/>.
- Cole, Simon A, and Alyse Bertenthal. “Science, Technology, Society, and Law.” *Annual Review of Law and Social Science* 13 (2017): 351–71.
- Computer, History. “Karel Capek and the Robot (Complete History),.” Accessed August 22, 2022. <https://history-computer.com/karel-capek-and-the-robot-complete-history/>.
- Considine, Douglas M, and Glenn D Considine. “Robot Technology Fundamentals.” In *Standard Handbook of Industrial Automation*, 262–320. Springer, 1986.
- Cotton, Barney. “Sex Robots—A Disturbing Look inside One of the World’s Fastest Growing Industries.” *Business Leader*, 2018. <https://www.express.co.uk/news/world/787867/Sex-doll-robot-Harmony-2-0-RealDoll>.
- Danaher, John. “Is One of the Editors of the Book Entitled ‘Robot Sex: Social and Ethical Implications’. He Explained This Distinction in the TEDxTalks Event. TEDxTalks, “Symbols and Their Consequences in the Sex Robot Debate | John Danaher | TEDxWHU’.” Accessed March 7, 2017. <https://www.youtube.com/watch?v=32-lWF66Uu4>.
- Danaher, John, and Neil McArthur. *Robot Sex: Social and Ethical Implications*. MIT press, 2017.
- González-González, Carina Soledad et al. “Human–Robot Interaction and Sexbots: A Systematic Literature Review.” *Sensors* 21, no. 1 (2020): 216.
- Gute, Gary et al. “Sex for You, but Not for Me: Discontinuity in Undergraduate Emerging Adults’ Definitions of ‘Having Sex.’” *Journal of Sex Research* 45, no. 4 (2008): 329–37.
- Gutiu, Sinziana. “Sex Robots and Robotization of Consent.” In *We Robot Conference*,

1–24, 2012.

- Haenlein, Michael, and Andreas Kaplan. “A Brief History of Artificial Intelligence: On the Past, Present, and Future of Artificial Intelligence.” *California Management Review* 61, no. 4 (2019): 5–14. <https://www.pewresearch.org/inter-net/2018/07/03/the-positives-of-digital-life/>.
- “Hanson Robotics, ‘Sophia,’ Accessed September 2, 2022, <https://www.hansonrobotics.com/sophia/>,” n.d.
- Horowitz, Ava D, and Louise Spicer. “‘Having Sex’ as a Graded and Hierarchical Construct: A Comparison of Sexual Definitions among Heterosexual and Lesbian Emerging Adults in the UK.” *Journal of Sex Research* 50, no. 2 (2013): 139–50.
- “Indonesia, Pornography Law, Law No. 44 of 2008, LN No. 181 of 2008, TLN No. 4928. Art. 1,” n.d.
- “Indonesia, The 1945 Constitution of the Republic of Indonesia, Art. 28C,” n.d.
- Islamqa.info. “‘Kaidah ‘Hukum Asal Terhadap Benda Adalah Boleh’,” Accessed July 6, 2022. <https://islamqa.info/id/answers/231261/kaidah-hukum-asal-terhadap-benda-adalah-boleh>.
- Jalmeel Bell. “In 2020, More Men and Women Are Likely to Consider Sex With a Robot,” Accessed July 18, 2022. <https://bigthink.com/the-present/robot-sex-doll-study/>.
- Jecker, Nancy S. “Nothing to Be Ashamed of: Sex Robots for Older Adults with Disabilities.” *Journal of Medical Ethics* 47, no. 1 (2021): 26–32.
- “Jon Rogers, ‘The TALKING Sex Robot: Meet the World’s Most Realistic Intercourse Doll with Integrated AI,’ Accessed September 2, 2022, <https://www.express.co.uk/news/world/787867/sex-doll-robot-harmony-2-0-real-doll>,” n.d.
- Jordan, John M. *Robots*. MIT Press, 2016.
- Kanda, Takayuki et al. “Interactive Robots as Social Partners and Peer Tutors for Children: A Field Trial.” *Human–Computer Interaction* 19, no. 1–2 (2004): 61–84.
- Kitab Undang-Undang Hukum Perdata (Burgerlijk Wetboek) diterjemahkan oleh R. Subekti dan R. Tjitrosudibio, *Kitab Undang-Undang Hukum Perdata* (1983).
- Kleeman, Jenny. *Sex Robots & Vegan Meat: Adventures at the Frontier of Birth, Food, Sex & Death*. Pan Macmillan, 2020.
- Lamintang. *Delik-Delik Khusus: Kejahatan Melanggar Norma-Norma Kesusilaan Dan Norma Kepatutan* (Jakarta: Sinar Grafika, 2011), 97. However, According to Prof. Oemar Seno Adji, *This Viewpoint Does Not Consider the Religious and Moral Values in Indonesian Society*. Beca, n.d.
- Letezia Tobing. “‘Mengenai Benda Bergerak Dan Benda Tidak Bergerak,’” Accessed July 6, 2022. <https://www.hukumonline.com/klinik/a/mengenai-benda-bergerak-dan-benda-tidak-bergerak-cl4712>.
- Levy, David. *Love and Sex with Robots: The Evolution of Human-Robot Relationships*. New York, 2009.

- Libin, Alexander V, and Elena V Libin. "Person-Robot Interactions from the Robopsychologists' Point of View: The Robotic Psychology and Rotherapy Approach." *Proceedings of the IEEE* 92, no. 11 (2004): 1789–1803.
- Lindau, Stacy Tessler et al. "A Study of Sexuality and Health among Older Adults in the United States." *New England Journal of Medicine* 357, no. 8 (2007): 762–74.
- Malti-Douglas, Fedwa. *Encyclopedia of Sex and Gender*. Farmington Hills: Macmillan Reference, 2007.
- Mataric, Maja J. *The Robotics Primer*. MIT press, 2007.
- McLeay, Fraser et al. "Replaced by a Robot: Service Implications in the Age of the Machine." *Journal of Service Research* 24, no. 1 (2021): 104–21.
- McMullen, Matt. "Sex Robot Companion & Future of AI Speaker,' Prophets of AI," n.d.
- Meghan Murphy. "Sex Robots Epitomize Patriarchy and Offer Men a Solution to the Threat of Female Independence,' Feminist Current," n.d.
- Morris, Andrea. "Meet The Activist Fighting Sex Robots,' Accessed on 2022-08-22, <https://www.Forbes.Com/Sites/Andreamorris/2018/09/26/Meet-the-Activist-Fighting-Sex-Robots/?Sh=4bb868866e79.>," n.d.
- "Muhammad Bayu Firmansyah, 'Konvergensi Hukum Robot Dalam Sistem Hukum Nasional Indonesia Pada Masyarakat 5.0,' (Thesis of the Master's Program at the Islamic University of Indonesia, Semarang, 2021), 96," n.d.
- Narcotics Law, Law No. 35 of 2009, LN No. 143 of 2009, TLN No. 5062, Art. 8 subsection (1)., n.d.
- National Geographic. "What Is a Robot?" Accessed July 2, 2022. <https://education.nationalgeographic.org/resource/what-robot>.
- News, ABC. "You Can Soon Buy a Sex Robot Equipped with Artificial Intelligence for about \$20,000," n.d.
- . "You Can Soon Buy a Sex Robot Equipped with Artificial Intelligence for about \$20,000," n.d. <https://www.youtube.com/watch?v=-cN8sJz50Ng>.
- Oktavira, Bernadetha Aurelia. "Hukumnya Jual Sex Toys Di Indonesia,," Accessed July 7, 2022. <https://www.hukumonline.com/klinik/a/hukumnya-jual-isex-toys-i-di-indonesia-lt519344d537b5d>.
- Pornography Law, Law No. 44 of 2008, LN No. 181 of 2008, TLN No. 4928. Art. 6, n.d.
- Richardson, Kathleen. "The Asymmetrical'relationship' Parallels between Prostitution and the Development of Sex Robots." *Acm Sigcas Computers and Society* 45, no. 3 (2016): 290–93.
- "Rise of the Sex Robots,' The Guardian, Accessed on 27 April 2017, https://www.You-tube.Com/Watch?V=6vN0cs_-RSs.," n.d.
- Robotnik. "History of Robots and Robotics." Accessed August 22, 2022. <https://robotnik.eu/history-of-robots-and-robotics/>.
- Roeslan Saleh. *Perbuatan Pidana Dan Pertanggung Jawaban Pidana*. Jakarta: Aksara

Baru, 1983.

SciShow. "A Brief History of Robotics." Youtube, August 22, 2022) 00:03:29-00:03:56, n.d. <https://www.youtube.com/watch?v=uoC2ZGRI8a8>.

Soesilo, R. *Kitab Undang-Undang Hukum Pidana Serta Komentar-Komentarnya Lengkap Pasal Demi Pasal*. Bogor: Politeia, 1995.

Temperton, James. "Campaign Calls for Ban on Sex Robots." Accessed September 2, 2022. <https://www.wired.co.uk/Article/Campaign-against-Sex-Robots>.

"The Author Does Not Assert That There Is a Reality in Society That Is Afflicting Entity Gaps Sex Robot and Sex Doll as a Sex Partner. One of the Figures Who Agreed with This Was David Levy, Who Said That "We Have a Quasi-Human Relationship with the Machin," n.d.

"The Encyclopedia of World Problems & Human Potentials, 'Masturbation,'" Accessed August 9, 2022. <http://encyclopedia.uia.org/en/problem/masturbation>.

"The Future of Sex," Three, BBC. "'The Future of Sex,'" Accessed August 22, 2022. https://www.youtube.com/watch?v=kGTI2_O9v_Y.

Wang, Jinchang. "Will a Robot Be a Human?" In *Artificial Intelligence and Soft Computing: 11th International Conference, ICAISC 2012, Zakopane, Poland, April 29-May 3, 2012, Proceedings, Part II 11*, 519-27. Springer, 2012.

Zara Stone, ". "Everything You Need To Know About Sophia, The World's First Robot Citizen." Accessed August 22, 2022. <https://www.forbes.com/sites/zarastone/2017/11/07/everything-you-need-to-know-about-sophia-the-worlds-first-robot-citizen/?sh=640b437846fa>.