Blurring the love lines: The legal implications of intimacy with machines

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ABSTRACT

In this paper, I explore an area of emerging science, android science, and attempt to start a dialogue about possible future legal implications of fully conscious robots, referred to in this essay as humanoids. While the world currently has millions of robots doing industrial, commercial, and household tasks, I focus specifically on the legal challenges of human sexual interaction with future humanoids, albeit notional technology at this point in time. While this humanoid is a giant leap forward technologically, if a self-aware, super-intelligent, thinking, feeling humanoid is developed, the legal system will be hard pressed to distinguish this creature legally from human actors on grounds not stemming from a religious or moral prejudice. I consider whether human–humanoid sexual interactions should be regulated, the possible rights that might devolve to humanoids, and, finally, possible cost and benefit implications to humans in providing protections to humanoids. The objective is to discuss how the legal framework might appear if humans are not the only legal actors.

1. Introduction

While this paper takes a North American legal perspective, the legal system of the United States, past and present, has at least one commonality with legal systems of every other country around the world: it is Homo Sapien-centered. Laws are meant to regulate people, their interactions, and their institutions. This H. Sapien self-centeredness, a kind of specism, makes intuitive sense, for people make laws, people control laws, and there is no other species vying for law-making power. When a law must balance between a human interest and a non-human interest, like the environment, animals, or humanoids, for example, the human interest is going to provide more weight for humans.

To more clearly understand a non-human interest, envision a humanoid at a high level of artificially conscious, human-like machine. For purposes of this paper, I define this futuristic humanoid as a machine that has “the form or function of [a] human”; specifically, a humanoid is a cybernetic organism, a being that is both organic and machine, which, after a certain number of generations or version models, could look and act like its human developers. Humanoids are illustrated by the “replicants” in the movie Blade Runner and the “cylons” in the television show Battlestar Galatica. A humanoid

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1 Steve Torrance, The Ethical Status of Artificial Agents – With and Without Consciousness, in ETHICS OF HUMAN INTERACTION WITH ROBOTIC, BIONIC AND AI SYSTEMS: CONCEPTS AND POLICIES 1 (G. Tamburrini & E. Datteri eds, Istituto Italiano per gli Studi Filosofici, 2006) (Humanoid agents may take on richer and richer bodily, communicative and expressive similarities to us).


does not, however, refer to the concept of a cyborg or human that has mechanical parts. Humanoids are the projected outcome of the human desire to create life and to advance technology as far as it can possibly go, and, as such, are in the realm of artificial, which, in this paper refers to the man-made capabilities of these humanoids.

Presently, the term artificial, as a non-naturally occurring substance is basically straightforward; however, in the future when humanoids have the capability of reproduction, the features of humanoids that are artificial become less clear. While not quite man-made, without man’s initial input such species would not have existed in the first place. The humanoid being described above, then, would have both artificial parts and would be the equal of humans in many abilities and processes. Currently, humanoid research with more advanced robotic creatures is being conducted by scientists dominated by “corporate/government teams” in Asia, the US, and Europe. There were at least thirty-five robot/humanoid conferences in the world during 2008; Asia had the most followed by Europe and then the United States. As research advances in robotic technology, so does legal scholarship. For example, Glenn (2003) wrote of the paradigm shift regarding the legal definition of ‘personhood’ due to advancing technologies. Cameron, President of the US Center for Policy on Emerging Technologies, is a leader in the global dialogue regarding the social impacts of future key technologies such as artificial intelligence. Yueh-Hsuan, Chien-Hsun, and Chuen-Tsai (2009), scholars from China and Taiwan, have also written about the legal framework required for human safety in the use of next generation robots. Finally, Arkin (2009), an American roboticist and roboethicist recently published a book regarding artificial consciousness and robotics-conferences-around-world-2008.html (last visited Feb. 21, 2009).

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Finally, Arkin (2009), an American roboticist and roboethicist recently published a book regarding artificial consciousness and the ethical implications of the military use of autonomous robots. If humanoids demand legal rights in the future, humans will be hard pressed to explain why such beings do not deserve legal rights regardless of the artificial nature of some of their parts. Thus, due to the pace of advancing technology, even if humanoids are not a reality now, for the duration of this paper, the writer asks the reader, at times, to suspend belief and join her in taking some huge leaps of faith into the (unknown) future.

4 My concern with the use of the term artificial is in drawing a line between that which could not be produced naturally without human interference and that which has the ability of developing whether or not humans exist.

5 Ambrose et al., Supra note 4 at 42-43.


2. Non-human legal implications

In the US legal system, non-human interests become protected when they relate to human concerns; human concerns are recognized by legal conventions. There are two legal categories of persons, natural and legal (or juridical). Berg defines the two legal categories:

Juridical persons may be genetically human, but there are no non-human natural persons ... natural persons are entitled to priority over juridical persons in a hierarchy of rights. This is not to say that juridical persons might not be granted equal rights with natural persons, but that such allocation of rights would have to be justified by the interests involved. In other words, natural persons function as the baseline against which other rights allocations are judged.11

Thus, to have rights and bear legal burdens, one must be either a natural or legal person. As Posner explains, however, one need not fall into either category to be protected under the law.12 When the human group has a need to preserve a lake, for example, that environmental area will gain a legal protection, due to the fact that the human interest exists. Additionally, Stone reminds that the legal system will order human actors to make an “eco-system” whole as when an oil spill occurs.13 Sometimes this non-human interest (such as an eco-system or an animal species) achieves a legal protection without a clear link to the present human interest; yet, in order to create this protection for the non-human object, the human species will see a utilitarian gain or, at least, a neutral position for its interest, neither gaining nor losing anything. Richard Coase, in explaining the cost analysis as knowing the value of what is obtained and what is sacrificed,14 forecasts the efficient bargaining dilemma for legal actors; the non-human interest should not receive legal protection if a clear loss to the human interest would occur. Posner reiterates that when the interest of another “is bound up with our own happiness”,15 there is a utilitarian basis for that interest. When there is a legal change in some state of affairs, then, the creators of the legal change (that is, humans) will require some incentive, some efficiency, so that the human group is not made worse off.

Furthermore, for a non-human to be allowed to file suit, to be the subject of litigation rather than the object, the being would require: (1) the ability to articulate its cause of action,


13 Email from Christopher Stone, J. Thomas McCarthy Trustee Chair in Law, University of Southern California (Oct. 29, 2008)(on file with the author) (explaining that under the Endangered Species Act, when its existence is threatened, a species “suffers a legal loss sturdy enough to get into court”).


15 Posner, Supra note 14, at 536.
and (2) have the ability to be injured. In order for the machine, the humanoid, to enjoy more than protection under the law, to demand a change because the humanoid is due its rights, it is not enough to be as smart or smarter than a human; it is not enough to have “consciousness” in the way humans are conscious. As Lehman-Wilzig explains,

“We would have had the same ‘leverage’ to injure that which the humanoid holds dear or considers important to itself. If it didn’t have any ‘wants’, then it would not be considered at the same level as humans – even if its raw intelligence were the same or even better. [This] is not a normative statement but rather a utilitarian-functional one: society cannot exist if some members have no fear of any sanctions for breaking the rules of the game.”

Perhaps humanoids would have a developmentally long way to go before demand for equal rights would be at issue. With the recent and future developments in artificial intelligence and the more complex advances in artificial consciousness, we, as current and sole legal actors, should be ready to discuss the possibility of future legal actors that are humanoids. Berg reminds that “society has tried in the past to limit the legal rights of entities that clearly met all requirements for moral personhood – e.g., women and slaves – and the results were highly problematic ….” Berg adds that the results are problematic because the entity’s moral rights are violated and because excluding particular entities that fully meet specified criteria diminishes the rationale of the entire system of legal protection.

The best, most efficient way to handle this new territory of humanoid rights with no precedent under the law is not to take such a paradigm shift one case at a time, rather, in advance, look at the situation as a whole, determining how the whole component, the new species, may meld into and advance, look at the situation as a whole, determining how the ramification of a future species’ demand for legal rights. For the purpose of this paper and because I am unable to fully discuss every legal right for which this future species may deserve or clamor, I have chosen to target sexual rights of humanoids.

Humans engaging in sexual interactions with humanoids could be the proverbial final (or first) straw that forces the larger community to attend to the humanoid creature and will open the door to discussion about the possibility of humanoid rights; likely, the opening door is actually a back-door that begins with regulation and leads to later determination of rights. Regulation of human–humanoid sexual interaction either by the state or federal government will be sought when the level of interaction either (1) mimics human sexual interactions currently regulated or (2) will create a social harm if the interaction is not regulated. My point is that currently, in places where humans are using robots or machines for pleasure in a sexual way that pleasure is either not regulated or is regulated in the way the use of any sexual device may be regulated. Yet, upon the introduction of humanoids, as defined in this paper, into society and humans “use” (the “use” of a being with such intelligence and consciousness takes on new meaning beyond the “use” of a machine) these creatures for sexual pleasure, then, in many places, traditional norms and social mores will be challenged, prompting the development of state regulation. Will such regulation, then, be at odds with accepted notions of rights and freedoms?

In the realm of sexual intimacy, the government is concerned with balancing privacy interests with community sexual standards. Such standards do change; under Lawrence v. Texas, for example, the Supreme Court emphasized the privacy aspect, allowing for the freedom of two natural persons to engage in certain sexual intimacies in private. Regarding another area of changing community sexual standards, the California Supreme Court granted homosexuals a legal right to marry in 2008; recently a statewide voter initiative passed that would revoke this legal right, placing the issue in front of the legal system once again. In May 2009, the California Supreme Court heard oral argument regarding the constitutionality of voter-initiated changes to the California Constitution. Human–humanoid sexual interaction is the kind of interaction that mimics current state-regulated human activities.

17 Id.
18 Berg, Supra note 13 at 403.
19 Id. at 403.
22 Goodwin Liu, The law and Prop. 8, California’s Supreme Court will have to untangle two important legal questions, LOS ANGELES TIMES, Nov. 10, 2008, at Op-Ed.
Every state has had or is currently regulating activities that have a sexual quality, such as marriage, adultery (the sexual act wherein at least one individual is married and the other is not the spouse), fornication (the sexual act between two unmarried individuals), sex-for-sale, and using sexual aids, for example; and they are further regulating collateral activities, such as commercial sex-toy sale zones, liability for sexually transmitted diseases, and who may legally marry. The Supreme Court has often held that unless the state impinges upon an individual’s fundamental rights, then these statute’s that regulate aspects of social interactions will not be found unconstitutional.25 If these areas of sex are regulated, it seems clear, then, that human–humanoid sexual activity will be viewed with a desire to regulate. But exactly in what way such activities would be regulated and how regulation would work is not clear. Among the several questions that arise, three complex questions are: How many rights will humans allow if humanoids clamor for sexual freedoms? How will humanoids be punished for sexual transgressions? Will humanoids need legal protections from the abuse of human sexual proclivities?

While we have discussed why the State may regulate human–humanoid sexual interactions, it is now appropriate to explain the reason why humanoids ought to be regulated. The artificially conscious, artificially intelligent humanoid would be able to complete tasks that require intelligence (mathematical calculations, decision-making, and so on) as well as accomplishing tasks that require consciousness24 (of “the self” – recognizing oneself in the mirror, and “of the mind” – thought, emotional understanding, what it means to be thinking, and so on).26 The gap from computer-machine to artificially intelligent robot to humanoid is growing broader and the space between humanoid and human is narrowing. Freitas explains that “the inherent limits of commonly used definitions of “intelligence” and “consciousness” are likely to be woefully inadequate in the not-too-distant future”.26 At some point, the engineered humanoid will advance to such a degree in intelligence and consciousness that humans will perceive an indistinguishable familiarity. When humans have sexual relationships with humanoids, the legal community should be prepared for the ramifications. The legal community ought to consider questions such as: If there is the rationale for allowing privacy between two natural persons, then should there not be a similar rationale for one natural person and one juridical person as fully conscious as the natural person? If we allow a humanoid to sell sex, would this not diminish the logical reasons for prohibiting human prostitution? Will humans be allowed to legally marry humanoids and would this not destroy any current legislation on other human marriage prohibitions? Conversely, will humanoids be allowed to bring civil actions in marriage disputes such as alienation of affection?

The more independence of thought and movement humanoids have, the greater the need for legal regulation to maintain the safety of the entire populace. At the center of any regulation attempt, the issue remains whether humanoids will be held legally responsible for their actions or whether a human principal will bear the legal consequences of its humanoid agent. With this being said, it is important to conceptualize the human leap to relationships with humanoids. The ability to have full relationships, that is, relationships that currently humans enjoy only with other humans has much to do with an evolving cultural change in the understanding of what is sexually normal. Levy explains: (1) cybersex or online sex has become the modern day sexual revolution, and this revolution combined with (2) the reduction in the age people begin having sex, are key factors that have changed how sex is viewed, and thus, have paved the way for “sex with robots”.27

Almost everyone wants someone to love, but many people have no one .... Having robots take on the role of partner in relationships with human beings is a natural continuation of the trend in robotics research and development that has already passed through various stages: from industrial robots to service robots to virtual pets to companion and caregiver robots for the elderly. The next stage in this trend is the design and construction of partner robots, sufficiently humanlike and sufficiently appealing in various ways to be considered as our true partners.28

It is a sexual practice, moreover, in some Asian cultures for humans to pay for a few hours with man-made silicon call-girl dolls.29 In Japan, for example, the use of humanlike robots for sexual pleasure or as social helpers is very fashionable with robots taking the place of human beings in everyday advertisements, combining an overt sexual message along with the promotion of utilities such as natural gas.30 People are finding

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26 Torrance, Supra note 3 at 1.
28 Lehman-Wilzig, Supra note 18.
30 Id. at 304.
varied uses for robots from pouring tea or treating autism to acting as companions. In a February 2009 story from Reuters, US robotics experts unveiled an “Einstein-robot”, a robot that has a machine-like resemblance to its eponym. This robot was not created for sexual purposes, but can mimic the facial expressions of a human interacting with it. The Einstein-robot was created with the intention that in the future computers will be able to relate to people.

Research and technology currently is focused on making robots relatable to humans so that humans can more easily work with the robots. I postulate that as long as robots remain as they exist today, they are not mistaken for humans; they are not consciously aware in the same way humans are aware. They are not autonomous, and so robot-human sexual activity remains regulated only when the local community regulates other sexual devices humans may use. It is only when robots reach a humanoid level that sexual interactions, which have never before occurred, become a new interest for possible state regulation. The ability to legally regulate the activity will depend on what rights are at stake. On the one hand, an individual’s substantive due process right to engage in private intimate conduct free from government intrusion would make any state regulation un-constitutional by the Supreme Court’s strict scrutiny standard; on the other hand, the individual’s right to stimulate his or her genitals with a machine for pleasure is not considered a traditionally fundamental right and would not require a strict scrutiny reading of the state’s regulation. It is a difficult task to conceptualize regulating sexual activity of a non-human, but if humanoids develop as fully as predicted, regulation in some form seems likely to occur; it is unclear, however, whether the state will only hold humans legally responsible or will hold both humans and humanoids legally responsible. Regulation, when it occurs, will necessitate a need to examine the rights and responsibilities of the parties being regulated.

2.1.1. Legal rights and interests

In discussing legal rights for humanoids, I am combining three concerns that bear on being a rights-holder: (1) legal rights are presumed to be that which the legal system signals as reserved to the holder, (2) humanoids will demonstrate all the qualities necessary to be right holders, and (3) humanoids will expect specific rights fundamental to being humanoid just as humans demand fundamental rights. Human–humanoid sexual interactions will be regulated in some fashion as discussed above, based on the human legal signals for what are acceptable human standards of activity. In a purely human activity, therefore, without the involvement of a second party deserving of a legal duty of reasonable care, all that must necessarily be considered are the possible legal rights and obligations held by the human engaging in the activity. Clearly, the vibrator, the blow-up doll, or the sexual robot machine do not merit legal rights since these three examples are inanimate objects (with no requirement to describe the legal status or legal rights) much like a table or chair.

Having legal rights forces a community to consider the humanoid when making decisions that may affect the humanoid’s access to those rights. Further, Stone explains that there is a difference between having ‘legal status’ or being the object of litigation compared to having legal rights. Legal status does not change the legal system’s framework; it only regulates human actions relating to the humanoid. Perhaps no matter how much sexual comingling humans have with humanoids, humanoids cannot merit legal rights, only legal status, if that. We are left, however, with the question: What is the moral basis for making the distinction between future humanoids and humans? Calverley explains,

If the android is not capable of being autonomous, it will always be viewed as property over which humans have exclusive control and without entitlement to moral consideration. While philosophers have identified and suggested numerous attributes, there does not seem to be any clear consensus about what constitutes even minimal criteria for ascribing consciousness to a human, let alone to an animal or android. None the less, once characteristics that distinguish ‘humans’ from ‘animals’ are identified, there exists the possibility that androids could be designed to have the human characteristics and are thus not limited in the way animals are. We are then able to see that this puts androids into a different category of concern from animals.

Consciousness is the means to defining humanness, to distinguish humans from other creatures, and to establish fundamental legal rights for the individual person, adds Calverley. If consciousness is the dividing line between humans and other creatures, it is not impossible to entertain the idea of humanoids breaching this dividing line, having consciousness and therefore deserving of “intrinsic rights” far beyond the legal personhood status for regulatory purposes. Calverley postulates, that “If an android with external human characteristics, perhaps even the ‘nannybot’ that raised us, exhibited [the attributes of consciousness], it is possible that most people would say that the creation has a claim to be treated morally”. Berg further articulates how we may conceptualize humanoid rights, noting that “most claims of moral status map along a continuum.” We may not be comfortable with placing the humanoid on the same moral level as ourselves but it is simply not a logical conclusion to say either that the humanoid would have no claim to be

34 Reliable Consultants, Inc. v. Earle, 517 F 3d 738, 743 (5th Cir, 2008).
35 Christopher Stone, Should Trees have Standing? And other Essays on Law, Morals and the Environment, 49–52 (Oceana 1996) 1971. (“Giving the fetus its independent legal status is designed to secure the legal rights of the parents, not those of the fetus.”).
37 Id. at 410.
38 Calverley, Supra note 38 at 411.
39 Id. at 412.
40 Berg, Supra note 13, at 403.
treated morally or that the humanoid should be legally lumped together with a lake or a pet animal.

To discuss the rights fundamental to humanoids, the reader must have an open mind to human interactions and contemplate a possible future legal world where humanoids exist. Since this article involves a futurist hypothetical topic, it is useful to elucidate a future reality with examples from science fiction. As Ray Bradbury believes, “Science fiction is the most important literature in the history of the world, because it’s the history of ideas, the history of our civilization birthing itself.... Science fiction is central to everything we have ever done....”. Isaac Asimov, ahead of his time, postulates what a post-human society could look like in his Robot Novels. Throughout his books, Asimov demonstrates the ways in which notions of “law” and “justice” would change.41 A major theme throughout Asimov’s post-human societies is a fundamental legal inequality between humans and robots that creates problems for society’s well-being as a whole. Asimov describes a reality where a creature exists that is not human but basically thinks and acts at a human level; it can independently do what humans do. In such a society, for Asimov, it is not a good enough legal justification to not allow this creature its freedom to do that which a human does simply because that creature is not human.

Asimov writes into one tragic post-human society, for example, the concept that robots are not allowed to marry based upon the argument that robots cannot procreate as humans do. This future example from science fiction has a basis in current legal arguments regarding the right to marry. Even today, the concept of marriage is being redefined. When a society allows same-sex marriage, where procreation is not the goal of marriage, then a bar to marriage for humanoids would be removed. Additionally, many scientists and computer engineers would argue that humanoids, on the other hand, will be capable of reproduction, which involves making a “near copy” of oneself, a process much more complicated than simple reproducibility (making copies of another).42 Freitas adds further that for a machine to reproduce itself, it “would require deep knowledge of its own construction”, which recently NASA has shown could be built.43

Having postulated that humanoids would have qualities necessary to having rights, we would discuss the rights humanoids might hold and how the legal system might allow them to hold such rights. In order to allow for humanoid rights, the current legal system would broaden the definition of natural person to include humanoid. If being human means having consciousness, then the equally conscious humanoid would qualify as a fully equivalent right holder. Asimov would articulate the developing legal system as one where: “all ‘people’ and therefore all cases should be assessed according to some kind of basic logic or fairness that unites all ‘intelligent’ beings”.44 Further discussion of the uniqueness of human nature and what might unite all intelligent beings necessarily includes the notion of feeling “pain, fear, sensuous pleasure”, and so on.45 Comparison between humans and humanoids may be possible for certain descriptions of consciousness, but comparison becomes difficult when trying to determine the basic notion of what it means to feel. In the essay, Frankenstein Unbound, Lehman-Wilzig explains that legally, “just as the slave gradually assumed a more ‘human’ legal character with rights and duties relative to freemen, so too the AI humanoid may gradually come to be looked on in quasi-human terms as his intellectual powers approach those of human beings in all their variegated forms—moral aesthetic, creative, and logical”.46 Thus, legally, we have clear channels for giving rights to humanoids based upon consciousness and intelligence, but there is not a clear legal basis for grounding rights in feelings; moreover, the law tends to avoid the discussion about human emotive qualities.

Another vehicle for imparting legal rights upon the humanoid, besides expanding legal definitions, would involve the separate but equal determination that humanoids deserve legal rights of their own, an idea seemingly commensurate with Stone’s explanation of “moral pluralism”.47 Moral pluralism allows for more than one right answer, depending upon the actor’s perspective to each moral choice deemed significant by the community. Laws relating to animals, to the environment, or to humanoids would be specific to each of these communities or groups.48 Moral pluralism seeks to motivate legal regulations beyond the utility of the greatest current human good.

A third possibility for bestowing legal rights upon humanoids would be to treat members of this group of ‘humanoid’ as particular right holders. Like a child with more limited legal rights so also might a humanoid not have every right adult humans possess. In addition, such a legal framework could serve to protect humanoids from certain human actions; however, a danger in such a legal framework seems to be in creating Asimov-like societies that have “unfair inequalities” in them. An example of unequal legal rights may be that humanoids would be allowed the right to act as prostitutes, which is currently illegal for humans in most states. Another right a humanoid might possess that a human would not could be the right not to pay federal income taxes,

42 Lehman-Wilzig, Supra note 18.
43 Robert A. Freitas Jr., Building Athens without the Slaves, 3 TECHNOLOGY ILLUSTRATED 16–20 (1983) (“recently engineers and scientists at NASA have shown that a self-replicating machine could be built. With a relatively modest investment, a self-replicating factory could be built by early next century. The Japanese have reached a similar conclusion.”).
44 Berg, Supra note 13, at 408–409.
47 Stone, Supra note 37, at 149–156. (“Moral pluralism ought not to be confused with moral relativism ....There may be “really right” and not just relatively right answers, but the way to find them is by reference not to one single principle, constellation of concepts, etc, but by reference to several distinct frameworks, each appropriate to its own domain of entities and/or moral activities (evaluating character, ranking options for conduct, etc.).”)
but if humanoids do not pay taxes perhaps they do not merit the legal right to vote, to which every US citizen over eighteen is entitled. When a group is legally separate and disenfranchised, then it has no voice. If humanoids have no voice over their freedom, then they are beholden to the voting group, the human group, to defend their freedom, their rights. We should hesitate to create a society in which rights are not equally shared by the entire group in the same manner.

In summary, if a humanoid will merit its own legal rights, then it will have an ability to sue for damages of such rights, the state can punish the humanoid for abuse of its rights, and the state can punish another party for abusing the humanoids’ rights. The government, in bestowing rights on humanoids, then, is admitting another group besides the dominant human to control social interactions; this would be a wholly new change in how the legal system operates. Freitas reiterates that while there are certain similarities when thinking about the legally responsible human and humanoid, there are just as many differences in how each creature interacts with the world around it.49 If humanoids are not regulated at all, then when having sex together, humans and humanoids are free to exploit more uninhibited sexual activity, (that is, the state’s lack of control for such sexual activity) so that any violent or degrading sex, sex that could injure the humanoid, sex that would be illegal between two humans, is now legitimate. This loop-hole, if you will, or grey area in the law that is unregulated has both positive and negative ramifications for society.

2.1.2. Implications
The implications from humanoid rights involve costs and benefits to society writ large. Even if we become persuaded by a moral or public policy desire to impart legal rights to humanoids beyond the typical protections for non-humans, uncovering the possible social and economic costs will be important factors for the government’s motivation to make drastic legal changes. The cost to humans related to or arising from additional legal actors may be viewed in a number of ways. As stated earlier, current legal systems focus on the actions and reactions of human actors. Stone emphasizes the point that rights are not precise substances that the holder has or does not have, rather, rights balance competing interests; what it means to have a right is a question of degree of review afforded under the law.50 By creating humanoid right holders, then, the current legal understanding of “human right holder” must be narrowed to allow for the introduction of competing rights. The question for humans becomes why we should allow another to constrict our rights. Humanoids would need to have interests strong enough to place the non-human machine’s legal right sometimes on par with the human legal right.

It is impossible to predict fully what a world would look like with the introduction of humanoid beings. Political, social, and economic changes would undoubtedly occur. We should be thinking now how we will incorporate these humanoids into society because there are both costs and benefits whether they are endowed with legal rights or maintained as property with certain legal status. Regarding social practices and specifically the sexual practices of society, Levy examines what must occur in robot technology and what can be expected when humans make the leap to having sex with humanoids.

Robot technology will continue to progress if the past is any indicator of the future. In 2004, the UN had predicted that by 2007, there would be 4.1 million domestic robots worldwide.51 Freitas concurs, noting the money-making potential in consumer robotics.52 Levy suggests the large demand for robot-helpers will fuel further funding for research and development in the robotics industry. “Android science” is currently working to develop human appearance and human-like behavior in humanoids. Experiments on the humanoid robots, “Repliee R1 and Q1”,53 have been conducted in the pursuit of designing systems that will bear the most natural resemblances and interactions possible from a human standpoint. Humans stand to gain in many fields such as the military, medicine, manufacturing, and security through the precision, efficiency, labor cost savings, and increased accuracy of machines. Creating machines that are able to interact with humans as easily and efficiently as possible is a logical next step in the progression of robot technology.

Levy is clear that not “if”, but “when” robots are used for sex, they can be expected to enter the prostitution scene; they could also, by their very existence and usage (and I assume such increased usage inversely affects human-to-human sexual activity), will reduce teenage pregnancy, abortion, sexually transmitted diseases, pedophilia, adultery in the long-absence of a spouse, and help to broaden sexual experiences and opportunities while remaining safe for the human experimenter.54 There is also the danger that humanoids

49 Robert A. Freitas Jr., The Legal Rights of Robots, 13 STUDENT LAWYER 54–56 (1985) (“If we give rights to intelligent machines, either robots or computers, we’ll also have to hold them responsible for their own errors. Robots, by analogy to humans, must conform to a “reasonable computer” standard. Sentient computers and their software should be held to the standard of competence of all other data processing systems of the same technological generation. Thus, if all “sixth generation” computers ought to be smart enough to detect bogus input in some circumstances, then, given that circumstance, a court will presume that a “sixth generation” computer knew or should have known the input data were bogus. Exactly who or what would be the tortfeasor in these cases? Unlike a living being whose mind and body are inseparable, a robot’s mind (software) and body are separable and distinct. This is an important distinction. Robot rights most logically should reside in the mechanism’s software (the programs executing in the robot’s computer brain) rather than in its hardware.”).

50 Stone, Supra note 37, at 27.
51 Levy, Supra note 29, at 297.
52 Freitas, Supra note 51 (“Knowledgeable observers predict consumer robotics will be a multibillion-dollar growth industry by 2000. Clever personal robots capable of climbing stairs, washing dishes, and accepting spoken commands in plain English should be widely available by 2005. By the turn of the century the robot population may number in the millions.”).
54 Levy, Supra note 29, at 300–301.
could hinder normal human to human relationships as well as manifest dangerous or criminal behavior. It is not clear what kind of innate nature humanoids would exhibit, but if they are not prone to human weaknesses, perhaps they would also not be prone to human vices. Levy holds that

As the first sexbots reach the market, the publicity for robot sex will take off with a bang .... Very quickly, soft-core porn sites and Internet chat groups will start to display and discuss sexbots in action ... when such events attract increasing amounts of attention from the mainstream media, albeit as curiosities at first, the idea of sexual robots will quickly spread.\textsuperscript{55}

If robots and their more conscious humanoid counterparts could become surrogate humans and alternate sex partners, we should seriously contemplate whether the sexual experience is a right of a humanoid to engage or not engage in as it chooses.

In discussing implications of humanoid rights, a necessary concern arises as to whether it is legally more efficient or less efficient for the robot to be the bearer of its own decisions. The concept of efficiency is by nature a complex consideration, underlying our system of laws incorporated in every aspect of the system such as practical court costs, determinations of remedies, and traditional legal punishment. The determination of where the humanoid fits in the legal system (or its role) is affected by efficiency considerations.

Lehman-Wilzig describes possible roles of the humanoid in the traditional common law system, noting the added difficulties of determining the intent of the humanoid, the possible negligence on the part of the human owner, and which of possibly many manufacturers may have added a defective component in the humanoid.\textsuperscript{56} Lehman-Wilzig notes, “… society will have to strike a balance between a robot’s ‘parent’ (respondeat superior [sic]) who may not in any way be guilty and between the need to protect the rights of the equally blameless victim”.\textsuperscript{57} If humanoids achieve legal autonomy, moreover, it would seem further clarity would be required to determine liability among the plaintiff, the defendant and the ‘But for’ cause of the harm.

Lehman-Wilzig finds the law of agency a good fit under current legal systems to apply liability to the robot. Just like the hospital or airline is liable for the actions of its professional employees done in the course of employment, so could the human owner be liable for the actions of its robot.\textsuperscript{58} Professor Lehman-Wilzig insightfully warns: “To future masters considering purchasing a humanoid servant one can only suggest – caveat emptor”.\textsuperscript{59} If the humanoid has legal rights, though, as opposed to either being an agent or being property under the law, perhaps the humanoid will find more ways to benefit society than the human owner would have determined; it would then be an efficiency for society to give the robot legal autonomy. Legal rights could provide more of an incentive to produce than remaining a product of another. Also, if another will always be found liable for the humanoid’s actions, then there would be no disincentive for the fully conscious humanoid to refrain from action.

In creating laws, often there is a benefitted party and a burdened party. A major dilemma would appear to be when the human is the burdened party and the humanoid is benefitted. Torrance, for example, illustrates the problem by the extreme situation below described:

\textit{Suppose ... there were to be an explosion or an earthquake, with many humans and humanoid robots trapped in the wreckage, and with limited time and resources available for rescuing those who are trapped. [A humanoid right holder would demand] that equal time and resources should be devoted to rescuing [the humanoid] as rescuing the humans, even if that meant needlessly losing some human lives, or increasing human injury and suffering.}\textsuperscript{60}

It seems a logical development that the humanoid would be legally “worth” the same as its human counterpart, but this strikes a very unsettling chord in the heart of the human writer. Equalizing legal worth is a question for future generations and will involve many scientific breakthroughs before resolution. The main point is that many examples would exist where the human would lose something and the humanoid would gain if we were both on the same legal footing. While the philosophical reasoning and certain social outcomes would weigh in favor of the benefits of advocating legal rights for humanoids, the legal outcomes and financial costs that burden on human rights-holders would weigh against advocating legal rights for humanoids. The state interest too would be factored into any determination of whether the desired benefit is for society as a whole, including humans and humanoids or for society in part, looking at human cost and adding humanoid benefits where possible.

3. Conclusion

The concept of humanoids is not simply the stuff of science fiction; much advancement in technology has demonstrated the array of future robotic possibilities and their legal ramifications. Based upon this research, there are five conclusions I wish to make. At some point, the engineered humanoid will advance to such a degree in intelligence and consciousness that humans will perceive an indistinguishable familiarity, prompting a justifiable question of the possible legal rights humanoids should hold. Second, since humanoids would have qualities necessary to having rights, determining the specific rights for humanoids is an important further step in the legal process. Third, there are several ways the legal system might consider such rights of humanoids. Fourth, however the humanoid is categorized under the legal system, the implications for society will be great and both the costs and benefits for humans must be considered. Fifth, the state regulation of humanoids will become an issue through the development of sexual human–humanoid interactions because sex and privacy are of such

\textsuperscript{55} Id. at 299.

\textsuperscript{56} Lehman-Wilzig, Supra note 48, at 448, 451–452.

\textsuperscript{57} Id. at 451.

\textsuperscript{58} Lehman-Wilzig, Supra note 48, at 452.

\textsuperscript{59} Id. at 452.

\textsuperscript{60} Torrance, Supra note 47, at 508.
fundamental importance to individuals; when humanoids are denied justifiable rights, such denial may inadvertently harm or restrict human rights in the same arena. Understanding that humanoid technology is an emerging field, it will be inevitable that legal issues would be raised and the love lines blurred. In what way would such sexual activities be regulated, however, and how regulation would work is not clear. What is clear is that the legal profession should develop legal arguments before a test case occurs in order to avoid the illogic and danger of arguments that stem from species bias.

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