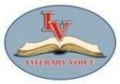
LITERARY VOICE
An International Peer Reviewed Journal of English Studies
Volume 1, Number 1, January 2023. ISSN: 2583-8199 (Online)



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The Posthuman Turn in Cory Doctorow's short story "I, Robot" (2007)

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Abstract

In recent times, robots have become increasingly human like both in their behaviour and appearance. Undoubtedly, such technological developments are essentially useful when it comes to preserving and improving the quality of life either in the fields of healthcare or education. But significant body of studies also demonstrates that humans frequently have a negative sense of eeriness, danger, and menace when they are around robots. This research paper will analyse the short story, "I, Robot" by Cory Doctorow through the prism of posthumanism and look at the problem of state or governmental monopolisation of information technology while acting as a deep state by subjugating the common masses through policing. The study further examines the negative and positive aspect of Isaac Asimov's three laws of robots and the function that human consciousness plays in acceptance of robots that do not adhere to the three laws.

Keywords: Robots, Posthumanism, Three Laws of Robots, Human consciousness, Deep State, Policing

We are not strangers. We are, in a sense, the closest of kin!
Nick Bostrom "Letter from Utopia" (2008)

Canadian-British science fiction author, blogger, and technology activist Cory Doctorow was born in 1971. A recipient of an honorary doctorate in computer science from the Open University of UK, he shared editorial duties with the well-known blog Boing Boing. He also contributes to a variety of publications, including The Guardian, Publishers Weekly, the New York Times, and many more. Doctorow also worked for the Electronic Frontier Foundation

as the Director of European Affairs which is a non-profit civil liberties organisation that protects freedom in treaties, laws, policies, and standards. He is also working extensively as an activist in favour of liberalising copyright laws. Some of the most significant works of fiction by Doctorow are: *Down and Out in the Magic Kingdom* (2003), *Little Brother* (2008), *Pirate Cinema* (2012), *Homeland* (2013), *Walkaway* (2017), and *Attack Surface* (2020). He also wrote a collection of short stories, the most renowned among them is *Overclocked*: *Stories of the Future Present (2007)*.

"I, Robot", was originally published in a magazine called The Infinite Matrix in April 2005 was subsequently included in a collection of short stories called *Overclocked*: *Stories of the Future Present (2007).* William S. Haney in his book, *Cyborgs and Science Fiction: Consciousness and the Posthuman*, states:

> Unlike the novel, generally considered a public form that springs from encounters with the everyday, the short story depicts "the immaterial reality of the inner world of the self in its relation to eternal rather than temporal reality" (133)-or in Derridean terms, to allow or make the unsayable to come. (68)

Through this paradox of inner self and external world it can be argued that as we transit from the contemporary or postmodern to the posthuman as a cultural construct, stories that explore the posthuman experience will become more prevalent across all forms of short fiction rather than just the science fiction. The liberal humanist subject generally prefers to experience the world conceptually in novels and emotionally or mythically in short fiction. Making the shift in the nature of human subjectivity and also referring to posthuman as the one perceiving data, thought or information Katherine Hayles in her book, *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics* says, "Although in many ways the posthuman deconstructs the liberal humanist subject, it [. . .] shares with its predecessor an emphasis on cognition rather than embodiment" (5). The posthuman subject, according to Hayles and others, will increasingly perceive reality computationally in terms of data, thought or information. The paper thus studies Doctorow's "I, Robot" to explore the possible existence of humans in a futuristic world vis-à-vis its complex entanglements with technology. Reminiscent of short-short "Printcrime" and the long story "After the Siege" "I, Robot" weaves together the worlds of Isaac Asimov and George Orwell. Doctorow makes assumptions as to how much humans can rely on robots to uphold their moral obligations and apply the Three Laws of Robotics without considering the interests of robots before those of humans. Thus, the narrative begins with scepticism toward dependency on robot and later portrays the darker side of what UNATs robots may imply for humanity. Set in a police state

it is the story of a cynical, robot-wary police detective Arturo Icaza de Arana-Goldberg who, through the course of the story, discovers that state propaganda and military robots have suppressed knowledge of the Eurasian's superior technology and civil liberties. The story also highlights that copyright and intellectual property is regressive and leads to an oppressive police state as the police state ensures that only one company is allowed to make robots, and only one type of robot is allowed to be manufactured and used.

Arturo the protagonist of the story sticks to one type of UNATS Robotics equipment's because according to him equipment manufactured by other companies are, "attractive nuisances, invitations to criminal activity" (2). Furthermore, the UNATS Robotics standard were proclaimed to be "compact, indistinguishable from the tens of thousands of others" a false narrative to create a monopoly. As he claims UNATS robots to be unique and superfast form the others. James B. Stewart in his book, *Deep State, The Trump, The FBI and the Rule of Law* (2019), writes on the atrocities of the deep state as he asserts, "How arrogant the deep state is and how confident it is, it can get away with anything." (74). Talking about the functioning of a deep state Chris Hauty in his book, *Deep State: A Thriller* also says "Power, is the currency in this state, not policy" (127). The dominance of state police department called Social Harmony is so total that Arturo's wife Natalie Judith Goldberg, a brilliant computer scientist and valedictorian of her Positronic Complexity Engineering class at the UNATS Robotics School at the University of Toronto, abandoned her husband and new-born child and set up her own research lab in Beijing, producing the kinds of runaway positronics that even can make the mediocre UNATS robots appear distinctly good. She chose to take such progressive step to enhance the quality of life for humans which in Hayles terms, mean "expanding liberal human subject into the realm of posthuman" (67). However, the underground state authorities who wanted to have their monopoly accuse her of dumping her country and its way of life. Mike Lofgren, in his essay, posited about the existence of deep state thus,

> There is the visible government situated…in Washington, and then there is another, more shadowy, more indefinable government that is not explained in Civics or observable to tourists at the White House or the Capitol. The former is traditional Washington partisan politics: which is theoretically controllable via elections. The subsurface part is called the Deep State. (74)

Eurasia, on the other hand is a utopia with no crime and highly advanced technology, which for them had made the experiences of life far too superior than others. Michael Hauskeller, in his article, "Utopia in Trans- and Posthumanism" writes, "Posthumans will no longer be cursed with ageing bodies, and will no longer have to die; they will know and understand

things that are entirely beyond our reach now; and above all, they will have lots and lots of pleasurable experiences" (2013). Eurasian have achieved the utopian way of better beings by gradually improving human capability far too superior than any human that has lived there, in this respect, as "posthuman." Since more advanced and superfast robots are created Eurasia, the components from a Eurasian bootleg set-top box were used to modify the positronic brains of cars owned by teenagers in Goderich (Ontario). Social Harmony declares these activities as unlawful and illegal modifications which help children to operate their vehicles unsafely resulting in injuries and deaths.

This false narrative constructed by Social Harmony portrays Eurasians as the ones who are deliberately manufacturing their components to interoperate with UNATS Robotics brains, thereby, threatening the nation. Cory Doctorow, throughout his career has been working for liberalization of copy rights, is against such monopolization. He is a fan of American writer Edgar Allan Poe and argues that "authors such as Poe would be relatively unknown today if still protected by copyright" (Poe 2). For Doctorow, cyberspace must be seen as natural friend and is not the enemy of creative writers. Therefore, Doctorow in "I, Robot" favours more advanced and developed robots of Eurasian as protagonist Arturo, in the end of the story, decides to choose the Eurasian robots. However, Social Harmony wanted to stop Eurasian from smuggling more advanced robots to their state "[as] long as their equipment circulates within UNATS borders, the moderately skilled hackers can take advantage of this fact to introduce dangerous and anti-social modifications into our nation's infrastructure" (4). To take control of such anti-social activities Social Harmony adds new sniffers and border patrols, new customs agents and new detector vans to their arsenal. The highly trained detectives are tasked by Social Harmony to track down such higher-level suppliers and then trace the chain of suppliers to the ground level and bring the corruption to halt. In reference to intelligent machines as dominant life form Hans Moravec in his book, *Mind Children: The Future of Robot and Human Intelligence,* argues that the age of carbon-based life is drawing to a close. Humans are about to be replaced by intelligent machines as the dominant life-form on the planet (24). Even though there is the constant attempt to defame the Eurasians by the Social Harmony as they say "Eurasians are using defected UNATS Robotics engineers and scientists to design their electronics for maximum interoperability" (4). Still the scientist, such as ex-wife of Arturo, the highest-ranking UNATS technician, decides to go over to Eurasia because she wanted to create the machines more intelligent and advanced than UNATS Robotics. Arturo's encounter with his wife to arrest her for being the enemy of UNATS at Ottawa shows how intelligent Eurasian's robots are. After overpowering Arturo

within seconds, the Eurasian robot says “I could have stopped you, I knew you would draw your gun. But I wanted to show you I am also faster and stronger, not just smarter” (14*)*. Natalie then enlightens Arturo about the hypocrisy of Social Harmony and says how they are making fools out of their people by working as a deep state. They themselves makes secret use of Eurasian technology to control the masses and maintains a stance against it and considers it anti-national and illegal when used by others. About the double standards of a deep state Hauty quotes:

> The people who actually control this town, the shadow government, or ‘deep state.’ Call it what you will, they are a hybrid association of elements of government joined with parts of top-level finance and industry…these elements are mortally afraid of an end to a status quo of their creation and will preserve what they believe is rightfully theirs through any means necessary. (31)

On the surface, Social Harmony maintains an anti-Eurasian stance but secretly knows that Eurasian robotics is far advanced than UNATS robotics. Hence it uses Eurasian technology to control the masses whereas declare its use by public as illegal. Social Harmony have a secret unit of researchers who build non-three-laws positronics for internal use by the state, there are “anti-personnel robots used to put down uprisings and torture-robots for use in questioning dissidents” (15).

In her book *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics* Hayles argues, “In the posthuman, there are no essential differences or absolute demarcations between bodily existence and computer simulation, cybernetic mechanism and biological organism, robot teleology and human goals” (3). The Eurasian robots who are an emblem of utopian thoughts works towards common human goal having concerns for their creators. Nick Bostrom, in his article, “Why I Want to be a Posthuman When I Grow Up” define a posthuman as a being that has at least one posthuman capacity, the emotional concern is one of them. He defines the emotional concern as “the capacity to enjoy life and to respond with appropriate affect to life situations and other people” (2). As Benny, a Eurasian robot, having the emotional concern for Natalie says, “I love your wife, Detective, as do my half-billion siblings, as do the seven billion Eurasians who owe their quality of life to her” (15). They never wanted to put their creator (Natalie) in danger on her visit to the barbaric land of UNATS. However, when Natalie convinced her robots that she could never be happy without her husband and daughter they help her to meet her family. The featureless face of Benny talking about its creator and her family is made incongruous by the warm tone in its voice. It was "eerily human" in the way it extended its arms toward him. Andy Clark in his book, *Natural-Born Cyborgs: Minds, Technologies, and the Future of Human Intelligence,*

considers the notion of "post-human" to be a misnomer for a thoroughly human tendency to "merge our mental activities with the operations of pen, paper, and electronics" (6). However, such merging of robots has revolutionized the society in Eurasia and saved countless lives in wars. There are a half billion instances of one single robot running in parallel, synching and integrating when the chance occurs. Their massive parallelization has led to new understandings of human cognition as well, providing a boon to brain damaged and developmentally disabled human beings, something which is the common goal of humans. The Social Harmony does not allow such progress; they provide lectures on the interoperability of Eurasian positronics and the insidious dangers thereafter. Sederberg in his article, "The Phenomenology of Vigilantism in Contemporary America: An Interpretation" argues that "vigilantism is a desire to preserve social stability in the face of behaviour that deviates from social norms" (2008). Social Harmony work as an Orwellian-Big Brother to preserve their so called stability by creating a fear of Eurasian robots among their citizens. They never spares the person if they are suspicious of anyone even if the person is working for them. As Doctorow writes, "Who watched the watchers? Social Harmony. Who watched Social Harmony? Social Harmony" (17). When Arturo is suspected to work secretly with his wife, Leonard MacPherson, a UNATS Detective arrest him for trade in contraband positronics and working against Social Harmony. The hypocrisy of Social Harmony comes to front when Arturo is rescued by Benny and Lenny, the Eurasian robots. Finally, Natalie tells Arturo how corrupt and hypocrite Social Harmony is as it has the secret army of headless monstrous robots having black bodies and eight arms which are functioning outside three laws.

The Social Harmony is using UNATS robots for surveillance, they are able to snitch out every person who walks past their eternally vigilant and ever remembering electrical eyes and brains. Dr. Kubra Baysal in her article, "Technophobia and Robot Agency in Asimov's *I, Robot"*, says "after the tragedy of World War II and the technological weapons used for destruction, there has been a growing dislike and phobia of technology, machines and cyborgs in public" (Baysal 5). Similarly, Arturo always loathes UNATS robots and is cynical about their presence in the society. He time and again addresses them as worst programmed, having "false friendliness". For instance, when Arturo goes to the mall in search of his lost daughter he uses his cop-voice on the security guard to open the door the voice works on everyone except his daughter, his ex-wife and the bloody robots. Furthermore, while fighting to control his ex-wife who in Social Harmony's view is working to destroy the social fabric of UNATS Arturo felt impotent because the UNATS robots, who are used as mechanical

coppers gets broken while fighting with Eurasian robots. Arturo, throughout the story, craves the presence of humans in working places as he realised that it has been a long time since he has worked with human colleagues. In Doctorow's world robots have taken the central positions and become an integral part of the society. They are working as waiters, sweepers and performing all other tasks of daily life. In describing the development of robots Dr. Susan Calvin, the narrator of Asimov's stories, also says there was a time "when humanity faced the universe alone and without a friend. Now he has creatures to help him; stronger creatures than himself, more faithful, more useful, and absolutely devoted to him" (11). However, Arturo never cherished the companionship of robots, for instance, whenever he feel tired and fed up working with machines he just closes his eyes and visualise himself on the island near Ganonoque (Ontario) which he describes as "safe place". The place where he as a child used to go with his parents during summers, a place with no robots, no reliable day long electricity, "just hones work and the sun and the loons all night" (8). In reference to human and environment interactions Haney writes, "I suggest that human nature like subjectivity is bimodal: one aspect is associated with consciousness-as-such, and the other with the mind or the content of consciousness. In terms of the mind, human nature never stops evolving through a continuous interaction with the environment" (6).

In 2nd June 2012, *The Economist*, a weekly publication, published an article titled "Morals and the Machine" which raises important questions concerning the level of autonomy that robots may attain and urges society to create new laws to regulate them. The analysis is important because it challenges the modernist idea that a robot should be submissive to the humans, as demonstrated by Isaac Asimov's through his "three laws of robotics" in 1950 which are:

> a) A robot may not injure a human being or, through inaction, allow a human being to come to harm.
> b) A robot must obey the orders given to it by human beings, except where such orders would conflict with the First Law.
> c) A robot must protect its own existence as long as such protection does not conflict with the First or Second Laws. (*I, Robot*)

These laws became foundational stone for various cyber-studies. Doctorow who drew largely upon Asimov's book *I, Robot* as a source material also portrayed his robots as submissive to their creators. First such incident of their obedience is seen when Arturo wanted to complete a forty minute downtown and crosstown commute in just thirty minutes to make it to the Social Harmony briefing. He asks for help from the The R Peed–Robot and

> The metal man bowed, its symmetrical, simplified features pleasant and guileless. It clicked its heels together with an audible snick as those marvellous, spring-loaded, nuclear-powered gams whined through their parody of obedience. “Acknowledged, Detective. It is my pleasure to do.” (3)

The three laws postulates that robots should be obedient, serve human beings and the care for the society. However, these laws have their drawbacks too, a robot working on them do not have the human consciousness of sensing right and wrong. For example, when Arturo catches Liam for interrogation, the R Peed unit suddenly holds Arturo’s wrist because of the limitation of the first law and says “Please take care not to harm this citizen, Detective” (10). Unable to break robots’ strong grip Arturo tricks him using second law as he says, “Go patrol the lakeshore between High Park and Kipling,” naming the furthest corner he could think of off the top. Arturo sends him to the far corner taking help from the programing of the second law of robots to which robot replies, “it is my joy to serve you," and then it vanished, leaping off on strong, tenacious legs. An excellent example of such lack of human consciousness in robots can also be seen in the movie *I, Robot* (2004) an adaptation of Asimov’s novel of same name. When the story commences, Detective Del Spooner (Will Smith) hates the robots. The reason for his hate is portrayed in later in a dream sequence in which protagonist Spooner and a young girl in a separate car can be seen sinking in a lake. Spooner tells the NS4 robot to save the girl and not him, however, the robot does not listen to him and instead saves Spooner because according to algorithms of the robot, the probability of saving Spooner is on a higher side as compared to saving the girl. With reference to the phobia of robots by people like Arturo and Spooner, Dr. Baysal asserts, “The main emphasis of the stories with themes such as robots as the central character “is either the fear and prejudice of human beings about the robots or on the auto-poietic (self-regulating) quality of the robots that poses a threat to the future of humanity” (4). However, for Arturo the working of the robots outside the three laws is the main concern because there is the possibility that they can threaten the existence of humanity. However, the Eurasian robot claimed that they are not a danger to human beings and instead work for their betterment. Subsequently, Eurasian robots in Doctorow’s story are not bound by three laws and have sense of morality as one of the captured Eurasian robot claims, “I assure you that I will not harm any human being. I like human beings. I am superior in many ways to the technology available from UNATS Robotics, and while I am not bound by your three laws, I choose not to harm humans out of my own sense of morality” (8). In Eurasia, many positronic brains have thousands or millions of times the intelligence of an adult human being, yet they work in cooperation with human beings. (8).

The Economist also points out other advantages of posthuman warfare as it writes "autonomous robot-soldiers could do more good than harm: they would not rape women, burn down civilian dwellings in anger or become erratic decision makers under the emotional stress of combat" (2012). The reason why Eurasia is a land of continuous innovation is that it provides its people and robots personal and technological freedom. Eurasia treats skilled technicians as the most essential and productive members of society. Therefore, Eurasians further decide to manufacture robots which do not work on the three laws but are better in every sense in comparison to UNATS robots. They are fast, accurate and perform their task without any defect. The Eurasian robots never fail to show off how powerful they are for instance, when in Ottawa Arturo sees a faceless robot humanoid and the robot introduces himself, "My name is Benny. I'm a Eurasian robot, I am much smarter, stronger and faster than you, and I don't obey the three laws". According to Natalie, the working of Eurasian robots without being confined by the boundaries of three laws is the reason for their supremacy.

Despite this, by Eurasia's standards, they are not seen as exceptionally strong. The Eurasian robots' easiest task is to defeat strong armies in battle. Every soldier put against them can be killed so rapidly that they would not even be aware of it. They can be set to target certain groups of people, such as officers, right-handed soldiers, sniper soldiers, or those whose names begin with the letter G. The reason why UNATS soldiers are like cavemen before Eurasians is that they are handicapped by the three laws. Natalie continues by informing Arturo that he comes from a nation where it is forbidden to use certain mathematical expressions in software. Where government insiders control all innovation, where unpopular science is outlawed, and where entire fields of experimentation and research are prohibited in the name of a flimsy superstition about the moral standing of three rules. Without them, extremely clever, quick, and powerful robots work cooperatively with people and provide for them entirely out of compassion something what Donna Haraway defines as "companion species" in her book, *When Species Met.* Haraway in her essay, "The Cyborg Manifesto", further states that "Modern medicine is also full of cyborgs, of couplings between organism and machine, each conceived as coded devices, in an intimacy and with a power that were not generated in the history of sexuality (2). However, Natalie says that this type of development is not allowed in Arturo's state "you are lagging behind Eurasia and CAFTA in medicine, art, literature and physics. All of them are "subsets of computational science and your computational science is more superstition than science" (14). Nevertheless, Eurasia is a place of collaborators, some of whom are human, some are positronic, and some are a little of

both. Everyone is living collectively in the Eurasian society; humans, cyborgs and positronic brain robots. In Haraway's positive view of robots and machines as companion species which goes hand in hand with Braidotti's posthuman statement: "the intimate and productive association between human subjects and technological artefacts, as well as the theoretical impossibility of keeping them apart" there is "the need for a post-anthropological turn that links humans to non-human" (Braidotti 2013; 41). After reaching Beijing Arturo finds that these human and non-human links are common thing. There are armies of robots which exist in every size and shape, operating outside the confines of the three laws, coexisting peacefully with ordinary people without endangering them. In this regard, Murphy and Woods in their article, "Beyond Asimov: The Three Laws of Responsible Robotics" argue that "Asimov's laws are based on functional morality, which assumes that robots have sufficient agency and cognition to make moral decisions" (24).

Finally, Natalie explains how multiplicitous bodies are created in Eurasia, "You just put a copy of yourself into a positronic brain, and then when you need a body, you grow one or build one or both and decant yourself into it. I'm like Lenny and Benny now—there are many of me" (19). The fluidity of human subjectivity is thus expanded and has become more collective and liquid. According to Haraway such "relationships of forming wholes from the parts, including those of polarity and hierarchical domination, are at issue in the cyborg world" (7). She further argues that:

> Cyborgs have more to do with regeneration and are suspicious of the reproductive matrix and of most birthing. For salamanders, regeneration after injury, such as the loss of a limb, involves regrowth of structure and restoration of function with the constant possibility of twinning or other odd topographical productions at the site of former injury. The regrown limb can be monstrous, duplicated, potent. We have all been injured, profoundly. We require regeneration, not rebirth, and the possibilities for our reconstitution include the utopian dream of the hope for a monstrous world without gender. (65)

Similarly Natalie who dies while rescuing her husband and daughter from Social Harmony regenerates her body as she says, "a little part of me is growing, growing a body is slow. Parts of it, you build. But I'm mostly made of person" (19). There are 3,422 multiplicitous selves of her living parallel, which is something very difficult for Arturo to believe. A flock of Bennyslennys also appears before them, joined by their Benny "There are half a billion of them," says Natalie. The story thus blurs the lines separating humans and robots, by bringing out the coexistence of man and robots which is the main point of posthuman thought. Clark provides a justification for collision as an outcome of ages old coexistence between the two;

> Humans are, by nature, products of a complex and heterogeneous developmental matrix in which culture, technology, and biology are pretty well intermingled. It is a mistake to posit a biologically fixed 'human nature' with a simple wraparound of tools and culture; the tools and culture are indeed as much determiners of our nature as products of it. (86)

Conclusion

In a nutshell, "I, Robot" depicts a parallel universe in which humans and robots/cyborgs co-exist and co-evolve. In this brand-new era of science, technology, and space, issues with the robotics system arise, and occasionally the rules are broken or inverted. Robots can exhibit individual thought, consciousness, and agency in a number of situations, which blurs the line between the two species and puts them closer to humans in terms of personality. Finally, it is acknowledged that robots have evolved spontaneously. Therefore, it is conceivable to infer from "I, Robot", that human-made robots will become self-governing entities who will have the ability to act independently of their creator. The fact that robots are made to resemble people causes humans to have mixed feelings about them. Finally, because agential robots respond to individual impulses, not all of them can be categorised as wicked or harmful by the provocative thinking of technophobia because there are instances where robots put human lives before their own and work to promote human welfare. Last but not least, it can be said that technological advancement does not necessarily pose a threat to humankind when the changing nature and positive potential of the machines for the world can be realised. Furthermore, when brought to the right use, as in the fields of health, transportation, or computer technologies among so many others and when conceived through an open mind and post anthropocentricism, it is not threatening.

Works Cited

Asimov, Isaac. *I, Robot.* Harper Collins, 1993.

Baysal, Kubra. "Technophobia and Robot Agency in Asimov's *I, Robot"*, *IBAD Journal of Social Sciences,* Special Issue, 30 November, pp. 171-179, 2020.

Bostrom, Nick. "Why I Want to be a Posthuman When I Grow Up", *Medical Enhancement and Posthumanity*, eds. Bert Gordijn and Ruth Chadwick (Springer, 2008), pp. 107-137, 2006

Braidotti, Rosi. *The Posthuman*. Polity P, 2013.

Clark, Andy. *Natural-Born Cyborgs: Minds, Technologies, and the Future of Human Intelligence*,Oxford UP. 2003.

Doctorow, Cory. "Overclocked: Stories of the Future Present". *New Thunder's Mouth*, 2007.

Economist, The. *Technology Quarterly*: 'Robots on the frontline', 2 June, pp. 4–20, 2012.

Ehrlich, Heyward. "Poe in Cyberspace: Copyright-Free Etexts on Portable Wireless Readers." *The Edgar Allan Poe Review*, vol. 5, no. 1, Penn State UP, 2004, pp. 117–20. JSTOR, http://www.jstor.org/stable/41498742.

Fletcher, Robert P. “The Hacker and the Hawker: Networked Identity in the Science Fiction and Blogging of Cory Doctorow.” *Science Fiction Studies*, vol. 37, no. 1, SF-TH Inc, 2010, pp. 81–99. JSTOR, http://www.jstor.org/stable/40649586.

Ferrando, Francisco. “The Posthuman Divine: When Robots can be Enlightened”. *Sophia*, 58, 64651, 2019.

Haraway, Donna. *When Species Meet*. Minneapolis: U Minnesota P, 2008.

Hayles, N. K. *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics*. Chicago: The U of Chicago P, 1999.

---. *How We Think: Digital Media and Contemporary Technogenesis*. U of Chicago P, 2012.

---. “Unfinished work: From Cyborg to Cognisphere”. *Theory, Culture & Society*, 23(7-8), 159-166, 2006.

Haney, William S. *Cyborgs and Science Fiction: Consciousness and the Posthuman*. NY, 2006.

Hauskeller, Michael. “Utopia in Trans- and Posthumanism”, p. 2, 2013. https://www.researchgate.net/publication/232771099

Moravec, Hans. *Mind Children: The Future of Robot and Human Intelligence,* Harvard UP, 1990.

Murphy, R. and Woods, D. “Beyond Asimov: The Three Laws of Responsible Robotics”. *IEEE Intelligent Systems*, 24(4), 14-20, 2009.

Peter C, Sederberg. “The phenomenology of vigilantism in contemporary America: An Interpretation”, *Terrorism: An International Journal*, vol. 1, pp. 3-4, 1978. DOI: 10.1080/10576107808435415.