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The (care) robot in science fiction: A monster or a tool for the future?

Aino-Kaisa Koistinen

According to Mikkonen, Mäyrä and Siivonen, our lives are so pervaded with technology that it becomes important to ask questions considering human relations to technology and the boundaries between us and the various technological appliances that we interact with on a daily basis:

For example, as pacemakers and contact lenses technology has become such an intimate thing that it can be said to be a foundational aspect of our humanity. It is hard, or even impossible, to understand the meaning of our human existence if the role of machines in our humanness is not taken into account. Pointedly, we can ask: “Are we humans machines – or at least turning into ones?” Or in reverse: “Can machines become humans, thinking and feeling beings?”

What is essential is not how realistic or believable the assumptions considering humanization of machines or the mechanization of humans inherent to these questions are. *What is essential is that these questions are asked altogether.*¹

There is one fictional genre, that of *science fiction*, that is particularly suitable for asking these kinds of questions. Indeed, science fiction, as the name of the genre already suggests, is preoccupied with the imaginations of scientific explorations. These explorations are often realized through stories of

¹ Mikkonen et al., 1997, 9, transl. by the author, emphasis added.

technology, such as different kinds of robotic creatures. Moreover, the very core of science fiction is the imagining of possible worlds and futures that are not mimetically bound to the world that we live in yet often comment on contemporary cultural phenomena². Robots and technology are, indeed, usually used in the genre to discuss topical fears and anxieties – but also hopes – considering technological developments.

Today science fiction's technological imaginations and the technological developments that we face in our lived realities seem to resemble each other more than ever before, making it important to study these connections between science fiction and science facts. Indeed, many of the current technological developments have been presented to us by science fiction narratives well before they turned into the reality of today, making the genre an important platform for speculating on new technologies and their possible effects on humanity³.

Quite recently, one of science fiction's imaginations, that of the care robot, is quickly turning into a lived reality. When introducing these kinds of robots in our daily lives we need to consider how they have already been imagined in science fiction, as these imaginations can be used to make visible the problems as well as promises inherent in close relationships between humans and machines.

The genealogy of robots

Before presenting some examples of science fiction's care robots and the pressing cultural questions they pose, we need to consider the history of fictional robots. The term robot was developed and popularized by Czech author Karel Čapek in his play "R.U.R." (Rossumovi Univerzální Roboti, engl. Rossum's Universal Robots) in 1921. The term is derived from the Czech

² See e.g. Attebery, 2002, 4–5; Jackson, 1995, 95; Larbalestier, 2002, 8–9.

³ On science fiction narratives turning to science facts, see Kirby 2010; Penley, 1997; Telotte, 2014, 186–187.

word *robot* referring to the work performed by slaves. In Čapek's play, robots are *humanoids* or *androids* (i.e. they appear human) that eventually turn against their human masters. Although the term *robot* usually refers to technology as a tool designed for the use of humans, science fiction stories often represent robots that develop beyond mere tools and rebel against their creators. As such, they represent a typical theme of the genre – technological developments gone too far, making these robots monstrous and threatening figures.⁴

There is, however, an even longer tradition of imagining scientifically or technologically constructed creatures that can be traced back to at least the 18th Century, when the constructing of automatons created in the human form were a fashionable past-time in Europe. In the Jewish tradition, we can also find stories of the Golem, a humanoid constructed from clay, that date back to the early modern period. In 1818, Mary Shelley famously imagined the Frankenstein's monster – a human-like creature constructed by a mad scientist – which has become one of the staples of Western popular culture, and is probably one of the most known stories of science and technology gone too far.⁵ Shelley's novel is, in fact, often considered the first science fiction novel, where gothic themes merged with questions of science⁶.

Since *Frankenstein*, different kinds of robots, androids and *cyborgs* (i.e. hybrids of technology and flesh) have taken the popular culture by storm as monstrous creatures. In 1927, the humanoid robot Hel/Maria (played by Brigitte Helm) tantalized human men with her erotic performances in Fritz Lang's *Metropolis*, making it clear that when a robot gains a

⁴ On the term “robot” and Čapek's play, see Mikkonen et al., 1997, 11; also Graham, 2002, e.g. 102; Paasonen, 2005, 248n43. For more on robots/technology as a threat, see Dinello, 2005; Graham, 2002, 5–6; Kirman et al., 2013. On robots/machines as monstrous, see Paasonen, 2005, 26–29, 38.

⁵ On this genealogy, see e.g. Mikkonen et al., 1997, 11; Graham, 2002, 62–108.

⁶ Attebery, 2002, 12.

human form, it cannot escape the questions of gender and sexuality. This theme had, however, already emerged in, for instance, *L'Eve Future (Tomorrow's Eve)* by Auguste Villiers de l'Isle-Adam (1886). The novel presents us with a narrative of the replacement of a human woman by a more perfect machine copy.⁷

This idea of replacing the human, and the woman in particular, has since been seen in films like the aforementioned *Metropolis* and *Stepford Wives* (dir. Ira Levin 1975), and has remained one of the most often articulated fears in science fiction. Moreover, the developments of robots are connected to the fears of replacing human beings also in the very literal sense that they replace human workers in factories – and now, more recently, in care – both in science fiction and in our everyday reality⁸.

Human-like robots as both threatening and hopeful monsters

Later, in the 1970s, cyborgs such as the Bionic Man and the Bionic Woman – and even their companion, the Bionic Dog – represented more hopeful imaginations of technology. These cyborgs were technologically improved with *bionic* limbs which saved their lives. In the 1970s prosthetic limbs were being explored upon in medicine, and these bionic creatures showcased the popular culture where this sort of human betterment might eventually lead.⁹ Indeed, since the 1970s, synthetic organs (that are aptly called bionic) have been attached to living human beings¹⁰.

⁷ On monstrosity as well as cyborgs/robots and gender, including *L'Eve Future*, see Paasonen, 2005, 27–28, 35–54. On *Metropolis*, see also Graham, 2002, 177–181.

⁸ On news about robots replacing workers, see e.g. Spence, 2016; Wakefield, 2016.

⁹ Geraghty, 2009, 63; Koistinen, 2015a, 36; 2015b; Paasonen, 2005, 21–34; Telotte 2008, 17; 2014, 32.

¹⁰ See e.g. “The Bionic Eye”.

The most memorable human-like robots in the 1980s must be those seen in *Terminator* (James Cameron 1984) and *RoboCop* (Paul Verhoeven 1987) that offer us hyper-masculine male machines in contrast to the sexualized females of *L'Eve Future*, *Metropolis* and *Stepford Wives*¹¹. Also, who could forget the humanoid *Replicants* of *Blade Runner* (Ridley Scott 1981), which represented the machines as thinking and feeling creatures, as almost human beings? These two aspects, the capability of independent rational thought and emotion have, in fact, been popular ways to differentiate humans from machines in science fiction – but also to question this differentiation¹².

Since the 2000s, popular culture's cyborgs, machines and other technological monsters have been created as more and more complex creatures and, also, more and more like us humans. Machines in, for example, *Battlestar Galactica* (2004–2009) are intelligent and emotional beings that can *pass for human*¹³ and therefore also offer more varied representations of gendered embodiments than many of the narratives considering humanoid machines/cyborgs before them. In these narratives, the monster can also be a hopeful one, a creature that is guiding us towards a better tomorrow. Even though monsters are commonly understood as something to be feared, they can also be sources of great promise and hope and help us to think about what we otherwise cannot think about (as a colleague of mine, Line Henriksen, put it at the “Monsters in Art” event organized by the *Monster Network* at Stavanger library in April 28, 2016).¹⁴

¹¹ On masculine male machines and erotic female machines, see Balsamo, 2000, 150–156; Kakoudaki, 2000, 166; Paasonen, 2005, 50.

¹² Balsamo, 2000, 149; Booker, 2004, 39–40, 95–96; Koistinen, 2011, 2015a, 37, 2015b; Paasonen, 2005, 27, 32–38.

¹³ On machines and passing for human, see Koistinen, 2011; 2015a; and Hellstrand, 2015.

¹⁴ For more on hopeful monsters, see Haraway, 1992; more specifically in science fiction, see Graham, 2002, 11–16. Like “monster”, the concept of “cyborg” has also been used as a hopeful figuration for rethinking, for instance, different cultural dichotomies, see Haraway, 1991; also Graham, 2002, 200–234.

This history of science fiction shows us that we as humans have always been fascinated by creating the machine in our own image. Perhaps this is a sort of God-complex, or perhaps we are just so perplexed about our own humanity, that we feel the need to re-create our image through technology in order to understand our humanness.¹⁵ Be it as it may, science fiction's stories make visible the problems that are inherent in making the machine in our own image. That is, the question of representation: In whose image should we create these machines that, as they become humanoids, also embody markers of, for example, gender, ethnicity, age, ability/disability and class. In this sense, creating humanoid machines is a deeply normative process, where we are reproducing what we consider a "proper" human being.¹⁶ In this sense, these imaginations also allow us to ask deeply ethical and political questions about what kinds of bodies that are allowed to pass as "legitimate" human bodies.

This creates an interesting connection between science fiction and the care robots of today. Judging from the news there seems to be two strands in the development of care robots: creating robots that appear like humans or are, in some way, relatable as human-like figures (i.e. have a recognizable head, limbs and torso, even though they clearly could not pass for human), and the creation of robots that are designed to appear more like machines¹⁷.

Science fiction and the questions of care

¹⁵ For example, Elaine L. Graham, 2002, provides a comprehensive study on how machines and monsters have been created as representations or visions of what it means to be human. On the representations or imaginations of humanlike machines, see also Hellstrand, 2015; and Koistinen, 2011; 2015a; 2015b; 2015c.

¹⁶ For more on humanoid machines and questions of normativity and/or gender, see Graham, 2002; Hellstrand, 2015; Kakoudaki, 2000; Koistinen, 2011; 2015a; 2015b; 2015c; Paasonen, 2005, 26–51.

¹⁷ In the Finnish press, care/service robots have been written about, for instance, by Juhola, 2016; and Pihlman, 2016.

Finally, I wish to present you with a few examples of science fiction's care robots and the sort of cultural allusions that they evoke. In the genre, robots and other machines have quite often been imagined as doctors, medical assistants, cleaners, nurses and all-around helpers. A well-known example of this all-around-helper is the popular Robbie the Robot in the 1956 film *Forbidden Planet* (dir. Fred M. Wilcox). Just like the many other types of robots in science fiction, these care robots can also be sources of joy or anxiety. Very recently, at least two audio-visual science fiction productions have discussed care robots in a manner that resonates with contemporary discussions of care; the Swedish television series *Äkta Människor* (2012–2014) and the film *Robot & Frank* (Jake Schreier, 2012). Both of these productions also raise questions related to the ethical aspects of care today, such as, who decides what kinds of care an elderly person needs, and who defines what is considered “the right kind of” care.

Both *Äkta Människor* and *Robot & Frank* frame their discussion of care mainly around an elderly man and his robot aid/companion – or companions in the case of *Äkta Människor*. What is different between the series and the film is that in the series these care robots (that are, interestingly enough, called *Hubots*) are human-like in their appearance, whereas the robot in *Robot & Frank* is (even though relatable in the sense of having a torso, limbs and a head, and speaking in a human-like voice) is significantly more like a machine.

In *Äkta Människor*, the human appearance also brings forth questions of gender and the gendered labour of care. The old man, Lennart (played by Sten Elfström) is initially happy with his male companion robot Odi (Alexander Stocks). However, as Odi malfunctions, Lennart is faced with the harsh reality of having to purchase a new companion. His family chooses a new, more efficient model, a female robot called Vera (Anki Larsson). Vera is a stereotypical representation of feminine care; an old, plump woman with an apron and a strict expression. Lennart and Vera, nevertheless, do not get along, which explicitly articulates the

question if the person receiving care has the right to choose what sort of care they want.¹⁸

Similarly to Lennart and Vera, Frank is initially unhappy with the care robot that his son purchases for him. In both *Äkta Människor* and *Robot & Frank* we nevertheless also see a bonding between a human and a machine. Although Lennart never really gets used to Vera, he considers his other robot, Odi, as a friend. In the film, Frank also grows fond of his robot. In both productions, the men finally also lose their companion robots, making visible the powerlessness of these old men in terms of deciding for their own care.

These sorts of discussions are highly relatable to the Finnish context today. Recently the Finnish national broadcasting company YLE presented news stories concerning how certain Finnish cities are considering replacing the personal assistants of people with severe disabilities with a different sort of care – a “family carer”. Unlike the personal assistant, these family carers are not allowed to leave the apartment where they work, significantly limiting the mobility of their clients with, who cannot go outside without their assistants.¹⁹ What, then, would happen, if these family carers were replaced by machines? Would it bring more or less freedom to people in need of constant care?

Both *Äkta Människor* and *Robot & Frank* ultimately leave it open, whether the care robot is a dreadful or hopeful monster, or merely a tool for humans to use in our increasingly technological future. With fictional narratives we are nevertheless able to speculate on the problems and possibilities of these emerging technologies. These speculations can surely offer useful information also to the persons designing actual (care) robots today. To return to the quote by Mikkonen, Mäyrä and Siivonen: “What is essential is not how realistic or believable the assumptions considering humanization of machines or the mechanization of humans inherent to these questions are. What

¹⁸ See also Koistinen, 2015c.

¹⁹ Seppänen, 2016.

is essential is that these questions are asked altogether.” And this is something science fiction can certainly do.

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<http://www.uta.fi/yky/rose/blogit/scifi.html>

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References

- Attebery, Brian. *Decoding Gender in Science Fiction*. New York: Routledge, 2002.
- Balsamo, Anne. “Reading Cyborgs, Writing Feminism.” *The Gendered Cyborg: A Reader*. Eds. Gill Kirkup, Linda Janes, Kath Woodward and Fiona Hovenden. London: Routledge, 2000. 148–58.
- Booker, M. Keith. *Science Fiction Television*. Westport: Praeger, 2004.
- Dinello, Daniel. *Technophobia! Science Fiction Visions of Posthuman Technology*. University of Texas Press, 2005.
- Geraghty, Lincoln. *American Science Fiction Film and Television*. Oxford: Berg, 2009.

- Haraway, Donna J. *Simians, Cyborgs and Women: The Reinvention of Nature*. New York: Routledge, 1991.
- Haraway, Donna J. "The Promises of Monsters: A Regenerative Politics for Inappropriate/d Others." *Cultural Studies*. Ed. Lawrence Grossberg, Cary Nelson, and Paula A. Treichler. New York: Routledge, 1992. 295–337.
- Hellstrand, Ingvil. *Passing as Human: Posthuman Worldings at Stake in Contemporary Science Fiction*. Stavanger: University of Stavanger, 2015 (PhD thesis UiS, no. 244).
- Jackson, Earl Jr. *Strategies of Deviance: Studies in Gay Male Representation*. Bloomington: Bloomington Unveristy Press, 1995.
- Juhola, Teemu. "Tämä kaunotar on robotti – Jia Jia liikkuu, puhuu ja ilmeilee. Tutkijoiden mukaan Kiinassa tehty Jia Jia -robotti voisi toimia palveluammattissa." [This beauty is a robot – Jia Jia moves, talkes and makes faces. Researchers say that the Jia Jia robot made in China could work in a service occupation.] YLE 25 April 2016. http://yle.fi/uutiset/tama_kaunotar_on_robotti__jia_jia_liikkuu_puhuu_ja_ilmeilee/8835943 [retrieved 5 May 2016].
- Kakoudaki, Despina. "Pinup and cyborg: Exaggerated gender and artificial intelligence." *Future Females, the Next Generation: New Voices and Velocities in Feminist Science Fiction Criticism*. Ed. Marleen S. Barr. Lanham, Maryland: Rowman & Littlefield, 2000. 165–196.
- Kirby, David. "The Future is Now: Diegetic Prototypes and the Role of Popular Films in Generating Real-world Technological Development." *Social Studies of Science* 40.1 (2010): 41–70.
- Kirman, Ben, Conor Linehan, Shaun Lawson, and Dan O'Hara. "CHI and the Future Robot Enslavement of Humankind; A Retrospective." Proceedings of SIGCHI Conference on Human Factors in Computing Systems Extended Abstracts, 2013. Available at: http://eprints.lincoln.ac.uk/7569/1/robots_authors_version.pdf [retrieved 28 November 2016].
- Koistinen, Aino-Kaisa, a: *The Human Question in Science Fiction Television: (Re)Imagining Humanity in Battlestar*

- Galactica, Bionic Woman and V.* Jyväskylä Studies in Humanities 248. University of Jyväskylä, 2015. Available at: <http://urn.fi/URN:ISBN:978-951-39-6147-3> (permanent link).
- Koistinen, Aino-Kaisa, b. “The machine is nothing without the woman’. Gender, humanity and the cyborg body in the original and reimagined *Bionic Woman*.” *Science Fiction Film and Television* 8.1 (2015): 53–74.
- Koistinen, Aino-Kaisa, c. “*Real Humans* (Äkta Människor). DVD review.” *Science Fiction Film and Television* 8.3 (2015): 414–418.
- Koistinen, Aino-Kaisa. “Passing for Human in Science Fiction: Comparing the TV Series *Battlestar Galactica* and *V.*” *NORA – Nordic Journal of Feminist and Gender Research*, 19.4 (2011): 249–263.
- Larbalestier, Justine. *The Battle of the Sexes in Science Fiction*. Middletown, Connecticut: Wesleyan University Press, 2002.
- Mikkonen, Kai, Ilkka Mäyrä, and Timo Siivonen, eds. *Koneihminen – kirjoituksia kulttuurista ja fiktiosta koneen aikakaudella*. [The machine-human – writings on culture and fiction in the era of the machine.] Jyväskylä: Atena Kustannus Oy, 1997.
- Paasonen, Susanna. *Figures of Fantasy: Internet, Women, and Cyberdiscourse*. New York: Peter Lang, 2005.
- Penley, Constance. *Nasa/Trek: Popular Science and Sex in America*. London: Verso, 1997.
- Pihlman, Olga. “Uudenlaiset robotit tekevät yhteistyötä ihmisten kanssa.” [New kinds of robots work together with humans.] YLE 21 April 2016. http://yle.fi/uutiset/uudenlaiset_robotit_tekevat_yhteistyota_ihmisten_kanssa/8828416?ref=leiki-uu [retrieved 5 May 2016].
- Seppänen, Timo. “Vaikeavammaisen Mikael Jordan taistelee saadakseen pitää avustajansa – Ankara kiista Vantaan kaupungin kanssa.” [Severely disabled Mikael Jordan is fighting to keep his aid – Difficult fight with the city of Vantaa.] YLE, 1 May 2016. http://yle.fi/uutiset/vaikeavammaisen_mikael_jordan

- _taistelee_saadakseen_pitaa_avustajansa__ankara_kiista_v
antaan_kaupungin_kanssa/8848482 [retrieved 5 May
2016].
- Spence, Peter. “Robots will replace a quarter of business services workers by 2035, says Deloitte.” *The Telegraph*, 12 July 2016.
<http://www.telegraph.co.uk/business/2016/07/11/robots-will-replace-a-quarter-of-business-services-workers-by-20/> [retrieved 9 November 2016].
- Telotte, J.P. “Introduction. The Trajectory of Science Fiction Television.” *The Essential Science Fiction Television Reader*. Ed. J.P. Telotte. Lexington: University of Kentucky Press, 2008. 1–34.
- Telotte, J. P. *Science Fiction TV*. New York & London: Routledge, 2014.
- “The Bionic Eye.” *Bionicvision Australia*.
<http://bionicvision.org.au/eye> [retrieved 28 September 2014].
- Wakefield, Jane. “Foxconn replaces ‘60,000 factory workers with robots’”. BBC, 25 May 2016.
<http://www.bbc.com/news/technology-36376966> [retrieved 9 November 2016].

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