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Imaginary Fantasies of Robotic Humanities and AI in Fictional Contexts

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1.1. Introduction

Like many other hopeful technologies, representations of artificial intelligence are inherently Manichean. From its advent in the 1950s, to its socio-cultural and politico-economic entrenchment in the 2010s, AI has generated as much excitement as it has fear. This exacerbated bipartisanship seems to reflect the discourses that have always accompanied the history of technology and its implicit corollary, namely the movement towards technical progress, which is supposedly inescapable. In this respect, the Digital Humanities have been sharpening expert debates in recent years, as they have become involved in particularly broad research issues, themselves nested at the heart of disparate scientific disciplines. In the epistemological race to stabilize a concept that is still in a state of flux and whose definition remains open to question, we need to raise the question of what it means to be human in the face of the technologization of the world. To this end, in an exploratory and cross-cultural framework, Robotic Humanities propose highlighting the imaginary dimension in the construction of a future in which robotic technology is perceived as a saving force (notably in American cinema, and Japanese manga or animation). The Information and Communication Sciences (ICS) do indeed question the fictional and imaginary dimension of media productions, in an approach borrowed from gender studies[1]. It therefore seems worthwhile to propose an analytical

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1 See the journal *Genres en série, cinéma, télévision, médias*, Presses Universitaires de Bordeaux.

deconstruction of the mechanisms behind this idealization of post-humanist thought, in which the power of social representations plays a central role in the study of human–machine fusion through the prism of AI, both on the part of directors–creators and spectators–receivers.

1.2. From Digital Humanities to Robotic Humanities

For some years now, the term *Digital Humanities* has been particularly popular in French research, particularly in the fields of Computer Science and Social Sciences. As for the Information and Communication Sciences, they seem to be legitimately equipped conceptually to take an innovative, distinctive and interdisciplinary look at this polyform research object, the limits of which have yet to be defined, given the plethora of issues at stake. Some authors have attempted to define the field of Digital Humanities, drawing up an "inventory of French research in the international context" (Dacos and Mounier 2014, author's translation). Numerous scientific journals[2] have emerged more or less recently, proposing an editorial in line with this concept. Academic literature has also positioned itself on this promising subject, giving rise to a multitude of books, thematic issue[3], as well as colloquia, conferences and other study days dedicated to DH[4]. More recently, work in the information and communication sciences has proposed "questioning the Digital Humanities" (Paquienséguy and Pélissier 2021) through a theoretical, epistemic, ethical, political and methodological approach, in order to grasp the many issues at stake, particularly in terms of training students in the Humanities and Social Sciences. The interest in Digital Humanities seems to be shared, heuristic and perennial.

And yet, the question of what comes next, the need for a more in-depth approach and analytical framework specific to the Digital Humanities, is already being raised. This is the proposal that will be developed here, by highlighting the robotic dimension of Digital Humanities, as human–machine interactions continue to grow and strengthen, ultimately leading humanity towards a fusion that appears increasingly inescapable, and for some, largely

2 See: *Journal of Digital Humanities*, *Digital Humanities Quarterly*, *Études digitales*.

3 Bonaccorsi, J., Carayol, V., Domenget, J.-C. (2016). *Humanités numériques et sciences de l'information et de la communication*. *RFSIC*, 8 [Online]. Available at: http://rfsic.revues.org/1778.

4 Digital Humanities.

desirable[5]. This future of "the uncertain individual" (Ehrenberg 1995) should not, however, be seen as a foregone conclusion that human beings are doomed to become machines. This is not yet a reality. For the time being, it is essentially the cultural industries and certain biotechnology lobbies that are fueling the circulation of cultural and ideological flows aimed at legitimizing human–machine fusion. Nevertheless, there are many culturally identified forms of resistance, which bear witness to the hold of culture over technology, demonstrating that the latter, "however powerful, remains dependent on strong cultural variables" (Oliveri 2011, author's translation). Despite these observations of distancing, the weight of the imaginary remains decisive in the nature of the relationship that unites human and machine, partially explaining the prevailing technophilia when it comes to imagining a human being, technically augmented by technology.

1.3. Transhumanism as evidence of a diminished humanity

As an innovative and promising topic in a public and scientific debate exacerbated by sudden notoriety, the theme of "augmented human" (Kleinpeter 2013) has, for over a decade now, given rise to a number of highly contradictory accompanying discourses. A current of thought such as that of transhumanism, for example, supported by a willingly technophile media environment, relies on a particularly marked idealization of technology, in order to enunciate a desirable convergence between the organic and the technological. One of the core points of this imaginary seems to lie at the heart of various artistic currents, which actively feed it in terms of social representations. Patrice Flichy rightly points out that "the study of the technical imaginary shows that it always has two functions: to construct the identity of a social group or society, and to provide resources that can be directly reinvested in the preparation and implementation of projects" (Flichy 2001, author's translation). The resources evoked by the sociologist can then be understood as the spiritual material permitting the passage between a current representation and its future concretization. Ray Kurzweil, a computer scientist by training, theorist and media figure of transhumanism, agrees, considering "that the pace of technological change is accelerating, and that the next fifty years will see not only radical technological advances, but also a technological singularity, an inflection

5 This is the point of view defended by transhumanists in particular.

point that will change the very nature of man" (Kurzweil 2005, author's translation).

The projectivist aspect of this type of discourse draws intrinsically on a fictional universe, as it is indeed a speculation on the future, where the imaginary appears particularly attractive in order to determine a future, which by nature escapes us. Furthermore, transhumanism, beyond its fantastic promises, is above all exposed to what Patrice Flichy has identified in his work as a "mask-ideology" (Flichy 2001). In other words, the inability of a utopia to lead to a concrete, viable, tangible project, which is ultimately only of the symbolic order. In a more contrasting approach to the future of humankind, posthumanism seems to question this issue in greater detail. The temptation to use technology to compensate for the physiological limits of a human being who is by nature diminished is pressing. Behind the proselytizing of some, or on the contrary the distance observed by others, artistic culture bears witness to the propensity of futurologists, roboticists, designers and other engineers to work directly or indirectly on the development of this "technological singularity" (Kurzweil 2005). To do so, they consciously or unconsciously draw on an imaginary world of technology and robotics, the contours of which artists (of all genres) have already shaped through their many works of fiction.

In this respect, American cinema and the world of Japanese anime in particular are the art forms that have best given shape to the fantasy – finally realized – of the human–machine fusion. For example, Figure 1.1 shows the main character of the *Robocop* film series, the first part of which was directed in 1987 by Dutchman Paul Verhoeven. This futuristic film and its sequels (1990 and 1992) depict the daily life of a Detroit policeman assigned to the city's slums, accompanied by his partner. Seriously wounded during a traffic stop and left for dead by unscrupulous hoodlums, he benefits from a special scientific crime-fighting program designed to rid the city of thugs once and for all. He becomes Robocop, "50% man, 50% machine, 100% cop"[6]. This feature film is an opportunity for the director to criticize a society in which violence is omnipresent, accentuated by the complacency of the media and advertising[7]. In this future, individual freedoms are tightly controlled by a strict security policy. The role played by machines in these films is highly ambivalent, as they appear both as a technical advance

6 Tagline used on the film's poster at the time of its theatrical release.
7 A recurring theme in Paul Verhoeven's filmography.

necessary for maintaining order, and as a constant threat to turn against and eliminate their creator.



Figure 1.1. *Robocop. For a color version of this figure, see www.iste.co.uk/debos/ethics.zip*



Figure 1.2. *Rex, from Rex Bionics. For a color version of this figure, see www.iste.co.uk/debos/ethics.zip*

We noted the many similarities with Figure 1.2, which shows the lower part of an exoskeleton[8] produced by *Rex Bionics* of New Zealand. The metal-like covering, the knee joint and the specific shape of the hip, attest to a desire for this walking aid, designed for people who have accidentally lost the use of their lower limbs, to echo a robotic and fantastical imaginary world. The analogy with Verhoeven's film is all the more perceptible symbolically, since it is indeed a question of a human being whose life has been physically destroyed, but technologically saved. Numerous works of fiction, mainly Western, are based on this narrative framework, which has become generic over the decades. It is a form of glorification of technology, in which it comes to the aid of a woman or man who would be condemned to die without the massive use of technology. The "repaired" individual then puts the new functionalities and/or powers they now enjoy at the service of the community[9].



Figure 1.3. *T-800. For a color version of this figure, see www.iste.co.uk/debos/ethics.zip*

8 Known as Rex.

9 Other examples include the American series *The Six Million Dollar Man* (1973) and *Bionic Woman* (1976).

This principle of robotizing technology for human repair can also be seen in Figure 1.3. It shows the main character in the *Terminator*[10] film series, played on screen by Arnold Schwarzenegger. It is a *T-800*[11], here deprived of its flesh covering, designed to make it undetectable to humans. In fact, it is a military cyborg made of metal and circuit boards, covered with living tissue and a human-like epidermis. It is interesting to compare it with Figure 1.4, a walking assistance exoskeleton[12] developed by the American firm *Ekso Bionics*.



Figure 1.4. *Ekso Hope, by Ekso Bionics. For a color version of this figure, see www.iste.co.uk/debos/ethics.zip*

10 A science-fiction film franchise, featuring people who have joined the resistance against a super-powerful computer named Skynet, determined to turn machines against humans in order to protect themselves from the danger of being disconnected by them.

11 Fictional character from the Terminator franchise. Cyborg programmed to eliminate human beings.

12 Called “Ekso Hope”.

Figure 1.4, available on the manufacturer's website[13], is a barely concealed reference to a very specific cinematic imaginary (that of the Terminator in this case), where even the photographic framing of the product available for sale seems to mimic a deliberately jerky gait, which generally characterizes bipedal robots as they move in films or cartoons. This example is all the more interesting in that it cleverly hijacks the image of a ruthless killer-robot, in favor of an exoskeleton that effectively aims to mechanically assist physically diminished individuals. A bit like the *Terminator* in the second part of the series, after its system has been reprogrammed and its initial evil objectives erased.



Figure 1.5. *Aliens (1986). For a color version of this figure, see www.iste.co.uk/debos/ethics.zip*

Sometimes, it is the roboticists and engineers themselves who draw directly on the vivid imagination of film-makers to design their scientific projects. Figure 1.5, for example, shows the mechanical contraption used by American actress Sigourney Weaver (reprising her role as Ellen Ripley) in the film *Aliens*[14], when she is called upon to fight the alien queen-pounder in an epic final scene. The exoskeleton project[15] (see Figure 1.6) proposed by the Japanese company Activelink is a near-faithful transposition of the motorized exoskeleton[16] imagined by film-maker James Cameron for his

13 See: www.eksobionics.com [Accessed March 26, 2021].

14 The sequel to *Alien* (1979), *Aliens* (1986) tells the story of a group of Marines who have come to explore a space base of Earth colonists, but with whom contact has suddenly been broken.

15 Called *The Dual-Arm Power Amplification Robot*.

16 Called a *Power Loader* in the film.

fantastic film, where fictional culture and technological reality meet unequivocally.

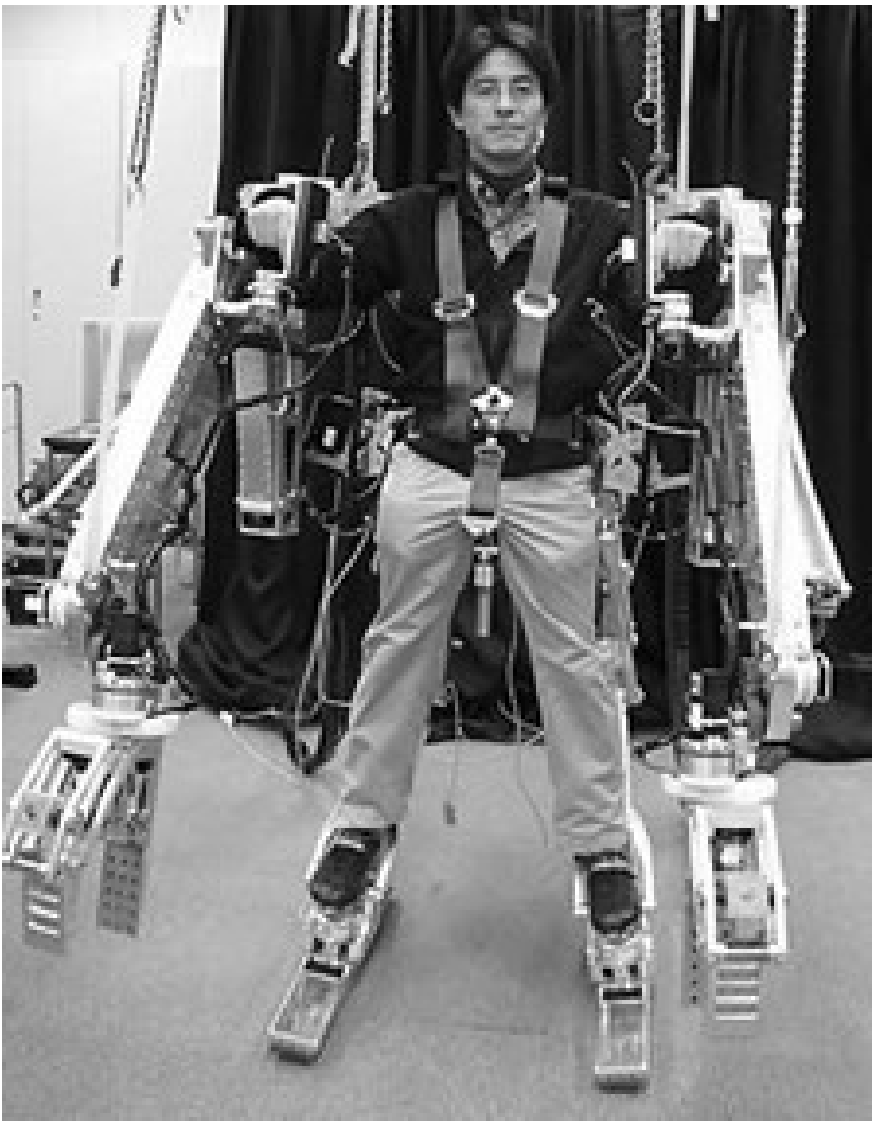


Figure 1.6. *The dual-arm power amplification, robot from Activelink. For a color version of this figure, see www.iste.co.uk/debos/ethics.zip*



Figure 1.7. *Bubblegum crisis. For a color version of this figure, see www.iste.co.uk/debos/ethics.zip*

The influence of artistic culture on recent human augmentation projects is also palpable through the prism of Japanese anime. This is particularly the case in Figure 1.7, which shows one of the main characters in a series that was very popular in the late 1980s in Japan, and in the 1990s in France,

entitled *Bubblegum Crisis*[17] (AIC 1987–1991). The character is a female, dressed in battle armor. The analogy with the HAL exoskeleton project[18] (see Figure 1.8), developed by the Japanese company Cyberdyne, is very close, right down to the smallest detail. Whether it is the color scheme (white and blue) or the perfectly smooth appearance of the armor, the similarities between a production of the mind and an industrialized mechanical product are highly convincing.

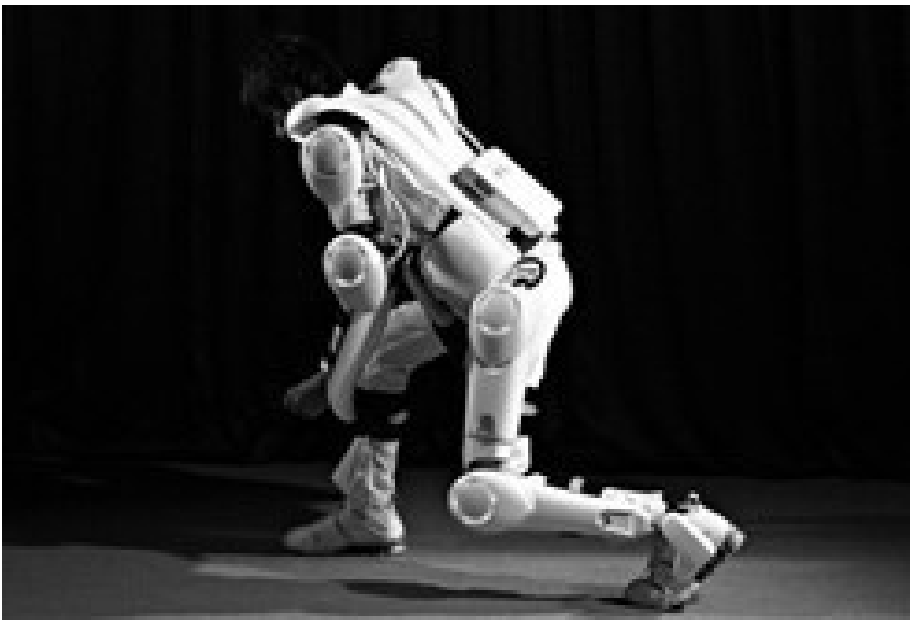


Figure 1.8. *HAL from Cyberdyne. For a color version of this figure, see www.iste.co.uk/debos/ethics.zip*

Generally speaking, Japan remains a fertile observation ground for measuring the scope of robotics within industrial imaginations. Recently, many life-size reproductions of famous robots (Gundam and Evangelion),

17 This Japanese animated series follows the adventures of four young girls, clad in battle armor, as they battle against an enigmatic multinational corporation whose aim is to extend its influence over the world through the use of cyborg soldiers.
18 HAL is an acronym of hybrid assistive limb.

sometimes even animated, can be seen in certain cities[19] of the Japanese archipelago.

A further demonstration of the tenuous relationship between fiction and reality is provided by the South Korean project METHOD-1[20], developed by Korea Future Technology (see Figure 1.9). This prototype is, apart from a few details, an exact replica of the *mecha*[21] (see Figure 1.10) used by the main antagonist in the final scene of James Cameron's 2009 film *Avatar*[22]. The similarities are particularly striking in the cockpit used to house the *mecha*'s pilot.



Figure 1.9. *Avatar. For a color version of this figure, see www.iste.co.uk/debos/ethics.zip*

19 Notably Yokohama, where an 18-meter-high version of the famous Gundam robot (model RX-78-2) has been on view since December 19, 2020.
20 The *mecha* is 4 meters high and weighs 1.5 tons.
21 Refers here to a humanoid type of robotic armor, as well as the related literary genre.
22 Unlike *Aliens* (1986), the *mecha* in *Avatar* (2009) is designed for military, not civilian, use.

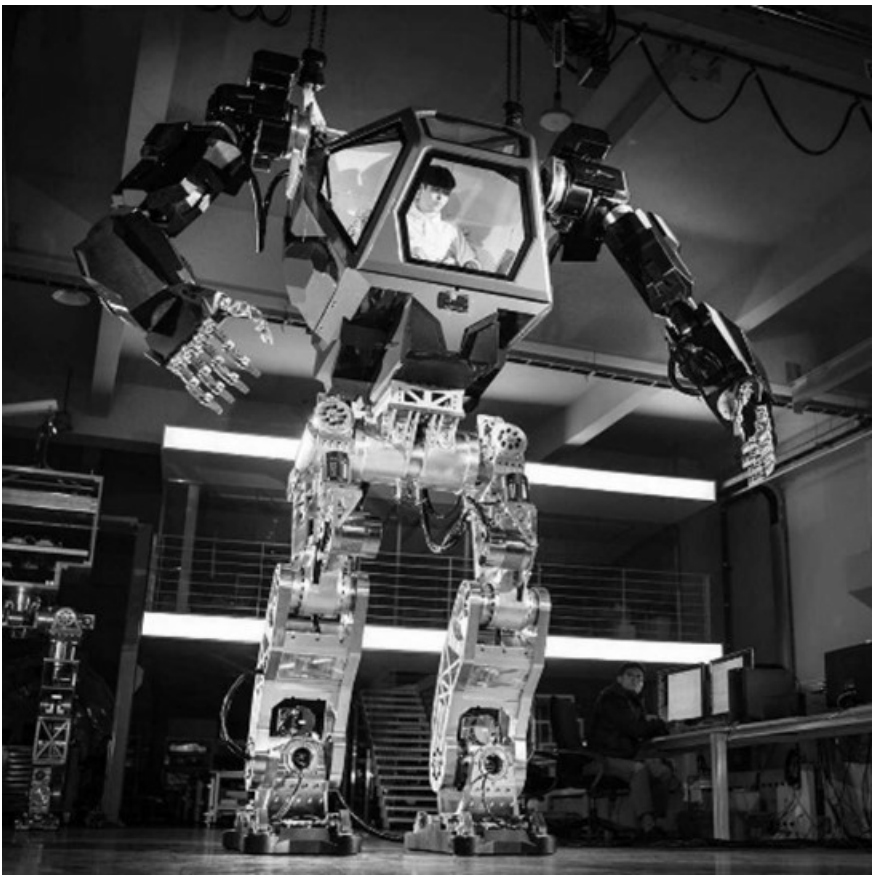


Figure 1.10. *METHOD-1 from Korea Future Technology. For a color version of this figure, see www.iste.co.uk/debos/ethics.zip*

Last but not least, the imaginary sometimes interferes not in the design of the finished product developed by engineers, but in its commercial name. Figure 1.11, for example, shows a hand prosthesis called *Luke Arm*[23]. This name refers directly to the character of Luke Skywalker, the main protagonist of the world-famous intergalactic saga *Star Wars*. During Episode V, *The Empire Strikes Back*, directed by Irvin Kershner in 1980, the young hero loses his hand, sliced clean off by Darth Vader's lightsaber.

23 Produced by the UK company Mobius Bionics.

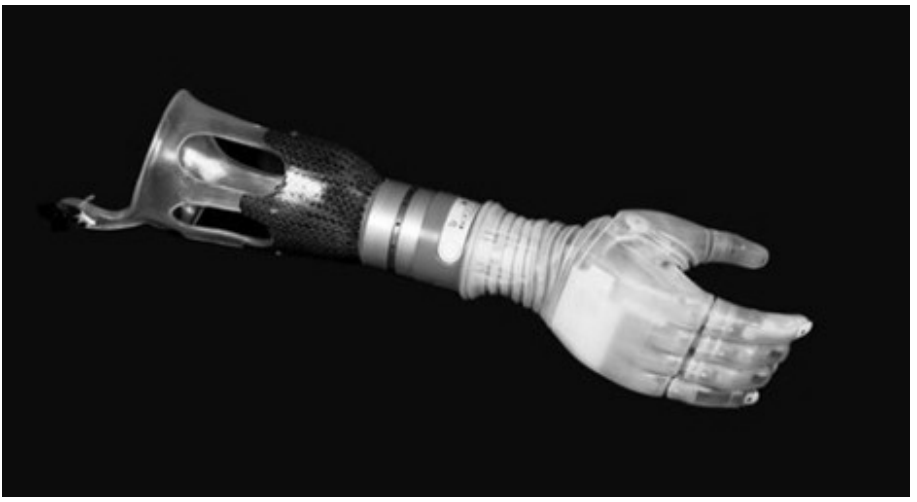


Figure 1.11. *Luke Arm. For a color version of this figure, see www.iste.co.uk/debos/ethics.zip*

At the start of Episode VI, *Return of the Jedi*, directed by Richard Marquand in 1983, technological advances enable Luke to recover the full functionality of his forearm, as shown in Figure 1.12, taken from the film. So, the six examples presented seem to support a particularly active theory of the imaginary, especially in the context of the current development of devices for human repair or augmentation.

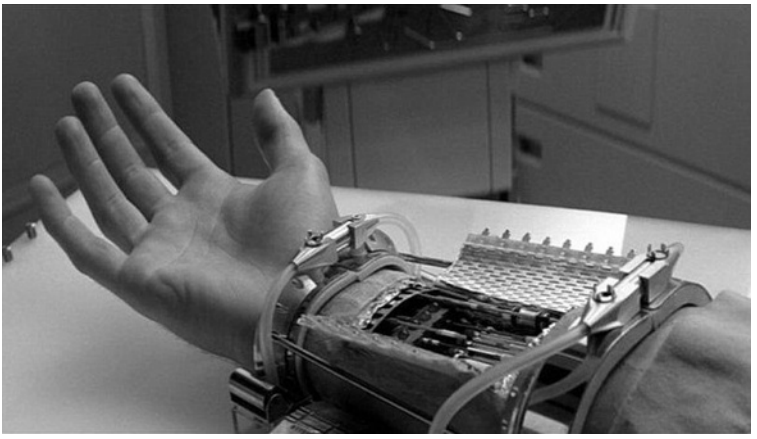


Figure 1.12. *The empire strikes back. For a color version of this figure, see www.iste.co.uk/debos/ethics.zip*

1.4. Thinking of *mecha* as an artifact of human–machine fusion

The fusion between human and machine varies from culture to culture. This is particularly evident in Japan, where the *mecha*[24] movement has historically been very popular. Previous studies[25] have shown how, culturally, Japan has developed a close and privileged relationship with the robotic environment and the imaginary world that stems from it. Trivially speaking, the *mecha* trend essentially refers to a theme specific to the science-fiction genre, featuring mechanized combat armors, often anthropomorphic and piloted by human beings. Although not widely seen in the US[26], with a few exceptions, this theme was very much in vogue in Japanese manga and *anime* from the early 1950s onwards. Even today, the genre remains attractive, although it seems to be running out of steam due to a lack of plot renewal. What remains remarkable, however, is the direction this theme has taken as it has evolved. The first era, known as the super-robot era, featured robots whose performance in combat was totally unrealistic[27]. Generally, they were piloted from the inside by a teenager with a reserved temperament, but who, by merging with the machine, revealed themself to be a true war hero. The Manicheanism of the scenarios in this sub-genre of the *mecha* current becomes a leitmotif, and the filiation between the robot and the teenager very much in evidence. In a way, the message conveyed is that the weak can become the strong, once they become one with the machine. After decades of intensive exploitation, the genre would eventually wear itself out and weary the public, in demanding need of renewal. It was against this backdrop that the real-robot[28] sub-genre emerged in the late 1970s. In concrete terms, the aim was no longer to show robots as invincible machines capable of wiping out entire armies. On the contrary, this sub-genre takes into account the robot's technical limits. The robot is treated as a simple machine, a weapon of war, with its imperfections, cumbersome operation and mechanical constraints. The plots of the series in the real-robot sub-genre, are therefore more realistic and fit into more adult, darker scenarios, generally involving armed conflict on a planetary or even

24 As a reminder, *mecha* is a contraction of the English term mechanics.
25 Oliveri, N. (2014). Analyse simondienne de l'otakisme et du robotisme japonais. *RIHM*, 15(1).
26 The *mecha* genre first appeared in the Marvel universe, with the Mandroids, military-piloted combat armors created in 1971.
27 Very popular in France, *Goldorak* (Nagai 1975) is the archetype of the genre.
28 Not least with the arrival of the *Mobile Suit Gundam* series (Tomino and Yatate 1979).

interplanetary scale. The emptiness of war is also very present. The ensuing success can be explained by the *mecha* genre's ability to renew itself, while aging with its core readership.

In recent years, the *mecha* trend has spread beyond Japan's borders to flood the world, mainly through blockbuster American movies featuring robotic armors designed to save humanity[29], assist humans in the face of external threats[30] or destroy them[31]. Last but not least, *mecha* has also penetrated the world of video games[32], where this theme is currently over-exploited by game publishers. The *mecha* trend thus offers an attractive and stimulating reading of a human–machine fusion, an amalgam of past and future representations of robotic technology. As for Japan, "the robot appears successively as an incarnation of pre-war slogans, a symbolic revelation of defeat by Western technology, a magnified double of the hero and a protective matrix for the outside world. Increasingly realistic, the graphics and control interface follow the evolution of robotic, digital and genetic techniques" (Suvilay 2004, author's translation). In terms of cultural production, "the robot is the medium for the fantasies and fears of a society faced with increasing technological progress, whose evolution is not accompanied by ethical debates on the place of the human being, which the machine calls into question. Science fiction thus becomes the laboratory where all consequences can be tested" (Suvilay 2004, author's translation). More than ever, the numerous testimonies to the trace of the imaginary in technology impose the idea that culture (fiction) interacts with technology (robotics). So, whether it remains a secular utopia or a finalized project, the broadened concept of posthumanism (via transhumanism and/or robotics) remains dependent on a strongly marked imaginary of technology, which ultimately steers it towards the more appropriate denomination of robotic humanities for the issues raised here. Like the development of the Internet, Patrice Flichy notes that the:

> The cyber-fantasy is not linked to a specific project, nor is it aimed at a particular audience. It is a complete fantasy construct that encompasses all aspects of this new digital society:

29 See *Pacific Rim* (del Toro 2013).
30 See the film franchise *Transformers* (Bay 2007).
31 See *Avatar* (Cameron 2009).
32 Some video games with *mechas*: *Halo*, *Mass Effect*, *Exteel*, *Shogo*, *Mobile Armor Division*.

> individual life, the relationship between mind and body, the management of society at micro and macro levels, and the production and distribution of wealth. Although all the components of this cyber-fantasy have never been brought together in a unified discourse, if we were to engage in this work of synthesis we could construct a narrative analogous to the great utopias of the seventeenth and eighteenth centuries, describing the workings of another world (Flichy 2001, author's translation).

Robotic humanities seem to be built on similar ideological foundations. And while certain technological advances[33] do indeed seem to confirm the determination of many of the actors involved to tip humanity towards a hypertechnological destiny, culture (still) seems to dominate technology. The latter, despite its galloping hegemony, conforms to an imaginary that remains human, which ultimately subjugates its role within today's societies, still leaving humankind with the prerogatives of their technological future. Finally, it is also worth pointing out that the myth of the robot, the rival brother of the human being, attracts as much interest and support from certain researchers as it does fear and apprehension[34] from a large part of the general public, who are reluctant to allow themselves to be robotized without reacting, and yet are always quick to recognize technology as unquestionable progress.

1.5. Representations of artificial intelligence in Japanese anime

Themes such as robotics, dystopia, computer networks, cyborgs and advanced technologies have abounded in Japanese anime since the 1980s, if not earlier. It would be a tall order to list them all here. However, the theme of artificial intelligence in Japanese fiction, a form of updating these past questions, has recently aroused particular interest at the heart of certain works

33 Watch Philippe Borrel's documentary, *Un monde sans humains?* ARTE France/Cinétévé, 2012, 52 min.

34 See the Uncanny Valley Theory (Mori 1970). Formalized by Japanese roboticist Masahiro Mori in 1970, it states that the more similar a humanoid robot is to a human being, the more its imperfections seem unbearable to look at. As a result, a robot's artificial appearance seems to be better accepted by individuals. If the degree of realism is high enough, the theory then predicts that a person will have managed to get past the disturbing metaphorical valley, and finally accept the robot in front of them.

of anticipation or science fiction. Here, we take a look at one such work, *Psycho-Pass*. *Psycho-Pass* was created in 2012 by Katsuyuki Motohiro and Naoyoshi Shiotani, and produced by Productions I.G. Studios, renowned for their animated adaptation of the world-famous manga *Attack of the Titans* (*Shingeki no Kyojin* in the original version). *Psycho-Pass* is first and foremost a rather successful blend of genres. A rather standardized technological crime thriller at first glance, its plot is based on the vision of a Japanese society which, while ideal in theory, is one in which individual freedoms are closely monitored and then controlled. The theme of dystopia (inverted utopia) is very much present, and quickly moves towards exposing the dysfunctions of such a social model, which is supposed to ensure the security of all. Indeed, given the political failures of the various governments of the past, the city of Tokyo (the fictional universe is set in 2112) is now managed by an artificial intelligence called Sybil, capable of determining the crime rate of each inhabitant of the megalopolis. A special police unit (Security Bureau) is tasked with intervening whenever a citizen's crime rate reaches a certain threshold, predefined by Sybil. By threatening a suspect with a pistol called *Dominator* (a polymorphic weapon), the crime coefficient is then quantified and determines the procedure to be followed by the police officer: neutralization of the target, arrest and detention in a re-education center or, more rarely, physical elimination of the suspect if their coefficient proves too high in relation to the criteria set by Sybil. This "intelligent" system is designed to guarantee social peace, by preventing or eliminating all forms of threat to fellow citizens. As the plot progresses, the liberticidal nature of expedient justice and a binary vision of society ("good submissives" vs. "bad rebels") are challenged by various characters, some of whom are asymptomatic criminals and therefore undetectable by Sybil, as well as by the police themselves, who end up questioning this type of "perfect" society and their role within it.

The originality of this series also lies in the quality of its dialogues, in which certain characters refer to numerous classic literary works (mainly European), rather unusual in Japanese animated series. Over the course of the various seasons, extracts from the following works are quoted or mentioned in the course of the narrative: *1984* (George Orwell), *Heart of Darkness* (Joseph Conrad), *The Republic* (Plato), *Beyond Good and Evil* (Friedrich Nietzsche), *Discipline and Punish* (Michel Foucault), *Principles of Philosophy* (René Descartes), *Neuromancer* (William Gibson), *Faust* (J. W Goethe), *Introduction to the Principles of Morals and Legislation* (Jeremy Bentham), *Pensées* (Blaise Pascal), *The Wretched of the Earth* and *Black Skin, White Masks* (Frantz Fanon), *Economy and Society*

(Max Weber), *A Discourse Upon the Origin and the Foundation of the Inequality Among Mankind* (J.J. Rousseau). What sets this series apart is its "cultivated" approach to the question of a future in which artificial intelligence would occupy a central place in the destiny of a given society. The question of identity remains central, for both humans and machines. What remains most remarkable is the series' authors' denunciation of a world where AI has taken political control of a state, in this case the Japan of tomorrow. However, there is no real Manichaeism here, since the series' protagonists (humans, i.e.) are, to varying degrees, responsible for the world they have shaped through the massive use of technology.

Generally technophile in its uncomplicated approach to technology at the heart of culture, Japanese anime in principle values the rapprochement of the human and the artificial, through an expected scenario in which an introverted young boy in search of his father, will reveal his true power by associating with a robotic figure of paternal substitution[35]. This type of storytelling is well established in Japan, and meets the script specifications of numerous works that have gone down in history. A priori, AI does not seem to arouse the same enthusiasm among *mangakas*[36], who highlight its shortcomings and the dangers it represents for democracy and individual freedoms. A cross-cultural approach, analyzing the Anglo-Saxon, European and Japanese visions, seems to be the consensus for identifying AI as a potential rival to humans, capable of supplanting them in the more or less near future. The robot, on the other hand, is far more ambivalent in its role as competitor, its anthropomorphic stature paradoxically lending it human characteristics (head, trunk, arms, legs). It remains a physical, tangible embodiment which human can still intervene in, destroying it if need be. The AI, on the other hand, is everywhere and nowhere, wired, "reticular" (Musso 2003), totally autonomous, decentralized via networks, and ultimately omnipotent. An invisible enemy, in short, against which humankind is unable to fight effectively. What is more, the current over-mediatization of AI and the almost daily presentation of its performative dimensions[37] seem to fuel fears of an uncertain future for the prowess of these technologies, over which human could ultimately lose control. Japanese fiction, such as

35 This narrative pattern, known as *nekketsu* or "hot-blooded", is at the heart of many Japanese animation plots for boys and young men (*shonen manga*).
36 Authors of *manga*.
37 Examples include conversational agents such as ChatGPT, Bard, Bing AI and Apple GPT, which are as powerful as they are worrying, and AI programs such as Midjourney, which can generate images from text data.

traditional Franco-Belgian comics[38], shares this alarmist vision of a political, ideological, economic or social recuperation orchestrated by AIs, as part of a Luddite vision[39] of technical innovation, where technophobia is never far away. At times an assertive antagonist, at other times a narrative pretext for an author's partisan affirmation, the scripted treatment of AI in fiction remains generally associated with the denunciation of its shortcomings, the societal dysfunctions it provokes, its misappropriation for criminal purposes, etc. Rare are the works in which AI is used as a pretext for an author's partisan affirmation. AI rarely plays a positive role in the society in which it is deployed.

1.6. Conclusion

The question of artificial intelligence remains particularly prevalent in fiction, whether literary or animated, Western or Eastern. A current reconfiguration of past questions about the future of technology and its gradual, inescapable integration into human daily life, this theme continues to provide abundant fodder for a current of thought charged with mistrust of the machine, as soon as it imposes itself on humans as a "machinic double" and likely candidate for replacement. This feeling of attraction–repulsion for AI is both expected and unthinkable. Indeed, "by simulating intellectual functions that seem properly human, the computer has become, in the eyes of certain experts of artificial intelligence […] a reflection of the mind, and then a model for thinking about intelligence. […] The computer is promoted to the rank of brain, and the brain assimilated to a thinking machine through a rhetorical game that is effective in contemporary social imaginaries" (Le Breton 1999, author's translation).

Recent examples clearly identify the principles of circularity at work between creativity and artificial intelligence. Indeed, it is now possible to

38 Titles such as *Carbon & Silicium*, *IAN*, *Sentient*, *Magnus*, *Flesh Empire*, *Intelligences Artificielles*, *Miroirs de nos vies*, offer a scenario in which AI is presented as oppressive, protective, uncontrollable, liberticidal, in search of identity or freedom.

39 In the 19th century, during the Industrial Revolution, England experienced violent social conflicts between wool and cotton shearers, weavers and knitters, and employers and factory owners. The mechanization of manufacturing processes, and in particular the arrival of looms, provoked a series of revolts and machine sabotage in 1811–1812.

entrust an AI with the task of continuing the series of a deceased author. This was the case with Osamu Tezuka[40], who, several years after his death in 1989, had an AI continue his work[41] based on the universes, themes, characters, plots and dialogues from his previously published works. Or when AI, the subject of reflection, becomes AI, the object of creation. These deceptively new issues were already being echoed in particularly pessimistic tones in the mid-1970s. "Do machines think? Will they one day be more intelligent than man, their creator? Will our biological civilization be succeeded by a civilization of supercomputers" (Ribes and Biraud 1975, author's translation). Clearly, the barrier between humanity and "machineness" is becoming increasingly blurred, reinforcing the fear that human is becoming "machineized", while at the same time giving the machine the opportunity to become increasingly humanized by contact with humans. The loss of control is not just political, economic or ideological, as the *Psycho-Pass* series reveals. What is even more worrying is the ontological loss of control, where the very erasure of the human being is at the heart of the many plots that deal with this subject. Against this ominous backdrop, fiction writers are both eager to discuss the issues at stake, but already seem resigned to the likely dark future of their works.

1.7. References

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40 Artiste prolifique (mangaka, animateur, *character designer*, producteur et scénariste), Osamu Tezuka est l'un des grands noms du manga à travers le monde, principalement connu pour ses séries *Astro Boy*, *Le Roi Léo* ou encore *Black Jack*.

41 Le manga *Paidon*, publié en 2020 au Japon, a été créé par une IA à partir de 65 œuvres du mangaka disparu.

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