Science Fiction and Ethics

Posthumanism, Transhumanism, Cyborgs, and Artificial Life

Posthumanism refers to a variety of beliefs and worldviews that are critical of traditional "humanism." The "post" in posthumanism reflects the belief that humanity has outgrown traditional definitions of humanism and it is necessary to rethink the basic question: What does it mean to be human? What are the responsibilities of a human? How do we create the best human society? Posthumanism generally refers to late-twentieth century and early-twenty-first century theories, although the term is often applied to earlier cultural critics such as Nietzsche.

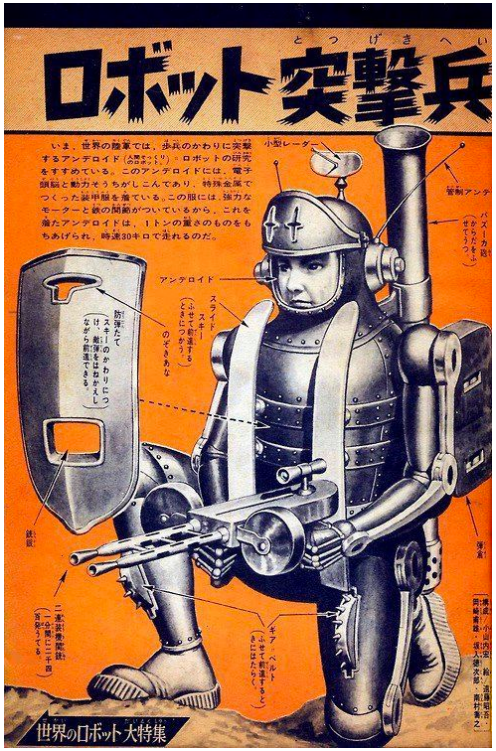
"For some time now there has a been a rumour going around that the age of the human has given way to the posthuman. Not that humans have died out, but that the human as a concept has been succeeded by its evolutionary heir. Humans are not the end of the line. Beyond them looms the cyborg, a hybrid species created by crossing biological organism with cybernetic mechanism. Whereas it is possible to think of humans as natural phenomena, coming to maturity as a species through natural selection and spontaneous genetic mutations, no such illusions are possible with the cyborg. From the beginning it is constructed, a technobiological object that confounds the dichotomy between natural and unnatural, made and born."

Hayles, N. Katherine. "The Life Cycles of Cyborgs: Writing the Posthuman." *The Cyborg Handbook*, edited by Chris Gray, Routledge, 1995.

A related term is “transhumanism.” Transhumanism is a branch of posthumanism that actively *encourages* people to take advantage of humanity’s “transition” into a race of technologically enhanced beings.

The following slides provide a brief glimpse into images of cyborgs and artificial life forms from nineteenth and twentieth century Japanese *manga* and art before moving into the world of 1980s cyberpunk.

Early representations of cyborgs and robots in Japanese manga and illustrations



< 1920s-60s

1885 >

Kawabe Masahisa “Mechanism” “メカニズム” (1924)

Inspired by the European and Japanese futurist movements of the 1910s and 20s, this iconic painting portrays a cybernetic person. What sorts of technology do you see? What social and political issues does it allude to?

Neuromancer (1984), the first of the "Sprawl Trilogy" that includes the novels Count Zero (1986) and Mona Lisa Overdrive (1988).

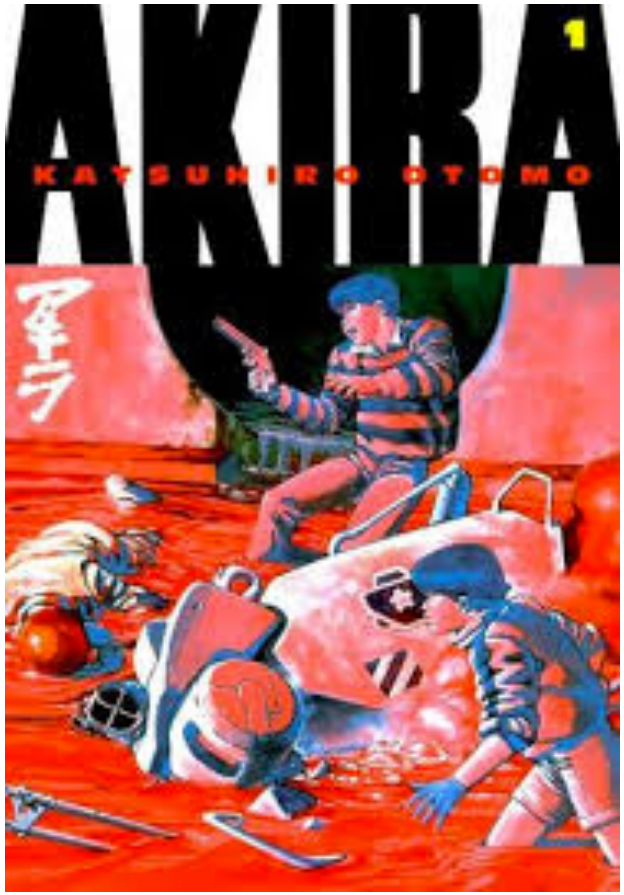
Neuromancer is the origin of the words "Cyberspace" and "the Matrix." Neuromancer is an example of "art imitating life" "far more than art imitating life" (Oscar Wilde) as not only did the novel inspire movies such as Johnny Mnemonic (1995), The Matrix (1999), and dozens of other "cyberpunk" films, but the academic fields of media studies, posthumanism, and postmodernism. The novel also inspired the development of "real" technologies that we use all the time.

鉄男 (1989)

Tetsuo: The Iron Man

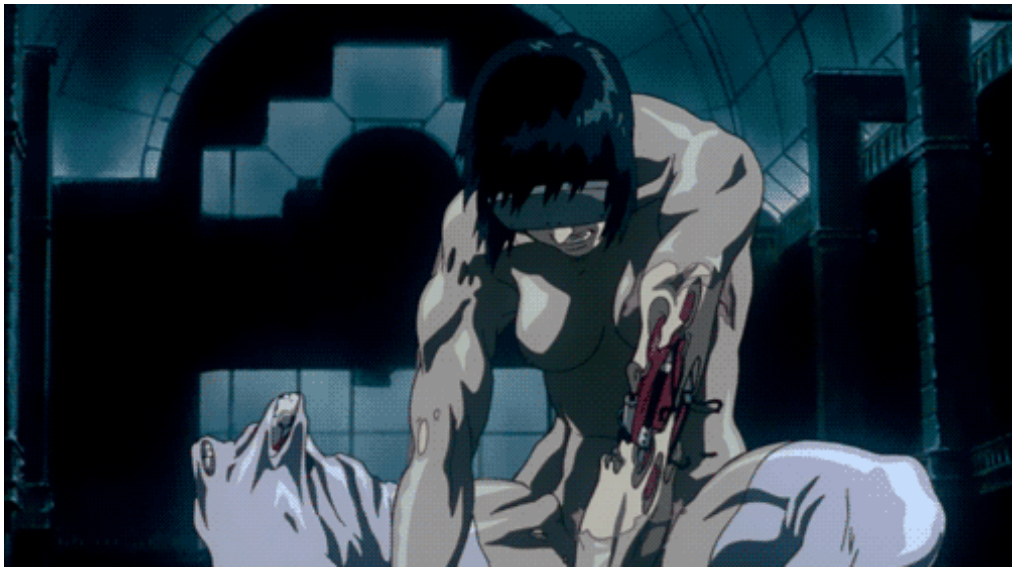
Tsukamoto Shinya

Tetsuô [Iron Man] and its sequels are “cult classics” (note: “explicit content alert”) that portray the inexplicable transformation of a salary man into a hybrid of machine and organic tissue. While the film was a bit weird for mainstream consumption, it has had an influence on the evolution of cyberpunk and related genres.



アキラ　Akira

Film 1988 (dir. Ôtomo)
Manga 1982–1990 (Ôtomo)



Ghost in the Shell

Manga (Shirô): 1989–90

Anime (Oshii): 1995

GIS has inspired a huge media franchise that continues to grow.

In the third image of the previous slide, bullet holes symbolically destroy the depiction of the “tree of life” in a natural history museum at the end of the film. At the top of the trees is the word *hominis*, the genitive form of the Latin term for “human.”

This frame appears moments before Kusanagi’s fusion with the “Puppetmaster,” a sentient being born in the “sea of information.” While the Puppet Master is not the produce of an organic evolutionary process, it is not quite “artificial” either, as it was not created by humans. For this reason the Puppet Master does not refer to itself as “AI.”

This image is taken from the end of Inés Estrada's Alienation, a graphic novel that also portrays the fusion of an AI with a human. In this image, we see the protagonist who is pregnant with an AI-human hybrid child, sitting at the end of a branch of the evolutionary web that contains the primates. Unlike traditional portrayals of the "tree of life" that places humans at the "top," this drawing portrays different trajectories in the evolutionary process. It is clear that equids, canines, and felines, for example, have their own destinies. However, it is implied that a new "branch" of this complex "tangled bank"—as Dawson described Earth's complex ecosystem of evolving living creatures—is about to become even more intricate after the protagonist gives birth to a hybrid child. (201)

Estrada, Inés. Alienation. Fantagraphics, 2019.

***Ghost in the Shell*—both the 1995 anime and the original graphic novel—end with the fusion of the protagonist Kusanagi with the Puppet Master.** In each case, their prosthetic cyborg bodies are destroyed, and Batou—Kusanagi's friend and colleague—transfers her brain into another prosthetic body. In the film, the body is that of a younger women. In the graphic novel, Kusanagi's new "shell" is that of a young man with feminine features, underscoring how the cyborg troubles dualisms such as natural/artificial and male/female. The following images show Kusanagi in her new cybernetic body in the graphic novel and film, respectively. Kusanagi's final words of the film are "And where does the new born go from here? The net is vast and infinite."

Similar to the “new born” Kusanagi-Puppet Master hybrid at the end of Ghost in the Shell, the AI-human hybrid child at the end of Alienation is eager to find its place in the world. The AI, that violates and impregnates Elizabeth, attempted to program the hybrid-child–singularity to “dominate the planet,” echoing God’s desire that humans should be masters of the earth in Genesis (225). In this image, however, we see that the child just wants to “chill” and build their own destiny (227).

Singularity, theoretical condition that could arrive in the near future when a synthesis of several powerful new technologies will radically change the realities in which we find ourselves in an unpredictable manner. Most notably, the singularity would involve computer programs becoming so advanced that artificial intelligence transcends human intelligence, potentially erasing the boundary between humanity and computers. Often, nanotechnology is included as one of the key technologies that will make the singularity happen.

In 1993 the magazine *Whole Earth Review* published an article titled “Technological Singularity” by Vernor Vinge, a computer scientist and science fiction author. Vinge imagined that future information networks and human-machine interfaces would lead to novel conditions with new qualities: “a new reality rules.” But there was a trick to knowing the singularity. Even if one could know that it was imminent, one could not know what it would be like with any specificity. This condition will be, by definition, so thoroughly transcendent that we cannot imagine what it will be like. There was “an opaque wall across the future,” and “the new era is simply too different to fit into the classical frame of good and evil.” It could be amazing or apocalyptic, but we cannot know the details.

https://www.britannica.com/technology/singularity-technology

“A Manifesto for Cyborgs: Science, Technology, and Socialist Feminism in the 1980s” (Donna Hawaray, 1985)

“By the late twentieth century, our time, a mythic time, we are all chimeras [“monster with incongruous parts”], theorized and fabricated hybrids of machine and organism; in short, we are cyborgs. The cyborg is outr ontology, it gives us our politics.”

“This essay is an argument for pleasure in the confusion of boundaries and for responsibility in their construction. It is also an effort to contribute to socialist-feminist culture and theory in a post-modernist, non-naturalist mode and in the utopian tradition of imagining a world without gender, which is perhaps a world without genesis, but maybe also a world without end. The cyborg incarnation is outside salvation history.” (2191)

Haraway, Donna. “A Cyborg Manifesto.” *The Norton Anthology of Theory and Criticism*, edited by Vincent B. et al Leitch, Norton, 2001, pp. 2269–99.

“The cyborg would not recognize the Garden of Eden it is not made of mud and cannot dream of returning to dust. Perhaps that is why I want to see if cyborgs can subvert the apocalypse of returning to nuclear dust in the manic compulsion to name the Enemy. Cyborgs are not reverent; they do not re-member the cosmos. They are wary of holism, but needy for connection…” (2192)

“Biology and evolutionary theory over the last two centuries have simultaneously produced modern organisms as objects of knowledge and reduced the line between humans and animals to a faint trace re-etched in ideological struggle or professional disputes between life and social sciences. Within this framework, teaching modern Christian creationism should be fought as a form of child abuse.” (2193)

“Late-twentieth-century machines have made thoroughly ambiguous the difference between natural and artificial, mind and body, self-developing and externally-designed, and many other distinctions that used to apply to organisms and machines. Our machines are disturbingly lively, and we ourselves frighteningly inert.” (2272)

As discussed by Haraway and Hayles, the cyborg and other artificial life forms destabilize a variety of binarisms and dichotomies such as:

Natural vs Artificial
Living vs Dead
Real vs Imitation
Original vs Copy
Male vs Female
Sex vs Gender
Organism vs Machine
Mutable vs Immutable
Mind vs Body
Evolution vs Engineering

Can you think of others?