

*Proceedings*

# Imagined Futures Gone Astray. An Ontological Analysis <sup>†</sup>

**Wolfgang Hofkirchner**

Bertalanffy Center for the Study of Systems Science, Paulanergasse 13, 1220 Vienna, Austria;  
wolfgang.hofkirchner@bcsss.org

<sup>†</sup> Presented at the IS4SI 2017 Summit DIGITALISATION FOR A SUSTAINABLE SOCIETY, Gothenburg, Sweden, 12–16 June 2017.

Published: 8 June 2017

**Abstract:** This paper is on ontological assumptions on which ideologies such as trans- and post humanism are based. The method by which these ontological assumptions are criticised is the analysis of the way of thinking (reductionism/projectionism, disjunctionism, and integrationism).

**Keywords:** technocracy; anthropomorphism; dualism; promethean shame; techno-social systems

---

The paper is a philosophical critique of anti-humanist imaginaries about the future evolution of techno-social systems. In particular, the ontological assumptions of how technology is related to society that underlie those imaginaries will be analysed. It will be shown that those future imaginaries fall prey to a variety of ontological fallacies.

The first fallacy is a reductionistic one. It says: Man is a machine. That is, it is a reduction of humans to technology by attributing technological features to social entities, hence a technomorphic reduction. A common name for that is “technocracy”, which has several connotations. Three shall be mentioned.

The most eulogistic connotation, if any, is here that social problems are treated as ones that need nothing else than a technological solution (without considerations of the social context). This might go as far as providing technological solutions for situations in which there might not even be a social problem. With regard to the Internet, Evgeny Morozov uses the term “solutionism” [1].

A pejorative connotation is the following: Technocracy is a society in which technology constrains individual social actors rather than plays the role of an enablement for them. By adaptation of humans to machines humans become themselves machine-like, they are made fit for the requests of the machines, which is an alienating tendency Günther Anders [2] and Ludwig von Bertalanffy [3] cautioned against more than 60 resp. 50 years ago.

Both Anders and Bertalanffy warned of two dehumanising misconceptions that go beyond the human adaptation to machines and build the fundamentals of technocracy. The focus on the human body and the functioning of the body in a physical sense belongs here.

And, in the end, the body-centredness is topped by looking upon the nature of humans as being that of machines (albeit constructed by nature). Brain research and robotics still today use computer models and build artificial intelligence by contending that the human brain and natural intelligence do not work in a qualitatively different way than those machine models and machines.

Accordingly, the underlying flaw is manifold according to the presented arguments, fourfold:

- first, the whole of the ontic societal is reduced to an ontic part of the societal (technology);
- second, the ontic social (technology) is reduced to an ontic individual (the actor as producer and user of technology);
- third, the ontic individual is reduced to an ontic biotic (the body, the human organism);

- and fourth, the ontic biotic is reduced to an ontic mechanical (the machine whose mechanism follows strict determinacy only).

The second fallacy is opposite to reductionism. It is a projectionistic one. It says: Machines are like humans. That is, it is an anthropomorphic projection of (qualitative features of) humans onto technology: e.g., social robots work together with humans and with each other, they interact and communicate with humans and with each other, and they act like human agents, sense the environment, process information and effectuate changes in the environment like human agents. Research wants to endow robots even with emotions. Children and elderly people are faked by giving them tools that compensate for human actors. Japanese culture seems to accept that non-human entities are equipped with souls to such a degree that even robots are deemed animate beings. The language used to describe features of computing machines, artificial intelligence and robots is taken literally.

In a reverse order, but including different levels, as compared to the technomorphic reduction, the projection is mediated

- via a projection onto the ontic physical (physical agents), which, in turn, is mediated
- via a projection onto the ontic biotic (living agents), which, in turn, is mediated
- via a projection onto the ontic individual (humans as informational agents)

Starting from an ontic social (collective human intelligence), as can be learned from “info-computationalism” [4]. Informational processing (computation) is done by nature everywhere as natural computing (the universe as a big computer) and so will man-made computers do when leaving behind the old-fashioned Turing machines. The positive aspect is the highlighting of human being part of an overall interdependence, while the negative aspect blurs existing qualitative differences between levels of self-organisation as well as information processes.

Both the technomorphic and the anthropomorphic perspective on the relation of technology and society are ontologically monistic

- either when in the monistic form of a pan-materialism generalising a lower level of matter (which is a necessary condition for higher levels) as essence of the higher levels (existing common features are set universal and absolute)
- or when in the monistic form of a pan-idealism generalising a higher level of matter (which is an emergent from lower levels) as essence of the lower levels (features that have a unique existence are set universal and absolute).

A third fallacy is the disjunctionistic one. It is neither techno- nor anthropomorphic but a disjunction of technology from humans and thus the term heteromorphic may apply. It is ontologically dualistic. That perspective does not take into account common features (though such features do exist) and accepts only distinct ones. It is particularistic and relativistic.

Its point of departure is the assumption that technology runs away, while society’s attempts to catch up are doomed to failure. The development of technology is supposed to be always ahead of the development of society.

As if that were not enough, technology is supposed to be an extension of human capabilities such that the technological construct is able to outperform humans. The ideology of “trans-” or “post-humanism” takes for granted that there is no limit for the perfection of technologies and the leaving behind of humans: Technology will turn into a superhuman, at a point in time that is called the singularity. The mantra of singularitarianism is: “Techno sapiens” will render Homo sapiens obsolete.

This, however, is a double-edged sword. On the one hand, it is, after Anders [2], hubris to believe in humans constructing machines that are superhuman. On the other hand, says Anders, such a superhuman is a self-humiliation of humans. Thus Anders talks of “hubristic humility”, which is a “Promethean shame”. In order to be able to become a master, man must turn himself into a slave.

Neither the subsumption of society under technology or, vice versa, of technology under society nor the separation of technology and society is reasonable. They represent ontological fallacies yielding anti-humanism. Proper reasoning needs an ontology that allows for a dialectics of technology and society such that technology is shaped to improve the human condition but never ever will be able to escape control by society. Technology plays no role outside techno-social systems that are, in essence, social systems. What will develop are techno-social systems. There is no singularity. A leap in quality is ahead of humanity and concerns its organisation but not its technology independent of its organisation. The Internet, the Web, can become the information-technological infrastructure of a Global Brain that supports the development of global consciousness and global conscience of an emerging social supra-system, a world society taking care of humane values, but will not become a super-being with a life of its own apart from human systems [5].

**Conflicts of Interest:** The author declares no conflict of interest.

## References

1. Morozov, E. *To Save Everything, Click Here, The Folly of Technological Solutionism*; PublicAffairs: New York, NY, USA, 2013.
2. Anders, G. *Die Antiquiertheit des Menschen, Über die Seele im Zeitalter der zweiten industriellen Revolution*; Beck: München, Germany, 1956.
3. Von Bertalanffy, L. *Robots, Men and Minds, Psychology in the Modern World*; Braziller: New York, NY, USA, 1967.
4. Dodig-Crnkovic, G. Info-Computationalism and Philosophical Aspects of Research in Information Sciences. In *Philosophy, Computing and Information Science*; Hagengruber, R., Ed.; Pickering & Chatto: London, UK, 2014; pp. 201–212.
5. Heylighen, F. Return to Eden? Promises and Perils on the Road to a Global Superintelligence. In *The End of the Beginning, Life, Society and Economy on the Brink of the Singularity*; Goertzel, B., Goertzel, T., Eds.; Humanity+ Press: Los Angeles, CA, USA, 2015; pp. 243–306.



© 2017 by the author. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<http://creativecommons.org/licenses/by/4.0/>).