

Chthulucene Glossary of concepts

Auropoiesis: The term autopoiesis (from Greek αὐτο- (auto-), meaning 'self', and ποίησις (poiesis), meaning 'creation, production') refers to a system capable of reproducing and maintaining itself. The term was introduced in 1972 by Chilean biologists Humberto Maturana and Francisco Varela to define the self-maintaining chemistry of living cells. Since then the concept has also been applied to the fields of cognition, systems theory and sociology. Source: <https://en.wikipedia.org/wiki/Autopoiesis>

Cyberfeminism: The term is used to describe the philosophies and methodologies of contemporary feminist communities whose interests are cyberspace, the Internet and technology. The term was coined in the early 1990s to describe the work of feminists interested in theorizing, critiquing and exploiting the Internet, cyberspace and new-media technologies in general. Cyberfeminism is considered a predecessor to networked feminism. Cyberfeminism also has a relationship to the field of feminist science and technology studies. Source: <https://en.wikipedia.org/wiki/Cyberfeminism>

Cyborg manifesto: is an essay written by Donna Haraway and published in 1984. In it, the concept of the cyborg is a rejection of rigid boundaries, notably those separating "human" from "animal" and "human" from "machine." She writes: "The cyborg does not dream of community on the model of the organic family, this time without the oedipal project. The cyborg would not recognize the Garden of Eden; it is not made of mud and cannot dream of returning to dust." The Manifesto criticizes traditional notions of feminism, particularly feminist focuses on identity politics, and encouraging instead coalition through affinity. She uses the metaphor of a cyborg to urge feminists to move beyond the limitations of traditional gender, feminism, and politics; consequently, the "Manifesto" is considered one of the milestones in the development of feminist posthumanist theory. Source: https://en.wikipedia.org/wiki/A_Cyborg_Manifesto

Donna J. Haraway: is a Distinguished American Professor Emerita in the History of Consciousness Department and Feminist Studies Department at the University of California, Santa Cruz, United States. She is a prominent scholar in the field of science and technology studies, described in the early 1990s as a "feminist, rather loosely a postmodernist". Haraway is the author of numerous foundational books and essays that bring together questions of science and feminism, such as "A Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late Twentieth Century" (1985) and "Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective" (1988). She is also a leading scholar in contemporary ecofeminism, associated with post-humanism and new materialism movements. Her work criticizes anthropocentrism, emphasizes the self-organizing powers of nonhuman processes, and explores dissonant relations between those processes and cultural practices, rethinking sources of ethics. Source: https://en.wikipedia.org/wiki/Donna_Haraway

Ecofeminism: The term is used to describe a feminist approach to understanding ecology. Ecofeminist thinkers draw on the concept of gender to theorize on the relationship between humans and the natural world. Source: <https://en.wikipedia.org/wiki/Ecofeminism>

Fractal: In mathematics, a fractal is an abstract object used to describe and simulate naturally occurring objects. Artificially created fractals commonly exhibit similar patterns at increasingly small scales. It is also known as expanding symmetry or evolving symmetry. If the replication is exactly the same at every scale, it is called a self-similar pattern. An example of this is the Menger sponge. Fractals can also be nearly the same at different levels. This latter pattern is illustrated in small magnifications of the Mandelbrot set. Fractals also include the idea of a detailed pattern that repeats itself. Source: <https://en.wikipedia.org/wiki/Fractal>

Gaia hypothesis: also known as the Gaia theory or the Gaia principle, proposes that living organisms interact with their inorganic surroundings on Earth to form a synergistic and self-regulating, complex system that helps to maintain and perpetuate the conditions for life on the planet. The hypothesis was formulated by the chemist James Lovelock and co-developed by the microbiologist Lynn Margulis in the 1970s. Lovelock named the idea after Gaia, the primordial goddess who personified the Earth in Greek mythology. In 2006, the Geological Society of London awarded Lovelock the Wollaston Medal in part for his work on the Gaia hypothesis. Source: https://en.wikipedia.org/wiki/Gaia_hypothesis

Genomics & Biotechnology: Biotechnology encompasses a variety of techniques that involve the use and manipulation of living organisms to make commercial products (including cell and tissue culture, recombinant DNA technology and synthetic biology). Underlying the commercial manipulation of life are ever more powerful genomics technologies (gene-mapping) that enable companies to quickly 'read,' store and digitally analyze genetic information -- either of single organisms or entire ecosystems (known as metagenomics). Source: <http://www.etcgroup.org/issues/genomics-biotechnology>

Geoengineering: is the intentional, large-scale technological manipulation of the Earth's systems, often discussed as a techno-fix for combating climate change. Climate geoengineering technologies can be divided into three broad areas: so-called solar radiation management (reflecting sunlight to space), greenhouse gas removal and sequestration and weather modification. Geoengineering can refer to a wide range of techniques, including: blasting sulphate particles into the stratosphere or 'whitening' clouds to reflect the sun's rays; dumping iron particles in the oceans to nurture CO₂-absorbing plankton; firing silver iodide into clouds to produce rain or genetically engineering crops so their foliage can better reflect sunlight. Source: <http://www.etcgroup.org/issues/climate-geoengineering>

Lynn Margulis: was an American evolutionary theorist and biologist, science author, educator, and popularizer, and was the primary modern proponent for the significance of symbiosis in evolution. Historian Jan Sapp has said that "Lynn Margulis's name is as synonymous with symbiosis as Charles Darwin's is with evolution". In particular, Margulis transformed and fundamentally framed current understanding of the evolution of cells with nuclei – an event Ernst Mayr called "perhaps the most important and dramatic event in the history of life" – by proposing it to have been the result of symbiotic mergers of bacteria. Margulis was also the co-developer of the Gaia hypothesis with the British chemist James Lovelock, proposing that the Earth functions as a single self-regulating system, and was the principal defender and promulgator of the five kingdom classification of Robert Whittaker. Source: https://en.wikipedia.org/wiki/Lynn_Margulis

Technology assessment: International efforts to address the food, energy and climate crises tend to

regard technology as an important part of the solution. This optimism about technology also prevails in debates around the Green Economy and international environmental governance. And of course technology does hold some potential solutions to some important problems. However, two decades of accelerating technological development and deployment, in the context of massive trade and investment liberalization, has left the globe in far worse straits than it was when the very concept of sustainable development was in its infancy. And now, it is time for a technological re-think. New high-risk technologies, ranging from the very small (synthetic biology, nanotechnology) to the very large (geoengineering), are rapidly developing. Their promoters promise that they hold the keys to solving climate change, world hunger, energy shortages and biodiversity loss and the precautionary principle and social and economic impacts are often ignored in the rush to deploy the latest technofix. Source: <http://www.etcgroup.org/issues/technology-assessment>

Nanotechnology: refers to the manipulation of matter on the scale of the nanometer (one billionth of a meter). Nanoscale science operates in the realm of single atoms and molecules. At present, commercial nanotechnology involves materials science (i.e. researchers have been able to make materials that are stronger and more durable by taking advantage of property changes that occur when substances are reduced to nanoscale dimensions). As nanoscale molecular self-assembly becomes a commercial reality, nanotech will move into conventional manufacturing and it is already changing healthcare, food and drug production. Nanotechnology involves profound social, military and environmental risks, with new nanomaterials potentially threatening raw material economies of the south and posing new health risks to workers and the public at large. Source: <http://www.etcgroup.org/issues/nanotechnology>

Speculative fiction: Speculative fiction is an umbrella genre encompassing narrative fiction with supernatural or futuristic elements. This includes, but is not limited to, science fiction, fantasy, superhero fiction, science fantasy, horror, utopian and dystopian fiction, supernatural fiction as well as combinations thereof. Source: https://en.wikipedia.org/wiki/Speculative_fiction