

Info-Autopoiesis and Digitalisation

Jaime F. Cárdenas-García

University of Maryland – Baltimore County, Baltimore, MD 21250, USA, jfcg@umbc.edu

Digital information and communication technologies have emerged as a powerful force for change since the middle of the 20th century. But their Promethean reach has brought about the need to lay bare their hidden tentacles to maximize their benefit and minimize harm. Central to this undertaking, to lay a firm foundation, is the need for a definition of information.

The purpose of this paper is to discover the connection between info-autopoiesis, based on Bateson's *difference which makes a difference*, the self-referenced process of information self-production that engages all living beings in their efforts to satisfy their physiological and social needs [1-5]; and, digitalisation viewed as both, the ability to encode information in multifarious but equivalent forms to allow for embodied syntactic occurrence; and as the means to artificially generate information that is beyond the reach of its originators.

The human-organism info-autopoietically interacting with its environment, incorporates the simultaneity of a qualitative/subjective perspective with a quantitative/objective perspective, developing from a state in which its knowledge of the human-organism-in-its-environment is almost non-existent to a state in which the human-organism not only recognizes the existence of the environment but also sees itself as part of the human-organism-in-its-environment system. Allowing the human-organism not only to self-referentially engage with the environment and navigate through it, but to even transform it in its own image and likeness.

This process shows that humans and other living beings are the creators of all existing information, including the information that creates and shapes our institutions and their influence in our societies which at the same time and interactively impacts us. This unavoidable mutual interaction, over which we initially have no control, cannot but define the digitization process that is now pervasive in our societies, while also affecting us in sometimes consequential ways.

Paraphrasing the Vienna Manifesto on Digital Humanism (<https://dighum.ec.tuwien.ac.at/>; accessed February 4, 2021): We must shape societies in our world in accordance with the human values and needs of all of its members, instead of allowing technologies developed in deformed societies that serve the interests of the 1% to shape all living beings. Our task is to identify the

downsides of information and communication technologies before they are developed to encourage living-being-centred flourishing and innovation. We call for a Digital Humanism that naturally develops from such a society maximizing the benefit and minimizing the complex interplay of technology and humankind, fully expecting that such efforts will lead to a better society and the good life, that respects the universal rights of all living beings in all corners of the world. Neglect of one might impact all.

References

1. Cárdenas-García, Jaime F. "Information Ethics in the Information Age." *Cosmos and History: The Journal of Natural and Social Philosophy* 14, no. 3 (2018): 147-66.
2. ———. "The Process of Info-Autopoiesis – the Source of All Information." *Biosemiotics* 13, no. 2 (2020): 199-221.
3. Cárdenas-García, Jaime F., and Timothy Ireland. "The Fundamental Problem of the Science of Information." *Biosemiotics* 12, no. 2 (2019): 213-44.
4. Cárdenas-García, Jaime F , and Timothy Ireland. "Bateson Information Revisited: A New Paradigm." *Proceedings* 47, no. 1 (2020): 5.
5. Burgin, Mark, and Jaime F. Cárdenas-García. "A Dialogue Concerning the Essence and Role of Information in the World System." *Information* 11, no. 9 (2020): 406.