

***Qatipana*: Becoming and Individuation of a Meeting between Technical Apparatus and Natural Systems**

Renzo Filinich Orozco

PhD student in Interdisciplinary Studies, Valparaíso University, Chile

renzo.filinich@postgrado.uv.cl

Abstract

The present research revolves around the concepts and processes of Becoming and Individuation where a functional model is created based on the articulation of an information processing system guided by the approach of philosopher Gilbert Simondon. The objective is to model a sensorimotor cycle carried out by the cognitive system of an Artificial Intelligence agent. To establish this model of biological inspiration, we use the concepts of information in cybernetics by Norbert Wiener, information and modulation in Gilbert Simondon and technodiversity in the light of Yuk Hui's proposals.

The architecture that we have called *Qatipana* (flow of information processing systems in Quechua), although it cannot be considered as a systems theory, has the utility of being able to explain some empirical observations that we present here. In conclusion, the implications and limitations of this model and the research that is being carried out to present its utility and probability as a model of the algorithmic cognitive system are part of the questions of communication and affect posed by the decisions provided by the cybernetic system.

***Qatipana* as a proposal for Technodiversity**

In a relatively short period of time, there has been an explosion of new technologies that have infiltrated all areas of life and irrevocably altered our ways of living. The consequences of this technological permeation are ontological and epistemological. They permeate our lives effortlessly and we can see that our world changes every day. We could argue that digital practices, such as experimental works of art and representations, serve as criticism mechanisms

and have an indirect effect on the social and political world. Although a redefinition of terms is certainly needed, since they question the very nature of our accepted ideas and belief systems regarding new technologies. In this sense, digital art does what all avant-garde art does; it is an experimental extension of the socio-political and cultural aspects of an era. In this way, technology would then imply a reconfiguration of our embodied experience. When the mind and body cannot reach the meaning it addresses, it builds its own instruments and projects a mediated world around it. Rather, being separated from the body, technology becomes part of that body and alters and recreates our experience in the world.

Faced with such phenomena, the concern is being born to develop a research project that focuses on observing, analyzing and collecting information on the learning and individuation processes (Simondon, 2009) of the algorithms for organizing new modes of subjectivation in human and non-human nature. This type of observation presents new directions for research in the relational-transactional intersection of the contrasting disciplines of the arts, humanities, science and technology, and in doing so, presents philosophical questions for future research on human connectivity in our digital age.

These main questions are now the focus in media studies: how does the computerization of cultural techniques produce new forms of subjectivation? How does the concept of mono-techniques already imply the notion of "chains of operations" and, therefore, a permanent (retro) coupling between living and non-living agencies? The last question is also closely related to the discussion about education and training programs in society and working life.

On the other hand, the possibility of reflecting on what has been raised so far arises from the concern to work from "the epistemes of the becoming." For this, I am dedicated to the development of a work called *Qatipana* and it is conceived as follows: a machine that can observe and learn from a natural system and uses the data that arises from its behavioral patterns as a source of "transduction" for the agency of a material and immaterial ecology. The project focuses on the use of artificial intelligence that has the ability to identify repeated coordinated actions within a natural system. AI stores and transforms these actions into events to which it assigns different behavior gestures to the living organism and to itself, creating an autogenerative habitat according to the logic of decision-making that it produces through weather. To achieve this, an analog signal collector and a transmission device, capable of performing its own biological maintenance will be developed, together with an audiovisual platform that allows the amplification of these biological signals. The resulting process will be transmitted live through a server channel, where the coevolution process can be monitored in real time, revealing that AI are capable of taking various forms depending on the situation. Under this logic and thinking from the standpoint of non-human intelligences, it can be argued that generative art inherits the field of research, that in 1968 Jack Burnham called "Systems Aesthetics." He said: "We are now in transition from an object-oriented to a systems-oriented culture. Here change emanates, not from things, but from the way things are done." (Burnham, 1968, 2).

In conclusion, the implications and limitations of the said model and the research that is being carried out to present its utility and probability as a model of an algorithmic cognitive system are part of the communication and affect issues in the decisions provided by this automatic system. Cosmology is not pure theoretical knowledge; in fact, ancient cosmologies are necessarily cosmotechnical. Taking the notion of Hui (2017) we can give a preliminary definition of Cosmotechnics here: it means the unification of the cosmic order and

the moral order through technical activities. Modern technology has broken the traditional relationship between cosmos and technique; it becomes a gigantic force, which transforms every being into a mere "permanent reserve" or "reserve" (Bestand), as Martin Heidegger observes in his famous 1949 lecture "The Question for Technique" (Heidegger 2016).

In this way, they somehow adopt a series of behaviors that allow them to act like other entities, without necessarily replacing in full what they imitate. From an analytical and epistemological result, the work process acquires an interdisciplinary approach, proposing a strong cross between applied sciences and the humanities, thus generating a research space for communication and non-anthropocentric concern based on an autogenerative system of not human intelligence.

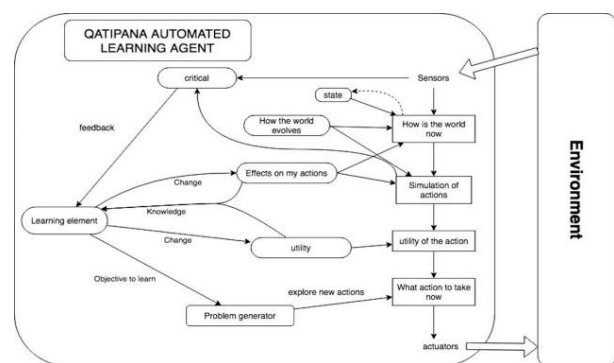


Fig.1. Example of architecture (information flow) in Qatipana, 2019 @Renzo Filinich.

References

- Burnham, Jack. 1968. "System Aesthetics." *Artforum Magazine*, 7, no. 1: 30-35.
- Filinich, Renzo and Chibey, Tamara. 2020. "QATIPANA: Processes of Individuation on the Relationship Between Art, Machine and Natural Systems," *Critical Hermeneutics*, 4, no. 1: 65-88.
- Hui, Yuk. 2017. "On Cosmotechnics." *Techné: Research in Philosophy and Technology*, 21 nos. 2/3: 319-41.
- Hui, Yuk. "Machine and ecology." 2020. *Angelaki* 25, no. 4: 54-66.
- Simondon, Gilbert. 2009. *La Individuación: a la luz de las nociones de forma y de*

información. Buenos Aires: La Cebra/Cactus.

Simondon, Gilbert. 2015. *Comunicación e información*. Buenos Aires: Cactus.

Wiener, Norbert. 1948. *Cybernetics or Control and Communication in the Animal and the Machine*. Paris: Hermann.

Biography

Renzo Filinich Orozco (Lima, 1978) PhD student in Interdisciplinary studies, Universidad de Valparaíso; researcher, professor and media artist with a Masters degree in Media Arts, Universidad de Chile.

He is interested in applying new technologies in music and video to develop new interactive listener and cognitive fields and spatial representation of video-sound, through the use of gestural interfaces in performances, using the concept of malleability.

He has participated with his works and research in international festivals such as ICLC Morelia 2017, ZHDk 2017 (Zurich), Sonología 16 (Sao Paulo), Días de Música Electroacústica 2015 (Lisboa), In Vivo Electro IRCAM manifest 2014 (París), Foro Acusmático Hope University 2013 (Liverpool), Mixtur Festival (Barcelona), 2013, Ai-Maako 2010 and 2017 (Santiago de Chile), Festival de Arte sonoro de Valparaíso Tsonami, 2007- 2011.