Christophe Rigon / Soto² - Scybernethician @ki_cog

Jul 16, 2024 • 9 tweets • ki_cog/status/1813137773424992554

[Memoir of a Scybernethician: Evolution & Robotics] 🧵☐

In 2001, while I was trying to deepen my hermeneutic and heuristic experience with artificial cognition/subjectivity simulations with connectionist and multi-agent models (CA, ANN, PDP, Swarms, Karl Sims, etc.),

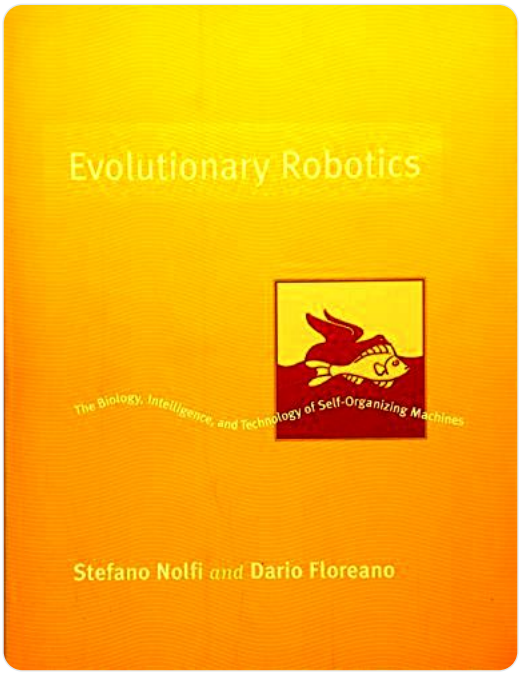
I naturally became interested in robotic simulations, and more particularly in "evolutionary" robotics to compensate for the lack of pragmatic concreteness of purely computer simulations.

I prefer not to speak of "embodiment" so as not to maintain the simplistic & superficial, although heuristic, confusion between material mechanical incorporation and, what is for me the only historical and profound meaning of the word: incarnation (in the sense of Merleau-Ponty).

After exploring Luc Steels' work on robotic simulations of evolutionary linguistics, showing that it is possible to think of language as enacted (i.e. emerging from the history of a structural pairing), I then had the chance to discover a seminal work:

Evolutionary Robotics by Nolfi & Floreano, which confirmed to me that very simple robots whose sensors and motors were coordinated by an elementary connectionist model (a network of a few units),

could simulate the enaction of representations from only their exploratory sensorimotor coordination. This was a new confirmation of principle that confirmed to me the relevance and pragmatism of the enactive paradigm of cognition.



Today, other more academic people have explored this direction such as Ezequiel Di Paolo and Xavier Barandiaran, supporting the social developments of enaction (Participatory sense-making). For my part, as an outsider, I have devoted myself more (by social constraint)

to the expression of the reflexive and onto-epistemological, even existential, dimension of these important discoveries, to the epistemology of the observer-actor, this Hard Collective Problem (HCP) of Technoscience.

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