

Rethinking machine agency: from cybernetic to robotic art

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Starting from the premise that our idea of machines has expanded from questions of instrumentality to “a discourse of machine as acting and interacting other” (Suchman 1998), this paper traces the evolution of machine agency and our conception of it through the entangled histories of art, philosophy and engineering. If research in robotics can be looked at as a “philosophy of mind using a Screwdriver” (Harvey 2000), our investigation sets up robotic art and its precursor, cybernetic art, as a open laboratory that experiments with and implicates audiences in critical questions of autonomy, agency, embodiment and materiality.

In the same vein as the quest of cybernetic art pioneers experimented with machinic perception in ways that were contingent on the agents’ capability to move and interact, experimental robotic art struggles with a performative account of and approach to machine agency; an agency that emerges from specific material, social and cultural enactments (Penny 1997) as it materialises in a coupling with the environment (Maturana and Varela 1980, Brooks 1991, Beers 1995). Considering agency as “a matter of intra-acting” (Barad 2003), an enactment itself, rather than locating it within the machine and its intelligence, also opens up alternative ways to think and experience relationships between human and non-human agents beyond mimicry or encrusted notions of the human self and machine other.

Our exploration traces experiments from the cybernetic art, early robotic art to contemporary practices, including Ihnatowicz’ *The Senster*, the ‘anarchist’ agency of Tinguely’s *Méta-matics* and Gustav Metzger’s auto-creative/destructive sculptures, White’s *Helpless Robot*, Penny’s *Petit Mal*, and the authors’ environmental interventions enacted by embedded curious machine agents.