

## Embodiment takes Command

*Louis-Philippe Demers*

### Abstract

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The historical artistic renderings and representations of the machines can reflect the current social concerns and the current understanding of the human body. Media theorist David Tomas writes about the human-machine relationship as a “machine-based history of western body”. The role of theatricality – and the voluntary act the suspension of disbelief - can also be traced in this lineage in order to augment the viewer’s reception of the machine performer.

In recent artificial intelligence discourses, social robots have attempted to embrace the human form endowing it with friendly appearances and behaviors as a privileged mode of intercommunication. This addiction to the mimicry of humanoid form in the appearance of robots connects them with a long history that has been written in myths, legends and even in real experiments.

However, as Mark Johnson states, judging from mainstream anglo-american philosophy, thirty years ago people did not have bodies. Alongside, the beginnings of media arts and artistic investigations of digital technologies were rooted in a Cybernetics view of systems - reproduction of signals- where organisms are shifted from biology to engineering, transforming it into a hardware (software) problem. As David Tomas observes, Cybernetics is a world of automatic machines under the common denominator of “control and communication”.

Embodiment represents a turn in the Cartesian dichotomy of the mind and the body. The body and the environment now have to be included in the many equations found in semiotics, philosophy, performance theory, cognitive sciences and artificial intelligence. Beyond being a fashionable topic, embodiment has deep implications into the many disciplines found in art and technology.

Embodiment disturbs the notion of object and subject. Embodiment also challenges our notion of Cybernetics and computation. The actual out folding of events is no more centrally located in the sensor/computer realm but actually involves the many constituents of the “environment”. Emergent behaviours are not the sole results of simulation and modelization but also from the close interaction of the environment and the embodied agent. A shift from an electronic

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computation to a natural computation as Rodney Brooks boldly published works on “intelligence without representation”. Perhaps our very notion of what is digital art is slipping thru our fingers. The very paradox of the quasi-living embodied object might be real in its incarnation of mechanics and control, but its perception departs from its sole capabilities of acting in the real world. As Lewis Mumford states, the machine is a mythical construction: it is not only a complex tool but also a social apparatus. It is not only constituted of material pieces but also of immaterial elements, of a mentality and of a belief in a goal or an effect.

Embodied agents have a material existence whilst audiences share this very same world and space. As Merlau-Ponty states, our body is not primarily in space: it is of it. These spaces create a contributing cultural context as an integral part of the interfaces.

The far-reaching and often surprising implications of embodiment will be explored. The embodiment will be addressed from both perspectives of the audience and of the robotic agents in Robotic Arts. To extend on the embodiment, being situated, Robotic Arts empower intangible contributions from the cultural context, the suspension of disbelief and the attribution of intention towards any outside physical objects acting upon the world.

## About the Speaker

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**Louis-Philippe Demers** makes large-scale interactive and robotic installations, so far realizing more than 300 machines and participating in more than 70 stage productions. His artworks have been featured at major venues such as Lille 2004, Expo 1992 and 2000, Sonambiente, ISEA, V2, SIGGRAPH and Sonar. He received four mentions at Ars Electronica, the Distinction of Prix 96, the first prize of Vida 2.0, a mention at Vida 12.0, the prize for Lightforms 98 and seven prizes for Devolution in 2006. He was Professor at the renowned Hochschule fuer Gestaltung at the Zentrum fuer Kunst und Medien Technologie (ZKM) then he joined the Interaction and Entertainment Research Centre and the School of Art, Design and Media at the Nanyang Technological University (Singapore).

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