Chapter 1
The MetaPlastic Technè:
Cyber Art and Design Innovations

Gianluca Mura
Politecnico di Milano University, Italy

ABSTRACT

This chapter describes the theory of the Metaplastic metadiscipline (Ars MetaPlastica), a science-art-design research field that studies the most recent technological influences into the contemporary culture. It discusses the realization of the metaplastic virtual media through interdisciplinary methodologies between reality and virtual realities. The virtual media acquire form and meaning through its process of conceptual interpretation. The metaphor of the artistic machine finds its new realization where the metaplastic machine itself becomes aesthetic expression of the virtuality. The Open Metaplastic framework's art approach applied to software and hardware modeling design are also discussed and some examples of applications are introduced.

INTRODUCTION

Technology, in modernity, has been conceived strictly in an instrumental sense. Indeed, modernity, defined in terms of this instrumental rationality and the arts, seen as the very opposite of technology, was generally deemed non-technical. The "scientific revolution" and subsequent developments reinforced this division that persists to this day. The rupture between the technical and the artistic had repercussions in cultural fields, when the social "sciences" and the humanities became "subjects" distinct from "science". The word technology, has connotations that have been lost in contemporary times. Originally, it meant any skill or craft, and described a range of activities from engineering to the arts. The Greeks, referred to even art as "technè". Technology today advertises itself not merely in terms of its functions but also its aesthetic appeal. This means that Studies of high tech therefore also entail a study of the representations of technology. Rusky writes, "The ability to technologically reproduce, modify and reassemble stylistic or cultural elements becomes not merely a means to an end, but an end in itself"(1999:4). Keeping in mind this aesthetic aspect of high tech, Rutsky suggests that we refer to the very concept of technology as "high technè",capturing both the resonance of the term "technè" and the advancement of technology

itself(ibid.:5). In social terms, the technological evolution proves its structuring force within the actual social reality. This is the thought of Zygmunt Bauman (1996) and of J.F. Lyotard (1984) that consider the contemporary technological system have acquired its autonomy regarding to the external reality, intended as a possibility of the system to evolve, apart from its external environment, with validating itself through its performance.

According to Bauman, the man becomes a theme for the technological system that makes it functional within its interior, with enabling it of functioning in a new way and with imposing itself to waive any kind of ethical or moral reference that it is beside the point of available means. Baudrillard considers the question of the technique by starting with a presumption: throughout it, the image leads up to coincide with the real. The technique, therefore, is pervasive but not in a way of integration, but of expulsion regarding the traditional relational forms.

Pierre Lévy (1996) has deepen the theme of the relationally transformation derived from technological mediation through telematic systems, that allow them to dialogue with diffused but interconnected minds between them, with founding of a universal collective mind.

The idea of virtuality, favored by the new technologies, allow us to think of individual action as a "otherwise possible", not as a separate space from the real, but as the reality that is side by side to the physical world, until a point of inclusion, with allowing it to become a part of the possible. The spaces of the virtual, according to the concept of heterotopia posed by Michael Foucault, "they are species of opposed spaces, utopias effectively realized where the real spaces, all the other real spaces that we can find inside of a culture are, simultaneously, represented, denied and overturned, by the kind of places that stay out of all places, even if they are effectively locatable" (Focault, 1998).

The acting within operational spaces of the technology, it is explored by Paul Virilio (1997) with placing them within a kaleidoscopic set of possibilities realized through a process of progressive fractionation of the present moment. The autopoietic model of the technological system reproduction is indicated by Bauman, Luhman and Varela (Maturana, & Varela, 1985) as a distinct reality of a mechanic-sphere that is overlapped to the biosphere.

Guttari (1996) proposes instead, a different mode of understanding the systemic self-organisation, by asserting that: "the autopoiesis, rather than staying closed in itself, should be considered in function of evolution and collective entities that reciprocally interact in many different types of relations and of otherness [...]".

The self-reproduction of technique becomes therefore, a mechanism of continuous dislocation of the possibilities offered by the technological means. The spaces of the technological places previously settled by real machines, leave their place to the space of the new technologies, to the "machines of absence" (Baudrillard, 1996), tools of relational de-contextualisation and virtualization and of sociality that realise ephemeral spaces of life throughout the media of the cyberspace.

METAPLASTIC ARS THEORY

The technological innovations developed since the last decades of the 20th century involve new inter-disciplinary interest between art, design, science and humanities. The MetaPlastic metadiscipline (Ars MetaPlastica) redefine this relevant convergence of research fields within Art, Design, Architecture, Humanities, Cybernetics, Memetic, Psychology, Semiotics, Artificial intelligence and Computer Science

Related Content

Object Identification in Binary Tomographic Images Using GPGPUs

Bruno Preto, Fernando Birra, Adriano Lopesand Pedro Medeiros (2013). *International Journal of Creative Interfaces and Computer Graphics (pp. 40-56).*

www.irma-international.org/article/object-identification-in-binary-tomographic-images-using-gpgpus/111112

Examples of the Impact of Collaboration in Creative and Technological Practices

Stuart Cunningham, Rae A. Earnshaw, Dan Berry, Peter S. Excelland Estelle Thompson (2017). *International Journal of Art, Culture and Design Technologies (pp. 55-79).*

www.irma-international.org/article/examples-of-the-impact-of-collaboration-in-creative-and-technological-practices/204437

Interpretative Reading of an Illusory Painted Wall: A Survey and Analysis of a Work from Antonio Galli Bibiena in Bologna

Francesca Porfiri (2016). *Handbook of Research on Visual Computing and Emerging Geometrical Design Tools (pp. 403-419).*

www.irma-international.org/chapter/interpretative-reading-of-an-illusory-painted-wall/149314

Tangible Interfaces for Art Restoration

Leonardo Bonanni, Maurizio Seracini, Xiao Xiao, Matthew Hockenberry, Bianca Cheng Costanzo, Andrew Shum, Romain Teil, Antony Speranzaand Hiroshi Ishii (2010). *International Journal of Creative Interfaces and Computer Graphics (pp. 54-66).*

www.irma-international.org/article/tangible-interfaces-art-restoration/41711

Visual and Verbal Storytelling

(2014). *Computational Solutions for Knowledge, Art, and Entertainment: Information Exchange Beyond Text (pp. 429-455).*

www.irma-international.org/chapter/visual-and-verbal-storytelling/85404