CAA 2005: Hybridity: Arts, Sciences and Cultural Effects

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Hybridity: Arts, Sciences and Cultural Effects

Hybridity has become a term commonly used in cultural studies to describe conditions in contact zones where different cultures connect, merge, intersect and eventually transform. More specifically, hybridization denotes the two-way process of borrowing and blending between cultures, where new, incoherent and heterogeneous forms of cultural practice emerge in translocal places—so-called third spaces. Here, the interaction of different practices produces hybrid forms that stand in between the poles of merging. These contact zones, in-between and third spaces are socially and culturally determined. In the case of digital environments, we must also address communicative interaction in the convergence of real and virtual spaces. Digital hybridity works across and integrates a diverse range of modes of representation, such as image, text, sound, space and bodily modes of expression. The study of digital cultures as fields of hybrid interaction allows us to consider different users and agents in electronic (mass) media environments. In particular, it allows us to examine the culturally mixed expertises that combine different aspects of theory and practice at work in locally produced and globally distributed media forms and the convergence of network-based science and knowledge technologies with creative-arts practices. The metaphor of hybrid zones and spaces also addresses the (trans)formation of individual disciplinary scientific and aesthetic patterns through communication processes in a global, networked media context.

Edmond Couchot suggests that the terms hybridity and hybridization characterize the profound changes to traditional media through digitization.

> So much so that it is scarcely relevant to continue applying some concepts, notably that of "intermediality," to digital media without losing what constitutes their novelty. . . . Once interest shifts to the analysis of digital media, the author proposes the term hybridisation. It allows various, almost genetic operations on the media unrealisable with traditional technologies. Numerous forms of hybridisation are available to digital media, affecting the morphogenesis of media as much as their distribution. One of the most decisive examples in the evolution of arts and culture is the subject-machine hybrid, which shatters the traditional standing of the work, the spectator and the author. A technological process specific to interactivity, hybridisation also characterises a transversal aesthetic proper to the digital [1].

It is important to examine hybridity in the arts, sciences and media cultures because hybrid practices are basic tools in collaborative research and in the emergent intersections of sciences and arts—for example, in research in visual and cognitive perception, in the design of computer interfaces and their visualization, and in knowledge-based methods for understanding the transfer and transformation of information in systems of higher complexity. Knowledge becomes a more important research tool than vision with regard to digitization where all possible combinations that are technically realizable with the computer cannot be visually recognized. With regard to virtuality and interactivity in particular, hybridity is an important element in the construction of new and digital media forms. Cultural practices are changing rapidly in contemporary society under the influence of broad social, economic and technological developments. Societies cannot represent themselves (in arts, crafts, science and technology or public forms) without their technical tools. The transformation into a knowledge-based society increasingly depends on digital technologies as the contemporary resources of representation, of the production of meaning, for the generation of information, knowledge, communication and interaction.

Some of these issues were discussed in the Leonardo panel at the 2005 College Art Association Conference, in Atlanta, Georgia. This section is drawn from the presentations of the Leonardo panel and aims to address new forms of encounter, dialogue and interaction indica-

tive of larger shifts in the arts, sciences and culture in the face of digital technologies and the hybridization of media and media forms.

We start with the premise that science, art and technology were closely connected in early modernity: New technologies (especially film) were regarded as the starting point for a new era of progress and an age of visuality. The European avant-garde movements developed the vision of a future society based on technological innovation. In the Futurist view, the artist and the scientist were to collaborate to realize this vision. In contrast, after World War II and the scientific and technological developments that led to the creation and use of weapons of mass destruction, the science and art worlds have drifted apart. Yet at the same time, important aspects of society's organization and structure are increasingly dependent on sophisticated (global) technologies of networked communication.

The present is characterized by two apparently contradictory trends. On the one hand, complex technology has entered almost every household and affects cultural practices at many levels. On the other hand, large segments of our society seem to be growing indifferent to the practice of science and technology. As the European Commission has recently reported, youth in Europe are hardly interested in the sciences anymore. Yet there is a recognizable degree of interest in the arts toward the sciences, such that the old ideal of the scientist-artist (Leonardo da Vinci's paradigm) is being revitalized. In reviving this ideal, artists are insisting on an important change in the constitution of the scientist-artist, because the artist has a new relationship to technologies of representation—above all, to the computer, which is itself the product of decades of scientific research. As video and computer artist Woody Vasulka puts it, the artist must share creativity with the machine (the computer), which is itself responsible for many of the processes of representation.

The new situation can be characterized as a hybrid, in which, again according to Couchot, the juxtaposition of real and virtual elements, the combination of "logically incompatible situations," has become technically possible with the introduction of digital technologies. In applying the term hybridization to the contemporary interrelationship between technology, arts and sciences, we propose to discuss the third space as a leading paradigm in view of the combinations of real and virtual, as the space where differing concepts, approaches, assumptions and techniques meet, merge and interact. Hybridization does not produce a new culturally dominant form, but rather demonstrates the multiplicity of possible interactions between science, art and technology.

The approach is twofold. We find that digital media and media forms need to be examined for their incorporation of older techniques, aesthetic strategies and cultural forms. We need to consider the heritage of analogue technologies as well as the development and use of emergent digital technologies in the arts and sciences. We are in particular interested in discussing the effects of hybrid combinations of simulation and physical reality. We must also consider what effects new aesthetic forms have on the understanding of the place of science and technology in our contemporary, increasingly hybridized societies.

With regard to global digitization and the technological possibilities of merging the physical and the virtual, we need to encourage the critical investigation of:

1. the place of the artist in our technological society; the shift in artistic creativity as a result of technology; the possibilities for establishing a dialogue with the scientist; forms of collaboration between the arts and sciences in virtual and augmented reality; and
2. the place of the scientist in society; the shift in roles and responsibilities of artists, scientists and communicators due to large-scale adoptions of technology; the interest in establishing a dialogue with the arts; and new forms of collaboration between the sciences and the arts, e.g. software art.

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Reference

1. Edmond Couchot, "Digital Hybridisation: A Technique, an Aesthetic," *Convergence* **8**, No. 4 (2002) p. 19.

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