

Abstract

Emergent Objects at the Human-Computer Interface (HCI): A Case Study of Artists' Cybernetic Relationships and Implications for Critical Consciousness

What forms of expression will be possible tomorrow, how do they differ from those of the past, and how can we better prepare them today? The investigation of emergent objects at the human-computer interface (HCI), where artistic and cybernetic questions meet, has great implications for critical consciousness, cultural evolution, and art education. By exchanging discrete information between nodes within a network, artists, technologists, and theorists are constructing new kinds of knowledge. The strategic assembly of this knowledge from a wide range of data sets is an educational challenge; art educators have the unique expertise to understand how to decode non-textual materials and construct meaning through unusual forms of expression.

Our modes of communication are changing, and the interstitial spaces are transforming rapidly as digital technologies affect the ways we construct knowledge and behave. The HCI is the site of both cultural evolution and individual expression. The value added to society by artists experimenting at this interface consists of the emergent objects produced, which spur critical reflection on experience and social interaction. Art education has an opportunity to facilitate a critical dialogue around these emergent objects, expressing the shifting nature of human interaction and extrapolating meaning that refers to larger sociological frameworks and belief systems.

This study investigates a particular cohort of artists who depict a transition in studio art practice that reflects our cultural passage, through the digital revolution, from an analog to a non-linear information-based society. By integrating the computer into their studio practice, these artists have invented new hybrid forms of expression. Videotaped interviews provide an opportunity for rich qualitative analysis and annotation; using media-based artifacts as sources of data suggests a broader movement in arts/technology integration that includes not just new instruments but interdisciplinary conversations in studio art models for higher education. These conversations stem from the blurring of boundaries facilitated by digital culture; as retrieval technologies widen the access to data, the ability to assemble disparate information into a hybrid knowledge product increases.

The investigation of cybernetic art begins with a treatment of the art object as data. The art object is not a discrete one. The 20th century brought contemporary works through new vehicles of technology that transcended painting, drawing, and sculpture and expanded the visual arts to include photography, film, sound, performance, and digital art. The aesthetic is lived through all the senses including the visceral body. Defining the aesthetic experience is a philosophical quest, but *having* such an experience is a physiological phenomenon. In the new millennium, when society defines itself as information-based, the idea of the tangible physical object has been challenged; presence and absence are now best defined in post-human terms as pattern and interference. Being human is frequently a mediated effect delivered by telecommunication. It is the function of the artist to use these technologies for human expression and to provide an individual response in the moment.

The computer is still a new tool for artistic investigation, and its results have yet to be fully diagnosed. Artistic experimentation with the computer will shed light on the cultural impact of digital technologies on our bodies and our selves. This study offers a glimpse at the effect of emergent objects on critical consciousness and suggests how to better facilitate such experimentation in studio practice through conversations with new media curators, artists, and artworks. Computer Art and Digital Media programs are still in their infancy in art schools and universities. Their need for growth, in terms of curriculum development and implementation, should foster exploration of artistic practice with cybernetics in the studio. Who can tell us more about this aesthetic experience than the many pioneers who, as their studio practice has evolved, are already fully cyborgian?