

## Real Space, Real Place, Real Time Towards Supercontextuality

The vast majority of interactive artworks have defined the viewer as the central focus of interaction. “Interactive” artworks are works that are designed to change some aspect of their form as a result of the behaviour of the viewer. In fact the term “interactive” is used, by definition, only to refer to works that involve an interaction from the viewer. These works can be considered “transforming mirrors” (Rokeby, 1996) that serve to give the viewer a reflection of his or herself through the artwork. “Taken” (Rokeby, 2002) and “under scan: relational architecture 11” (Hemmer, 2005) are works that exhibit a shift from interaction with a single viewer to an interaction with a group. My research will draw from this progress in order to expand the focus of interaction beyond the audience to the context of the artwork. The purpose of this development is to give public artwork a dynamism that is possible in response to a complex environment. Rather than being static symbols of artistic genius, I intend to create works that exhibit a playfulness and wonder in response to the complexity of the world. The emphasis shifts from *individual* interactivity towards an *ecological* interactivity, where the world is considered an ecology of interdependent agents rather than a set of isolated individuals. The supercontext is the web of factors that influence an individual's behaviour in terms of natural, social and historical reality. The supercontextual artwork is a member of this ecology of influences.

I am now in my first semester as an MSc student in the School of Interactive Arts and Technology at Simon Fraser University. My graduate work will expand the concept of interactivity, within technologically mediated artworks, by developing conceptual and technical strategies to allow artistic artifacts to form a relationship with their *supercontext* in order to create meaning. What theories are appropriate for the creation of artworks that respond to their context? Can methods be introduced that allow works to find their own connection with their environment rather than depending on the artist to define it a priori?

Where a “transforming mirror” reflects the viewer, the supercontextual work reflects on its surroundings like a spherical lens. The work itself forms a relationship to place based on a scaffold of knowledge provided by the artist and specific to that particular installation. The methods I will devise involve development of both theory of supercontextuality in artistic artifacts as well as the technological tools required to apply this theory to the creation of artwork. The focus of my research is the creation of these theoretical approaches that are evaluated and developed through an artistic and research practice.

The central inspiration of my work is an effort to explore and *know* the world around me. This exploration is made through the creation of artworks that exist to *reflect* upon the world around them. “Resurfacing” (Bogart & Vakalis, 2005), my most recent artwork, collects images from its surroundings and creates a visual representation of its time in installation. My graduate research program lays the basis for a new artwork, “reflection/action”, which will effect the world it inhabits. The work will be installed in a public location and will use cameras and microphones to sense its context. In response to its surroundings, the work will change its environment by creating images and sounds. For a work to have a meaningful relationship to its supercontext it must be able to effect the world it inhabits. The artistic precedent of this work is derived from practices such as site-specific works (where the work

“[gives] itself up to its environmental context, being formally determined or directed by it.” (Kwon, 1997), kinetic work that “...incorporat[es] real or apparent movement...” (Chilvers, 1998) and interactive work “...that involves the spectator in some way.” Wikipedia, 2006). This research involves a combination of these artistic practices into a new method with a broader sense of interactivity.

This research program will define how artworks could *reflect* and *act* on their context in a *meaningful* way through the use of a context-model. The context-model, a mathematical equation that relates sensory data, is created by the artwork's interpretation of the world and the results of its actions. I define *reflection* as the creation of the context-model. *Action* is a choice made by the system, in terms of its context-model, that changes the world. *Meaning* is an overlap between what the artwork understands of the world, through its context-model, and the viewer's comprehension of the world. The audience are those who develop a connection to the work by observing and interacting with it regularly.

My graduate research is organized into two parallel arcs; the development of theory and the application of that theory. Theory from cognitive science and cybernetics will allow me to explore how systems can perceive their context through sensory data. I will concentrate on visual and sonic media for this work. Theory from artificial intelligence will allow me give prototypes the ability to interpret and relate to their perception of the world. Visual and sound art practices will give the work form through which it can effect its context and represent its actions. The application of theory will be the creation of a series of prototypes of “reflection/action”. The qualities of the resulting prototypes, in terms of how they relate to their supercontext, will serve as an evaluation of the methods used in its creation. The theory will be revised in response to the success of each prototype and then applied to a new prototype iteration. The theoretical approaches, their applications and the qualities of the prototypes will be outlined in my MSc thesis. All the software developed in the process of this research program will be documented and released under a “free software” (Free Software Foundation, 1996) license. This will allow other artists access to these technological and conceptual approaches.

My artistic practice is situated in a legacy of electronic media arts in Canada that dates back to the 1960s. I am building on the work of other leading Canadian artists who have equal skills in both the artistic and technological realms. My years of experience as a researcher in an academic context have nurtured both my creative and analytical skills. My exhibitions, presentations and writings prove my unique ability to address the issues outlined in this research proposal.

The School of Interactive Arts and Technology gives me the unique ability to develop my research ideas beyond the constraints of traditional departments. The program's approach to balance technical ability, creativity and theoretical development makes it the ideal place for me to develop this project. I look forward to working with artist-researchers such as Thecla Schiphorst and Diane Gromala. I will also be working with Chris Welsby and Martin Gotfrit from the Contemporary Arts program to balance artistic and research concerns. I hope this research program will lead to a broader definition of interactivity in artworks and encourage artists and researchers to consider the impact of supercontext on the meaning and influence of technological artifacts.

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