Erin Healy

Professor Leah Peterson

Art 320W

20 October 2009

<div align="center">Digital Technologies as a Medium</div>

In the second chapter of *Digital Art*, author Christiane Paul explores the myriad of artistic possibilities created by modern digital media. Digital media has unique characteristics which make it increasingly more versatile as technology advances. Although there are many forms of digital art, many pieces include similar characteristics; they are "interactive, participatory, dynamic and customizable, just to name a few" (Paul 67). Since the use of digital media in art is a relatively recent application, art scholars have a hard time correctly categorizing and describing all of its unique capabilities. Paul uses the concept and label of interactivity as an example:

> Ultimately, any experience of an artwork is interactive, relying on a complex interplay between contexts and productions of meaning at the recipient's end. Yet, this interaction remains a mental event in the viewer's mind when it comes to traditional art forms…with regard to digital art, however, interactivity allows different forms of navigating, assembling, or contributing to an artwork that goes beyond this purely mental event. (67)

The term "participatory" can refer to an artwork that functions only when given input from multiple users: "In some artworks, viewers interact within the parameters that have been set by the artist; in others, they set the parameters themselves, or become remote participants in time based, live performances" (67). Viewer participation is essential in works such as Jeffrey Shaw's *The Distributed Legible City* (1998) and Rafael Lozano-Hemmer's *Vectorial Elevation* (2002).

In *The Distributed Legible City*, Shaw used a computer program to create virtual maps of major cities using text to denote the location of buildings. Participants can navigate the city on a stationary bicycle and follow the story told by the buildings in their path, or they can meet up in the digital environment with other cyclists experiencing the exhibit from a different location. Hemmer's *Vectorial Elevation* was a light installation created in a major public square in Mexico City. Over a dozen giant search lights were affixed to the tops of the buildings in the square and could be controlled remotely by people around the world using an internet program. Every few seconds, robotic controls moved the position of the search lights, displaying a new light composition.

When the digital media is described as "dynamic," this term refers to its ability to "respond to a changing data flow and the real-time transmission of data" (68). Paul asks readers to remember that digital art is not solely visual; the outcome of the artwork is very dependent on its inner workings, making the technology used to produce an digital image just as important as the image itself: "the digital medium … always consists of a 'back end' of code or scripting languages that mostly remain hidden and a visible 'front end' that is experienced by the viewer/user, the latter being produced by the former" (68). Many artists expose this digital language and incorporate it into the visual portion of their works. Among these works is *Adrift* (1997-2001) by Jesse Gilbert, Helen Thorington and Marek Walczak, with Hal Eager, Jonathan Feinberg, Mark James and Martin Wattenberg. The team created digital collages derived from security camera tapes in public locations. In addition to the photographic footage, they included the complex language of camera processes used to capture the images.

Digital media can be "customizable" through interaction and participation; viewers can adapt and alter the work of art to suit their needs. This personalization is most common in

artworks "where the user's individual profile becomes the basis for the development of and changes in the work" (68). An example of a customizable work can be found in Jim Campbell's video installation *Hallucination* (1988-1990). In this piece, a large television and video act as a mirror in the gallery. As each person approaches the screen, his or her own image is reflected and subsequently bursts into flames. The exhibit is tailored to each person, who sees him- or herself included in the video instead of a pre-recorded stranger.

Media theorist Lev Manovich has described digital art as "one or more interfaces to a database of multimedia material" (70). The concept of an interface is what allows each viewer to experience and become a part of a digital artwork. By use of navigational tools, humans can communicate with machines; a tool that facilitates an interface could be as simple as a button pushed by the viewer or as complex as a motion-sensing virtual screen, like the one created by Jeffrey Shaw for use in his installation *The Golden Calf* (1994).

Interfaces allow for varying degrees of viewer participation, but some artists seek to engage participants even further. Installations are one of the most common forms of digital media presentation, and for good reason. Installations allow artists to create an entire environment around their artwork, making the viewer feel "immersed" in the piece. This total body and sensory involvement can add another dimension of interaction to the work and create new or emphasized meaning for the viewer. Two pieces that emphasize the idea of viewer immersion are Erwin Redl's *Shifting Very Slowly* (1998-1999) and *Matrix IV* (2001). Both of Redl's works are "large-scale, site-specific installations" made out of many rows of LED lights. The lights create a "curtain" effect, a surreal enclosed world that would not exist without the grid of light. Redl's minimalist works are a commentary on the medium itself and explore the idea of light as an architectural element.

Aside from installations and other gallery-displayed art, some digital works are made to be accessed using the internet. From the time of the advent of the World Wide Web in the early 1990's, artists around the world have taken advantage of the global network of information sharing. Over the years, many different types of internet art have been created and have become accessible online including

> hypertext projects that experiment with the possibilities of non-linear narrative, netactivism projects that use the network and its possibilities of instant distribution and copying of information as a staging platform for interventions…and performance and time-based projects that take place as actions within a specific time frame during which they can be experienced by Web visitors worldwide. (112)

An important internet work that employed the idea of non-linear narrative is Olia Lialina's *My Boyfriend Came Back from the War* (1996). The first incarnation of this piece allowed viewers to click on various images and words and split the screen into frames. Internet users had to interact with the piece to discover its meaning. Eventually, Lialina expanded her work into *The Last Real Net Art Museum.* Her original piece*, My Boyfriend Came Back from the War,* served as a starting point and inspiration for other artists who created and submitted altered versions of the piece to an online gallery. The museum was created to show the infinite possibilities of computer manipulation and presentation of art in a format not traditionally displayed in galleries.

Digital media has also evolved into software art and virtual reality. This type of art has become the basis of most video and computer games. Tamiko Thiel and Zara Houshmand blend a virtual environment with traditional stage design in their project

Beyond Manzanar (2000). This piece is an interactive 3D world based on Manzanar, the first Japanese-American internment camp built during World War II. Viewers can navigate the animated world by means of a joystick. In addition to the computer-created images of landscape and buildings, actual photographs from the site are juxtaposed against the backdrop of the virtual world.

  As time goes on and technology continues to evolve, more and more applications for digital media in art will be found. Because of its relative newness and countless possibilities, modern art critics still struggle to create categories within the medium. Many digital media projects share the qualities of interactivity, participation, dynamism and customizability. This heavy emphasis on viewer involvement sets digital art apart from many traditional media works, as digital projects often require more than a mental connection from the viewer. Digital artworks not only are limited to installations in galleries, but also abound on the internet and within software design and virtual reality. As digital media continues to advance, so will its reach within our culture.