

Disruptive Aesthetics for Interactive Artwork

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Abstract

In this research, we studied the disruptive aesthetics of interactive artwork based on the activity theory. The audience engages in interactive artwork not only for the pleasure of participation but also for the disruptive aesthetics of social values in the organization of human life. We analyzed audience activity in interactive artwork using the activity theory and created a framework with a basic structure for a disruptive aesthetics of interactive artwork. The audience engaged in interactive artwork and overthrew the social structure in three categories: disruptive rule, disruptive community, and disruptive role. Through the framework, artist will create a disruptive interactive artwork, and the audience will enjoy the interactive artwork as part of disruptive aesthetics.

Keywords

Interactive Artwork, Digital Art, Activity Theory, Disruptive Aesthetics, Interactive Framework

Introduction

Background and Motivation

Disruptive aesthetics is a term already being used in the analysis of artworks. [1, 2] This paper refers to this term, which means changes in interactive artworks' factors and structures.

Disruptive aesthetics challenges society's previous view of artworks and overthrows the old concepts. The interpretation of artworks today is a paradigm shift in art history. This paper proposes this paradigm shift in four categories: from a cultural approach, a functionalist approach, an experience-based approach, and a techno-futurist approach. [3] Modern art: Readymades by Marcel Duchamp, "Happening" by Fluxus, John Cage's music, interactive artwork by Jeffrey Shaw, and Bio Art by Eduardo Kac have changed social values and created resistance through disruptive aesthetics. Today, many digital artworks or bio-artworks have challenged authority. The content of a work might pleasurably subvert a meaning, thing, or relationship from real life. Participants might also feel subversive pleasure simply from behaving in ways they perceive to be "against the rules" of the world set up by a work. [4]

Digital art is media art based on digital technologies. Has digital technology strengthened disruptive aesthetics features in art? With the digital age, a variety of positions have

emerged on the interpretation of the correlation between the aesthetic object and the aesthetic experience, resulting in a blurred picture of the field. [3] The possibility of complex interaction in digital art goes far beyond the simple "pointing and clicking" that offers nothing more than a sophisticated way of looking at a work, or the type of interactivity where a user's act triggers one specific response. [5]

What are disruptive aesthetics in digital art? They are special features. Various papers and books refer to the following five features. [5, 6, 7, 8]

- 1) Expanded human creativity mediated by digital technologies
- 2) Audience participating in the artwork and real-time feedback system
- 3) Global communication based on a networked system
- 4) Virtual reality or augmented reality - digital human customizing and agent system
- 5) Bio-artwork based on human body, organization, or DNA

These features give the audience disruption based on digital technologies, unlike previous artwork. However, we should make new digital works with not only these new features but also those that contain meaning and value - disruptive aesthetic of contents.

Does digital interactive artwork contain disruptive aesthetics in terms of the continuity aesthetics of art? Interactive art gives pleasure to the participating audience. Subversion is the pleasure of breaking rules or of seeing others break them. It is also the pleasure of subverting or twisting the meaning of something or of seeing someone else do so. [4] These interactions are disruptive values of digital art in view of audience participation and real-time feedback by digital technologies. [5, 6] Many researchers want the audience to participate in interactive art in various ways, with the art concentrating on the audience's experience. [9, 10, 11, 12] In this situation, the audience performs easily and intuitively. This participation is fun and interesting, akin to an interactive game. [10, 13, 14] However, the artist and research also consider the meaning of the artwork's contents in terms of defiance. The audience directly performs the interactive artwork installation and affects its contents. The audience is essentially a disruptive aesthetic of trigger in an artwork via its own activities.

The Aim of This Research

The aim of this research is to create a framework for analyzing or producing a disruptive aesthetics of an interactive artwork based on the activity theory.

The process of the research is as follows

- 1) Analysis of aesthetics of interactive artwork
- 2) Making a new framework via application of the activity theory
- 3) Analysis of interactive artwork based on the framework
- 4) Proposing a disruptive aesthetic result based on the analysis

Case Studies

Art History for Disruptive Aesthetics

This research studied a history of art for disruptive aesthetics. [5, 6, 7, 8] Marcel Duchamp's concept overthrew the stereotype of artworks being made creatively only by artists. His images moved on the canvas so that audiences "performed" his installations, which meant the images were kinetic art and not interactive art because they were not mediated by digital technologies. This artwork with a rotary plate was the first artwork in history to enable the audience to participate through their own actions. Duchamp proposed a paradigm shift in artwork by breaking down the stereotypes of artwork.

The Fluxus "*Happening*" performance overthrew the stereotype that an artist produces an artwork for his own meaning. The unintended result of the actions of Fluxus members was that they created performance artwork through their physical movements. They resisted worthy activities based on rationality in their artwork. They broke down the aesthetic standards and proposed the message that the human body is the best interface for artwork. They deconstructed the metaphysical philosophy of Western ideas and morals with their uncanny gestures. The audience viewing the performances became co-workers of the Fluxus members.

In addition, musicians have been performing directly and playing tunes. However, John Cage overthrew this stereotype and discovered the delicate noises that audiences make. The music of *4'33"* was made both by Cage and by his audience. This was not only the discovery silence but also a musical collaboration between the audience and participants. Cage found his artworks' contents by coincidence. His performances (or his audiences' performances) disrupted the relationship between the artist and the audience, whether intended or unintended.

Here, we briefly explore modern artworks' history in view of disruptive aesthetics. Artwork consists of form and content based on overthrowing the previous society and structures of artworks. A paradigm shift is needed for the artists and the audience because people enjoy new artwork concepts that change the world and society's structure. Disruptive aesthetics have the strongest and most powerful effect on a paradigm shift. Through disruptive aesthetics, people

expand their imagination and creativity, and they challenge society's structure in order to enhance the value of humanity. Beyond playfulness and fun, interactive artworks have meaningful values for proposing a new paradigm in order to enhance humanity. This enhanced humanity comes from an innovation-related resistance to renewing and overthrowing the social order. The disruptive aesthetics will let the audience change society with regard to its views about artwork. We analyze the disruptive aesthetics via the audiences' experiences with interactive artwork.

In view of being formative, interactive artwork is a challenge to overthrow. However, interactive artwork is needed by disruptive aesthetics in view of its contents. It is also needed as a method to enhance the values of humanity through the disruption of an oppressive society, which is different from playing interactive games. The main issue is the embodiment of interactive artwork from audiences' actions mediated by the installation through digital technologies. The embodiment is how artists express their perspectives on aesthetics and produce their artworks' contents. The embodiment of the artwork contents is related to disruptive aesthetics, which means overthrowing the stereotypes and social limitations. This disruptive aesthetics enhances and expands the artworks' contents.

Interactive Artwork Applied by Activity Theory

The core meaning of interactive art is the direct activity of the audience and the triggering of contents. The direct effects are factors of the disruptive aesthetics of artwork contents. The audience activity could expand the real social world beyond the interactive artwork environment. In interactive artwork, the audience performs its own actions out of desire, and the actions are represented by social symbols.

We first analyze audience activity in interactive artwork. The activity theory is an essential analysis method for human activity. This research applied the theory to create a basic framework for interactive art in view of aesthetics. [15, 16] The following is a basic production framework for interactive art based on the activity theory. [17]

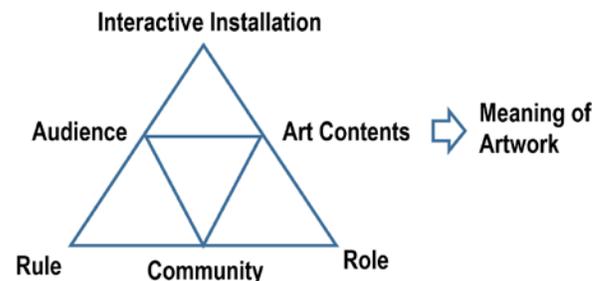


Figure 1. Framework Model of Interactive Artwork Created by Applying Activity Theory [17]

Analysis on Interactive Artworks Based on New Model

Based on a new framework for the meaning of interactive artwork created by applying the activity theory, we analyzed three pieces of interactive artwork.

- *Legible City* by Jeffrey Shaw (1989)

In *The Legible City*, the visitor was able to ride a stationary bicycle through a simulation of a city. [18] This artwork overthrew the meaning of the city as a social construction for human residence. This artwork proposed an audience's travel in a virtual environment using textual images. The audience had an adventure of new meaning within the virtual city, which broke down the symbol of the text buildings and human architecture.



Figure 2. *Legible City*

- *Text Rain* by Camille Utterback & Romy Achituv (1999)

Word text refers to written symbols for words. Humans have long used text to communicate with one another and to keep data in books or materials. [19] In this artwork, the audience members used their bodies to perform in front of a screen and play text images that fell like rain. This artwork overthrew the meaning of the text stemming from social rules created by humans. The artwork proposed disruptive play in order to change the meaning of the text.



Figure 3. *Text Rain*

- *Be Your Own Souvenir* by blablabLAB (2011)

In this work, the audience became the producer as well as the consumer through a system that invited its members to perform as human statues, with a free personal souvenir as a reward. [20] This artwork overthrew the role of humans

themselves. The humans did not think of themselves as souvenirs. However, this artwork proposed this concept by playfully encouraging them to strike enjoyable poses. The audience members became creators and models through their own poses and gestures.



Figure 4. *Be Your Own Souvenir*

Disruptive Aesthetics of Interactive Artwork

Audience members had a disruptive experience in the interactive artworks based on their own activity. The term disruptive aesthetics is defined as breaking the form of society and proposing a new form. Therefore, this research proposed a new framework for interactive art in order to overturn the basic factors of the previous framework. Through interactive art, the audience overthrew the previous activity content through its own activity: rule, community, and role. This research proposed three categories on opposing sides of the previous framework: disruptive rule, disruptive community, and disruptive role.

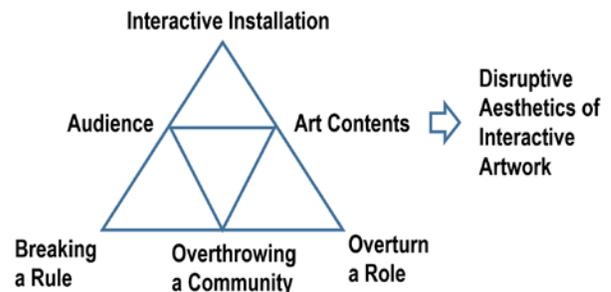


Figure 5. Framework for Disruptive Aesthetics of Interactive Artwork

1) Disruptive Rule of Interactive Artwork

Audience members performed interactive art and overthrew the social order by participating in the interactive artworks. Disruptive aesthetics not only means breaking down the rules but also reforming the rules. This expands the range of the rules. People have made various rules for keeping the systems of society. Rules comprise symbols, regulations, laws, principles, and morals. People live to uphold various rules for themselves or for their communities. Breaking the rules means a new way of looking at basic rules for extended human cognition and physical activities. The process of disruptive rule enhances the value of human regulations.

2) Disruptive Community of Interactive Artwork

Audience members performed interactive art and overthrew the social community by participating in the interactive artworks. People have developed various communities in order to keep living or to have a stake in the outcome. Communities comprise families, groups, schools, armies, nations, nongovernmental organizations, and cyber communities. Communities are made by humans and are disbanded if this is the communities' objective. People want to both belong to communities and escape from them. This is the destiny of people, either to be together or to be alone. Overthrowing communities does not mean breaking them down but expanding them. This is not anarchy for a society but rather a renewal of that society. The process of disruptive community enhances the value of human groups and defamiliarization about organizations made by humans in order to discover the value of human relationships.

3) Disruptive Role of Interactive Artwork

Audience members performed interactive art and overthrew social roles by participating in the interactive artwork. Humans have performed roles for their own sake and to maintain society. Private people assume roles that are satisfactory for themselves or to get close to people in interest groups. Overturning a role not only means the destruction of the role but also an extension of the private role for the discovery of one's own values. Also, this does not mean moral action or

the destruction of the organization or the system. This is a creative renewal that works to make a new paradigm in sociology. The process of disruptive roles enhances the value of human performance and of finding new abilities.

In these ways, audience members in the interactive artworks performed their own activities and overthrew the three social values: rule, community, or role. These are the disruptive aesthetics in an interactive artwork.

Conclusion

We researched an interactive artwork in view of disruptive aesthetics. The audience members directly performed in interactive artwork and overthrew the social structure in three categories: disruptive rule, disruptive community, and disruptive role. We analyzed interactive artworks based on the framework and proposed factors in the disruptive interactive artwork.

Producing interactive artwork through disruptive aesthetics gives pleasure in different forms from other interactive installations or interactive games. These are the aesthetics of intrinsic, disruptive, interactive artwork. Art overthrews the framework in order to create more art.

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