The Role of Eye Contact and Spectatorship in Interactive Installations

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Abstract

Eye contact is an innate and powerful way to communicate intimacy. This paper investigates the effect of eye contact in interactive installations focusing on the relationship between artworks and spectators. In a traditional exhibition setting, spectators take the initiative to connect with the artworks by taking actions such as watching or listening; specifically, the artwork becomes activated as a result of the spectators' engagement with it. Therefore, the aesthetic experience of spectators and the spectatorship depends on the ways spectators see that artwork. But the gaze operates in a different fashion in interactive installations where the reactivity activates independently of the spectator. This paper proposes that interactive installations are activated in a different way that has implications for agency, mechanic systems.

Background context: Spectatorship in Traditional Exhibition Settings

Both John Berger and Michael Baxandall illustrated how the viewer's way of seeing would affect the interpretation of the artwork. American neuropsychiatrist, Eric R. Kandel argues that the relationship between artwork and spectator, which he called "beholder's share" is always interdependent. That is to say, art is necessarily completed with the perceptual and emotional involvement of the spectator. [1] "We never look at just one thing." said John Berger in his book "Ways of Seeing", "we are always looking at the relation between things and ourselves." [2]

Although the white cube is believed to be a neutral exhibition environment, O'Doherty argued that they are not a "neutral container." [3] A museology scholar, Helen Rees Leahy, elaborating the point by describing how different sensory stimulation is produced by using different schemata. [4] Therefore, the design of the exhibition area and how the artwork is displayed affect the presentation of, and therefore the meaning made of, each artwork. Moreover, the museum guide or the exhibition catalogue may also suggest spectator the 'proper' way of seeing the artwork. Art historian Baker mentioned in 1997 that "guidebook may suggest what a visitor should look at, even the route that he or she should follow". [5] For example, in MoMA's twentieth anniversary exhibition "Timeless Aspects of Modern Art", the exhibition designed a map to recommend spectator to follow the route and order to watch different artefacts. This limited how viewer to communicate and building connection with different artworks in a specific way.

Spectators' ways of seeing is about how our bodies choose to watch and how we situate ourselves in relation to the visual. Baxandall, in *The Period Eye*, also focused on how humans perceive visual images, depending on skills of interpretation. [6] Berger and Baxandall both suggested the ways of seeing or the skills in seeing could be acquired from both nature and nurture. Therefore, I would conclude the ways of seeing or the skills in seeing acquired are affected by experience, culture and education.

Factors Influencing Ways of Seeing

In the western culture nowadays the position for viewing paintings and photographs is at eye level, that is why normally galleries suggest that eye level is the 'best' position to hang painting and photography. But in Royal Academy exhibitions between 17th century to early 20th century, the paintings were all placed 'salon style' which means paintings were hung from floor to ceiling on the angled wall and spectators and therefore most paintings were viewed from below. Therefore, the cultural difference between generations not only shifts the way paintings are hung paintings, it also alters the way spectators to see paintings.

Different philosophers and psychologists such as Bertrand Russell (1926) and Ulric Neisser (Neisser, & Jopling, 1997) have made in-depth studies and then stated that experience affect one's behavior and also one's the perception of things. [7] [8] French sociologist Mauss in 1934 also mentioned a novice spectator could learn the skill or technique in viewing exhibition by experiencing and emulating the practiced spectators' behavior. A video-based field study has been done by Heath and Lehn, social interaction researchers in investigating how spectators in groups interact with artworks, specifically how the

social effect influences spectators in the ways that they see and perceive artworks. They discovered that one's way of seeing and perception will be affected by the other spectators in the same exhibition area. For example, a spectator will follow and imitate the previous spectator's ways of seeing, such as standing in the same position and assuming the same posture to look at an artwork. [9] This imperceptibly social experience shapes spectators the ways of seeing artwork in exhibition.

Education about art is also a significant factor that impacts a viewer's perception of art. When private owners and different institutions started to turn their private art galleries to publicly accessible spaces in the early 19th century, the education of the public about their behavior in a gallery started. "The behaviour of visitors to early museums (such as the British Museum and the National Gallery) and art exhibitions (such as those organized by the Society of Arts and the Royal Academy) was scrutinised, not only for compliance with the institution's rules of admission, but also for evidence of aesthetic receptivity and cultural competence." (Leahy, 2012) In 1832-1836, The Penny Magazine published three essays about encouraging the working class visit the museum, explaining what they could do, what they should pay attention to and introduce the rules of exhibition.

In summary, cultural background, experience and education in art are all factors that shape the spectator's ways of seeing, affecting the ways how they view art, these include how they stand in different location, distance and even affect how they spend time in viewing different artworks. Spectators in a traditional exhibition setting take the initiative to build a relation with different artworks, and that artworks are passively connected by spectators' ways of seeing. In this traditional aesthetic regime, the aesthetic experience of spectators and the spectatorship is very much depended on the spectators' ways of seeing.

Interactive art

The development of interactive art in 20th century suggests a new kind of spectatorship, a more interdependent connection between spectator and artwork. Before discussing the role of the spectator further it is useful to further define the terms such as "interactive media" and "interactive art".

Definition of Interactive Art

There is no agreed or clear definition of the term "Interactive Art". Different researchers offer different definitions of interactive art. For example, an interactive artist, Nathaniel Stern defined interactive art (and interactive installations) as "including works

of electronic and digital art that feature… interactivity is understood as the requires physical activity of a viewer- participant in order to fully realize a technology- generated and process- based work." [10]; Another interactive artist and scholar, Don Ritter suggests that an interactive installation should contain the features that include (1) a real three-dimensional space serving as physical environment, (2) audience must experience the work through physical action, (3) the physical form of the artwork changes and will respond to certain physical actions of spectators [11]. Media archaeologist, Erkki Huhtamo also give a more specific definition that interactive artwork is necessarily actuated by a "user". The interactive is not only involved physical bodily action, but also more important in mental, "the reception of art." [12] We could see that there are some things in common among different definitions. First, interactive art requires the participating and physical action of a spectator. Second, human participation is necessary to make the artwork itself to change accordingly. Third, artwork and participant have an intimate relationship in the process of making interaction and in generating the outcomes.

Many of definitions also associate interactive art with electronic and digital technology. But some argued that interactive art is not necessarily related to computers and electronic technology. For example, human computer interaction researchers Edmonds argue that people nowadays rely on many interactive systems such as a washing machine in daily life and these programmable and electronic-based interactive systems have transformed participative art. [13] Daniels Dieter has a similar concern and notes that "Because of the way we today commonly speak of interactivity as a technical achievement, we all too easily forget that similar principles existed long before digital technology was ever introduced, though this was an interactivity between man and man and not between man and machine." [14]

Media Archeology of Interactive Art

According to Huhtamo, "Interactive media" is an outcome of the history of the human / machine relationship that goes back to the industrial revolutions that began in the second half of the eighteenth century." [15] Different technologies including media technology developed rapidly through industrial revolutions and produced new possibilities for interaction. Artists employed new technologies, and explored the connection between human and machines and also the connection between humans though using technology. They also tried to explore more types of spectatorship by constructing different aesthetic experiences.

In the 19ᵗʰ century, touching artifacts in museum was not allowed. ""Touching with one's eyes only" was a manifestation of an ideological "mechanism," where the formation of the aesthetic experience was associated with "stepping back"-maintaining physical distance from the artwork." (Huhtamo, 2007) But avant-garde pioneer artists Duchamp and Man Ray created unusual aesthetic experiences for spectators at the opening of the 1938 Exposition Internationale du Surréalisme. The exhibition environment was nearly dark, by giving flashlights to the spectator, the artists encouraged the spectators to come close to see the artworks to create an unusual aesthetic experience and interaction with the artworks and exhibition environment. (Huhtamo, 2007)

In this earliest stage of interactive art, digital technology is not yet employed. Most scholars use Marcel Duchamp 1913 "Bicycle Wheel" as the example of early experimental interactive art to start their discussion of interactive art. (Edmonds, 2011 & Huhtamo, 2007) The work "Bicycle Wheel" is commonly described as a pioneering work that used a "readymade" object in making artwork. Huhtamo mentioned that Duchamp chose the objects that we often touch with in our daily lives and the display of these readymade objects in gallery opposed the regulation of "untouchable" in traditional gallery. Duchamp displayed his readymade works with enigmatic texts encouraged the spectator to come closer to investigate, "further increasing the tension between "to touch or not to touch."" (Huhtamo, 2007) Although no one can sure that a spectator really did spin the wheel in the gallery, Edmonds and Huhtamo both agreed that the artwork displayed encouraged the spectator to interact in the simplest sense, to spin the wheel. (Edmonds, 2011) Another example of early interactive art is "Transformables" created by Yaacov Agamt in 1956 which is an adjustable painting that could be played by audiences. Those experimental interactive artworks such as "Bicycle Wheel" and "Transformables" and the unusual gallery experience created by Duchamp and Man Ray at the opening of the 1938 Exposition Internationale du Surréalisme encourages the possibilities of interaction between artworks and spectators and arguably created a more intimate aesthetic experience for the spectator than ever previously known.

1950s Onward: Interactivity

The development of electronics catalyzed the growth of interactive art. For example, Robert Rauschenberg in 1959 made "Broadcast", a painting with three concealed radio knobs and spectators were encouraged to turn the knobs in order to control the radio's volume and frequency. Personal computers invented in 1960s

and triggered a significant growth of interactive art and the development of ideas related to human-computer interaction. (Edmonds, 2011) Huhtamo has described this human- computer interaction as "interactive computer". "Computer could have an important role in facilitating, or managing, interaction… By 'managing', was meant that the computer controls the way an artwork performs in relation to its environment including its human audience." (Edmonds, 2011)

Huhtamo in the essay "Trouble at the Interface, or the Identity Crisis of Interactive Art" listed some "classic" interactive art created between 1970s -1990s such as "Videoplace" by Myron Krueger (1975), "Very Nervous System" by David Rokeby (1982-1991), "The Surprising Spiral" by Ken Feingold's (1991). He summarized the common characteristics of those works. Those characteristics are also the common definition of interactive art, including using computer technologies and necessarily to be activated by spectators and required the spectators to physically engage and interact to function the artwork and reveal the meanings. It seems that these "classic" interactive artworks constructed a "official" definition of interactive art, a canon.

The Power of eye contact

As shown in the discussion so far, interactive art using ready-made object, computer and electronic technology to create interactivity between humans and machine or between humans, builds intimate aesthetic experiences for the spectator. When eye contact is used and employed as the element in installation art, this paper claims it further strengthens the connection between spectators.

In psychology, eye contact is nonverbal communication and behavior. Research into oculesics· has been conducted to explore the power of eye in in nonverbal communication. Cross-culturally, in both occident and Asia, eyes are considered the windows to our 'soul'.

There are important differences between mutual gaze and gaze. Mutual gaze is people looking at each other (eye contact) and the gaze is one person looking at the other. Research has showed that mutual gaze is an important factor in social communication and powerful in linking between humans. [16] Babies can innately detect mutual gaze and gaze direction." (Farroni, Csibra, Simion, & Johnson, 2002) and three month old babies can use eye contact to interact with adult caregivers. A nonverbal communication scholar, Mehrabian did a role-play experiment of a group of people in 1972 and discovered that the amount of gazing to the other is proportion to the amount that

they reportedly liked the other. The longer mutual eye contact is "signaling desire for heightened intimacy" and "perceived as an indicator of a longer relationship" [17]

My concern is whether artists employ this innate behavior, eye contact, in artworks. And whether doing so helps to build a more interdependent connection between artwork and spectator.

"The Looker" – A case study

In 2015 the author created an experiment to explore the power of eye contact in building intimate and interdependent relationship between artworks and spectators. The installation invites spectators to make eye contact with eyes projected inside a metal storage locker.

In *Storage Locker* there are two holes in the locker door. When spectator looks inside, sensors trigger projections of eyes to give eye contact with the audience. This immediate eye contact builds intimacy. Spectators mostly spent 30 seconds to a minutes to stand in front of the locker to interact with the installation. When I talked to some of the spectators, nearly all of them agreed that they feel connected with the eyes projected inside the installation and most of them agreed mutual gaze made the connection more intimate. When I try to further ask them to distinguish if the connection built is only with the eyes projected or also the whole installation, most of them had difficulty answering this question; and they would agree that this tight and intimate connection could not be built without the whole setting of the installation.

Moreover, some of the spectators including westerner and easterner asked if the eyes projected inside the looker are their own eyes. This question surprised the author a lot as the eyes projected inside actually are the author's own pre-recorded eyes.

Conclusion

In traditional exhibition setting, the connection between artworks and spectators and the spectators' aesthetic experience are very much depended on the spectators' way of seeing.

The existence of interactive art using ready-made object, computer and electronic technology to create interactivity between spectator and artwork enhances the aesthetic experience of the gaze. Sensors recreate the experience of agency. Spectator become part of the artwork in interactive art who can influence the process and output of the artwork which tighten the connection between spectator and artwork.

Technology and ready-made object in interactive installation continue to leverage the innate intimacy evoked by human behaviors like eye contact to further strengthen the connection between artwork and spectator.

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