

Temporal elements of Aesthetic Experience in Interactive Media Art

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Abstract. The seemingly parallel universes of art, science and technology converge in a work of art. HCI and interface design, UI and Interactive media art have been crossing each others' boundaries (and journals alike) to inform and advance each respective field. Aesthetics goes hand in hand with art, and has recently entered the domain of computer-engineering. Interactive media art presents different issues with aesthetics, since the experience is not only sensorial, but involves an act of participation. Interactive media art presents an event. It is an art work that is activated by a participants' input within a set space and time, and presents a sensorial output within a temporal space. This paper brings focus to the element of time in aesthetic experience and its relationship to the interface.

Keywords: Time and Aesthetic Experience, Interactive Media Art, Experience Design, Interface Design

1 Introduction

The interface of interactive media art is where artistic explorations and research in science and technology communicate, not only amongst the field but intimately between artist, artwork and the viewer/participant. The meaning of the piece is derived from the conversation of these disparate fields, the interaction between the sensorial elements of the art work and the experience of it, which is designed to provide a deeper understanding. Interactive media art presents different issues with aesthetics, since the experience is not only sensorial, but involves an act of participation, which takes place in real time. A viewer's engagement with the machine/computer-element of the piece depends on the interface design, and time can be written in to the interface to affect its experiential properties. This paper's goal is to focus on the temporal element of the aesthetic experience in interactive media art. Interactive artwork which uses a computer or other technology to mediate the interaction is dealt with in this paper. The next chapter deals with components of aesthetic experience, broadly, to encompass the concept with a general public and its relationship to time. The following chapters analyze temporal factors of the participant's aesthetic experience in terms of the interactive interface. This paper addresses the valence of the interface of interactive media art, and the temporal aesthetic issues involved.

2 Aesthetic Experience

As we enter the age of media art - the digital age - multiple perspectives and voices have emerged in regards to the aesthetics of interactive artworks and experience of it. Art historian, Katja Kwastek explains, "interactive art manifests itself in its full complexity only through the ever new realization and actualization by the visitor - the active experience of the work is considered the basic source of aesthetic experience. [1]" The artist's concept is delivered through the interactive experience of the human - art object - machine. The quality of this encounter is determined by the interface. Psychologist Slodoban Markovic devises three components of Aesthetic Experience; high attention and arousal to an aesthetic object, high cognitive engagement, and a strong feeling of unity with the art object.[2] These components are the criteria for evaluating temporal factors of the interface in an aesthetic experience.

3 Time

...by making temporal structures available for activation, electronic media, and with them interactive media art, create a new potentiality for time. [3]

With input from a participant, interactive media artwork releases its output in real time. During the aesthetic experience participants are in a state of intense involvement; they are strongly focused and fascinated. "They lose their self-consciousness, the awareness of the surrounding environment, and the sense of time [4]" When the artwork is activated, visitors enter a temporal space, and ideally lose their sense of real flowing time as they engage with the artwork. Scholars and practitioners of HCI have been responding to this realization since the 1980s.

The interface of the technology of the artwork is programmed to react in a certain behavior. With the temporal aspect of the interactive experience in mind, artists/designers can program temporal elements within their piece to clarify meaning and augment aesthetic experience. The duration of the interaction is determined by the participant. Depending on the participants' interest level, he/she either continues or terminates an interaction. Participants are in control. Depending on the contents of the piece, creators of the artwork can provide empowerment, by offering more control. For example, when participants can fast forward and/or decelerate the sensorial contents, the "play [5]" time is likely to increase. A player's engagement time is influenced by the response time programmed within the system. During play, the experience happens in real-time, "now," and in certain situations like telepresence, multiple things can happen simultaneously, in different spaces, but in the same real-time. Disparate events take place within different aspects of the time factor.

3.1 Durational time

Unlike performances, the activated artwork's duration is determined subjectively; the participant has the power to decide his/her interaction time depending on his/her level

of interest. The response can be about ugliness per se, nonetheless the experience should be arousing and interesting. The following suggests ways to increase arousal and interest through time.

3.2 Play Time

When the pre-programmed sensorial output - visual, sonic, movement, etc. - fast forward, rewind, accelerate, decelerate or repeat, the viewer gains control of the interaction. It can be a learning session where the user informs themselves of the functions, a matter of play, exploration, or to gain details into a narrative. It can also be considered a strategy for "empowerment" to the viewer/controller to change the process, sequence, scenario and/or time. All these scenarios would elevate arousal and interest levels and add to the aesthetic experience.

3.3 Response Time

When it comes to response time of the system, different opinions have formed in the UX design community. Interaction design professor Löwgren stresses consistency in response time, while Djajadiningrat et al. believe in variability - "responses should be appropriate to the actions and functions involved," and reinforce their idea with adjectives like "richness" and "interesting." [6] Löwgren elaborates the reason for consistent tempo is "the human propensity towards rhythmical patterns and temporal predictability." [8] The ironical interactive art piece by Friese and Kossatz, *antworten.de* (1997) deliberately disrupts the notion of reasonable response time. Visitors who access the Web page encounter a number, droning repetitive elevator music, and a message stating "We are now serving 83. Your number is 88. Please be patient!" The number is updated, but skips the visitor's number. The emotive response to the piece can be frustrating, disappointing - negative; it is nonetheless aesthetic in the sense that it transcends negative emotional responses to create interest and

3.4 Performative Time

In the case of Stelarc's *Prosthetic Head* (2002) is a talking head; it lip-synchs in real time, has the capability to synthesize speech and has a digital voice. The head can change its facial expressions, tilts, turn, and change its eye gaze. There is a keyboard placed in front of the bigger-than-life-size projection for users to type questions, which the head answers. The artwork contains a database of Stelarc's personal information and philosophy. [9] The interface in combination with database create a variety of interactions which Kwastek calls "live performance." [10] Saltz refers to this as "participatory performance" and adds how there is different meaning making every time there is an occasion of interaction. [11].

4 Conclusion

Artist and theorist of Interactive Art, Simon Penny observes how interactive artworks "produce instances of presentation based on real time inputs [12]," and emphasizes the temporal element in interactive media art. When artist/designers play up time within their interfaces of their interactive media art works, it would upsurge the aesthetic experience. The duration, play time, response time, and performative time are elements that can raise levels of fascination with the work, lead viewers to have an intense relationship with the art, and be involved to appraise its value and meaning. Taking time with temporal elements will allow creation of interfaces that result in an immersive aesthetic experience.

Farther research into other aspects of temporality - i.e. narrative time and its structure, musical tempo - or the combinations of the aforementioned temporal elements and its affect on meaning-making would benefit artist creating aesthetic experiences, interfaces and artwork that make a mark in history.

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