

**THE SPECTATOR AS INTERACTOR:
Myths and Perspectives of Interaction
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Lecture in CGAC Santiago de Compostela, 23.01.2004

When nowadays we talk about electronic or telematic media, we normally point to interactivity as an implicit feature in an almost automatic manner. It is easy to verify in press articles or art reviews that the commercial marketing around interactivity has been and still is being assumed by the media art. The simple fact of establishing a control mechanism or an interconnection between work and spectator (transformed into user) is considered as an interaction. Interactivity becomes not only the sign of the contemporariness of the piece of work, but even of its quality (sic). Although the use of the concept "progress" is presently avoided (due to the well known post-modern arguments), it is as if interactive art meant an evolutionary step in the context of history of art. The trend of interactivity has transformed even the mere action of clicking with the mouse in a model of interaction, and the purposeless act of "surfing" the net into an art of navigation, something which, in reality, as opposed to the promised interactivity, is cultivating Internet-dependant parasites.

Therefore we must make a broader analysis of the possible relation between art and interactivity, casting aside exclusively propagandistic issues around the topic. Introducing the active involvement of the spectator in the work requires redefining four essential fields: perception, exhibition, communication and structure. The adaptation of the structure to a bidirectional communication system involves the development of a "mediator", which will be responsible for this role, such as the case of an interface design. This means connecting purely aesthetic and personal interests to the creation of an interactive relation between the user and the production. Like in an orchestra, in which musicians must subordinate their personal interpretation to the interests of the whole, but, in turn, they must meet the general guidelines established in the score in accordance with a series of aesthetic and harmonically effective criteria. So, the interface design is established according to

perception: the creator of a production or interactive piece of work must be able to think, beyond his own inspiration, in favour of the user, of the audience, since an essential part of the interactive work spins around the development of interactivity itself. This means that the communicative process of the interface must be adjusted to human behaviour in general.

Perhaps this is where one of the greatest changes with regard to participative conceptions lies: when we talk about interactive art, we refer to a type of production specifically conceived in order to provide a dialogue with the user: the piece of work stems from the action and intervention of the spectator. The audience must act in the context of the piece of work or production, which is transformed into an environment which can be experienced both physically and emotionally.

This implies formulating a new concept for the structure of the piece. An interactive piece allowing the integration of the spectator must necessarily have an open structure, which will facilitate this access. This means a rupture with the traditional sequential system, a rupture with the defined finished structure of the objectified work of art. Interactive art subverts the system that has been objectified, defined and concluded by the artist, a predominant system in our Western culture and in artistic manifestations. Therefore, the interactive work of art means a step forward with regard to the classic aesthetic theory, focused on the art object, towards a new theory, which has as its main reference point the observer, the audience, the user. The process prevails over the work; as a consequence thereof, the object disappears in the electronic process. An absolutely temporal, dynamic and changing relation is generated, which substitutes the idea of permanent and unalterable space and shape of the art object in classic aesthetics.

A representative part of the production establishing a communication between human and machine (user & piece of electronic work) is focused on control: the audience, by acting in the context of the piece, controls the processes. As we will now proceed to analyse, control is a key phenomenon in order to understand the interface. There is an illustrative example we have all experienced: the navigation in projects based on closed memory systems, such as CD-ROMs, online hypertexts or web art. The user exerts control on the process, on the navigation, but not establishes a real dialogue with the piece. Consequently most of the works of web art or multimedia art cannot be characterised as interactive, but are basically participative or reactive.

Interactive art works, in order to be considered as such, involve a real information exchange between systems, such as the human and the digital. That is, the possibility that an element, which is external to the machine, becomes part of the process by means of the introduction of information, so that it may generate new information, which was not originally included in the programme. I would like to put an example of a work of art, in which the audience, with its action, becomes the motor of the installation, filling it with content. I am talking about Paul Sermon's piece *Telematic Vision* (1993). This telematic installation uses two spaces located in different places (two museums in the same city), connected via ISDN telephone lines, in which the two same objects, a sofa and a screen, are placed in an identical manner, creating two perfectly equivalent spaces. Video cameras located in each of the spaces capture images and movements of the observers who are sitting on the sofas. The two images are mixed together, via a video effects generator, and displayed on the monitors in front of each sofa in both remote locations simultaneously. We can see together the people who are sitting in physically remote locations.. The audience becomes a voyeur of their own spectacle.

In this type of simulated telematic worlds, people are simultaneously internal and external observers. The term interactor (which comes from the world of theatre) allows us to define this new spectator profile. In Sermon's work, we observe that the interactors dialogue not only using the interface, but "in" the system interface itself, creating their own show. The clear separation between the telepresent body and the real physical body disappears, since the interactors will now virtually exist *in* and *between* both. (The issue around the concept of virtual body is explicitly dealt with by Stelarc in his performances.) In this sense, human computer interfaces play a role, which is similar to that of other media that human beings need in order to communicate amongst themselves and facilitate the coupling of different systems. The boundary or possibility of the interface represents the knowledge of the interaction context on behalf of the interacting agents. In this context, we have to seek the reduction of communication time and distance and we need to achieve the optimisation of the reaction time and the flexibility in the interrelation. This optimisation brings about the reformulation with regard to the understanding of the positions assumed by each system—subject and machine—intervening in the communication process: the subject ceases to be the operator that consciously and integrally controls the tool; and the machine experiences a progressive increase in

the degree of independence of its operation, that is, it is no longer an inert machine in the conventional sense of the word. This means that, for intercommunication to occur, there must be a language translation process. Thus we can identify the three main factors to understand the interface: **context, time and translation**.

The temporal factor plays a relevant role with regard to both the optimisation of interaction as a recursive process, and the reaction time gap for both systems. These are, in fact, some of the reasons why experts systematically investigate the possibilities of achieving real time interaction. Nevertheless, we need to assess the so-called real time interactive processes as simulations of the so-called real time, since any transmitter or receptor requires a specific coding and decoding time of the message (not to mention the time required to understand and process the information received, or the time to prepare or to reflect on the message to be sent).

Finally, there is another determining issue, which revolves around the concept of translation. From the standpoint of technical construction, the interface assumes the role of translating and transmitting the information amongst connected or coupled systems. If the interfaces are necessary to make possible the interaction amongst two or more distinctly organised systems, it is fairly clear that the shapes and structures of the systems involved must constitute an intelligible communication environment based on the adequate translation. The "translation" factor normally absorbs a considerable part of the attention in the conception and technical production of the work, since, apart from connecting different input and output channels, it must regulate and transmit different coding processes.

All the aforementioned transformations involve a change in the approach used with regard to aesthetics: it is not about reflecting on the images of the world (on the reproduction or representation of visions of the world), but it is rather a matter of questioning the world itself, the reality built from our observation.

We have thus arrived at the last concept, which I would like to introduce: Endoaesthetics. The term stems from Endophysics, a theory conceived by the German scientist Otto Rössler. I have delved into the application of the concepts of Endophysics to the structuring of the Endoaesthetics model in my latest book,

*Estética Digital – Sintopía del arte, la ciencia y la tecnología.*¹ Here I will just introduce the basic concepts.

Endophysics is mainly about the theory of simulation, whose key elements are the observer and the interface. Human beings are part of our world and we cannot have direct access to it or observe the world we live in from the outside. For Endophysics, this position, which is exterior to the world, can only occur in a model (a simulated system) and not in reality itself. For this reason, it is necessary to create an interface between the observer and a world, or a model of world, like, for example, an artificial computer-created world. In this type of simulated world, we become internal and external observers in a simultaneous manner. Sermon's work, in this case, is paradigmatic, since it allows to analyse the narrow bonds existing between the new digital aesthetics and Endophysics. In this piece, we deal with topics that are characteristic of Endoaesthetics, such as the relativity of the system that is conditioned to the observer and the possibilities of integrating, using interfaces, internal observers in a (virtual) system, which may be observed from an external standpoint. From the viewpoint of Endoaesthetics, interactive or virtual pieces only exist as such (they only acquire meaning) to the extent to which there is an active interrelation between the interactor and the system (the piece of work). Therefore the interactive system is always potential and does not exist actively in an autonomous manner, since it is subdued to the (visual, sonorous, tactile, gestural or motor, energetic or bodily) contribution of the observer or the environment. This shows the peculiar potentiality of interactive art to overcome the borders of what is purely instrumental and then become a resource of imagination for the generation of visual environments, which can be experienced in a cognitive and sensorial manner.

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¹ Claudia Giannetti, *Estética digital - Sintopía del arte, la ciencia y la tecnología*. Barcelona, ACC L'Angelot, 2002. See: *Aesthetics of the Digital* (2005). In English: "Aesthetics of the Digital" http://www.medienkunstnetz.de/themes/aesthetics_of_the_digital/