

A decade of interactive media

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Ten years after the electronic game *Myst*, interactive media is enjoying a good bill of health in its games applications, but has not yet achieved its potential in the fields of documentary and fiction. This article, which is accompanied by two websites for reference, describes this situation and the different characteristics of interactive communication.

Although by its very nature, there was an interactive aspect to the first computer in history, this quality has only acquired relevance in the cultural sphere with the appearance of graphic interfaces and the consequent possibility, which appeared in the eighties, of carrying out creative and communicative tasks.

Over time, image and sound processing has been perfected and the first author programs and platforms emerged for multimedia production and diffusion. 1993 saw the appearance of *Myst* - the electronic game with the greatest cultural impact yet, while in parallel, Internet bust in on a planetary scale. In just a few years numerous games appeared, as well as installations, interactive educational material, material for dissemination, *hyperfiction*, etc., in such a way that interaction, both on and off line, became the great new thing in entertainment and communication.

However, from the year 2000, the so-called *New Economy* that had emerged around digital technology slumped at the same speed as it had built up, and put an end to almost all cultural interactive initiatives, except for games which continued to be active within a power-

ful industry. Outside the strict field of games, almost all the producers have disappeared, the Internet is full of *corpses* and the websites that survived have barely started to evolve.

Technically, the improvements have continued at a good rate: greater capacity of interactive platforms offline, (DVD, *Playstation*), faster online transmission (*ADSL*), author programs which include dynamic presentations (*Flash*), etc. These facilities, however, have not resulted in greater production of content or in a more profound interactive language. In fact, following the *boom*, progress has been very limited. The situation has become notably more complicated with the phenomenon of piracy, so that almost all cultural type interactive activities (apart from games) do not easily convert into profits.

The production of this kind of interactive medium has therefore gone from euphoria to depression. In all, throughout these years a series of writers have appeared (Brenda Laurel, Janet Murray, Lev Manovic, Stephen Wilson...) who have reflected optimistically on the potential of the medium. All of them conclude that, within the cultural sphere, the most significant aspect of the

IT revolution is interactive communication, but that its potential has yet to be realised.

Documentary

In addition to games, the first interactive programs were related to educational or documentary proposals. The so-called *electronic books* appeared within this setting, and their failure served to disassociate the interactive medium from books and confirm the need for *added value* which distinguishes interactive from traditional reading. Another lesson that was learned was the audiovisual character of the medium, which was more appropriate for the presentation of images and sounds than for texts.

One of the fields in which the medium has been most widely accepted and which offers the best design is in the dissemination of art. Currently, the virtual presence of a museum is practically essential – a conclusion which has been arrived at thanks to notable experiences such as that of the Louvre museum. Some CD-ROMs, such as *Moi, Paul Cézanne, Joan Miró, the colour of dreams* and *Anne Frank House*, have converted educational exploration into an attractive audiovisual experience, turning the widely cherished *edutainment* concept into reality. These interactive experiences propose a strategy of progressive discovery of the content, inspired by *Myst*. In addition, it gives interactive design (graphic and navigational) its own value. Instead of the “I will show you” that has made up the teaching discourse in traditional media, these interactive authors are saying, “I will help you to find out”. While in *Myst* this strategy incited the discovery of the events of a mystery island, in these other cases the interactor is invited to discover knowledge – hardly the optimum strategy for its dissemination.

On the other hand, there began to be a series of significant examples of interactive descriptions of reality, around characters, towns and stories, which followed the

documentary line of anthropological cinema and could therefore be referred to as *interactive documentary*.

A pioneering experience in this field was the *The day after Trinity* CD-ROM, dedicated to the cinema documentary of the same name by John Else in 1980, about the research and testing of the first atom bombs. The interface of this CD-ROM allows *scalable* interaction, from the passive documentary view to an exploration of sequences which, at the same time, enable access to additional documentation at different levels.

There are subjects which, because of their complexity, are difficult to disseminate using traditional audiovisual media. In these cases, then, interaction becomes particularly effective. The *Commanding Heights* website for example, associated with a North American TV programme, shows with great efficiency the phenomenon of globalisation of the world economy, its historical roots, its leading figures and its repercussions in different countries.

Internet also opens up a dimension that is especially significant for documentaries: the participation of interactors in the enrichment of the works and, in the end, in shared authorship. In the field of social reporting, this kind of work is of enormous value. In sites such as *Tv.One World.net* and *Witness.org*, for example, they facilitate the recording, diffusion and debate surrounding audiovisual testimonies of reality involving their own leading characters.

Digital technology facilitates production and interactive diffusion enormously. However, interactive language also extends the possibilities of the documentary genre. It allows the description of more complex reality, and it allows this on a number of different levels and from a multitude of different viewpoints. When placed on the Internet, the documentary becomes the very reality that

it is describing, while multiple authorship enables the endorsement of this description.

Fiction

Before the first works of dissemination or documentaries, there was already talk of interactive works of literature and fiction, and from there comes the term *hypertext*. With time, however, hypertext research from a literary point of view seemed to have stagnated to a certain extent, probably because the medium, more than literary, is audiovisual.

Among other things, this recognition implies that the references for possible interactive fiction should be found above all in electronic games. It so happens, however, that the professionals and the industry for these games have been far removed from artistic creation, and from thence comes the void which has appeared for decades around research and possibilities for interactive narrative.

Currently this situation is changing: in literary spheres, including universities, research into games is being promoted and there is talk of 'games as culture', which is not surprising when you think that games from the basis of leisure which in turn in the origin of culture.

The term *interactive fiction* appeared for the first time in the promotion of the *Zork* game in 1982. Despite the pitiful narrative of the game, the genre of adventures to which it belonged (the same as *Myst*) constituted a reference model – a model in which the interaction the story is progressively revealed through the interaction.

Another of the patrons of interactive narrative from the world of games is *SimCity*. In this game there is no pre-defined plot, but the story is constructed through the interaction, so that each player experiences a different story. This formula, originally applied to the development

of a city, has been successfully applied to other scenes. In the latest, *The Sims*, it is applied to a family situation. It is therefore a first dramatic simulation and the closest interactive experience to fiction in the traditional sense. It also implies the application of narrative to a genuinely digital quality: the generation of content.

Another games model to consider are the *MUDs* (*Multi User Dungeons*) where the experiences develop in accordance with the interaction, like in *SimCity*, but they also develop in the heart of a community of players, so that the game is not just against the computer, but also against other players, turning entertainment into a space for socialising. In short, the essential references for interactive narrative in the games world are *Myst*, *SimCity* and *MUDs*.

However, the compatibility of narrative and *playability* is still not clear. Theoretically, the differences are great. For example, the differences in the treatment of time. In narrative time is commonly referred to in the past, while games happen in the present. Narrative jumps about in time and tends to compress it. The game, on the other hand, follows strict *real time*. There are also differences in the way in which the space for the action is treated. The spatial environment forms a fundamental part of the game, but in narrative it may be irrelevant.

An electronic game consists of a formal structure which can be completely devoid of narrative content and still function (*Tetris*.) On the other hand, a work of fiction involves numerous elements which do not seem at all easy to formalise. For example, how do you *codify* the dramatic nature of a character?

One of the basic characteristics of narrative is the separation between the author's world (*the diegetic*) and the existential world of the reader (*the extra-diegetic*). The more or less effective achievement of this separation

depends on the success of the story and a suspension of the incredulity of the story towards which every reader naturally tends. Therefore, in an interactive setting, the reader progresses through the story using interaction so that each action – each *click* – implies a connection between the two worlds, and therefore, an incitement to incredulity.

In order to combat this, the games offer a sensation of immersion – the greater the immersion of the player, the greater the sensation of being *inside* the game, and the greater therefore, its credibility. This immersive sensation has important implications for the success of the game and its addictive quality: the identification of the player. However, as the player identifies more with the game, so the other characters take on a lesser importance, the empathy factor is lower and so, in fact, is the richness of the story and its *narrative scope*. Immersion then – the holy grail of interactive communication – is not akin to narrative, but rather opposed to it.

One way of mitigating the identifying impulse and, therefore, reinforcing the attraction of the other characters in interactive fiction is to change the viewpoint. In *first person* games such as *Myst*, the interactor is the leading figure of the story and identification is therefore paramount. In the *third person* games, on the other hand, the interactor controls the main character (*Tomb Raider*) or follows them (*Resident Evil*), which increases the attraction of what happens around them.

From a traditional perspective, interactive narrative is seen as an almost impossible attempt, or in the words of Jesper Juul. “a utopian idea and, at the same time, a genre which continually claims to have created that utopia.” However, other authors defend a different perspective in which it is essential to unburden oneself of the long-borne load of traditional narrative. It is a question of structure much more than of process, in which

a multi-pronged discourse is established in place of a sequential one, and the stories do not necessarily have a beginning or an end, which implies the narration of settings rather than stories, and types of behaviour rather than specific conduct.

It may be that interactive fiction is something very different from traditional fiction and that, in short, it is a question of replacing the *pleasure of narration* for the *pleasure of interactivity*.

Speaking, thinking and listening

Chris Crawford defines interactive communication as a “cyclical process in which two actors alternately speak, think and listen.” This definition helps the interaction of the two characters/people but also the interaction between a person and a computer, once the corresponding metaphors of the computer have been accepted. In technical terms, the activities of speaking, thinking and listening correspond respectively to the *output*, the process and the *input* that characterises any automatic system.

When one of these activities – speaking, thinking or listening – does not occur, then there is no interactive communication. Therefore, an electrical domestic product is not interactive, there is relation but not interaction. Neither is there interaction in literary or cinematographic works because they only *speak* to the reader/viewer, but they do not *think* (there is no internal logic to vary the discourse) nor do they *listen* (the viewer cannot affect the order of the discourse or introduce changes to it). There is *reactive* behaviour then in automatisms, and *participative* behaviour in certain works of communication and expression, but according to this definition, neither one nor the other may be considered *interactive*.

Therefore, throughout this first decade, the only thing to have really developed is the activity of *speaking*. In

fact, images and sounds are transported and presented via computers without any problems. Recently, techniques such as *Flash* have also made the construction of interfaces easier through dynamic handling of the media.

In action games (*Doom, Quake*) *speaking* and *listening* occurs but very little *thinking* – there is no time to think. It is therefore a type of interactive experience with zero repercussions in the cultural field, in which reflection is an essential component. For true interactive communication, *pauses* are therefore necessary to allow the interactor to reflect and think.

The least developed is the action of *listening*. In this sense, the majority of interactive programs are very limited. The technology to be able to listen has not moved on either – the keyboard and mouse, which are the only commonly available devices, were invented thirty years ago and systems of voice recognition, tactile devices and data *suits* are still waiting to be perfected.

As well as a lack of technology, the experience of *listening* is also lacking – ten years is too short for such a complex task. In fact, the main challenge for the interactive designer is to *listen* to the interactors, interpret their needs and give form in the most transparent way possible to the interface that has to serve them.

Interactivity is not a binary quality (either you have it or you don't) but a continuum with a broad spectrum of possibilities. In general, the different intensities with which we speak, think and listen define the different levels of interaction. Nevertheless, the *listening quality* is particularly important.

On a low level, the interactor is limited to choose among options on a menu. A higher level consists of having to localize those options, or even respond to certain tests

or overcome obstacles in order to go forward in their exploration. On the higher levels, the interactor is subjected to greater demands – to participate as a leading character in an interactive environment, contribute to it and even modify it.

One can therefore speak of *weak* interaction – this is the case in the majority of websites – and *strong* interaction, whose maximum expression (participation, contribution and community) is known as *virtual reality*.

However, it is not necessarily a question of maximising the *intensity* of the interaction. Each interactive genre, and each program in particular, corresponds to a weaker or stronger type of interaction. The diffusion of information, for example, requires a weak type (it would be absurd to put obstacles in the way of finding out the meaning of a word in a dictionary). On the other hand, the documentary and work of non-fiction lend themselves to a medium level of interaction (ideal for the rhythm of assimilation), while fiction and free creation in general allow the strongest form of interaction.

The design of an interactive medium therefore consists of finding the optimum level with which the computer is able to *speak, think* and, in particular, *listen*. For that purpose one or several people should possess a combination of audiovisual and computer skills.

While the end results are very different, the starting point for the author of an interactive work is the same as that for the author of an audiovisual work – a more or less chaotic set of visual, aural and textual elements. But while audiovisual programs demand the structuring of these elements in linear form, the interactive program requires non-linear structures (tree, network, etc.) and generally requires the organisation of the content in a *database*, as it is called in IT terms.

The idea of an audiovisual program as a database, as a *constellation* of images and sounds whose relationships are significant, is inseparable from the interactive medium. In contrast to the contemplation of a determined order, the audiovisual database enables direct access to the elements of which it is composed and allows the interactor to explore them as if they were handling a camera, while at the same editing them.

Whether fiction or non-fiction, interactive programs tend to be inconclusive and collaborative. In this sense they are similar to public computer programs – *open software* – which gives form to an entire cultural paradigm. In terms of their *spirit* they are related to certain experimental cinema productions, although they go beyond the purely formal renewal that this kind of cinema generally involves. The nearest precedent in this respect would be the so-called *third cinema* movement, promoted in some Latin American circles in the seventies, which fostered a participative and *never-ending* type of cinema.

Interactive media require complicity in order to discover, choose, reflect, participate and even create. They therefore bear no relation to the ruling audiovisual tendencies whose aim seems to be the complete mental paralysis of the viewer. Instead, they constitute a prolongation of this audiovisual media, a new *twist* to ambition – first literary and then cinematographic – of discovering common or fantasised reality, which more than just colour and sound

is, precisely, interactive. The viewers of this new medium – now called interactors – benefit in terms of presence and identification, intervene in the audiovisual experience and, at the same time, share it with others.

This first decade of cultural interactive media is reminiscent of the first years of the cinema, when the cinematographic language had yet to be defined. The novelty of the image in movement from that time, to the search for authors and viewers, is similar to the novelty of today's interaction, and the consideration of the first cinema as being *vulgar* entertainment is also similar to that received by electronic games.

References

The references quoted in this article can be found, along with others, in the following two Internet directories:

–Interactive documentary
(<http://www.iaa.upf.edu/~berenguer/recursos/doc>)

–Interactive narrative
(<http://www.iaa.upf.edu/~berenguer/recursos/narr>)

These websites have been created as observatories, and the author would be grateful for any suggestions that will contribute to updating them.