Insights about an interactive film installation
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Abstract
The question of time and its relation to cinema is the common thread in this paper. Through research based on experimental practice, this paper explores, firstly, the psychosomatic processes that may give the viewer different perceptions of time. Secondly, it describes the working process of a film that intends to provide the viewer with the possibility of intervening in the film narrative in a disruptive way, seeking the possibility of subverting the filmic discourse.

Keywords: Time, Interactivity, Film Narrative, Surrealism

Introduction
The opening scene of the film Cadavre Exquis is frozen (stopped in time). Three characters meet in the same room. However, the viewer (who interferes in the narrative) has the possibility to travel through the freeze-frame, getting closer to or moving away from each character. When the viewer gets closer to a character he/she may select him/her. That choice results in a flashback, at most 24 hours, which leads up to the frozen moment. By choosing the last character the viewer will unfreeze the opening scene, setting it in motion.

Three scriptwriters were invited to write the scripts. During the initial phase, the scriptwriters were not aware of the other participants and enjoyed full creative freedom over their character: each narrative would have to begin, at most, 24 hours earlier, and end in a room shared with two other characters.

The film Cadavre Exquis, produced by Paula Monteiro (Art8 MACAU), is part of the project The Forking Paths, which is available in an online platform (oscaminhosquesebifurcam.ciac.pt) dedicated to interactive film experiments. In addition to other experiments, the platform includes the films produced for the project: The Book of the Dead (2015) and Haze (2014). The project The Forking Paths began in early 2013, at the Centre for Research in Arts and Communication (CIAC), Portugal. It was implemented in the Film Studies Lab (LEF) and is part of CIAC’s wider research “Creation of Digital Artifacts”. knowledge, namely through practice and through the results of this practice. The Forking Paths platform intends to bring together experimental interactive films of different origins, genres and formats that seek to develop innovative connections between the spectator-user and the narrative. Ultimately, this project, in particular the interactive film Cadavre Exquis, seeks for clues that may lead to possible paths within the evolution of audiovisual language.

Cinema and Surrealism
The first surrealist film is Germaine Dulac’s La Coquille et le Clergyman. The poet Antonin Artaud made the script and then rejected the film. He had several motives, the main one was perhaps Germaine Dulac’s production, which failed to achieve the poet’s vision: “He pensado que se podía escribir un guión que no tuviera en cuenta el conocimiento y la ligazón lógica de los hechos (...). Es decir, hasta qué punto este guión puede asemejarse y emparentarse a la mecánica de un sueño sin ser el mismo sueño, por ejemplo”. If Dulac did not fulfill Artaud’s ambition, Buñuel and Dalí came very close with Un Chien Andalou.

In 1965, during the celebrations of the 40th anniversary of Surrealism (1924-1964), which triggered exhibitions and debates, the magazine Études Cinématographiques published two volumes dedicated to surrealism, specifically on its relation with cinema, trying to clarify not only what surrealist cinema was supposed to be, but also what could be accounted for as surrealist in cinema. In general, when talking about cinema and vanguards, with its manifestos and theories, there is little information on a surrealist theory of cinema, or even on a concrete movement that brought together surrealist filmmakers and cinema theorists. But the relationship between the two is undeniable as are the many ways they have undergone through multiple interpenetrations. What the studies and testimonials published in this magazine do is try to reestablish the relation between cinema and surrealism, not only as an enchantment that the former exerted on the second and vice-versa, but also by showing it is possible to speak of surrealist cinema.
To question the relations between cinema and surrealism implies understanding everything involving these relations, because, according to Gianni Rondolino, the formulation between cinema and surrealism is “etica prima ancora che estetica alla cui base era superamento della realtà quotidiana in una esperienza globale.” Thus, the basic concerns of surrealism, its ethical and moral background, will lead the rapprochement between the surrealists and cinema, first as mere spectators. Soon after they started producing their own dreams materializing them on the screens.

Interactive film

The evolution of the forms of immersion in the history of cinema has contributed to a paradigm shift: the narrative thread does not have to be linear and the doors to an effective interaction between the narrative and the viewer(s) are opened. Nowadays, experimental cinema and digital media use the most advanced technologies as aesthetic strategies that seek to submerge the public, giving them the freedom to build the narrative, by interacting with it. Like the first films of the Lumière Brothers, which emerged as a form of entertainment, some of the earliest forms of audiovisual interactivity also took place at fairs and theme parks, where the viewer senses what is happening on the screen: vibration on the chair, water jets, among other features that allow us to engage other senses, besides our sight, making the experience more complete and more immersive, just as Heilig idealized his Cinema of the Future. In the study on the effect of immersion in virtual art, Oliver Grau states: “popular and spectacular versions of virtual spaces existed as amusement park and fairground attractions in the 1970s and 1980s, particularly in the form of small immersive circular cinemas” (GRAU, 2003), confirming the idea that most of the inventors of audiovisual media were illusionists, whose interests were focused on entertainment shows for the masses.

Zielinski describes the early experiences at movie theatres as “a darkened room, where the spectators, like Plato’s cavedwellers, are virtually held captive between the screen and the projection room, chained to their cinema seats, positioned between the large-size rectangle on which the fleeting illusions of motion appear devices that produce the images of darkness and light” (ZIELINSKI, 1999).

According to Lev Manovich, computational technology has become the new cultural motor in the last decades, allowing the reinvention of the media (MANOVICH, 2013). However, according to Baudrillard (BAUDRILLARD, 1997), an author with a pessimistic view of new technologies, interactivity with machines does not exist, or at least does not imply a real exchange. In other words, there is no interactivity when it comes to exchange: there is a certain interest in rivalry or domination behind the interface. Lunenfeld also expresses some reservations about interactivity, particularly regarding cinema. According to this author, the experiments around interactive cinema have not yet been successful, nevertheless he admits that it is a developing field and that we can still reach a level of interactivity, where the spectator-user can fully take on a role of both director and editor (LUNENFELD, 2005). Manovich, in turn, argues that interactive virtual worlds seem to be the logical successors of cinema and, potentially, the cultural motor of the twenty-first century, just as cinema was the cultural motor of the twentieth century (Manovich, 2011).

Against a certain degree of pessimism, several film projects have tried to apply interactivity in cinema, either at the stage of montage (transforming viewers into co-authors of the creative process) or at moments of bifurcation, where the viewer chooses the path to follow, among two or more possibilities, or offering different viewing options for the film narrative. Several are also those claiming the title of “the first interactive film” in the history of cinema. One of the most successful projects is the Czechoslovakian film Kinoautomat – one man and his house, created in 1967 by Raduž Činčera, for the World Expo in Montreal. In this film, the audience is asked (nine times) to choose one of two given possibilities to continue the narrative. At the first screening in Montreal, the process of choice was mediated by an actor.

Several projects allow the viewer to opt for one of two endings. This is the case of the film Mr. Sardonicus, produced and directed by William Castle, in 1961. Before the final scene of the film, the viewers can vote using a card they are given at the beginning, with two possible drawings, just as it happened in the Roman arenas, where the gladiators fought to entertain the audience: a thumb up and a thumb down, which allows them to choose whether the character should be mercifully spared and live or be punished and die. I’m your man, directed by Bob Bejan, in 1992, also claims the title of first interactive film in the history of cinema. Just as in previous projects, the viewers decided the unfolding of the narrative using interactive buttons installed on their chairs.

Another film announced as “the first interactive film in the history of cinema” was released in 1995, Mr. Payback, written and directed by Bob Gale. Depending on the audience’s interaction, this film lasted approximately half an hour. The viewers were called upon to decide at various points in the narrative, again, by using a remote which was attached to the chair. The film was not very well accepted by the critics, mainly due to the absence of a plot, nevertheless it marked an important step in the way viewers experienced cinema, although the experience itself has been considered by many more like playing a videogame rather than watching a film. Inspired by the work of William Castle in the 1950s, John Waters used the Odorama in the films Pink Flamingo (1972) and Polyester (1981): the audience members are given 10 numbered scratch cards that release scents. Having an important role in the narrative, these scratch cards must be sniffed as their number appears on the screen. In 2000, Berlin artist Florian Thalhofer created the Korsakov System, an application that allows users without any programming experience to build relatively complex non-linear interactive narrative projects, which can
later be viewed online or on DVD/CD-ROM. In the Korsakow System, the narratives are based on SNUs (smallest narrative units) that have multiple points of contact between them. Thus, a K-film consists of a collection of SNUs with multiple points of contact with each other. This system was widely publicized in Amsterdam, namely by Mediatic, a Center for Arts and New Technology, which allowed its wide exploration, constantly testing the boundaries between cinema and technology. The program is available for download (through paid licenses), as well as tutorials that facilitate its use. This system allows users a new level of creativity in the context of storytelling, raising the issue of “authorship” for debate, since the viewer is both author and user.

Between 2002 and 2005, Lev Manovich devoted himself to the development of the Soft Cinema\textsuperscript{11} project, a dynamic computer-oriented installation in which the viewers can, in real time, build their own audiovisual narrative from a database containing 4h of video and animation, 3h of narration and 5h of music. Although the montage technique can be found here, the intrigue in the narrative is non-existent. The montage sequence results from a pre-programming process carried out by the viewer using the keyboard. The narrative is generated by the database. According to Manovich (2011), the database is the counterpart of the traditional narrative form. The concept of FJ (film-jockey)\textsuperscript{12} was created with this project. The result of this work was published in 2005, in DVD, demonstrating the possibilities of the software when applied to cinema. In the three films featured on the DVD, human subjectivity and the choices made through a custom software are combined to create movies that can be rearranged endlessly, without ever repeating the exact same narrative sequences. Thus, in each viewing, the spectator-user encounters a new narrative. In addition to the DVD release, the project has been widely exhibited in museums, galleries and festivals all over the world and has served as the practical basis for research on interactive cinema.

Switching: An Interactive Movie (Morten Schødt, 2003) is a Danish film that has the DVD as the main media. Its innovation is that there are no specific points to choose the path to take, the narrative is structured around a circular system in which everything repeats itself. The spectator-user can intercede at any point in the film, moving to different times and places within the narrative. The interface and content are not divided, the movie itself is the clickable object.

Late Fragment\textsuperscript{13}, from 2007, is a co-production between the Canadian Film Center and the National Film Board of Canada that offers an arborescent structure where the spectator-user is able to choose different paths and gain new perspectives regarding the narrative by choosing which character he wants follow. Later, in 2010, the horror film Last Call of 13th Street, a television channel specialising in horror films, was announced as the world’s first interactive horror film. Using a software that enables voice and command recognition, one of the spectators present in the movie theater receives a phone call from the protagonist asking him/her to help her choose the best way to escape the serial killer who is chasing her. Through this technology, the film becomes unique depending on the instructions of the person who answers the phone.

Take This Lollipop\textsuperscript{14}, directed in 2011 by Jason Zana, includes data and images of the spectator’s Facebook profile in the narrative as a strategy to take him/her from an extradietic to an inradietic level. In 2012, Evan Boehm and Nexus Interactive Arts create The Carp and the Seagull\textsuperscript{15} an interactive 3D movie that takes advantage of WebGL and HTML5 technologies. The film describes a tale of the fisherman Masato, who one day encounters the spirit Yuli-Onna that appears to him in the shape of a seagull.

In 2006, at the Hong Kong Disneyland theme park, Stitch live, a combination of digital puppetry, real-time animation and holographic projection emerges for the first time. In this show, which can now also be seen at Disneyland Paris and Tokyo Disneyland, the virtual character talks directly with the guests with the help of a moderator. Children are encouraged to sit in the front row so that the virtual character can easily “see” them, facilitating the communicative process between the animated 3D character and the young spectators.

In 2014, the film Possibilia\textsuperscript{16} (2014) is released, directed by Daniel Kwan and Daniel Scheinert (the DANIELS\textsuperscript{17}). In this film, Rick and Pollie are in a difficult separation process. Pollie is preparing to move out and leave Rick. He asks her to stay and they start a fight. The public is given the opportunity to watch the argument between the characters through different perspectives, offered by small images (thumbnails) that are at the bottom of the screen. The text remains the same, however the perspective and the tone of the argument change according to the spectator-user’s choices. Throughout the film, these small parallel images multiply themselves, allowing the spectator to change the way the story is told, while maintaining the same argument. At the end, having exhausted all possibilities, Pollie returns to the door, leaving Rick alone, closing the film narrative at the point where it had begun.

The project Circa 1948 (2014)\textsuperscript{18}, by Loc Dao, leads spectator-users on a virtual tour to different places in Vancouver just as they were in 1948. This is achieved using projected images all over a room to surround the spectators. Their movements are followed by kinetic technology.

These projects seem to fulfil Manovich’s predictions regarding the cinema of the future: “The typical scenario for twentieth-first century cinema involves a user represented as an avatar existing literally “inside” the narrative space, (…) interacting with virtual characters and perhaps other users and affecting the course of the narrative events” (MANOVICH, 2011).

However, recent examples of interactive film experiments, such as Tobias Weber’s Late Shift (2016), continue to adopt the same structure used by the pioneering interactive films in the 1960s: an arborescent structure based on a simple and occasional choice made at certain moments of the narrative, where the spectator-user can choose path A or B.
Cadavre Exquis: the screenplays of the movie

If surrealists defended spontaneous creation through the various techniques they proposed (such as automatic writing or Cadavre Exquis), how could one speak of surrealist cinema, since this degree of spontaneity is not possible in the making of a film? We intend to come closer to the idea of surrealist film through a collective and, in a way, unconscious process of script creation. As mentioned in the introduction, three scriptwriters were invited to create three narratives based on a character who, at the end of the narrative (24 hours later, at most) would meet two other characters in a room. The scripts would form a succession of sub-narratives which, just as in the Cadavre Exquis game, converge in the main narrative, eventually ending up in a succession of unlikely scenes. A common opening scene would be added: the scene of the three characters in the same room.

It is hereby intended a connection to the idea of automatism and to the processes that govern the unconscious: dream-condensation and dream-displacement are not perceived at the time they occur; while we are dreaming we are not aware of the process. The following scripts resulted from this primary cause:

Cadavre Exquis: montage and interactivity

Just like the window that cut the man from Breton’s dream in two, so does reality move across the body of artistic creation: photography and cinema, even in their most radical manifestations, carry with them the light imprint of some captured reality. Cinema has quickly showed how it transformed the reality that crossed it in very particular images. It evolved using its own means. For some, such as André Malraux, a cut within the photogram was the debut of Cinematographic Art, i.e. the means. For others, such as Apollinaire and Cendrars and widespread by surrealism, is a way of rétablir la continuité de la parole poétique. The film is supposed to consist of a continuous movement of the word (absence of punctuation) and the discontinuity of images.

Cadavre Exquis: time

Philippe Soupault, in an interview with Jean-Marie Mabire published in the aforementioned volumes of Études Cinématographiques, stated: “Le cinéma a été pour nous une immense découverte, au moment où nous élaborions le surréalisme. (...) nous considérons alors le film comme un merveilleux mode d’expression du rêve.” Cinema has a feature that will make Breton’s dream come true: the possibility of fragmenting time, of showing past, present and future simultaneously. “(O tempo) é mutilado, saqueado, aniquilado. O presente e o futuro não mais se contradizem. Vivemos hoje e amanhã, tão facilmente quanto hoje; vivemos até, simultaneamente, ontem e amanhã”. Time in cinema was perfect for those who wanted to bring out the structure of dreams.

Barry Dainton (2010) summarizes the different proposals of the structure of temporal consciousness into three models: Retentional Model, Extensional Model and Cinematic Model. In the Retentional Model, the experience of change and succession occurs in episodes of consciousness, whose contents represent temporally extended intervals, despite the lack of temporal extension. These episodes have a complex structure and comprise the momentary phases of immediate experience as well as the retainings of the recent past. The streams of consciousness are thus composed of successes of these momentary states. In the Extensional Model, the episodes are themselves temporally extended and are able to incorporate changes. The streams of consciousness are composed of successive episodes of extended experience. Finally, in the Cinematic Model, immediate perception lacks any temporal extension. The same applies to the contents we are directly conscious of, which somehow resemble photograms. The stream of consciousness is thus composed of a continuous succession of momentary states of consciousness, hence resembling films that consist of frame sequences.

The idea of a freeze-frame (of the opening scene) is just that: a frame with no sequence. However, in the film (Cadavre Exquis) the viewer can travel through the photogram, giving it a sequence: a possibility of a past and a future, or better, a possibility of new present frames taking place after or before the initial
photogram. The aim is to achieve a relaxation and a reconstruction of the idea of time in cinema, where the relation between space and time is overruled by an eminently oneiric temporal dimension.

**Implementation of the interactive film**

*Cadavre Exquis* was implemented as an interactive film in two ways: a web-based version, controlled by the keyboard, and an installation, controlled by motion detection. The latter proved more interesting, as it provided the opportunity to observe the public’s reaction, from which we derived some of the conclusions stated ahead. At the time of this writing it has been twice presented to the public, once in the Literary Festival of Macau, China, and once at FICLO (Festival of cinema and literature) in Olhão, Portugal, in March and April of 2019 respectively.

**Conclusion**

Apart from minor technical aspects, the main lesson we take from these two presentations of the work is that the existence of an interactive aspect to the film tended to make that aspect dominant in the mind of the viewer, and provoke a break of expectations if interaction was not constant: some of the viewers suddenly expected a game of sorts rather than a film. Hence, such interactive aspects must be handled with extreme care so as not to hinder the fruition of the film as an object of art. This is however a common danger in all media that mixes multiple arts – think of Operatic works, where librettist and composer, scenery and costume so often compete for attention rather than truly blend into a powerful whole. Potency of effect comes not as easily from blending the strength of multiple aspects but from the singular focus on a single one and a ruthless submission of all others to a supporting role. The main lessons of art seldom change, even as they take new forms.

Further, we cannot consider the interactive film *Cadavre Exquis* as Surrealist. There are a number of factors that detach it from this movement. First of all, the temporal distance to a movement which, like all others, belongs to a certain time. The idea of production is, in itself, a factor of differentiation from the surrealist intentions. The whole pre-production, production and post-production process of a film is necessarily rationalized and planned in detail, thus being an antipode to surrealist techniques. The very idea of film interactivity may be regarded as an intolerable artificiality, but, at the same time, as a catalyst to the idea of collective creation, due not only to the possibility of coauthorship offered to the viewer, but also to the freedom he/she is given to deconstruct the filmic structure at any time.

Actually, the idea of *Cadavre Exquis* as unconscious associations of collective ideas, free of a pre-established order, imputes a certain subversion of the conventional filmic discourse to the interactive film. However, the question remains, whether or not there was, in fact, a pure surrealist technique in all surrealist art forms. Breton himself recognizes how hard it is to reach the second states so desired by the surrealists. Truly automatic writing, games, or art in general was a utopia. With temporal distance in mind, Breton makes very lucid reflections that prove the impossibility of allowing himself to be totally controlled by automatism in the act of creation. He also acknowledges that even those who used the above-mentioned techniques to produce a poem later selected the passages they considered to be the most literary accurate.

The fascination with the question of time and its possible relations with cinema, interactive cinema, and literature is the matrix of the mother project *The Forking Paths*. The psychosomatic processes that can grant us different sensations and, consequently, different perceptions regarding their passage acquire, in cinema (and in their relation with interactivity), a potential for eminent experimentation.

**Notas Finais**

1. The technical description of this possibility may be found in the section “*Cadavre Exquis: the interactive film*”.
2. This is a film prepared to be viewed individually. Although it can be viewed by several people simultaneously, only one of the viewers can interfere in the narrative (the one who has control over the interface).
3. Vitor Reia Batista, Coordinator of the Film Studies Lab at the Centre for Research in Arts and Communication (CIAC), Miran Tavares, CIAC’s Coordinator, and Rui António, PhD student in Digital Media-Art at the University of Algarve and at Universidade Aberta.
7. Here we safeguard chronological distances between theories.
8. According to John Waters the only end that was shown was the one where the character should die, which raised some doubts among the critics regarding the existence of an alternative second ending: “Not realizing how bloodthirsty audiences could be, Castle needlessly supplied every print with two endings, just in case. Unfortunately, not once did an audience grant mercy, so this one particular part of the film was never showed” (WATERS, 1983, p. 20).
During some research to produce a documentary on alcohol consumption, Florian Thalhofer learned about the Korsakow Syndrome: a neurological process that leads to the loss of recent memories and to a compulsion to tell stories, frequent among chronic alcoholics. It was based on these experiences that he built the Korsakow System.

This film was produced with technology of the digital media company Interlude, known for the recent interactive video clip Like a Rolling Stone (http://video.bobdylan.com/desktop.html).

There is also a homonymous application available for iOS.

Michel Beaujour in an essay entitled “Surréalisme ou cinéma?” (Etudes Cinématographiques, 38-39, pp. 57-63), states: “Le cinéma, par essence, n’est pas un art de spontanéité et d’improvisation. (...) l’homme à caméra est condamné à ne pouvoir se passer du monde sensible, médiatisé par une machine et par une organisation sociale assez complexe.”. He will also argue to what extent there was automatism in certain works of surrealist painting. Breton will recognize some sort of para-surrealism in more elaborate works by Miró or Dalí, distancing themselves from Max Ernst’s frottages by not accepting a purely irrational creation.

The question of time in the cinema was one of the topics that most aroused the interest of Jean Epstein. He believed the concept of photogénie, developed by Louis Delluc, needed to be further developed, since “L’aspect photogénique d’un object est une résultante de ses variations dans l’espace-temps.” (Jean Epstein apud Joël Magny, op. cit., p. 15). Therefore, Epstein studied the processes related to duration and time extensively: “ralenti, accéléré, inversion de la chronologie, etc. C’est-à-dire à tout ce qui permet d’explorer dans la réalité des aspects invisibles à l’œil nu, et que le cinéma est seul à permettre de découvrir.” (Ibidem). As previously mentioned, in his text “Cinema and modern literature”, Epstein analyzes the relation between them based on the premise of the time and the speed with which cinema and modern literature work with the images they created. The question of time in cinema is also crucial for the surrealists, especially due to the possibility of manipulating time offered by cinema.

Using two commands, the viewer may travel within the freeze frame, moving forward or backwards.

Bibliography


