Videogames as Interactive Cinema - New Perspectives

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Abstract

The concept of interactive cinema has been explored in depth since the first incipient manifestations of (non-interactive) cinema. If our first attempts at creating interactive experiences out of narrative, linear film objects have been notoriously clunky and awkward, with the birth of videogames new attempts have been made, bringing fresh ideas and possibilities unto the table. Interactive works that include films as objects are common today. However, interactive cinema as a concept appears to have been abandoned.

Cinema continues to be largely non interactive, this dimension seemingly relegated to videogames, apps and websites.

We consider that some videogames can be considered interactive cinema. The Last of Us is an example that set the trend of mostly linear, narrative games. Other games have explored this model, achieving better and worse results. We propose that these games could be categorized as interactive cinema.

In this paper we aim to continue an exploration of this idea - that there can be interesting, elegantly implemented creations we can name interactive cinema - distinguishing them from video games. We analyze two video games in this light, 'Pentiment and Everything, trying to understand how they relate to, and differ from, classic cinema and the classic video game experience. We will also discuss the exhibition "Mundos Paralelos" (Parallel Worlds), on display at the the 25th edition of the Avanca Film Festival, to understand the cinematic characteristics of the artworks presented. We conclude by proposing that, perhaps, closed categories might not serve us when creating new objects, and that hybridization is beneficial, creative, and should occur.

Keywords: Avatar, Interactive works, Interactive cinema, Video games

Introduction

The term "interactive cinema" has been used to describe many different things, but its definition remains unclear. In a previous paper, we aimed to explore the various ways in which the concept of interactive cinema has been conceived, theorized, imagined, and reformulated (Figueiredo, 2021). We examined Kevin Veale's (2012) hypothesis to identify possible objects that may be considered interactive cinema but are currently categorized as video games. We have then analyzed three interactive works, presented as video games but analyzed under Veale's proposal.

At the time, we concluded that interactive cinema was (and still is) a highly experimental field, and that, due to its connection to a classic and established medium, as well as public expectations, it may never have a clear-cut definition. However, the analyzed experiences revealed new possibilities, not only for creating interactive works but also for understanding how users/players/viewers engage with different media.

In this paper we aim to revisit this past exploration, confronting it with recent writings and works on the subject, and we once again explore two video games and a virtual environments exhibition, in an effort to understand if these categories are useful, if they correspond to the observed creative practices, if they can be used to conceptualize and understand hybrids as much as pure forms. (Can a videogame ever be in a "pure" form? Here's a discussion for another day.).

What is interactive cinema?

Cinema is widely considered to be the most significant medium of the 20th century, and has been extensively studied and described by many authors for its diverse possibilities. Its widespread influence on society has created both concrete and vague expectations of what cinema is and what it can achieve.

These expectations and notions have also influenced other creative media related to cinema. The concept of interactive cinema has been around for a while, but turning cinema into interactive experiences is more complex than it may seem.

We believe that this complexity stems from cinema's profound impact on humanity. We yearn to immerse ourselves in films, and this desire to expand the concept of cinema is driven by the profound impact it has had on our lives.

The traditional way of watching movies, where the audience sits in front of a screen and passively watches, doesn't offer much interactivity beyond choosing the film and time. Television initially had similar limitations, but with the rise of second screens and intelligent TV sets, viewers can now choose alternative content, access additional information, and watch programs in a different order.

Some experimental attempts have been made to break the linearity of traditional cinema, such as dividing the screen or using non-linear editing. These experiments are more commonly found in experimental cinema, which explores diverse forms of expression. Two early examples of experimental cinema are *Berlin: Die Sinfonie der Großstadt* (Ruttman, 1927), which shows city life accompanied by symphonic music without a conventional narrative, and *Napoléon* (Gance, 1927), which uses innovative

camera movements and editing techniques, including screen division. These films were made during a time when cinematic conventions were still being established and allowed for more exploration of new forms of expression.

In addition to the challenges mentioned earlier, there is also the issue of the limited nature of the original office metaphor for interaction. Although it has expanded to include gestures and touches, it still has limitations in terms of dimension and its relation to the body beyond just the hand. This has led to a neglect of the body and the use of specific peripherals such as keyboards and mice, which excludes other forms of interaction. Simon Penny (2011) suggests that this behavior has been questioned by performative artistic practices that have programmed other forms of interaction free from the constraints of the universal format. Over time, as the computer medium has matured, some of these alternative forms of interaction have grown and been adopted by the industry, such as hand gestures on tablets and cell phones, or even the use of the whole body to control platforms like the Wii or Kinect. Therefore, the form of interaction in interactive cinema does not necessarily have to be limited to just clicking a button to advance the narrative.

The traditional way of watching movies, either in a cinema or on television, lacks interaction beyond choosing the film and time to watch it. While television has become more flexible with the addition of second screens and intelligent features, the limitations of interaction still exist. Some experiments have been made to break the linearity of cinematography, such as non-linear editing and screen division. However, these experiments are more commonly found in experimental cinema. The interaction in computer mediums is limited to gestures and touches and the use of specific peripherals, which excludes other forms of interaction and forgets the body. The computer medium has matured over time, leading to alternative forms of interaction being used in the industry. Works like *Liquid Time* (Utterback, 2000-2002) and *Manual Input Sessions* (Levin, Lieberman, 2004) attempt to innovate the modes of interaction, but the field has been more explored in relation to video games. The audience of interactive cinema is adapted to an existence shredded into small segments, and the gamification effort is used to motivate students and workers. It is important to note that interactive cinema should not be converted into a game. However, some movies have involved the target audience in the creation of contexts and interpretations, leading to interpretations by scholars like Daly (2010) and Jenkins (2008).

The increasing prevalence of technology in our lives not only complicates matters, but also shapes our emotional connection with interactive objects and the world around us. This connection is not solely based on transparent forms of interaction, but also on well-designed and constructed methods, which can lead to identification and the assertion of personal identity (Fritsch, 2011). The concept of flow, often used in video game design, suggests that optimal immersion is achieved when the difficulty of tasks is adapted to each individual player (Chen, 2006). Therefore, interaction design should ideally anticipate and consider specific situations. Despite the challenges associated with implementing it, the idea of interactive cinema continues to captivate authors, researchers, and the public, inspiring ongoing theoretical discussions.

Video games have become an increasingly important and dominant medium, both commercially and artistically. As an interactive and narrative form of expression, they have garnered significant attention from researchers and developers exploring the possibilities of interactive cinema. The technical and aesthetic aspects of video games, as well as their cultural and social meaning, have been subject to intense discussion in recent years. In fact, some have predicted that video games will be the predominant medium of the 21st century, much like cinema was in the 20th century. This prediction seems to be coming true, at least commercially.

Despite their recent history, video games have evolved from their incipient form, drawing on the traditions of non-digital games and eventually becoming integrated as a support for artistic content. This evolution is similar to the past questioning of whether photography could be considered art or the initial perception of cinema as mere comical images without any reflective content. Today, video games are overcoming this perception, and while not always successful, they are pushing the boundaries of computer-generated art.

The field of video games is currently one of the most prolific areas of narrative creation and consumption, while the same cannot be said for interactive cinema. Despite attracting interest from creators and researchers, interactive cinema tends to be limited to experimental creations without much impact on mainstream filmmaking. However, there are lessons to be learned from the video game industry, even though interactive cinema may not necessarily take the form of a video game. Veale (2012) suggests that perhaps we are looking at the wrong works and proposes exploring games that could be considered interactive cinema but are not labeled as such by the video game industry.

On the one hand, incorporating interactivity into a medium that appears to be self-contained is a challenging endeavor. It is important to continuously question the rationale behind adding this feature to both live-action and animated cinema.

When comparing cinema and video games, one of the most commonly cited distinctions is the level of passivity versus involvement they tend to elicit in their viewers/players, respectively. This disparity can be traced back to the origins of each medium: while cinema inherited the narrative conventions of traditional analog film, video games were born and developed in the context of computers as interactive multimedia machines. As digitalization permeates all forms of media, including cinema, it becomes feasible to consider interactivity as a possible aspect of cinematic works.

One possible answer to the question “what is interactive cinema?” is a specific genre of video game that emerged in the 1990s. This genre utilized pre-existing animation and footage and allowed for limited interaction, but it quickly faded away when it could no longer compete with other emerging genres. While the genre commonly referred to as interactive cinema may or may not be of interest, its existence and commercial success demonstrate the public’s fascination and interest in this form of expression, even if their expectations may have been too high for its initial iteration on a large scale (Lessard, 2009).

The term “interactive cinema” has lost its popularity due to its association with linear and limited games. In some cases, it is even used negatively to describe games that feature non-interactive narrative exposition scenes, also known as cut scenes. These cut scenes have been a topic of discussion among both researchers and players, as they remove agency from the player and may be included in games as a way to compensate for deficiencies in narrative transmission. Celia Pearce (2004) argues that rewarding play with passivity goes against the idea of play, and therefore, cut scenes are counterintuitive. It is unlikely that the solution for creating interactive cinema will rely solely on incorporating previously recorded material in games.

However, there are other approaches, such as that of Kristen Daly (2010), which are gaining popularity. Daly sees the experience of watching a movie in the cinema today as part of a larger overall experience, which may include internet searches, attending events, and other forms of content interconnection. This understanding of the cinema experience reflects our interconnected, hybrid, and modular lived experiences, according to the author. The discovery of the pattern or algorithm (Manovich, 2001) becomes the metaphor through which we enjoy cinema, constructed from modular elements that come together according to a logic that the viewer (Daly, 2010) must discover. This approach to interactive cinema not only includes the community of people who create cinematic works, but also the viewers, who are also content creators in their own experience.

We also believe that a third perspective is worth considering: Could there be existing objects that are enjoyable and meaningful for users, but that we are labeling differently? Are there games that possess cinematic characteristics that we may not have yet recognized? And, can we identify the features of these works and incorporate them into the development of interactive cinema?

We have identified two possible approaches to these questions. Adam Jones (date unknown) has developed an object-oriented interactive cinema project to explore how it is possible to create interactive cinema that is not a game, but still provides an engaging interactive experience for viewers. The author examines what constitutes a narrative in the context of interactive cinema, and suggests that by expanding the possibilities for constructing a narrative that is effectively tailored to the medium of transmission, it is feasible to create an experience that users will perceive as a narrative, while still maintaining a complex and multilinear form of interaction. The author’s emphasis on providing high-quality interactive experiences leads him to categorize different types of interaction and to avoid, as far as possible, providing so little interaction that it results in user dissatisfaction - “A media object with very limited interactivity can actually be less satisfying than had it no interactivity at all” (Jones, n.d.).

Another possible answer to these questions is the concept of “game cinema” proposed by Jesper Juul (2001). According to Juul, game cinema is a type of game that, instead of having a fixed narrative, offers a set of tools for creating narratives. This means that the player is not simply following a predetermined story, but is actively creating their own story as they play. Juul argues that game cinema has the potential to create more emotionally engaging experiences than traditional cinema, as the player is not just a passive observer, but an active participant in the story. However, Juul also acknowledges that game cinema is a challenging concept to implement, as it requires designers to balance player agency with narrative coherence.

Overall, these different perspectives suggest that there are multiple ways to approach the concept of interactive cinema, and that the field is still evolving. While some researchers are focused on creating new forms of interaction, others are exploring how existing games and films can be reinterpreted as interactive experiences. Ultimately, the success of interactive cinema may depend on finding the right balance between interactivity and narrative coherence, and on creating experiences that are emotionally engaging and meaningful for users.

We posit that interactivity in cinema is relevant because users derive pleasure from interacting with media (drawing on Janet Murray’s (2000) concept of agency) and are drawn to such experiences. We further argue that physical interaction, which involves gestures beyond the hands, is more challenging to implement as it requires interpretation and conversion of the user’s gestures into meaningful units. We cite Davenport (1993) to emphasize that users should not experience discomfort due to constant interruptions for interactive participation.

To explore the concept of interactive cinema further, we can revisit Kevin Veale’s (2012) approach, which analyzes works categorized as video games but questions their designation due to their linearity and depth. Veale argues that the engagement processes of viewers/users differ too much between cinema and interactive objects to create a work of interactive cinema in the conventional sense. He notes that the feeling of inevitability that sometimes arises in cinema, where viewers cannot interfere in the action, is an essential part of the cinematic experience. Additionally, the emotional involvement generated by the inescapable nature of the narrative is also a crucial aspect of cinema. Veale proposes that interactive cinema should create deep emotional involvement while using the engagement strategies of video games,

which he terms “situated immersion,” a concept he derives from Laurie Taylor’s work (2002).

The author Kevin Veale (2012) presents a hybrid experience that combines the user engagement processes of video games with a guided, linear structure, which he believes has not been fully explored in previous works. While this hybrid experience may not be the perfect definition of interactive cinema, it is the only possible designation for the works he analyzes.

Interactive cinema is an audiovisual expression form that enables viewers to interact with the narrative, giving them the ability to influence the story’s direction based on their choices. This interactivity can be achieved through different means, such as buttons, motion sensors, or artificial intelligence. Interactive cinema is considered an evolution of traditional cinema, which presents a linear and fixed narrative. The introduction of interactivity transforms the viewer into an active participant in the cinematic experience, creating a more dynamic and participatory relationship between the audience and the work.

Although still in development, interactive cinema is being explored by various creators and has enormous potential for the creation of new cinematic and interactive experiences.

Videogames/Interactive works Analysis

Keeping in mind the previous exploration and past analysis of video games as interactive cinema, we now offer a possible shift in perspective when considering the two videogames “Everything” (OReilly, 2017) and “Pentiment” (Sawyer, Obsidian Entertainment, 2022). Although both games are interactive, they differ in their approach to the narrative space. “Everything” enables players to embody anything that has been modeled and introduced to the game, while “Pentiment” is a more traditional RPG that presents players with a set of choices at specific moments in the game. Veale suggests that both games should provide narrative immersion and a sense of experiencing a single story, and we argue that both games achieve this goal in their own unique ways.

Everything - OReilly, 2017

“Everything” is a video game that incorporates interactive elements and procedural generation, which are, obviously, different from the traditional cinema medium. However, the game does explore themes that are also relevant to interactive cinema, such as the relationship between the viewer/player and the simulated world, and the ability to manipulate and control the objects within that world.

From an interactive cinema perspective, “Everything” could be seen as an experimental or avant-garde approach to interactive storytelling, as it uses interactivity and procedural generation to create a unique experience for the player/viewer. The game challenges traditional notions of narrative structure and allows the player to create their own narrative based on their choices and interactions within the world.

While “Everything” may not fit within the traditional definition of interactive cinema, it could be argued that it pushes the boundaries of what interactive storytelling can be, and offers insights into how interactivity and procedural generation can be used to create new forms of artistic expression.

By looking at “Everything” from a different angle, we discover that as we become everything in the game, things start to lose their distinctiveness. As Allan Watts suggests about the meaning of existence and our insignificant place in the universe, we begin to realize that nothing truly matters. The game can feel repetitive, either intentionally or accidentally conveying the notion that all narratives are the same - all the game loops repeat themselves - leaving us with a highly interactive, emotional, and personal narrative of the entire universe, all contained within ourselves. In this way, the game is truly cinematic, allowing us to immerse ourselves in the meanings it strives to convey and follow the actors we choose into a state of meaninglessness.

Pentiment - Sawyer e Obsidian Entertainment, 2022

“Pentiment” immediately brings to mind memories of “The Name of the Rose” (Annaud, 1986) - particularly the film adaptation, as it presents several striking images. From the very beginning, we are immersed in a medieval mystery as an artist seeking to learn from copyist monks.

As an interactive work, “Pentiment” is not particularly groundbreaking, featuring interactions such as clicking on clickable items or characters, and choosing among a limited list of possible answers or actions. Our choices have an impact on the story, and there are multiple possible endings to the game.

The game’s theme of erasing and rewriting history in manuscripts (*pentimento* is the practice and evidence of erasing and repainting in medieval illuminures), and the fact that we play as a historical character - illustrated in the style of an illumination - being recorded for posterity, invites us to reflect on the nature of linear narratives as we play. We contemplate our choices, as these games compel us to do, realizing that they will be engraved for plausible future historians. Certain choices lead to the same outcomes, and the inevitable sense of doom can feel more potent than in cinema, as it is a choice made by the developers rather than a necessary technicality.

At some point, we assume the role of a different character, with our original character’s story now being told as a tale. We observe this new character from several perspectives, aware that her storyline is, in some ways, predetermined, as a woman artist in medieval times. We first met her as a child through our original character’s eyes and context. As we make choices for her, informed by these perspectives, we see how some choices are never recorded and become lost to the future.

Due to this reflective quality and its homage to painters, illustrators, film directors, and past works of art, “Pentiment” is a cinematic experience, allowing us

to choose while evoking a slight feeling of determinism, of immutability and regret in how things have been and how they could have been.

Parallel Worlds

Parallel Worlds was an exhibition included in the 25th edition of the Avanca Film Festival, which took place in the Casa Municipal da Cultura de Estarreja. This exhibition showcased works developed on the Second Life (SL) and OpenSimulator (OS) platforms, these are creative collaborative virtual environments (CCVE) (Eustáquio and Sousa, 2018). In previous studies, we had already tried to analyze works on this type of platform (Figueiredo, 2021). This time we will explore some of the works presented in this exhibition to try to understand if they have cinematic characteristics. It is problematic to characterize these platforms as video games, although the interactivity, immersion and graphic appearance are very close (especially with online multiplayers). Thus, we consider the analysis to be relevant in this context. Playing in these CCVE is primarily associated with a *paidia* dimension. *Ludus* games define winners and losers, while *paidia* games do not (Frasca 2007, 39). Winnicott locates this in “a potential space between the individual and the environment” (Winnicott 2009, 135), which is the place of experience and the place where we play around, making play an aesthetic genre as according to Frasca, “play events are not fixed beforehand. Instead, they are constrained, and those limitations are the elements that constitute their aesthetic dimension” (Frasca 2007, 58). When one talks about residents playing with their avatars in these virtual worlds, it usually refers not exactly to the display of particular skills to achieve a goal but mostly to the way they engage with the world and other residents. They can play through avatar animation, interactions, contemplative journeys through the world, and through avatar customization.

Parallel Worlds presented two interactive environments where the public could wander and explore, using an avatar: *Alpha Sea, aka. Dragon Island*, by Elif Ayieter, and *The Sowing*, by Meilo Minotaur & CapCat Ragu. Despite the metaphorical and narrative aspects of these virtual installations, this exploration was primarily contemplative in nature. Still, they involved basic interactions between the avatar and the virtual world. The narrative did not arise from a specific pre-programmed interaction, but rather from the wandering itself. More than watching, as a spectator, the user inhabits the narrative. In this way, we cannot consider that the artists designed a predefined narrative structure, but rather its evocation. The narrative emerges, therefore, from the lived experience of users in the virtual environment.

In addition to these artworks, the exhibition also presented derived artworks. We consider as derived the artworks that are drawn from these virtual worlds and consist of art practices that are extracted from this environment, but not necessarily constructions of these worlds (Sousa and Eustáquio, 2015). In this case, machinimas — audiovisual pieces created from real-time captures in digital environments generated by three-dimensional rendering platforms. Thus, machinimas appropriate different spaces and avatars to tell new stories. Artistic projects carried out in SL and OS have an ephemeral and volatile nature. In most circumstances, it is not possible for authors to archive their work in its entirety, thus resorting to machinima as a form of registration that documents their work or that of others. Capturing moving images on screen became a way of trying to register the spatiality and interactivity of these environments, as well as performative activities. However, these can not be set as substitutes for the artwork and do not replace the aesthetic experience in the virtual world. Machinimas derived from interactive artworks rather occupy two ambivalent places in aesthetic experience – on the one hand, they trigger new aesthetic experiences, and on the other, they are the result of an aesthetic experience that has a creative dimension to it (Sousa and Eustáquio, 2015). They are the result of lines of flight between artworks and digital platforms, and, in some cases, between different instances of the real — the virtual and the tangible. Although they present themselves in a specific medium, they are already hybrid in their creative process.

It is worth highlighting, in this context, two of the machinima presented in the exhibition: *Aural*, by Bryn Oh and Morlita Qual, and *Innominate*, a machinima by Tizzy Canucci based on the virtual installation *Tell me a story*. This installation, created by Meilo Minotaur, consisted of a series of three-dimensional scenes that existed in a simulated open-air environment, without a defined path between them.

Aural is a machinima that documents the virtual installation of the same name, which results from the collaboration of two important Second Life artists: Bryn Oh, an artist dedicated to the exploration of virtual installations and machinima, and Morlita Quan, primarily a sound artist. Collaboration between visual and sound artists is common in virtual environments. What makes this collaboration special is that it started from the soundtrack to the virtual installation and not the other way around. Morlita Qual first devised the sound sequence, from which Bryn Oh made a series of three-dimensional scenes, creating a path, led by sound. The machinima of the same name was directed by Bryn Oh and has a documental nature. The machinima itself is not interactive, but a document of the interactive nature of the artwork. The *Aural* installation invites the user to a poetic walk along a three-dimensional path, led by sound and the virtual architecture of the place.

Innominate was one of the responses to the call for artworks that came from the installation Tell me a story. This installation, created by Meilo Minotaur, consisted of a series of three-dimensional scenes that existed in a simulated open-air environment, without a defined path between them. In addition to these scenes, Meilo Minotaur also created a set of avatars that she offered to users. The artist then made the invitation for a participatory aesthetic experience, asking users

to tell their stories, connecting the scenes. These participations had different natures: written narratives, virtual photographs and machinima as *Innominate*.

All these works presented in *Parallel Worlds* had cinematic characteristics, in one way or another. Artistic works in CCVE, commonly referred to as Metaverse, like video games, also approach the desire to "get inside" the screen that we have already mentioned. There are points of contact between the aesthetic experience of cinema and that of these worlds. In relation to traditional cinema, we can say that the main difference is the participation in the narrative through an avatar. The difference with traditional video games is the ambiguity of the narrative and the impossibility of an endpoint. Unlike a video game, in a virtual installation there is no final moment, it is in the user's hands to leave the story when and how they want.

Conclusions

Once again, we confront the notion of interactive cinema, which may lead us to question its usefulness in the face of the all-encompassing and seamless integration of digital technology into our lives. However, we still consider it a significant tool for the reasons outlined previously, including the enduring appeal of classical cinema, the desire to immerse ourselves in movies, and the constant efforts of game developers to provide the latest and most immersive 3D experiences based on cinematic intellectual properties.

As we approach the idea of interactive cinema more openly - considering the entire experience of movie fandom as interactive, for example - video games creators keep experimenting with their craft, often bringing games closer to cinema in unexpected ways (or, sometimes, wholly expected and often planned for). Both games analyzed here try to reflect on the experience they cause on their players: "Everything" by allowing us to live as the entire universe and back again to the smallest thing, and "'Pentiment" by making us regret a decision as it is inscribed in the history books.

We wonder if this reflection on choices, when are they allowed and what do they mean can be the definitive problematic of interactivity as a whole and of interactive cinema as a specific case. In any case, both games make us come out of the experience of having played them as if we had lived another life - maybe in a movie. In this regard, we present them as more possibilities when considering the creation of these works.

In the case of the artworks presented in the exhibition Parallel Worlds, users are invited to integrate the scenes presented, navigating them through an avatar, without a specific goal, unlike what happens in a video game. More than influencing the narrative through their choices, the users construct their own narratives, even making new derivative works, as is the case of machinimas.

These are certainly active participants in an aesthetic experience, which even if it cannot be reduced to its cinematic characteristics, is still a cinematic experience.

What defines a cinematic experience or interactive cinema might be becoming diluted in recent years. Indie video games are more and more experimental with narratives and ways to tell them, objectives and achievements. Artworks such as the ones presented at Parallel Worlds show us how interactivity can be a part of an experience, but not the whole and only reason for the experience, and that the open narratives created by each participant are interesting and appealing to them and others, as valid as closed film narratives. Cinema, the traditional kind, hasn't always been linear, as *Berlin: Die Sinfonie der Großstadt* showed us in 1927.

Still, Veale's concept of what constitutes a cinematic experience is, in our view, meaningful. Cinema might be a possible answer to the question: how to show someone what we are imagining? Parallel Worlds, videogames, VR, might be another answer to the same question.

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