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Diversity of Immersion Mechanics in Videoludic Novels

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Interactive fictions are digital narrative artworks that require little to no dexterity. Indeed, these multimedia fictions do not require a particular proficiency in their manipulation to access and explore the story. However, they do demand distinct mechanics and reading moves, specific to narrative models. These items, between literary and videogame studies, call for the analyses of their own modes of interaction and consumption. In this specific environment, reading, as a form of entertainment, is voluntary and engaged. Since there is a tacit contract with the work that the reader agrees to, which establishes the expectation horizon and conveys reading habits, our study qualifies this reading experience as immersion, plunging into a second world, and exploring the possibilities it offers. In this article, immersion is defined as an entertainment experience where the human subjects get lost inside the text; they are incorporated in it. They find themselves in the narrative and feel its affects. We must therefore consider a continuum between artworks relying on few interactions—even minimal and repeated actions—and others that require more complex sequences.

Les fictions interactives sont des œuvres d'art narratives numériques qui ne requièrent que peu ou pas de dextérité. En effet, ces fictions multimédias ne requièrent pas de compétences particulières dans leur manipulation pour accéder à l'histoire et l'explorer. Cependant, ils exigent des mécanismes et des mouvements de lecture distincts, propres aux modèles narratifs. Ces éléments, entre études littéraires et études vidéoludiques, appellent à l'analyse de leurs propres modes d'interaction et de consommation. Dans cet environnement spécifique, la lecture, en tant que forme de divertissement, est volontaire et engagée. Puisqu'il existe un contrat tacite avec l'œuvre que le lecteur accepte, qui établit l'horizon d'attente et transmet des habitudes de lecture, notre étude qualifie cette expérience de lecture d'immersion, de plongée dans un second monde, et d'exploration des possibilités qu'il offre. Dans cet article, l'immersion est définie comme une expérience de divertissement où les sujets humains se perdent dans le texte, ils y sont incorporés. Ils se retrouvent dans le récit et en ressentent les effets. Nous devons donc considérer un continuum entre les œuvres d'art reposant sur peu d'interactions— même des actions minimales et répétées—et d'autres qui requièrent des séquences plus complexes.

Introduction

From hypertexts to interactive adventures, from virtual and augmented reality to visual novels, fictions conceived and developed for digital platforms reflect the wide-ranging forms of interactivity and play with the rules of literary and ludic works. These works call for interdisciplinary perspectives that challenge or complete previous theories (see Bell et al. 2018; Koenitz et al. 2015). Digital fictions offer a relevant and intricate playground to further our understanding of how literary and ludic components merge to create immersive, incorporated spaces.

In this research, we aim to discuss the theoretical framework of interactivity in digital fictions. Through a comparative analysis of interactive modalities in digital fictions, we developed a conceptual framework: the spectrum of interactivity. Drawing from literary, narrative, and semiotics theories, we argue that the spectrum of interactivity unfolds interactivity's multiple layers and helps in understanding how immersion and interactivity collide in the digital landscape. To develop this framework, we propose to discuss and analyze "videoludic novels," that is, narrative-driven digital fictions with skill-based mechanics (e.g., game mechanics) in which reading is, in itself, a core mechanic. As we developed our interdisciplinary approach, we decided to focus on a narrowed selection of digital fictions and video games sharing similar characteristics, notably in regards to how interactivity is being shaped around reading mechanics. While sharing Arsenault's argument (Arsenault 2010) about the limits of the concept of genre, we opted to use the umbrella term "videoludic novel" to better categorize our corpus.

The first part of our paper discusses the theories and concepts mobilized in the spectrum of interactivity. We discuss the implications and needs for such a spectrum, while mobilizing the concepts of immersion, interactivity, and agency.

In the second part, we analyze three specific games that display various levels of interaction, *Synergia* (Radi Art 2020), *Detroit: Become Human* (Quantic Dream 2018), *VA-11 Hall-A: Cyberpunk Bartender Action* (Sukeban Games 2016). We choose these games based on their various levels of interactivity, immersion, and agency. The analysis does not seek to be prescriptive of the low (almost no interactions) and high (many interactions) interactivity levels on the spectrum; rather, our analysis aims to provide examples of how the spectrum may be mobilized.

The games selected are drawn from two more substantial corpora. The first one comes from the Le laboratoire de recherche sur les œuvres numériques (Laboratoire NT2 2023) and the second from Le répertoire des écritures numériques (Chaire de recherche du Canada sur les écritures numériques 2023).

1. The videoludic novel experience and the spectrum of interactivity

Digital fictions encompass various digital interactive stories format teetering between literature and digital games. They often hold novel-like characteristics and put an emphasis on reading comprehension to understand the virtual world and navigate through it. As Bell and colleagues (Bell et al. 2010) argue, digital fiction is a "fiction written for and read on a computer screen that pursues its verbal, discursive, and/or conceptual complexity through the digital medium, and would lose something of its aesthetic and semiotic function if it were removed from that medium." The basic mechanics—or modes of interaction—involved, such as pressing a key to progress in the text, fulfill a role similar to turning a page in a book. Their complexity emerges from their multimodality, as they draw from various semiotic networks and discourses to produce and make sense: text, sound, interaction, and image, sometimes animated, all contribute in generating specific interpretative networks. They use procedural possibilities to immerse (Murray 1997; Ryan 1999) and incorporate (Calleja 2011) players into their virtual world(s) and to frame their set of actions. Players are invited to read and interact with the game's plot to enter the game's fabula, as Jenkins proposed (Jenkins 2004). If he draws on Kristen Thompson's work (Thompson 1988) on neoformalist films to discuss the concept of "fabula," we favour Umberto Eco's notion of fabula (Eco 2011), which is the signifying experience of interpretation in the reader's mind. In other words, a game's own fabula is the universe in which the story unfolds as *experienced* by the players, not solely as *programmed* by developers. The fabula is structured by a complex system of shared knowledge, an encyclopedia (Eco 2013) made of all the interpretative possibilities, that shapes how players and readers navigate the virtual world. They draw from this knowledge to understand the fiction and feel immersed.

The modes of interactions and mechanics rely on the reader's and player's knowledge (or lack of) of the set of actions or gestures mobilized in the work. To strengthen our understanding of interactivity and its impact on immersion, we deemed it relevant to ponder interactivity as a spectrum where the actions and gestures needed to generate immersion can be conceptualized. Interactivity plays an important role in digital fiction as it participates in the narrative. There is indeed a dialogue between interactive narratives and hypermedia works (Gervais 2020), as "interactivity affects the fundamental structures of the narrative" (Archibald and Gervais 2007, 27 [authors' translation]).

Our corpus draws from digital literature and video games, more specifically interactive fiction and narrative video games. We decided to develop upon them as they adequately reflect on digital, literary, and game issues related to immersion and interaction.

First, we focused on interactive fiction. The genre is often discussed in digital literature (Ensslin 2014; Montfort 2005) and focuses mostly on text-driven experience, even if they now include audio and visual components (Ensslin 2014, 32–33). But

interactive fiction, as a genre of digital literature, limits our understanding of how fiction can *become* interactive, that is, on what grounds. Our approach follows on Arsenault's pragmatic of genre effects (Arsenault 2010). His approach is "no longer about the question of studying a genre through a set of works [. . .], but on the contrary to study a work through all the genres involved, to identify what each genre brings to the work" (Arsenault 2010, 3 [authors' translation]). Thus, "interactive fiction" must be understood, in the scope of this article, as fiction with interaction mechanics in their design, either actions or gestures, as well as strong narrative elements. We argue that some video games can be considered as interactive fictions. Since they blur traditional categories and force us to rethink the conceptual frames around the concepts of "narration" and "game," we deemed them significant to further study how both objects transformed each other.

Second, we develop from the notion of narrative video games with one of their prominent examples, visual novels. Developed initially in Japan (Choi 2019; Crimmins 2016), the genre gained notoriety outside of Japan, to the point that they influence the design of Western games (e.g., *Doki Doki Literature Club!* [Team Salvato 2017] and *Neo Cab* [Chance Agency 2019]). With their anime-style visuals, they bring together a range of ludic and interactive forms to create complex narratives. Some visual novels task players with reading thousands of lines and making choices to alter the narrative, like in *Chaos;Child* (Spike Chunsoft 2014), while others may include minigames or adventurous sequences, such as in *Danganronpa V3: Killing Harmony* (Spike Chunsoft 2017). For example, in the game, players must "shoot" the lies or contradicting arguments to unravel the truth (see **Figure 1**).

Figure 1: Example of a minigame, here a trial, in *Danganronpa V3: Killing Harmony*.

The genre shares characteristics with interactive stories and, more broadly, digital literature (see Bouchardon 2008; Bouchardon 2009), which fall under the often-used umbrella term of "narrative video games." While visual novels mobilize a handful of interactions, if any, echoing their name of novels enhanced with pictures, Western narrative video games put the emphasis on ludic mechanics, notably Quick Time Events (QTE), which are sequences of action relying on both speed of execution and fast interpretative processes (see **Figure 2**). They are not limited to interactive fictions; for example, QTEs can be found in action games (such as in the *Yakuza* or *God of War* franchises). In visual novels with strong interactions, the reader must navigate and interact directly with narrative structures. However, these forms of "novels" seem to remain an object at the edge of the literary and gaming fields and must be approached with an interdisciplinary perspective. In our sense, the terms "narrative video games" and "interactive fictions" are too broad to allow significant analysis of the interactive, narrative, and ludic components of some works, like visual novels and QTE games. Narrative video games may refer to any games with strong narrative components, such as *Final Fantasy XIV: A Realm Reborn* (Square Enix 2013), and interactive fictions can include all kinds of digital stories with varying degrees of interaction, including poetry. Consequently, we will refer to our corpus as composed of "videoludic novels," that is to say, video games and digital fictions, ranging from visual novels to QTEs games, that are narrative-driven, have skill-based mechanics (pressing a button or more complex mechanics), and in which reading is, itself, one of the core mechanics. We settled on the use of "videoludic novel" rather than "game novel" or "literary game," as both expressions do not adequately define the objects studied in our corpus, that is, novels

Figure 2: Example of a QTE in the interactive horror game *Until Dawn* (Supermassive Games 2015).

with characteristics specific to video games. Moreover, the expression is already attested in English by French-speaking scholars (Perron 2018; Deslongchamps-Gagnon 2022) and is more common in French-speaking countries. The term "roman vidéoludique" (videoludic novels) is often used to translate "visual novels" and can be used more broadly for any video game with literary components (OQLF 2019). The modifier "videoludic" is also used by French-speaking scholars (Perron 2018; Deslongchamps-Gagnon 2022). Thus, the expression gives us the possibility to think of interactivity and narrativity outside the boundaries set by interactive fictions and visual novels, and to define the spectrum of interactivity in which these games fall.

These works participate in conceptualizing the spectrum of interactivity. We define it as a spectrum made of all *possible* forms of interaction (set of actions, gestures, mechanics, audio, visual, haptics) that may be mobilized in any videoludic novel, in the broader sense of works conceived and developed specifically for the digital space. On one side of the spectrum are works with low levels of interactivity, such as visual novels relying only on prompts to advance the story. On the other side, there are narrative-driven works with numerous interaction possibilities, such as any open-world game or role-playing games. In both cases, the presence of interactivity cannot be associated with immediate immersion, nor does it reflect the presence of narrative contents. Between those two opposites are videoludic novels with certain degrees of interaction; these games may have occasional interactive sequences, such as minigames, or have mechanics that do not deploy any form of interactivity within the virtual world. Our aim is not to define every form of interactivity or categorize them, but rather to encourage a discourse about interactivity that considers all their potentialities without qualifying games as either interactive or not interactive.

2. Immersion and interaction collide

A spectrum of interactivity appears when drawing on the theories of immersion and interaction to structure how players behave and are influenced by games and digital fictions. These theories grant the framework needed to go beyond the limits of the willing suspension of disbelief, which cannot express adequately how players interact with(in) games.

In her seminal book *Hamlet on the Holodeck*, Janet H. Murray, drawing from literary theories, argues for the term *immersion* to be used when speaking of "the experience of being transported to an elaborately simulated place" (Murray 1997, 98). She says:

> *Immersion* is a metaphorical term derived from the physical experience of being submerged in water. We seek the same feeling from a psychologically immersive

experience that we do from a plunge in the ocean or swimming pool: the sensation of being surrounded by a completely other reality, as different as water is from air, that takes over all our attention, our whole perceptual apparatus. (Murray, 1997, 98−99 [added emphasis])

Murray's definition, which brings together textual and video game studies, offers a relevant starting point to think about immersion in gaming contexts. If the concept is well-debated and contested (Bell et al. 2018), it does, however, offer strong foundations on which to build a reflection on interactivity in the hybrid space specific to videoludic novels. That said, the definition must be developed further or, rather, updated, notably in regards to its use of the "transportation" metaphor (Bell et al. 2018; Ermi and Mäyrä 2005).

In her reedition of *Hamlet on the Holodeck* in 2017, Murray goes further: "When we are immersed in a consistent environment, we are motivated to initiate actions that lead to the feeling of agency, which in turn deepens our sense of immersion" (Murray [1997] 2017, 114). The concept of agency, defined by Murray as the "satisfying power to take meaningful action and see the results of [the] decisions and choices" (Murray [1997] 2017, 126), ensures a deeper understanding of the immersion phenomenon in video games, and helps to bridge the gap between literary and video games studies.

For this article, agency must be understood as the player's ability to control the universe in which the game unfolds, through different types of game mechanics. In this sense, we focus more on the notion of interactivity, in an almost mechanical sense, as it helps strengthen the player's control over the game environment, even if somewhat minimal. Immersion goes beyond "[the] merging of action and awareness" (Mukherjee 2015, 179). Both digital works and video games ensure their readers and players can formally interact through their different devices and interfaces. Taking immersion aside from the literary scope, digital fictions and video games share similar uses of game mechanics to ensure, at varying degrees, immersion. Hence, when speaking of immersion, we will do so in the sense that it produces agency, rather than transportation.

Souvik Mukherjee further develops the notion of immersion. Drawing from Csikszentmihalyi's work (Csikszentmihalyi 1990), Mukherjee argues that immersion becomes an involvement process in the ludic context: immersion is the result of "a combination of configuration and imagination" (Mukherjee 2015, 176). While Marie-Laure Ryan proposed interaction and immersion as two complementary and alternative methods (Ryan 2001), Mukherjee suggests they are the two sides of a same coin (Mukherjee 2015, 178), that is to say, that immersion and interaction occur exactly at the same time, but at different degrees and levels, following the player's involvement.

Similar echoes can be found in Gordon Calleja's *In-Game* (Calleja 2011). For him, video game studies call for a new notion altogether:

> I therefore propose the metaphor of *incorporation* to account for the sense of virtual environment habitation on two, simultaneous levels. On the first level, the virtual environment is incorporated into the player's mind as part of her immediate surroundings, within which she can navigate and interact. Second, the player is incorporated (in the sense of embodiment) in a single, systemically upheld location in the virtual environment at any single point in time. (Calleja 2011, 169 [emphasis in original])

Immersion alone cannot account for the complexity of living in/through a virtual world. The players are not only submerged in water—Murray's metaphor—they also *interact* with it; they *act* in it. Immersion arises when players act within the virtual world and when, in turn, the world reacts to their interactions, when players get involved in the story, when they interact with it. All interactions take part in the creation of the player's experience within the game and thus help to sustain agency. These interrelations between the player and the game produce simultaneously various affects, in the Spinozian sense, that help strengthen the immersion and incorporation, which, in turns, favours further interactions.

The immersion-interaction dialogism lends itself adequately to videoludic novel analysis, in that the concept sets the player at the core of the interpretative exercise. On the one hand, the player immerses themself, in Murray's sense, in the work. On the other hand, the player *plays* within the game; they interact with it. Through interaction, the player takes an integral part of the story, thus confirming their immersion as they follow, and participate, in the narrative action of interactive stories. In our sense, a player feels *immersed* in a video game when they are *involved* in the virtual environments and can reach different degrees of *incorporation* in the unfolding narratives, following the ludic, textual, visual, and audio elements offered by the game.

With the conceptual framework in mind, we now propose to discuss the different sides of the spectrum of interactivity in videoludic novel with three distinct examples.

3. First side of the spectrum: Low interaction level

In low interaction level games, the predominance is given to the text. It supports most of the narration: it describes the actions, the setting, and the scenery; it also details the sequence of actions, enhanced most of the time by simple and static images. When the text wins over the player's manipulations within the gaming world, we consider the game on the minimal level side of the spectrum of interactivity.

Like "classic" printed novels, the sequence of texts which constitute the narrative follows a linear pattern. While it may be possible to choose between different narrative possibilities throughout the games, mostly at specific key points in the story, the act of reading is itself perceived as linear by the player. The narrative is felt as a branching story with minor narrative possibilities, or in limited numbers. However, each of the choices offered can propel the story in a direction that is sometimes clearly different from the others. The choices are few, but significant.

In Radi Art's *Synergia* (Radi Art 2020), we follow a detective as she works on cases of violence between humans and androids. She is a human confronted by a world where conscious robots are mistreated and have very limited rights. Her role as a policewoman places her permanently in front of the disfunctions of the social system towards these non-human individuals.

The story unfolds linearly. In order to progress in the game, the player only needs to press "next" on their controller "A" or "X" buttons, a mechanic that will display the text in **Figure 3**. This minimal gesture is similar to that of turning a page. Throughout the 20-hour gameplay, the player has up to a dozen choices. Each choice offers two narrative directions. All these characteristics indicate a low interaction level, as the player's agency is being kept at a minimum. However, the narrative choices made by the players are important in the narrative and will influence the gaming experience. For example, the first choice the player needs to take is to choose between killing an android, strongly suspected of having become violent towards humans, or to let it run away. At this point in the game, the player has little information, but they can deduce the android was subjected to a violent treatment, and understand the protagonist's hierarchy has already made up its mind about the guilt of this android. This choice dictates how the

Figure 3: Capture from *Synergia*.

police department will react to the protagonist's behaviour, as it shows their mental state and their adherence to values of society. The choice also implies empathy towards non-humans, and the place of the protagonist (and the player) within the human group is now questioned. The two potential narratives are therefore very different and place the responsibility of choice on the player.

Following the synthesis made by Jesper Juul (Juul 2005), we can consider interactions and skills as one of a game's definitional elements. The near absence of manipulation, or at least its place in the background in the player's experience, leaves our corpus on the margins of the game field and closer to the literary one. This ambiguity allows us to mobilize more on literary theories.

The actions produced are then limited to the game textual possibilities. They denote the narrative experience. These moments of tension, where branchings occur and where the protagonist must make an important choice, can be defined as narrative nods. Here, the player's implication is fundamental. Their position with regard to the plot will be the driving force behind their choice: either they will be caught up in the narrative and will try to choose as closely as possible to their own convictions or to those of the protagonist, which are often stated half-heartedly, as in *Synergia*; or they will try to choose an option that seems intriguing, pursuing a mechanical exploration of the work. Contrary to classical video games where it is possible to guide each of the avatar's movement, in visual novels, what interests us here, is that it is possible to act only in brief, delimited moments. The player is then in a position of writer-reader, as is often the case in participatory digital literature.

This limited interactivity brings us closer to literary studies. If literature scholars think immersion by and through the text—notably by the study of sci-fi literature (Langlet 2006)—these theories are preliminary to the analysis of visual novels. When the immersion is only based on the text, as in our case studied, for the choice to be meaningful and force the player to really make a strong decision for him, a certain attachment must be created. For that, the world-building is fundamental (Saint-Gelais 1999), as much as the identification with the protagonist. Here, the science fiction story corresponds perfectly to the metatext of the genre: androids are present, and framed, by humans. They are a conscious part of society, devoted to care jobs that are not attractive to humans. They are intimate in the home but are goods that are purchased in stores. The designs presented are slightly futuristic without being too distant, fitting perfectly into the minimal gap theorized by Marie-Laure Ryan (Ryan 2006).

Many visual novels exploit this form, which has become a novel form, allowing stories to develop an approach close to photo novels. This combination of still or slightly animated images and text has been established graphically, notably in the structure with the text taking place in a box at the bottom of the image, overhung by the menu and navigation buttons.

Choices, for their part, bring us closer to hypertextual studies (Aarseth 1997; Gervais 2020); the navigation made possible by textual choices are similar to a navigation made possible by clicking possibilities on any website. This navigation, close to the novels in which you are the hero, is part of a tradition of interactive literature (Juul 2005). This digital version, itself heir to text-based adventure and text-based games in general, is formalized in a large and diverse corpus. These choices becoming significant for the unfolding of the narration allow to approach the videogame narration in general under the literary angle, exemplifying by step the diversity of the meaningful interaction for the corpus of literature and contemporary digital narration. Our spectrum serves concretely to address this diversity of meaning for the immersion in the narrative.

4. Second side of the spectrum: High interaction level

On the other side of the spectrum, there are videoludic games requiring a higher level of interactions or skills. They achieve high interaction levels thanks to their game mechanics, which allow players to interact and invest themselves in the virtual environment. More often than not, they include sequences of actions (e.g., shooting sequences, completing puzzles) and the avatar's movements in the virtual space, which result in an increased incorporation of the player into the game's virtual world and narrative. These create an immersive experience different from those depicted on the lower end of the spectrum. With high interaction level games, players must interact with both the text (e.g., press a button to continue the text) *and* the environment (e.g., moving in the virtual space and affecting it).

While discussing low and high interactive levels, we must be careful not to over-categorize video games: visual novels are often on the lower end of the spectrum, but that does not mean that all of them lack any form of interactivity, with examples from *Coffee Talk* (Toge Productions 2020), *Robotics;Notes* (5pb 2012), and *Neo Cab* (Chance Agency 2019).

On this side of the spectrum, games may rely on Quick Time Events (QTE). Coined by game creator Yu Suzuki—known for the *Shenmue* franchise—in 1999, the expression refers to cinematographic-like sequences inside video games in which players must press certain keys or move the joystick in a certain way to answer time-sensitive, on-screen prompts (Rogers 2011). These inputs influence the story's progress, either by allowing the story to develop further—such as avoiding obstacles in a race—or branching the story—such as killing or developing a relationship with a character. Recurring examples include the games produced by Telltale Games, a video game company known for games like *Jurassic Park: The Game* (Telltale Games 2011) and *The Walking Dead: The Game* (Telltale Games 2012), where failing a QTE could lead to a character's death. Contrary to games with lower interaction levels, videoludic novels with QTEs ask players to make

split-second choices; reactivity becomes a part of the game mechanics. The players' agency is more frequently mobilized; avatars become more important in immersion and incorporation mechanics. Players interact with the game narratives on two different levels, on the text level and on the level of the mechanics.

QTE games may fall in the videoludic novel category when reading is a core mechanic in itself, that is, when the game relies constantly on the player's ability to interpret textual signs (such as languages, but not exclusively).

Some narrative-driven QTEs, such as those in the action-adventure game *Shadow of the Tomb Raider* (Eidos-Montréal 2018), do not fall into the videoludic novel category. The developer's intents, the genre codes, and the overarching structure of the game must all point towards *literary* goals; reading motivates the mechanics, through reading the game's goals can be reached.

Detroit: Become Human (DBH) (Quantic Dream 2018) sets a good example of a videoludic novel with high interactivity. The QTEs are combined with a third-person perspective and thousands of lines of text to create an immersive atmosphere incorporating players (see **Figure 4**). *DBH* is an interactive fiction from a third-person point of view (players see their avatar and can move it in the virtual environment). Set in Detroit in 2038, *DBH*'s plot follows the story of three androids (Kara, Connor, and Jesse). Each android gives unique perspectives to the story and helps the players in understanding the complexity of human-android relations, as some androids become deviants and threaten social cohesion and security. As the story unfolds, players must interact with the environment and other characters to progress. Essentially, these interactions will impact their gameplay and, ultimately, decide which ending the players will see. The game progresses through three types of gaming situations:
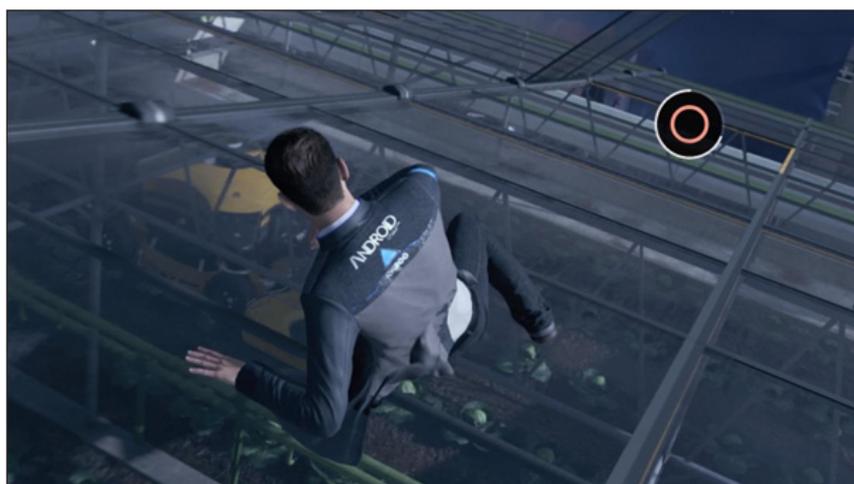

Figure 4: QTE in *Detroit: Become Human* (DBH).

1) play sequences in which the player moves themself, as the avatar, to interact with the virtual environment and characters; 2) cutscenes without interaction; 3) cutscenes with limited interactions, namely QTEs. The game shifts constantly between them to create and build tension in the narrative.

For example, during the game's prologue, the player follows the android Connor when he confronts a rogue android—a deviant—who had kidnapped a young girl. The first sequence is a cutscene without interaction, which helps to set the game's tone, mechanics, and story. Then, the game allows the player to move Connor and explore their environment, gather intel on the rogue android and on how to negotiate with it. Finally, Connor confronts the deviant; the player needs to quickly choose their actions as each step is time sensitive. The player's choices will either kill or save the girl. The game gives the player an illusion of choices, as all endings are already programmed. Like most QTE games, the player can try different narrative segments multiple times to see other paths and to further develop their understanding of the virtual world. Nonetheless, all endings are scripted; the player's agency is strictly limited to the game's possibilities. In this sense, *DBH* constitutes a prime example of interactivity with a narrative branching structure. The actions chosen are coded, as all narrative choices are in interactive fictions, such as visual novels.

DBH offers a relevant example of high interaction level in interactive fictions, as its interactions draw upon both immersion and incorporation to shape its gaming experience. What sets *DBH* apart from visual novels, for instance, is its virtual environment, which gives a more acute form of agency through interactions. As the story unfolds and players immerse themselves in it, the ludic mechanics shape immersion through the lens of Calleja's image of incorporation (Calleja 2011, 169). Whereas in *Synergia* the game's interactivity is limited, *DBH* wants to involve the player in all the ways made possible by the usual game mechanics in narrative games.

While *DBH* is not a visual novel (it does not follow in the premises of the genre nor does it identify as such) it is a form of interactive fiction, a videoludic novel per se. It offers a prime example of immersion, as players invest themselves in the decision-making processes and need to infer the correct answers to save (or not save) lives. It also highlights Calleja's incorporation, as they take part, through invisible coding devices, in the story itself. The literary nature of the text is thus enhanced by a playful and complex form of agency.

As mentioned in the previous section, the presence of textual "choices" echoes hypertextual studies, but the additional layer of meaning made possible by the degree of interactivity required, in the sense of skill and speed of execution, testifies to the ludic contribution, at least according to an understanding that places skill at the heart of its definition. The actions expected in the game, although ultimately having repercussions dictated by the game's code, allow the player to move through a narrative tree.

5. The space in between

Some visual novels are placed between the two ends of the spectrum. If the core of their narratives and interactions focuses on text and multiple-choice navigation as described earlier, these games also integrate other aspects and other more playful mechanics. These moments are scripted as brackets in the narrative. They require that the player perform more or less complex actions in order to progress. These actions, as well as the way they are performed, impact the overall gaming experience.

This diversity breaks the reading rhythm, bringing the player into an interactive relationship with the work. These actions, while not directly deciding the direction of the narrative, influence the construction of universes: the performed actions gain importance for the player who concretely experiences them, devoting time to them (Triclot 2017).

The time invested in something other than the protagonist is often perceived as a time-consuming activity. This feeling of spending time (Coavoux, Rufat, and Ter Minassian 2012) is enhanced even more, as its repetition anchors it in the players' habits: they learn its execution, progress during the game, activating by itself a fluidity between narrative and minigames. The narrative coherence of these actions with the subject matter is fundamental for their integration. In *Va-11 Hall-A* by Sukeban Games (Sukeban Games 2016), we play as the bartender Jill who chats with her customers. Most of the story takes place through dialogue, but it is influenced by the degree of inebriation of the characters. Their level of drunkenness is decided by minigames in which the player must mix drinks (see **Figure 5**). This makes sense with the protagonist's job and within the game's world. Her dexterity evolves at the same time as the player's, and the characters' remarks will accompany the quality of execution. The more the game progresses, the denser the plot and the exchanges between the characters will be, and the more cognitive investment will be required to understand its finesse. The non-playable characters might be quicker to confide about their secrets if they have had some alcohol. However, too much alcohol can force the discussion to a sudden stop, preventing the player from learning more about the current topic and potentially removing opportunities in subsequent dialogues. It may lead the player to choose answers more randomly, without any relevant informational basis on which to decide what's best to say. If the player decides to prepare the wrong drink, the non-playable characters will act accordingly. Another important part of the gameplay is the management of the protagonist's well-being throughout the game. Before each shift at the bar, Jill is seen seated in her flat (See **Figure 6**). Players have the possibility to use her money to ensure her everyday happiness by keeping Jill satisfied with her tastes and needs. The more Jill is happy, the more she will be able to create a "good atmosphere," a festive mood in her bar, and the more she will be able to maintain intimate and long discussions. The more the clients are

kept satisfied, the higher her tips will be, and it will be easier to invest in her well–being. These two–game mechanics are examples of interactive situations that do not really participate in the development of the story—not so much as a direct input to continue any line of text. Videoludic novels can pace players' or the readers' experience and ensure a better incorporation into the game's universe, in this case, incorporation into Jill's life. By interacting sporadically in her life, players develop agency in the universe and can more easily be immersed or incorporated in it. They have an influence over the narrative, through the use of specifically tailored game mechanics that enhance their overall experience, but differently from games like *DBH* or *Synergia.*

The same can be said of *Coffee Talk* (Toge Productions 2020), in which preparing comforting drinks helps to build confidence with characters, or *Robotics;Notes* (5pb 2012), where decisions are set by battles on a gaming application in the protagonist's smartphone, through a *mise en abyme* of interfaces.

Figure 5: Example of an order being fulfilled by Jill in *Va-11 Hall-A.*

Figure 6: Interface through which the player manages Jill's life in *Va-11 Hall-A.*

The literary immersion described above is set up by the narration but is reinforced by the concrete agency of players: their actions and performances in the "minigames" influence the story's progress. Choices are then no longer made solely through hypertextual mechanics, but through pure ludic agency (Triclot 2017; Aarseth 1997). These detailed manipulations fit perfectly into the narrative, including the everydayness of the gesture—preparing a drink, playing on a smartphone—in the constructed narrative, and participate in the minimal gap necessary for immersion, defined by Marie-Laure Ryan (Ryan 2015). For example, serving customers gives a sense of incorporation, strengthens the narrative, and helps in designing narrative possibilities.

6. Towards a diversification of the modes of agency

If we stick to the spectrum of interactivity as presented in this article, we can already see the wide diversity of characteristics of videoludic novels and, more broadly, interactive fictions. From mimetic works, where continuous reading is rarely interrupted, with choices scattered through the game, to work where manipulations are mandatory to progress, and which requires a constant haptic investment, we've discussed how interactivity must be understood in games with strong ludic and literary components. Numerous games also combine reading phases with periods of gameplay, centred around a single task; those games highlight the intrinsic characteristics of video games to draw upon both ludic and literary fields.

Each of them approaches immersion differently, but they all find themselves on the literary constants of a narration carried by words. However, their apprehension of the video game practices and their hybridization with interactions or actions wider and more diverse than those purely associated with (e)reading allows us to think of an opening of the corpus. This diversity opens on the apprehension of space, through the avatar's movement and the management of multiple places. It introduces a new spatial notion in a classical literary approach.

We can envisage further developments through the inclusion of new forms of manipulation or development in new media. Virtual reality headsets could become the new spaces of narration, offering new developments, notably, to visual novels.

Works such as *Tokyo Chronos* (MyDearest Inc. 2019) are already paving the way for the exploitation of spatialization and immersion by diving into a 3D environment blocking the stimuli of the real world. The player then embodies, even in their transported physical body, the protagonist of the videoludic novel, allowing the deployment of a different identification relationship, allowing an even more marked first-person expression. Taking space into account allows for more varied manipulations, both in terms of movements and interactions with objects.

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The authors have no competing interests to declare.

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