

Transmedia Storyworlds: Digital Games, Transmedia, and Cross-media. A Case Study of Prince of Persia.

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ABSTRACT

Digital games are one of the most engaging forms of new media. There are different genres of games, each offering a different play experience. The world-building games, games that allow players to embody a character and explore the digital environment in order to proceed in the narrative, offer the opportunity of inhabiting a digital environment. Due to its immersive potential, we would like to propose that these games may be seen as having an intrinsic transmedia potential.

Based on a qualitative methodology, having content and document analysis as primary data collection methods, the article intends to contribute to the discussion around the potential of digital games in an era characterized by the reconfiguration of traditional media systems and the emergence of convergent media universes. A case study of *Prince of Persia* will be presented, intending to identify the main strategies followed in the unfolding of the story and to evaluate the impact that transmedia and cross-media are having for the digital games industry.

Author Keywords

Digital games, transmedia, cross-media, digital storytelling, storyworlds, *Prince of Persia*

ACM Classification Keywords

Games, Multi/mixed media

INTRODUCTION

Digital games are one of the most engaging forms of new media. They embody, as almost no other media, the characteristics that make the new forms of digital mediation complementary to the traditional ones. They are supported by the interactive nature of audience, players are able to

have a first-hand experience of the fictional universe, most of the times they have the possibility of feeling immersed within a digital setting where simulation allow different forms of participation and even of co-creation.

There are different genres of digital games, each offering a different play experience. The gameworlds and narratives may be more or less interactive, and may allow different levels of agency. The world-building games, games that allow players to embody a character and explore the digital environment in order to proceed in the narrative, offer the opportunity of inhabiting a digital environment. And, as Marie-Laure Ryan [31] points out, this is the main feature that distinguishes digital immersive worlds from other media forms. In literature, film or theatre, for instance, it is possible to be immersed in a fictional world but not to actively participate in its development, nor to be an inhabitant of that reality. World-building games may be understood as ‘narrative landscapes’ [25], settings where users may be part of an ‘experiential drama’.

Due to its immersive potential, we would like to propose that these games may be seen as having an intrinsic transmedia potential. They tend to be developed around a solid storyworld which may well be unfolded to other media, allowing audiences to engage with the fictional universe through different media forms. Notwithstanding, the adaptation of fictional universes across different media may follow different strategies. Transmedia storytelling and the development of cross-media franchises are two of the most present in contemporary media systems. In order to assess digital gameworld’s potential as transmedia storyworlds, this article aims at discussing world-building games as interactive narratives, defining and contextualizing transmedia and cross-media, analyzing how digital games’ universes have been expanded to other media, and presenting a case study of *Prince of Persia*. The case study intends to identify the main strategies followed in the unfolding of the story and evaluating the impact that transmedia and cross-media are having for the digital games industry.

Based on a qualitative methodology, having content and document analysis as primary data collection methods, the article intends to contribute to the discussion around the potential of digital games in an era characterized by the

reconfiguration of traditional media systems and the emergence of convergent media universes. Throughout the article, we intend to answer to the following research questions: Are digital games' universes prone to transmedia and cross-media strategies? How have these strategies been implemented? Is *Prince of Persia* a transmedia or cross-media universe? How may transmedia storytelling be applied to consolidate digital games' universes?

The article is organized in five sections: (1) Digital games as interactive narratives, (2) Transmedia and cross-media: Contextualization, (3) Entertainment systems, transmedia storytelling and transmedial worlds, (4) Digital games' storyworlds across media, and (5) A case study of *Prince of Persia*.

DIGITAL GAMES AS INTERACTIVE NARRATIVES

Janet Murray's *Hamlet on the Holodeck* [25] was one of the first research works to discuss the narrative possibilities of digital environments and the effect computers may have in reshaping the stories that frame our lives. The potential of computers and cyberspace for digital storytelling and the emergence of immersive narratives were even proposed by Murray [25] as being one of the most important outcomes of the digital revolution.

Following the discussion about digital storytelling, Marie-Laure Ryan in her book *Avatars of Story* [32] suggests that there are four main approaches to digital narrative: practical, metaphorical, expansionist, and traditionalist approaches. The practical approach is centered in the potential of computers in disseminating personal stories rather than in their ability to contribute to the development of new forms of narrative. The metaphorical approach is concerned with the interface capability of telling stories; meaning that computers tend to be seen as machines that may tell stories. The expansionist approach sees narrative as a cultural element: not only does narrative differ from culture to culture, it evolves along with history. At least, the traditionalist approach considers that narrative is transcultural, transhistorical and transmedial and that the possibility of a user's participation is the most important property of digital media. Ryan considers that to better understand the importance of new media in the emergence of digital narratives the more suitable approach is an in-between approach, between the expansionist and the traditionalist. This in-between approach seems also the more suitable to fully understand the role of narrative in immersive world-building games. In the scope of this intermediate approach one can understand digital games as cultural objects and as interactive cultural products. Which means that games can be both representation systems and interactive systems [8, 9]. As representation systems, games reflect the culture in which they were produced, this is visible for example in the representation of social markers as gender, race, or class. As interactive systems, games offer forms of participation that may be extended beyond the game space, for instance objects created by players, and

as interactive systems games are transformed by players (transformative play [34]), this is more evident the more flexible the rules are. Nevertheless, these two dimensions are not a reality in every game. Every game represent the culture in which they were produced and played, but not all allow players to transform the game and 'carry it out' of its own setting.

Digital games developed around the construction of a storyworld are one of the most immersive and interactive narrative types available, since "[p]laying a game means interacting with and within a representational universe, a space of possibility with narrative dimensions." [34, p. 378]. The degree of freedom presented to players vary greatly – sandbox games tend to offer the possibility of engaging with the gamespace and other characters at the players' own rhythm and based on their own choices. Games with predetermined narratives, on the other hand, tend to allow a different type of experience, most of the times players sense themselves as agents of the storyworld, but in fact all their possible actions have already been encoded in the game software. Actually, most of the most traditional immersive video games offer an illusory sense of agency, nonetheless, the possibility of inhabiting the digital landscape is not compromised.

Inhabitation results from spending time in-world, developing one's character and interacting with others and with the setting. It would not be possible without the sensation of 'being there', feeling immersed within the digital environment, nor without the possibility of agency and transformation; which are the three main characteristics appreciated by users of digital environments [25]. These characteristics are developed within two different dimensions – interactive and immersive dimensions; which, according to Murray [25] are set around four essential properties, digital environments are procedural, participatory, spatial and encyclopedic. These settings result from an ability to execute a series of rules (procedurality). They are responsive to users' actions allowing them to be active participants, represent navigable space and due to the computer's capacity to store high quantities of information, they are seen by users as an almost endless database of objects and interactive scripts.

Immersion is understood as the corporeal experience felt while being in a virtual environment [5, 19, 25, 31, 37, 38]. According to Marie-Laure Ryan [31] there are three types of immersion: spatial, temporal and emotional immersion. Each of them responding to a feature of fictional environments: spatial immersion is a response to setting, temporal immersion a response to plot, and emotional immersion a response to character. Agency and transformation are interconnected with the immersion process, once "the more realized the immersive environment, the more active we want to be within it" [25, p. 126]; and the wider the possibilities of agency and

transformation the deeper will be users' engagement with their 'alternative lives'.

Agency is the essence of being Human, and is represented by our capacity to exercise control over the surrounding environment. Being so intrinsic to human beings and occurring through the combination of interaction with intention, makes agency almost only achievable through our social daily lives. And, until the emergence of immersive digital games, agency was almost inexistent outside of the first life dimension. Fictional worlds made available through literature and cinema, for instance, were not liable to human agency. Agency results from seeing the effects of performed actions and despite the feeling of immersion offered by some literary works, receptors' actions may not be reflected in the narrative. Most video games despite being an interactive narrative form also do not offer the possibility for 'full agency', once their narrative structures are closed, but allow to experience a remediated sense of agency.

Transformation is the third characteristic that makes digital environments so engaging. It is deeply related to agency and subsequently to immersion. Transformation is connected with the procedural nature of immersive digital environments. Players appreciate being able to alter the landscape, and/or the course of the story: "the transformative power of the computer is particularly seductive in narrative environments" [25, p. 154]. Transformation combined with agency and immersion are very important for personal engagement with the narrative – in the sense proposed by Ryan [32] which determines that all narratives are organized around specific semantic features: action, temporality, causality, and world-construction.

In order to understand digital games as narrative digital settings, one should recognize that these interactive digital landscapes are developed around the basic elements of narrative [32] – characters, events, setting, and trajectories leading from a beginning state to an end state. But one should also be aware that besides the existence of these elements, it is also necessary to ensure that the conditions of narrativity are safeguarded. According to Ryan [32] these conditions are organized into different dimensions: spatial, temporal, mental, and formal and pragmatic dimensions. The spatial dimension defines that the narrative should be about a world populated by individual beings. The temporal one that this storyworld should be situated in time and suffer noteworthy transformations caused by unexpected events. The mental dimension determines that some of the participants of the events should be intelligent beings with the capacity to react emotionally to what is going on; and that some of the events should result directly from the actions of those agents, and should be driven by identifiable goals and plans. The last dimension, the formal and pragmatic, defines that the sequence of events must form a unified causal chain and lead to an outcome; the

occurrence of some events must be taken as fact for the narrative universe; and the narrative has to communicate something meaningful to the receiver.

As interactive multimedia products digital games may assume the role of playable narratives, since they result from the articulation of narrativity and interactivity [33]. The role performed by narrative is not the same in all immersive games and because of this Ryan [33] distinguishes between narrative games and playable stories. In a narrative game, "narrative meaning is subordinated to the player's actions" (45), while in a playable story "the player's actions are subordinated to narrative meaning" (ibid.). The element story acquires different meanings in these two types of digital settings. In the first the story is a key component for immersion since it enriches the gameplay. In the second, on the other hand, the player's actions is supposed to produce a story. According to Ryan, a narrative game offers players the opportunity to experience a particular fictional world filled with recognizable characters and objects aiming at fulfilling a determined set of goals, these goals should be the "kind of goals that people may form in everyday life or in their fantasies" (46). A playable story has no predetermined goals, there is no winning or losing – "the purpose of the player is not to beat the game, but to observe the evolution of the storyworld" (ibid.).

Despite the different role performed by narrative in these two types of digital games, it represents an essential factor to game experience. Because of this one can see world-building games as procedural worlds: "[i]n a procedural world, the interactor is scripted by the environment as well as acting upon it" [24, p. 6]. And as Murray point out: "the most important element the new medium adds to our repertoire of representational powers is its procedural nature, its ability to capture experience as systems of interrelated actions" [25, p. 274]. World-building games then offer a richer first-hand narrative experience of the storyworld than other genres of digital games, which make their fictional universes more prone to engage players and conquer audience's loyalty. Digital games industry has already noticed players' preference for narrative environments, the investment in narrative is being boosted by technological development and is leading to more realistic settings and believable characters, which are vital to a greater narrative experience.

As "[s]torytelling can be a powerful agent for personal transformation [...] digital narratives add another powerful element to this potential by offering us the opportunity to enact stories [rather] than to merely witness them" [25, p. 170]. This possibility to enact stories are one of the distinctive characteristics of immersive digital games. And since players get involved with the storyworld and tend to feel part of it, it is almost sure they will follow it if the universe gets expanded or recreated in another media. In order to understand how fictional storyworlds may be

unfolded into different media forms, in the following section attention will be paid to the contextualization of transmedia and cross-media as strategies for the emergence of convergent media universes.

TRANSMEDIA AND CROSS-MEDIA: CONTEXTUALIZATION

The contemporary media systems are under a process of reconfiguration. Göran Bolin [4] proposes that this transformation was triggered by the digitization of media landscape. As media systems are organized around two main dimensions, the technology to disseminate stories and the organizational form of the institution, one should consider that there are processes of technological convergence and of institutional convergence [4]. The technological convergence may be analyzed from three perspectives: production, distribution, and reception. New media and technologies are performing a crucial role in the renovation of media landscape, there new techniques and equipment, alternative distribution channels, new means of consumption, and complementary forms to communicate with the audience. The institutional convergence, on the other hand, comprises both organizational integration and market convergence. Organizational integration concerns the tendency of media companies to expand their sectors of activity and to invest in other media forms. Market convergence occurs when media companies from different sectors work together to achieve a common goal, or when media and non-media companies collaborate in common projects. As Bolin [4] points out: “These technological and institutional convergence processes are naturally affecting the ways that texts are produced” (243).

The reconfiguration of media systems may be considered cause and consequence of the emergence of a convergence culture. According to Henry Jenkins [11], “[r]educing to its most core elements, [convergence culture] is about the relationship between three concepts: media convergence, participatory culture, and collective intelligence [...]”. Despite focusing mainly on content and technological convergence, this definition implies the emergence of new modes of consumption that influence institutional convergence. Current media content are developed to be suitable for different channels and platforms. This is not totally a new phenomenon, the film industry has been producing content for different platforms since the 1970s [4], when movies began to be produced not only for cinema release, but also for home-cinema. Nowadays the number of platforms is much higher, which means not only that content producers need to target different media, but also that audience’s media diets may take place in a wider variety of platforms. The strategy of producing content for release in different media still is a common strategy, however there are other strategies emerging from media systems reconfiguration: transmedia and cross-media.

The concept transmedia was used by Marsha Kinder [16] to characterize a “[...] combined mode of spectatorship [that]

helps to account for the extraordinary success of that commercial supersystem of transmedia intertextuality constructed around Teenage Mutant Ninja Turtles [...]” (4). In this sense, transmedia is seen as the presence of a given product in different media in order to build audience’s loyalty. Nowadays, transmedia concerns not only the presence in different media, but the way that presence is managed. Transmedia projects are supposed to: (1) take advantage of the chosen media’s functionalities and potential, (2) expand a given property to those media, and (3) offer audience different forms of interacting with content. Transmedia is then “the notion that (parts of) stories are told in or dispersed across several different media” [20]. However, transmediality may involve different logics. In the next section attention will be paid to a specific one, transmedia storytelling, but there are others gaining importance as the case of transmedia branding, transmedia performances, or transmedia games (for instance alternate reality games).

Cross-media and transmedia take into account the same dimensions, but differ in taking advantage of multimediality differently. That is, cross-media results in the adaptation of content to different media or platforms [28, 27, 35]. The investment on multiple platforms allows conquering a wider audience and enriching the narrative with the specific features of each medium. Yet, a cross-media property is a single story told in different ways, while a transmedia one is unfolded to the different media in a way each medium ends up contributing to the development of the media property. Nonetheless, as Petersen [28] proposes, “[c]ross media becomes an innovation strategy in itself because it bridges the gap between the old broadcast institution and the new digital market, media, organisation and communication forms.”

In order to better understand how these strategies may be applied to the adaptation of storyworlds to different media, in the following section we will discuss three types of franchised cultural production [14], entertainment systems, transmedia storytelling and transmedial worlds.

ENTERTAINMENT SYSTEMS, TRANSMEDIA STORYTELLING AND TRANSMEDIAL WORLDS

Media franchises have long been a strategy for entertainment content production. Despite the critique concerning much of the franchising strategies, Johnson [14] proposes that:

“[...] to truly understand that reproduction and problematize the terms in which franchising has been popularly and critically conceived, [...] [it is necessary] a more complex picture of franchised cultural production that challenges assumptions about self-replication to more effectively account for human agency and social meaning within the industrial institutions that produce culture.” (2)

Audiences play a major role in media franchises. The reconfiguration of audience’s role in the last decades of the

twentieth century contributed to the transition from media franchises to transmedia entertainment [13]. According to Joseph Turow [40], in the last decade of the last century it was witnessed the transformation of a “society-making media” into a “segment-making media”. This change is later discussed by Chris Anderson, who proposes the emergence of the long tail phenomena [1]. The segmentation of media audiences triggered the multiplication or expansion of a given entertainment property into different media, targeting different segments and niches.

Johnson [13] considers that the defining characteristic of transmedia entertainment has been “[...] its ability to spread promiscuously across media contexts”. However, considering the development of media production and distribution platforms, “today’s transmedia entertainment has embraced a serialized production in which each adaptation of a property offers a unique, differentiable experience to encourage consumption across multiple markets”. During the adaptation the story may simply not be retold. Following scholars like George Bluestone and Sarah Cardwell [3, 6], one may consider that a story is never just retold, and that the adaptation process has always involved a transformation and development of the story across media. We would like to propose that according to the logic followed, one can be facing a transmedia or a cross-media narrative. In order to better understand the development of transmedia entertainment, we will set the conceptual boundaries of three types of franchises: entertainment systems, transmedia storytelling, and transmedial worlds.

Marsha Kinder was one of the first scholars to critically analyze the emergence of transmedia entertainment systems. Her conceptualization of the emerging “supersystem of transmedia intertextuality” [16] is centered on the possibility of distributing fictional characters through different media and platforms, e.g. movies, television, video games, and toys: “In the case of superentertainment system, transmedia intertextuality works to position consumers as powerful players while disavowing commercial manipulation” (119-120). For Kinder the multiplatform distribution of characters is seen as a business strategy that may constrain the preferences of youngsters. Piotr Sidarski [36 *apud* 17] developed Kinder’s concept and proposes that an entertainment systems consists in a “[...] network of texts organised around a figure or groups of figures from popular culture”. In entertainment systems there is no individual narratives, the narrative is concentrated in the characters and main events. Sidarski suggests that the adaptation of the narrative tends to be conditioned by the original product, which sometimes results in what he designates by narrative anomalies that lead the audience to consume several products to understand the full logic of the narrative world. Then, one can redefine entertainment systems as systems of transmedia intertextuality, centered in characters or events, in which the different texts may

have interdependencies that makes it impossible to understand the whole without consuming different parts. Or as Klastrup and Tosca [17] put it: “[...] we could say that in an entertainment system, some of the gaps cannot be filled in by readers/viewers, because the necessary information lies outside the text, in another text” (411).

Transmedia storytelling was coined by Henry Jenkins [12] to define a different transmedia logic, one focused on the narrative potential for transmedia processes. According to Jenkins [12]:

“In the ideal form of transmedia storytelling, each medium does what it does best – so that a story might be introduced in a film, expanded through television, novels, and comics, and its world might be explored and experienced through game play. Each franchise entry needs to be self-contained enough to enable autonomous consumption. That is, you don’t need to have seen the film to enjoy the game and vice-versa.”

However, the consolidation of the concept takes place only with the publication of *Convergence Culture* [11], where Jenkins proposes that, from a transmedial perspective, narrative is the art of building universes that are not restricted by the means by which they are transmitted. Within the paradigm of the convergence culture, transmedia storytelling is changing the way audiences relate with media content, marketing and communication professionals define distribution strategies and how stories are told, consumed, and received. As Jenkins puts it [11], “[t]ransmedia storytelling refers to a new aesthetic that has emerged in response to media convergence—one that places new demands on consumers and depends on the active participation of knowledge communities” (20). Transmedia storytelling then may be defined as “[s]tories that unfold across multiple media platforms, with each medium making distinctive contributions to our understanding of the world, a more integrated approach to franchise development than models based on urtexts and ancillary products” [11 p. 293]. The conceptualization proposed by Jenkins articulates different dimensions – universe, narrative, authors, distribution platforms, and audience. That is, transmedia narratives presuppose the existence of a universe whose history can be told from multiple perspectives and authorships, taking advantage of as many platforms as possible, involving and encouraging a participatory audience, exploring new models of production and broadening its audience. Or as Giovagnoli suggests [10]:

“Thus, exploring the narrative universe of a story by using transmedia is even more like a question of experience than use, and it makes compromises and challenges necessary for both the authors and the audiences. It is the proper founding act for the tale, and an excellent opportunity to influence the *homo ludens* of today who are longing for new and more active roles in the process of fantasy and imagery-making.” (17, italics in the original)

Transmedia storytelling then creates universes that can be understood as franchises, however the models of production and distribution are distinct from 'traditional'. Despite taking advantage of a presence across media, transmedia narratives promote the convergence of creative industries and not the emancipation of one sector in detriment of the other. Although the goal remains the commercial success, transmedia storytelling seeks to provide meaningful entertainment experiences through the exploitation of each medium strengths.

Transmedial worlds, on the other hand, were proposed by Lisbeth Klastrup and Susana Tosca [17] as:

“abstract content systems from which a repertoire of fictional stories and characters can be actualized or derived across a variety of media forms. What characterises a transmedial world is that audience and designers share a mental image of the “worldness” (a number of distinguishing features of its universe). The idea of a specific world’s worldness mostly originates from the first version of the world presented, but can be elaborated and changed over time. Quite often the world has a cult (fan) following across media as well.” (409, italics in the original)

According to this definition, a transmedial world is not centered on a single story, but on what the authors define as ethos, topos and mythos. These three elements should be safeguarded when adapting or expanding the world across media [17]. Ethos defines the codes of behavior of the world, the ethics and moral explicit and implicit rules. Topos concerns “the setting of the world in a specific historical period and detailed geography” (412); nevertheless, the space and time may be changed in an adaptation, since the general setting of the universe remains unalterable. And mythos defines the fundamental elements of the plot and presents the characters: “[...] the mythos of the world is the backstory of all backstories – the central knowledge one needs to have in order to *interact with or interpret events in the world successfully*” (ibid., italics in the original).

Through the comparison of the three media franchising logics analyzed, it is possible to verify that all seek out taking advantage of the presence in as many platforms as possible. However, the focus of the adaptation process is different in each of them. In entertainment systems the core element is a character or a group of characters, or particular events. In transmedia storytelling it is the storyworld as a whole and as interactive entity. And in transmedial worlds it is the world essence, the world as an abstract system. Both in entertainment systems as in transmedial worlds it is not mandatory that the adaptation process involves neither the unfolding of the storyworld, nor the different texts to be self-contained. Regarding the narrative that is produced, most of the times it tends to be a cross-media narrative – a particular story that is told in different ways in different media. Transmedia storytelling projects, on the other hand,

should be developed around transmedia narratives – narratives that are expanded and consolidated across media, and that despite belonging to a unique storyworld, should be fully comprehended individually.

In the next section attention we will present a brief history of digital games’ universes adaptation and expansion across different media. The analysis intends to identify the main trends concerning the role of digital games in the consolidation of transmedia entertainment.

DIGITAL GAMES’ STORYWORLDS ACROSS MEDIA

The relationship between digital games and other media has been developed since the 1980s, though it was in the 1990s that it become more effective [29]. The media that have been more prone to digital games expansion are cinema, television and comics. In order to contribute to the better understanding of digital games’ role in the consolidation of media franchises one can analyze them from two perspectives. The first, and most common, is the adaptation of a given fictional universe into a digital game. The second, and the one we will be briefly discussing throughout this section, the expansion of games’ storyworlds across different media.

Nintendo was, and still is, one of the most prominent players of game-based transmedia entertainment properties. It was one of the first digital game companies to invest in the expansion of games universes, and particularly characters to other media. One of Nintendo’s success cases is the media franchise developed around Mario and the universe of *Super Mario Bros.* [29]. Nevertheless, Nintendo has also taken advantage of its leading position in game industry to consolidate the Nintendo universe outside of Japan, mainly in North America. Two examples of this strategy are the animated TV series *Captain-N: The Game Master* and the comic series *Nintendo Comics System* [42]. The first, an American-Canadian joint venture produced by DIC Entertainment and aired, from 1989 to 1991, on NBC, incorporated several elements of Nintendo games universes, for instance from *Castlevania*, *Kid Icarus*, *Metroid*, *Donkey Kong*, *The Legend of Zelda* and *Super Mario Bros.* The second resulted from a licensing deal set with Valiant Comics. *Nintendo Comics System* series was published between 1990 and 1991, and was based both on Nintendo’s games and licensed TV properties: *Super Mario Bros.*, *Game Boy*, *The Legend of Zelda*, *Captain N: The Game Master*, *Metroid*, and *Punch-Out!!*.

Besides these initiatives there are two Nintendo media franchises based on game characters that are among the properties more present in different media: Mario and Pokémon. Mario first appearance dates from *Donkey Kong* (1981), but since then he became one of the most important Nintendo characters, being present in several games series, TV shows, a film, and comics and manga series [30]. The *Pokémon* franchise has its origins in the release of the first title of the games series to Game Boy in 1996 – *Pocket Monsters Red and Green* [18, 39]. The game series is

organized around different generations, consisting of several titles each, available for different gaming platforms. Along with the first game, also in 1996, it was first published the *Pokémon Trading Card Game*, that still conquers adepts all over the world. In 1997 were launched the anime and manga series, and in 1999 the first movie, from a series that counts already with 16 titles [18, 39].

Following Nintendo's footsteps, Capcom also invested in developing game-based franchises. Three of its most successful game-based franchises are *Mega Man*, *Street Fighter*, and *Resident Evil*. *Mega Man* was first released in 1987 for Nintendo Entertainment System, and since then there were launched around 50 titles for multiple game systems [42]. Besides its own series, Mega Man appears in other video games, for instance it is one of the characters of *Marvel vs. Capcom* series, as well as across other media – there are books from different genres: artbooks, manga, junior novels, and it has made several appearances in TV shows. *Street Fighter* franchise was developed from the fighting game with the same name released in 1987 [42]. The game series has several titles and is available for different game systems. The presence of this universe in other media is diversified. There are several movies inspired in the games, including a Hollywood production starred by Jean-Claude Van Damme, *Street Fighter* (1994), as well as different manga series and a card game. *Resident Evil*, on the other hand, is based on a survival horror games series launched in 1996 with a game with the same title. There are several titles in *Resident Evil's* game franchise from different genres and for diverse platforms. As well the entertainment franchise developed within the games industry, this fictional universe was also unfolded to other media. There is a film series, which counts with five titles, two computer-generated movies and one short-film; novels based on the games and novelizations of the first five titles; and comics series.

Ubisoft is another company that has been taking advantage of successful games' storyworlds and expanding them into other media forms. *Prince of Persia*, which will be analyzed in detail in the following section, and *Assassin's Creed* are the two most consolidated entertainment franchises. *Assassin's Creed* game series was launched in 2002, with the first title *Assassin's Creed*. Since then several games were released, for different game platforms. The universe expansion took place in media like film, comics, and novels series. The *Assassin's Creed* feature film is expected to be released in 2015. The adaptation of games to other media seems to be a strategy that Ubisoft will be following. *Watch Dogs'* game (2014) was launched at the same time as the novel titled *Watch_Dogs //n/ Dark Clouds*, by John Shirley. The novel is available as e-book, and there is two versions, a plain e-book and an enhanced one offering a multimedia and more interactive reading experience. Besides the novel, Sony and Ubisoft have already announced that there will be soon a feature film based on *Watch Dogs* [15].

Apart from these game-based franchises there are others worth mentioning due to its relevance as convergent media properties, like *Mortal Kombat*, *Tomb Raider*, *Final Fantasy*, and *Halo*, for instance. *Mortal Kombat* franchise is based on the fighting game with the same name released in 1992 by Midway Games, but the game franchise is not limited to fighting titles, there are also action-adventure titles. The game universe adaptation across media occurred through several formats, being the most relevant the two major motion pictures, comic books series, and TV series. *Tomb Raider* was the first game franchise starred by a female protagonist [29]. Since the released of the first game in 1996, by Eidos Interactive, the franchise has been developed around Lara Croft [42]. The adventures of the heroine were expanded to two major films, starred by Angelina Jolie, comics series, novels, among other media. *Final Fantasy* franchise had its beginning with the first role-playing video game released in 1987 - *Final Fantasy*. The main games series counts with 14 titles, but there are also several spin-offs and remakes [42]. The universe has also been expanded to film, television, manga, novels, and even radio dramas. Lastly, *Halo* is one of the most successful game franchises [41]. The first game was released in 2001, by Microsoft Studios, exclusively for the Xbox – *Halo: Combat Evolved*. The game series counts with four main titles and four spin-offs. In print media *Halo* universe is reachable through comics, novels and artbooks. And there are also anime and web series based on *Halo*.

There are some common characteristics of these transmedia entertainment properties. All the projects sought to adapt digital games' universes or characters to other media forms. None of the projects were developed as an organized transmedia project, and in most cases we end up with loosely inspired versions of the fictional universes made available in several formats. Which leads us to conclude that until now digital games' universes have been explored mostly as cross-media universes and not as transmedia storytelling ones. The unfolding of the narrative universes has not been the main goal of the across media adaptations. The goals have been to reach a wider audience and to keep it loyal to the fictional universes, as well as conquer additional audience segments through the investment in other media forms, particularly those which play a major role in popular culture. Cinema, TV, animation and comics seem the most suitable formats for the remediation of gameworlds. In order to better understanding how gameworlds are being adapted across media and what may be the impact of these adaptations to digital games industry, the next section will be dedicated to *Prince of Persia's* case study.

A CASE STUDY OF PRINCE OF PERSIA

The *Prince of Persia* franchise, created by Jordan Mechner, dates back to 1989. Its first installment was a 2D action adventure digital game [7] published by Brøderbund that drew both visual and narrative inspiration from the folkloric

tales of the classic literary collection *One Thousand and One Nights*.

The first game, *Prince of Persia* [22], originally released on the Apple II system, saw a nameless Prince attempt to rescue an unnamed Princess from her kidnapper, Vizier Jaffar. While the game's narrative was efficiently simple, its structure innovated both the Action and Adventure genres in several areas. Time was presented as a key feature in the game, as the player was given one hour to traverse several trap filled labyrinthine dungeons that featured cleverly placed enemies and challenging puzzles. Failure to complete the game within the allotted time limit meant the game had to be restarted. Graphically, *Prince of Persia* was ground-breaking as it featured an early form of motion capture in order to give the Prince's actions a cinematic feel [21].

Critical reception at the time was enthusiastic, comparing the game's achievements and impact on video games to what *Star Wars* had done to film [2], yet the game's sales were considered to be a commercial failure. It was not until the game was released outside of North America in other platforms, one year later, that Mechner saw his title achieve commercial success. While critical success did not warrant a sequel, four years of solid sales, awards and a Disney film that, intentionally or not, drew inspiration from the same ideas and stories – 1993's *Aladdin* – meant Mechner and Brøderbund would work on a follow-up story.

Prince of Persia 2: The Shadow and the Flame [23], a direct sequel, drew from the same influences as its preceding title, keeping its genre and gameplay mechanics untouched, while featuring a longer and more complex narrative. Failing to achieve both the critical and commercial success of the original title meant that its cliffhanger ending was not followed up on. The series was put on hold until 1999.

The end of the 1990's saw the video game industry shift from 2D to 3D, and thus the *Prince of Persia* series was reimagined as a 3D title, now in the hands of a new production company, TLC. Written and designed by Mechner, *Prince of Persia 3D*'s release was rushed out in 1999 in order to meet the financial demands of the series' new owners. The game was released to very poor reviews and did not meet its expected sales. Overall, the lack of quality assurance resulted in a poor 3D Action Adventure game that controlled very poorly and played very badly, two features that were previously considered to be key factors for the first game's success [21]. Narratively, the game offered no contributions to the Prince of Persia series. Ignoring the second game's cliffhanger ending meant that this installment in the series was pretending the second game never happened, yet it did not make an attempt to reboot the series, simply opting to ignore plot and narrative.

In 2001, after French publisher Ubisoft took interest in *Prince of Persia*, the transformation from series to franchise

would start taking place. Although Ubisoft had acquired the *Prince of Persia* catalog, Mechner still owned the intellectual property. After two games that failed in different areas, Mechner was reluctant to work on the *Prince of Persia* property again, but he would eventually agree to work on a new title after seeing the innovations Ubisoft were planning. A fresh publisher meant a fresh start, and *Prince of Persia: The Sands of Time* not only rebooted the series, but effectively turned it into a franchise.

In 2003, Mechner consulted, designed, and wrote both the story and the screenplay for the new title. Although the Prince was still unnamed and the Princess was still a damsel in distress, the new 3D approach took the elements that made the first title successful and transported them into a game that innovated within the action adventure genres. Offering a very strong narrative, the Prince's origins were reintroduced and a foundation for future games was created. Game of the year awards and solid sales saw the *Prince of Persia* franchise return to mainstream media and a sequel would soon follow.

2004 saw the release of *Prince of Persia: Warrior Within*, the second game of the rebooted franchise's timeline. The early 2000's saw several popular video games take on darker approaches towards both their stories and gameplay elements. A gritty story, bloody fights and a "[...] heavy metal guitar wailed over the soundtrack. Romance was replaced by sexed-up vixens in g-strings. It all added up to the series' first M-rating." [21] This darker, M-rated approach saw the game's sales increase exponentially, but signaled the departure of the franchise's creator. This new successful trilogy would come to an end in *Prince of Persia: The Two Thrones* (2005), a game that built on the previous title's foundations, and therefore took little risks and featured no innovations, but guaranteed strong sales. One notable characteristic of this franchise's narrative universe, is that the conclusion of a trilogy means a reboot. Like the nameless Prince before him, the second nameless Prince would soon be replaced.

After a short hiatus where mobile spin-offs failed to solidify the franchise in the portable environment, a new Prince that featured a westernized look was released in 2008. The franchise's third Prince kept his roots on the Action Adventure genres but moved away from both the narrative and visual influences that supported the previous trilogies, instead drawing on western fantasy as its complementary source of inspiration. This fresh story did move away from the narrative tropes present since the original title, but has yet to be followed up on.

The first unfolding of the fictional universe to other media was centered on comic format. In 2008, was published *The Prince of Persia: Graphic Novel*, Jordan Mechner authored the story in 2007, and the graphic novel was written by A.B. Sina, illustrated by Alex Puvilland and LeUyen Pham, and published by First Second Books. Despite sharing authorship with the game franchise, the plot of the graphic

novel is not related to any of the games. Also in 2008, Ubisoft and Penny Arcade released an online storybook, entitled *Prince of Persia: Stories and Secrets*. The story was published between October and December 2008, new pages were published weekly in Ubisoft's *Prince of Persia* official website. In spite of being innovative, this editorial project was not totally new within this franchise. Penny Arcade had a previous experience concerning the adaptation of this universe into comics. In November 2005, it has launched an eight page online storybook, *Prince of Persia: The Two Thrones*, based on the game with the same name. The latest official book form release of *Prince of Persia* occurred in 2010. *Prince of Persia: Before the Sandstorm*, published by Disney Press, written by Jordan Mechner and illustrated by Todd McFarlane, Niko Henrichon, Cameron Stewart, Bernard Chang, Tommy Lee Edwards, David Lopez, and Tom Fowler. This volume was launched as a prequel of the upcoming feature film.

In 2010, the *Prince of Persia* franchise branched out into a new medium with the feature film *Prince of Persia: The Sands of Time* [26]. Although it drew on various story elements that were paramount in the success of the digital games, as well as the folkloric source material Mechner drew his inspiration from, the film, also westernized its approach on the source materials and brought many new narrative influences to the franchise. Sharing the same name as the 2003 digital game, not only does the film once again re-tell the Prince's origin story, but it also serves as a new introductory point to the narrative universe. For the first time in the *Prince of Persia* franchise, both the new Prince and the Princess are given names. Another curious element is the fact that the Vizier, previously named Vizier Jaffar, sees his name changed.

While the fourth prince's adventure might be a collage of narrative structures and plot devices from 20 years of stories, mixed with traditional Hollywood elements, Mechner, who returned to co-write the film, considered it to be "(...) a different story. But you'll recognize characters and situations. I think it's very true to the spirit of the game." [21] The film was considered to be a commercial failure and its narrative was not followed up on.

Since 2010, the *Prince of Persia* franchise seems to be dormant, apart from occasional re-releases and re-masters. The film's failure seems to have once again halted the development of new digital games, or other entertainment products. The unfolding of the universe did not follow a defined path, not even among the games series. The narrative world was not consolidated and expanded through the different media. But mainstream media had impact in the recognition of the universe by a wider audience. *Prince of Persia* as a franchise may be seen as an entertainment system, as the majority of game-based media franchises settled so far – it is a system of transmedia intertextuality, centered on universe's characters and/or events, some of the

products launched are interdependent, and it has been spanned across different media formats and platforms.

CONCLUSION

World-building digital games offer players the opportunity to experience an immersive interactive narrative. As narrative environments digital games have what we consider to be intrinsic transmedia features that make them suitable to be unfolded in transmedia universe: they may be pervasive, offer engaging narrative storyworlds, promote interactivity, and more and more a participatory culture.

Nevertheless, this potential has not been fully explored by the industry yet. Games have been adapted across media since the 1990's, but the great majority of the adaptations did not contribute to the consolidation of fictional universes. Even commercial successful adaptations, like *Lara Croft: Tomb Raider* movie (2001), which made Lara Croft known worldwide, did not assure the future success of the media franchise. Long-living game franchises, like *Prince of Persia*, did also not benefit by being adapted to different media. However, the cross-media and transmedia storytelling potential of some game narratives is evident. As the industry's investment in the development of solid narrative worlds increases, the more suitable they become to be expanded across different media. Past experiences evinced the relevance that comics, novels, television and film may have for the establishment of successful game-based convergent media franchises. In order to fully take advantage of games transmedia potential, it is necessary not only to rethink properties internal hierarchy – horizontal properties where there is no main or subordinated products are better suited, but also to acknowledge that a key requirement for the success of a transmedia project is the creation of a universe vast enough to be extended, but whose structural elements are defined in detail to ensure its cohesion even if the expansion is done by different authors and include *produced* content. Another dimension that may contribute to the pervasiveness of a game universe is its audiences. It is necessary to set strategies that meet their expectations and that allow them to somehow interact with the franchise, to have a closer relationship with the storyworld.

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Both media formats are characterized by a strong focus on fictional characters as autonomous entities in contrast to the idolization of actors as role models in Western media contexts.² Therefore, media phenomena like Hatsune Miku (Figure 1) combine anime-specific traits and appearance with video game adaptations that associate the character with rhythm-based gameplay mechanics and related media elements such as.Â As Dani Cavallaro indicates, manga and anime based on digital games appeared much later;⁵Â Video games are often used as an economically motivated form of transmedia extension¹³ for manga/anime franchises.