



Playing with cultural heritage: the virtualization of monuments in digital games

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Abstract

Digital technologies have changed access to cultural heritage. Digital games are one of the most engaging forms of digital media, as they tend to offer complex storyworlds, they may be seen as appropriate settings for the recreation of first life heritage sites.

Based on a qualitative methodology, having content analysis as data collection method, the chapter presents the case of two games: *Fallout 4* and *Second Life*, intending to contribute to the discussion around the potential of digital games for repurposing heritage sites. The following research questions will be addressed: How is representation of heritage sites occurring in digital games? What is the role represented by monuments in the analysed games? What are the main differences in the representation in a commercial ‘finished’ game and a virtual world co-created by users?

Keywords: cultural heritage, digital games, monuments, representation, *Fallout 4*, *Second Life*

Introduction

Digital technologies have changed access to cultural heritage (Cameron and Kenderdine, 2010; Ioannides et al, 2010) and they have been performing a notable work as technologies of memory (Sturken, 2008). Digital games are one of the most engaging forms of digital media. They are supported by an interactive relationship with 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 genres¹ of digital games, each offering a different play experience. According to Egenfeld-Nielsen, Smith and Tosca (2008), digital games may be classified taking into consideration four

¹ Digital games classification has been highly discussed by game studies researchers and there are proposals to set the main genres of games (Wolf, 2002; Egenfeld-Nielsen, Smith, and Tosca, 2008). The classification system followed is the one proposed by Egenfeld-Nielsen,

main genres: action, adventure, strategy and process-oriented. What sets the difference between each category is the criteria to be successful in the game: in action games the main criteria to be successful are hand/eye coordination and motor skills; in adventure games the central criteria to be successful are logic and deduction skills; in strategy ones, the criteria to be successful are management and strategy skills; and lastly, in process-oriented games, the criteria will be different according to the specificities of the game, ranging from role-playing to simulation games. Those games are characterized by not fitting in any of the other categories, which is becoming more and more common in contemporary titles, and by offering players the opportunity to explore virtual worlds. Due to its immersive potential, I would like to propose that digital games from process-oriented genre may be seen as being particular adequate to host representations of heritage sites.

Based on a qualitative methodology, having content analysis as data collection method, the chapter intends to present the case of two games: *Fallout 4* and *Second Life*, both process-oriented games, offering an open-world, and to contribute to the discussion around the potential of digital games for repurposing heritage sites. The following research questions will be addressed: How is representation of heritage sites occurring in digital games? What is the role represented by monuments in the analysed games? What are the main differences in the representation in a commercial ‘finished’ game and a virtual world co-created by users?

The chapter is organized in four sections: Technologies of memory and virtual heritage sites, Digital games as systems of representation, Heritage sites in digital games, and Representing monuments in digital games: The cases of *Fallout 4* and *Second Life*.

Technologies of memory and virtual heritage sites

Individual and collective memories are maintained and shared most of the times through technologies of memory. These technologies allow to keep records of the past and to develop practices of remembering that are crucial for the preservation of collective memories. They are

Smith, and Tosca (2008), which is based on four primary genres: action, adventure, strategy, and process-oriented.

also one of the primary means to generalize a memory inside a group contributing to its cultural identity (Sturken, 2008, p. 75). The rise of digital media led to the emergence of new forms of perpetuating social memories, to new “social-technical practices of memory-making and memory retrieval” (Van House & Churchill, 2008, p. 296).

Heritage sites are one of the means that allow sharing collective memories. These assume a very important role in a society’s public sphere, once they reflect its ideas of identity, politics, community and nation (Johnson, 2002, p. 294). These spaces of remembrance are what Pierre Nora had defined as *lieux de mémoire* – sites of memory, spaces that are no longer real environments of memory, but a representation of an event that belongs to a national identity (cf. Nora, 1989). According to Pierre Nora in order to a monument be considered a *lieux de mémoire* it must evolve from history to memory, from history to cultural production and construction, from history to narrative. These narratives are “mediated cultural and personal traces of the past” (Sturken, 2008, p. 74) and reflect the importance of heritage for the consolidation of ‘imagined communities’ (Anderson, 1999 [1983]).

Heritage may subsequently be understood as “a cultural process that engages with acts of remembering that work to create ways to understand and engage with the present, and the sites themselves are cultural tools that can facilitate, but are not necessarily vital for, this process” (Smith, 2006, p. 44). The site is important but does not limit heritage affordances, once heritage is formed through parallel discourses (Smith, 2006, p. 44) – heritage as experience, identity, memory, and performance. The dominant discourse of heritage excludes the role that the majority of social actors may have in engaging with these memory sites (Smith, 2006, p. 44).

Virtual reproductions of heritage sites and artefacts are becoming a new media for the preservation of memory. The most appealing way to create these virtual representations seem not to be through websites and static digital reproductions anymore, but through 3D models that allow to reproduce detailed heritage sites.

The first digital historical reconstruction created with computer graphics was developed in the 1980s in a project on the Roman Baths in Caerleon, Wales (Champion and Dave, 2007, p. 333; Woodward, 1991, p. 18-20). Since then the number of projects grew and the techniques used

evolved hand in hand with computer's graphics capacities (Champion and Dave, 2007; Forte and Sillioti, 1996). With the generalized access to digital technologies the 'appropriation' of heritage sites by content producers and internet users is becoming evident, reflecting a shift in the paradigm to understand heritage – within the digital environment is possible to appropriate *lieux de mémoire* that are traditionally conserved by official organizations. Cyberspace and other digital media allow a more interactive relationship with heritage, giving these cultural places a global dimension free of spatial constraints. Since the traditional discourse does not reflect this new reality, it is necessary to rethink heritage as being able to be appropriated +through new technologies. The virtualization of heritage sites adds another layer to the collective memory narrative. A layer characterized not by the material aspect of the monuments, but by its potential to gain a global dimension and be part of our "hybrid memorial-media culture" (Huyssen, 1995, p. 255).

In order to better understand the virtualization of heritage sites, the following section will focus on the role of digital games as systems of representation and their potential to host *lieux de mémoire* within their virtual environments.

Digital games as systems of representation

Digital games are one of the digital media that has most attracted the attention of users worldwide. Nowadays there are so many different types of games that it is challenging to assure that a single definition would be representative of the whole. But there is something digital games have in common, they are cultural environments (Salen and Zimmerman, 2003). Those environments have as central element the gameworld, representing what Huizinga proposes to be the 'magic circle' (1971[1938]), but accordingly to Salen and Zimmerman the limits of the 'magic circle' are not impenetrable, they could not be otherwise games would be hermetic worlds. The 'magic circle' boundaries are permeable, porous, allowing games to become cultural environments, which occurs through gameplay. A game space tends to be influenced by the game creators' sociocultural context, but the game experience is more dependent of players own sociocultural contexts, which means that there are several cultural elements that are imported into game

spaces. Besides the ‘importation’ of cultural elements from first life, there is also the ‘exportation’ of elements from the game into first life, which result from players’ interaction with the game as a whole, and with other players in the case of multiplayer games. Then, games may be understood as cultural environments and as cultural environments one may perceive digital games as being representation systems.

Digital games have evolved greatly since the beginning of video game industry in the 1970s. From the basic initial graphics, game settings progressed into complex virtual environments, with the potential to be very realist and “[i]n the last few years, video games have succeeded in transferring our understanding and comprehension of particular places or times through the process of representation” (Balela and Mundy, 2011, p. 5). Galloway (2004) proposes that games tend to represent reality even when the digital simulations are not exactly accurate. Representation is a key moment of the circuit of culture (du Gay et. al, 1997). According to Hall (2003 [1997]), representation is a process to construct meaning that is historically and socially constituted: “[i]t does involve the use of language, of signs and images which stand for or represent things” (p. 15). As systems of representation digital games mirrors the culture within which they have been produced, this is visible for instance in the representation of different elements of our cultural heritage. In the next section attention will be paid to how heritage sites have been represented in digital games.

Heritage sites in digital games

Games tend to offer storyworlds to its users – worlds that allow producers to tell interactive stories, and users to feel immersed in an alternative reality. The articulation of reality with creativity is being important for the digital games industry, since it reinforces the relationship players set with games’ spaces and narratives (Balela and Mundy, 2011; Cheng and Cairns, 2005; Ferreira, 2011, 2012), as well as strengthens practices of cultural tourism within digital games (Losh, 2006). The worlds proposed by games may represent reality in a more direct or indirect way, meaning the use of mechanisms of representation to transport players to a simulation of first life locations, or to the representation of first life elements in alternative, fictional locations,

like for instance the representation of landmarks outside its ‘original’ setting. In order to better understand the representation heritage sites in digital games and the role that those representations may have for game experience, attention will be paid to the recreation of heritage sites in its original locations.

According to Champion and Dave (2007), “most current virtual heritage environments can be categorized – based on designer intention – into spatially visualized, activity-based, or hermeneutic environments” (p. 333). ‘Spatial Visualization Virtual Environments’ are the simplest ones representing spatial configurations and allowing users to interact with objects. The second category is ‘activity-based’, where users may accomplish tasks through the interaction with the setting, and the third type is ‘hermeneutic’ and includes environments that require ‘the ability to personalize and communicate individual perceptions through artefacts’ (Champion and Dave, 2007, p. 342). As it is difficult to feel emotionally attached to a virtual place in the same way one does in first life, hermeneutic virtual environments are not straightforward to create, then one needs to consider the possibility of a ‘mild hermeneutic immersion’ category (Champion and Dave, 2007, p. 342). ‘Mild hermeneutic immersion’ is achieved when users use cultural and social codes from first life to interact with each other, and also with the setting. According to the type of virtual environment created, users will establish different relationships with it.

The representation of heritage sites in digital games has been occurring through the development of virtual environments of all these kinds, accordingly to the genre of the game. The first type of environments tend to be offered in action games, in which it is possible to explore the virtual world and to interact with some objects, but those actions are not key to gameplay. Shooter and strategy games having a historical realistic setting tend to be ‘spatial visualization environments’. A genre of game that tend to respond to Chapman and Dave’s second category is the adventure one. Adventure and action-adventure games set in historical times and/or places tend to recreate real locations with detail, offering players the opportunity to actively interact with those sites. Hermeneutic and mild hermeneutic environments are more common among process-oriented games, in particular role-play and sandbox games.

The recreation of cities and its monuments in digital games is becoming more and more common. *Civilization* series is an example from the strategy genre, this series represent not only heritage sites, but also other cultural heritage elements (Squire, 2011). From the action genres one of the examples is the *Call of Duty* series, in particular *World War II* and *Modern Warfare 3*. *Gray Matter* and its representation of Oxford and its main landmarks is an example of the recreation of an actual location in an adventure game. An example of a hybrid genre game franchise is *Assassin's Creed* series, an action-adventure game that transports players to different historical moments and settings through its different titles, the accuracy of the representation is particularly appellative in *Assassin's Creed: Brotherhood* and *Assassin's Creed Syndicate*, representing different cultural elements of 16th century Rome and 19th century London, respectively. An example of a process-oriented game, besides the two that will be analysed in the following section, is *Tom Clancy's The Division*, which recreates New York and its landmarks in a fictional pandemic situation.

In the next section the cases of *Fallout 4* and *Second Life* will be analysed, these are two different process-oriented games – the first resulting exclusively from the work of a professional game production team, and the second a virtual world co-created by professional producers and users. The analysis of these two cases aims at contributing to a better understanding of the potential of digital games to represent heritage sites, in particular games from the most flexible genre from the taxonomy proposed by Egenfeld-Nielsen, Smith, and Tosca (2008).

Representing monuments in digital games: The cases of *Fallout 4* and *Second Life*

Process-oriented games are the ones most prone to offer players the opportunity to meander in a digital setting, since despite being the most open genre that include different game experiences – from simulators, like *Flight Simulator*, to massive multiplayer role-play games, like *World of Warcraft*, all those games tend to have as a typical action to explore the game space. Due to this characteristics, I would like to propose that this genre is the one that has more potential to recreate heritage sites in a complete and engaging way, allowing players to appropriate and

renegotiate the meaning of landmarks. In order to illustrate the potential of process-oriented games, the cases of *Fallout 4* and *Second Life* will be now presented and discussed based on a qualitative methodology, having content analysis as research method. The analysis of how monuments are represented will focus on different categories: identification of the monument(s), role in the game, type of representation, and level of interaction.

Fallout is a role-playing games series counting already with eight titles. The universe is set in a post-apocalyptic future and has been presented to players in a chronological order – the story has its beginning in *Fallout* (1997) and is continued with different time spans in the following games. *Fallout 4* was produced by the game studio Bethesda Softworks and has originally been released in 2015.² The game takes place in 2287, ten years after the narrative of *Fallout 3*. It is set in an open-world that recreates Boston and some other New England regions. Players have specific quests to achieve in order to proceed and to survive, but are able to freely explore the virtual world. Despite being a closed game, in the sense it has been produced by a game development team, it grants players with the possibility of create and deconstruct settlements and buildings. Some of the elements present in-game are able to be appropriated and reconfigured into other objects. The world is futuristic, but it recovers esthetical elements of the 1950s America, and at the same time it recreates Boston and New England atmospheres. The representation of Boston historical centre is impressive and there are numerous landmarks present in the game, like Boston Public Library, Old North Church, USS Constitution, or Faneuil Hall. Despite the ruin-look and the alternative names given to some of those sites, they are easily recognizable due to the detail of the representation. As the landmarks representations in this game are too many, two were chosen to be in-depth analysed: Trinity Church and the Massachusetts State House.

Trinity Church is located in Trinity Plaza, and it is identical to the actual Boston church, the detail in representation is essentially in architecture. The player is taken to this location in order to solve a quest,

² In 2010 a VR edition of the title was released. The VR is a version of the game for another gaming platform, the game in itself is the same, but not certainly the feeling of immersion.

he is invited to explore the site and confront the mutants that have occupied the building. The representation is careful, but it is essentially of the church structural elements. The church has an entry foyer, a main room, small rooms upstairs and a basement. It is possible to explore all of them, but there is not much to interact with. The most interactive items are those one can pick and take: a comic book issue, four books each of them available on a different location, super mutant wrists wraps, a lunchbox, and a flux sensor.

The Massachusetts State House was relocated, not being in its exact location in Boston, but it still is a detailed representation of the currently functioning State House. Its characteristic golden dome is very well recreated in the game. The entrance of the building was partly destroyed, but it is easy to recognize it. As the case of Trinity Church, the representation is mainly architectonic, focused on the structural elements of the building. The interior is a chaos, there are different locations to explore, even underground ones. The players are taken to the building through the exploration of the city map. The building is important in the progression of the game, but is not directly related to any specific quests. The building is interactive in itself, since there are passages and rooms to discover. In its different locations, players are able to find several items, as the atrium key, a book, a raider power armour, a lunchbox, and the state house note.

Both Boston landmarks representations are highly recognizable from the exterior, but not from the interior, which has been totally adapted to game's narrative and tone. Nevertheless, they are detailed digital interactive reproductions.

Second Life is an online sandbox game, sandbox games are "authoring environments within which players can define their own goals and write their own stories" (Jenkins, 2007: 59). It was developed by Linden Lab and launched in 2003. One of *Second Life*'s main components is *prodused* content: within the game space players are active contributors to in-world development, and only 1% of the contents available were created by Linden Lab (Ondrejka, 2006: 163).

Heritage sites are among the categories of *Second Life* locations that residents develop the most.³ It is possible to find a wide variety of memory sites within this virtual environment, from the representation of in-world own history to the representation of first life city's areas and neighbourhoods and of specific monuments taken off their actual spatial context (Harrison, 2009: 106). In order to illustrate the recreation of heritage sites in *Second Life* two locations will be analysed – Saint Paul's Cathedral, a replica of a landmark recreated outside its original surroundings, and the recreation of a larger heritage area, the French city Mont Saint Michel.

St. Paul's Cathedral is located in Grace region. The replica is isolated, in the sense that it is not framed by London cityscape. It was created by a *Second Life* resident, Lian Hornet, and now is part of *Second Life* Public Land Preserve. It is the only replica of the London Anglican Cathedral present in-world and the cathedral is the only space to visit in this destination. The complexity of the space is high, the exterior of the building is textured, simulating the original stone walls. The interior is impressive, due to the details of the reproduction. The Cathedral offers visitors several corners to explore, all evincing the attention and care paid to the representation of this monument in-world. Despite being an appellative location, it does not offer much interactivity to its visitors. It is possible to light prayer candles, there is a script for praying that animates the avatar to take a praying position and expression, and avatars' wedding service is available. It offers an atmosphere suitable for reflection.

Mont Saint Michel recreates the French Normandy's coast city, which is part of UNESCO World Heritage Sites.⁴ The island offers an

³ The category of 'Real Life' is part of the *Second Life*'s Top 15 categories (among 52), proposed in the Destination Guide, with more locations. There are 53 in-world locations under this label. Representations of heritage sites constitute the main theme of 'Real Life' destinations, but these are also available in other categories, such as 'Memorials', 'Castles & Ruins' and 'Nature & Parks'.

⁴ It is the only representation of this city in-world, but the version available nowadays was restored after the closing down of the original region, Shivar. Since the end of 2016 Mont Saint Michel is being managed by Mogura Linden, part of Linden Lab team. Nevertheless, this management is focused on the preservation of the digital landmark, the replica was developed by a *Second Life* user, as the case of Saint Paul's Cathedral.

accurate geographic and architectonic representation, but the majority of the buildings are empty, so it turned to be a not so interactive destination. Here one finds a nice outdoor space where is possible to meander through alleys and walls, representing the ambience of its original counterparts. There are also some in-door spaces as stores, relaxing areas with sitting places, and a church. The interest of this space is not exactly what it offers as services, but its architecture that transports visitors to Mont Saint Michel's narrow streets.

According to Champion and Dave's classification, I suggest that the four heritage sites analysed are in between activity-based and 'mild hermeneutic', offering different experiences to players accordingly to the way they appropriate those spaces. It is possible to develop a more spatial or narrative immersion, depending on the will to fully explore those locations or to use them to perform specific tasks/activities.

Champion and Dave (2007: 336) consider that the major element that makes us remember a place is its atmosphere and not exactly the details of objects available at that place. Through the analysis of the two games it became evident that the digital reproductions of the historical buildings are appealing and took attention to the distinctive architectural details, capturing its atmosphere. The nature of the in-game content, in the sense of resulting from professional work or being user-generated content, makes a difference in the end result. Graphics produced by professionals are more accurate and detailed, but one needs to take into consideration that the objects present in *Second Life* are produced using a limited number of digital resources, besides being user-generated content. In both games the possibility of freely explore the buildings is their key interactive feature, for instance, it is through exploration that one finds objects in *Fallout 4*.

Concluding remarks

Digital games can contribute to an alternative dimension of heritage conservation. The worlds they make available offer different opportunities to cultural heritage representation. The possibility offered by these virtual worlds for representing heritage sites from the first life is contributing to a change in the relationship established with these sites. Now digital media users can appropriate, recreate, and

remediate landmarks, renegotiating their meanings, by taking them into alternative narrative experiences. Digital games as representation systems and as technologies of memory offer an immersive way to share cultural memories: “Human memory may well be an anthropological given, but closely tied as it is to the ways a culture constructs and lives its temporality, the forms of memory will take are invariably contingent and subject to change” (Huyssen, 1995: 2). Due to immersion the relationship established with these elements is closer – it is possible to interact with geography, and particularly with heritage. Despite most of the times those interactions not being framed or contextualized with historical facts. Notwithstanding, virtual representations of heritage sites make the digital worlds more palpable through the existence of identifiable shared remembrance places. Those in-game locations may be seen as evocative places (Champion and Dave 2007) – places that evoke remembered sensations.

The recreation of landmarks in digital games can contribute to modifying people’s understanding of the cultural importance of heritage sites. Interactivity plays a key role in this process, as it is fundamental to the creation of personal memories. Those personal memories are easily achievable if players are able to be content creators. The use of digital games to recreate heritage sites confirms that, as Huyssen (1995) predicted, we are now actively exploring new forms of remembering mainly through the use of digital media as technologies of memory. And this process of ‘virtualization’ of memory may enable us to share global cultural memory, a memory anchored in technological remediation and that can be materialized through the recreation of historical and contemporary settings in virtual environments.

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