The Challenge of Digital Storytelling for Cultural Tourism

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Abstract

Progression in human computer interaction has direct impacts on several areas in civic lives, including in the field of cultural tourism. However, cultural tourism is considered as a niche market and visitors have no motivation to visit or read the story displayed behind the exhibitions. To increase motivation in cultural tourism, this study presents digital storytelling as an interactive technology. Furthermore, digital storytelling has significant impacts on people's daily life in myriad ways: from marketing, advertising and promotion, management, and education, to personal motivation, cultural media and media and entertainment. This paper aims to explore usages of digital storytelling within six principal areas and analyse opportunities of digital storytelling as a new interactive technology in the field of cultural tourism. This study could act as a good example of applying an interactive technology-driven approach (digital storytelling) in a variety of areas and demonstrating how this technology could result in powerful, balanced and holistic experiences — in this case, acts of cultural tourism. The results of this paper could be summarized that 1.) digital storytelling can effectively enhance online users' experience and motivation to visit the real cultural places; 2.) digital storytelling and virtual technology can provide to support cultural tourism regarding accessibility (too expensive to visit, too inhospitable, too far away, too fragile, too dangerous, or no longer exist) and 3.) this technology can present precise and formal data about the historical place with entertainment and provide storytelling to attract online visitors' interest.

Keyword: Digital storytelling  Cultural tourism  Tourism  Human computer interaction

1. Introduction

Digital storytelling is widely used to explain all kinds of story, narrative, film, and novel in the design process of digital systems (Miller, 2008; Ohler, 2013; Ryan, 2008; Schaefer, 2008). For this paper, digital storytelling is defined as a medium which "uses personal digital technology to combine a number of media into a coherent narrative" (Ohler, 2013). Using digital storytelling, there are a lot of friendly techniques which can be used to promote and advertise it such as plot, characters, conflict, humour, and competition to make formal information more alive and relate to online tourists (Miller, 2008). Significantly, it can increase online tourists' motivation to visit the real cultural places (Hein, 2000; Rizvic et al., 2012; Tolva and Martin, 2004).

This paper aims to: 1.) explore the usages of digital storytelling within seven principal areas and 2.) analyse opportunities of digital storytelling as the new interactive technology for the cultural tourism area. This study is organized with the following structure: section 2 illustrates usages of digital storytelling in seven principal areas; section 3 presents digital storytelling as a new interactive technology for cultural tourism;

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finally, section 4 offers a conclusion and some possible opportunities for researchers and professionals to exploit digital storytelling within the field of cultural tourism.

Although several studies have presented the advantages of hi-technology to promote cultural tourism, the issue related to digital storytelling linking with cultural tourism has only been explored to a limited extent (Jones, 2002; Rizvic et al., 2012; Tolva and Martin, 2004; Qiongli, 2006).

The purpose of this analysis is to illustrate how to use human computer interaction as digital storytelling in a variety of areas and focus on cultural tourism and its existing situation to assist researchers and designers.

1.1 Why digital storytelling for cultural tourism?

Cultural tourism means “movements of persons for essentially cultural motivations such as study tours, performing arts and cultural tours, travel to festivals and other cultural events, visits to sites and monuments” (The World Tourism Organization - UNWTO, 2008). In a world troubled by conflicts based on misunderstandings and short-sightedness, cultural tourism can help provide a better understanding among people and strengthen cultural harmony (UNESCO, 2003). Thus, it could be inferred that cultural tourism not only helps promote tourism, preserve the cultural and historical heritage and reinforce a country’s identity (LORD, 1999; OECD, 2009; UNESCO, 2003) but also promotes communication and integration worldwide.

However, cultural tourism is considered as a niche market and little attention has been paid to cultural tourism throughout the world, compared to mass tourism (LORD, 1999; Silberberg, 1995; UNESCO, 2003). Moreover, at cultural sites, visitors have no motivation to read the story displayed behind the exhibitions (Rizvic et al., 2012). These problems highlight a good opportunity to further facilitate cultural tourism to its potential to extend its audience and increase visitors’ motivation.

To increase tourists’ motivation, this study adopts digital storytelling as an interactive technology (Miller, 2008). By applying digital storytelling, there are a variety of techniques such as plots, characters, conflict, humour and competition to promote and advertise that are not hard sell advertising (Miller, 2008). This study could act as a good example of applying an interactive technology-driven approach (digital storytelling), to demonstrate how this technology could result in powerful, balanced and holistic experiences — in this case, in the field of cultural tourism.

2. Applications for digital storytelling within many areas

Technologies in digital storytelling presentation continue to advance rapidly, and the possibilities for using digital storytelling in many areas are growing. There are many studies presenting applications for digital storytelling in many sectors. By analysing some of these applications in several primary areas of digital storytelling from many studies, it quickly becomes clear that digital storytelling may have significant impacts on people’s everyday life.

2.1 Marketing, advertising and promotion

The concept of using storytelling is more common in business books (Sumi, 2010). There are several methods of applying stories for negotiation, persuasion, sales presentation, planning, and communication
in a business area, and especially the area of targeting sales could adopt storytelling for its persuasion needs to present emotional appeal but ultimately, storytelling can be applied to any kind of business area (Sumi, 2010).

In terms of marketing, Schaefer (2008) suggests that digital stories can place products in a context and gain the attention of the potential consumer group. Moreover, the best way to convince someone (friends, students, and family members) is by telling a story (McKee, 2003). Additionally, using stories in the area of marketing has attracted customers’ attention (Sumi, 2010). Stories are often used to develop the idea of a product and its slogan, brand identity, product development, and communication in events and shops. Furthermore, the new phrase narrative planning is one that marketers use to express a brand concept by using stories. Sumi (2010) concludes that stories have been widely used for marketing purposes because they have an emotional attraction, present a deep understanding, reach the subconscious mind, and motivate customer actions to engage with their products.

Miller (2008) points out that digital storytelling can be engaging and entertaining and can be adapted to advertising and promotion by various means such as the Internet, mobile devices, iTV, video games, virtual reality, smart toys and theme park rides. Unlike earlier forms of advertising, which used passive forms of media, digital storytelling supports active forms through its message. In addition, digital media is an entertainment area that people willingly become motivated by, and involved and engaged in, and they will tell friends, and share content (Miller, 2008). This phenomenon is called viral marketing; the spreading of information by digital media. Compared with earlier forms of advertising, magazines or newspaper, the exposure is not a fleeting experience since involvement might last for days or weeks. Miller (2008) suggests that digital storytelling techniques have been widely used, and when everything is prepared in a well-planned campaign, a successful result ensues.

2.2 Management

In the area of management, digital storytelling is extensively used in telling or presenting a company’s story (Lambert, 2013; Nonaka and Konno; 2008; Sumi, 2010; Swap et al., 2001). Nonaka and Konno (2008) note that storytelling has been widely used as a management strategy, which supports the effective presentation of knowledge in several organizations. This concept is called a narrative approach.

Swap et al. (2001, p. 103) point out that the organizational story is “a detailed narrative of past management actions, employee interactions, or other intra- or extra- organizational events that are communicated informally within the organization. Such narratives will ordinarily include a plot, major characters and outcome. A moral, or implication of the story for action, is usually implied if not explicitly stated.”

Moreover, studies have shown a variety of examples of using stories as a management tool to motivate an audience through effective presentation with formal data and entertainment (Boyce, 1996; McLellan, 2006). Digital storytelling techniques are used as a problem-solving tool, for action research, innovation and new product development (Boyce, 1996) as well as for entertainment (Prusak, 2001), because a story works as a powerful tool and free technology, which does not need expensive software or expertise. Lastly, Prusak (2001) concludes that it could be used to motivate and communicate with a large number of people amazingly rapidly.
Lambert (2013) confirms that its role in an organization’s story has ranged from the smallest one-person business to helping marketing teams or professionals with large-scale productions. Digital storytelling can present opportunities in group settings or one-to-one dialogues. The portfolio created by digital storytelling can offer a treasure trove of valuable and inspirational material in their respective fields. Significantly, multimedia stories can provide effective and entertaining presentations about changes needed in organizational thinking (Lambert, 2013).

2.3 Education

Nowadays, many research projects are exploring the concept of using digital storytelling for educational purposes (Amthor, 1992; Lambert, 2003; Miller, 2008; Roussou, 2004). Robin (2008) also agrees that digital storytelling can be used as an instructional tool that teachers use to introduce content and capture students’ attention. With the ideas in education and digital storytelling, some examples of applications of digital storytelling are recommended for different levels in education for both teachers and students (Amthor, 1992; Lambert, 2003; Miller, 2008; Roussou, 2004).

Digital storytelling projects in teaching and training could be venues for entertainment because several projects can successfully be combined with traditional methods of storytelling and modern techniques of gaming (Miller, 2008). Miller (2008) also predicts that the use of digital storytelling will spread widely, including in the field of education, where it is expected to expand. The benefits of teaching with storytelling has been acknowledged by many educators for years in a variety of subjects such as history (Mikropoulos, 2006), science (Bowman, Hodges, Allison and Wineman, 1999), and mathematics (Song and Lee, 2002). This ability is due to several digital storytelling attributes that are particularly suited to education.

For teachers, several studies have found that integrating images and text with digital techniques can accelerate, motivate and enhance student understanding effectively. Hence, digital storytelling can serve as a good technology tool for this purpose (Burmark, 2004; Muller, Eklund and Sharma, 2006). Moreover, teachers should create digital storytelling to teach, not only in engaging and motivating students but also in making content more understandable (Robin, 2008).

For students, this technique can be used to impart 21st century literacy skills. By using the latest multimedia technology, students can create, present and communicate effectively (Jakes and Brennan, 2005). They can apply their research, organize their ideas, express opinions, and construct narrative storytelling (Robin, 2008). Most educators agree that motivation is a critical factor in studying. Moreover, they support the view that digital storytelling can increase motivation for students. Hence, it is important that teachers should use digital storytelling to motivate students to become engaged with new content, with the help of this multimedia-rich digital technology (Muller, Eklund and Sharma, 2006; Robin, 2008).

2.4 Personal motivation

People are constantly telling their stories about everyday life events: what happened to them on a journey, or about their daily working life (Schaefer, 2008). Moreover, they tell stories about the company they work in, and in this way, create an image of the company. People also tell stories about their social encounters, their relationship with others and their way of life. Dixon (2000) states that storytelling, in all cases, is employed
as a means of transferring self-knowledge. Additionally, it also serves to bring out what would otherwise be tacit knowledge (Schafer, 2008).

Lambert (2013) explains that the whole process of making digital storytelling projects, including writing, drawing up a specification and editing carries its own powerful meaning, because a digital storytelling project is a form of reflective practice. He also states that the reanimation of image artefacts, as part of an edit, makes people feel as if they are thinking about people, places and objects in a new way.

Moreover, digital storytelling can invite audiences to think, to have a sense of something important, and to orient them to consider or approach their experience. Lastly, storytelling is a kind of motivational communication and can inspire people to do something, change their position or get other people involved in a situation (Lambert, 2013).

2.5 Cultural media

Due to its digital media, technique and presentation, digital storytelling is one of the best methods for use on websites, social media and other forms of online media (Rizvic et al., 2012; Kaelber, 2007). Online museums, applications or websites can present museum collections, history and stories online without a watcher having to leave home. However, both physical and online museums share the same problem: that visitors have no motivation to read through every text displayed behind the exhibits (Rizvic et al., 2012; Kaelber, 2007).

Many studies have tried to establish the appropriate method to attract users to gain the maximum amount of formal information. Additionally, they set up the question of "how to enhance the viewer's experience and learning in such environments" (Rizvic et al., 2012; Kaelber, 2007). As a result, digital storytelling is introduced as a new method that will enable visitors to explore an online museum, guided by storytelling. This way the users can learn about the context of the displayed objects and be motivated to explore all of them by means of entertainment.

UNESCO (2003) sees the preservation [of] the cultural and historical heritage as the importance of cultural tourism since cultural tourism can make traditions come alive and help the protection of historical sites. This issue can be linked to the usage of digital storytelling as heritage preservation (Guttentag, 2010), which explains that virtual access to heritage and historical places is expanding. Additionally, a number of cultural and heritage sites around the world have been widely digitized as 3D virtual models, virtual museums or applications applied with digital storytelling since this can make difficult stories or subjects seem more alive and more connected to the viewers (Miller, 2008).

Moreover, by using digital storytelling, online tourists can experience a story or background behind an exhibition, both virtually and in the real museum. Also, results from previous studies present the finding that digital storytelling can increase online users' motivation to visit the real places (Hein, 2000; Rizvic et al., 2012; Tolva and Martin, 2004). This concept could be applied to different kinds of cultural presentation such as stories about archaeological sites which are difficult to access physically. Rizvic et al. (2012) conclude that this technique will effectively enhance online users' experience and motivation to visit the real cultural places.
Sundstedt et al. (2004) believe that the field of virtual technology illustrates a new opportunity for online users to access the virtual recreations of different heritage and cultural sites. Furthermore, this technology can present precise data about the actual place and provide digital storytelling to attract online visitors' interest. In addition, it increases a site's accessibility to both researchers and general tourists. For example, some historical sites might be too expensive to visit, too inhospitable, too far away, too fragile, too dangerous, or no longer exist (Paquet and Viktor, 2005). As an alternative for cultural tourism, virtual models with digital storytelling can present interaction with historical items or fragile objects that cannot be handled in the real world (Paquet and Viktor, 2005). This is the opportunity that digital storytelling and virtual technology can provide to support cultural tourism regarding accessibility.

However, many studies have considered the concerning question, raised by the emergence of the online museum, that “if visitors can access our digital collections using the Internet, will they still come to the museum in person?” (Marty, 2007, p. 339). In theory, Marty (2007) suggests that the virtual or online museum should encourage potential museum visitors to visit the real place, not just plan to do so.

Kravchyna and Hastings (2002) insist that 57 per cent of online users visit museum websites both before and after visiting the real places. Additionally, 70 per cent of visitors search for online information before physically going museums, and 57 per cent of them state that information on a website can increase motivation to visit in person (Thomas and Carey, 2005). Moreover, a number of studies support the view that online museums can increase museum attendance. Online users confirm that the primary reason for visiting museum websites is to acquire information about the actual museum prior to visiting it (Haley, Goldman and Schaller 2004; Chadwick and Boverie, 1999).

2.6 Media and entertainment

Digital storytelling techniques can be adapted to any type of media and entertainment project. With the advent of available high-speed Internet access, journalism has emerged as a profession ripe for exploring various innovative uses for multimedia reporting or digital storytelling, because it has been built on storytelling. Additionally, Lambert (2013) states that digital storytelling tries to focus on the value of first-person narrative, participatory production and group work to shape and share its own stories. He also concludes that the concept of digital storytelling can align with journalism and other media.

In terms of video games, digital storytelling use in computer games has made an enormous contribution to the research and development of interactive narratives and game designs (Pausch et al., 1996). Because of commercial needs, these game companies make products that are as engaging as possible. Also computer games tend to be more concerned with gameplay, technology and storytelling (Schaefer, 2008). Activities in a video game have to be inserted by storytelling to present an accomplished degree of integration to encourage the motivation and learning of users (Göbel et al., 2009). Moreover, Göbel et al. (2009) note that digital storytelling is considered to have three fundamental elements: learning, playing and storytelling. In addition, these three factors should be balanced in order to improve a user's motivation. Significantly, a number of studies point out that in state-of-the-art videogames, storytelling and motivation could be linked to the desire to win against the competition, as the goal of games (Michael and Chen, 2006).
3. Digital storytelling, the future trend of interactive technology for cultural tourism

The future trends in innovation, the Internet, multimedia and technology have been applied by many tourism companies and are focused on the tourists. The results provide insights for tourism managers and the tourism industry has changed to end-customer-oriented technologies (Aldebert, Dang and Longhi, 2011). Figure 1 below illustrates that over the years, new technologies have been developed for mobile and Web 2.0 use. This presents the importance of interactive technology.

![Figure 1 Main technologies in the tourism industry according to the years of their emergence](image)

(Ainjebert, Dang and Longhi, 2011)

Figure 1 presents the significance of universal communications that brings the tourism business to new levels of interactivity and focuses on end-users. This trend changes the structure of the tourism industry and develops a range of opportunities and threats. Technology not only helps tourists to purchase tourism services and products but it also assists in the globalization process by providing applications for companies to develop, manage, and distribute their tourism service and products worldwide (Aldebert, Dang and Longhi, 2011; Buhais and Law, 2008). There is a growing recognition of the importance of technology and cultural tourism. Additionally, this future trend offers challenges and opportunities for digital storytelling to apply new technology, multimedia, websites and interactive media to promote and present cultural tourism.

Russo and Watkins (2005) illustrate that in the early 21\textsuperscript{st} century, the development of media and their impact on society will support cultural tourism since social communication has been developed and widely used in computer, television, narrative, and interaction (Boiler and Grusin, 2001). Moreover, in the future, cultural tourists will be met with the interfaces of new media and interaction from a virtualized world. This idea supports the concept of virtual museums adopting digital storytelling. Rizvic et al. (2012) state, in Interactive Digital Storytelling in the Sarajevo Survival Tools Virtual Environment, that museums are members of the media that use digital storytelling to present themselves since collections are organized by time period as there are always stories and history behind each collection.

However, Rizvic et al. (2012) present the main problem for real museums throughout the world as the fact that tourists have no time to read details about every display. This problem is the same for the Smithsonian museums. From the study, The Future of Virtual Museums: On-Line, Immersive, 3D Environments, Jones (2002) also states that many people might never have the chance to visit the actual Smithsonian
museums. Hence, this is an opportunity for digital storytelling to offer a solution for online users to read, explore, and search information they are interested in, without leaving home.

Rizvic et al. (2012) show that adapting digital storytelling can raise online visitors’ experience and increase motivation to, and enjoyment in, visiting more sections. This could imply that digital storytelling can enhance motivation, satisfaction, and information conveyance in virtual environments.

In her book *The Museum in Transition: A Philosophical Perspective*, Hein (2000) recommends that museums should be transformed from places only presenting objects on view to places focusing on experience from storytelling. However, she argues that a number of museums are still assembling collectibles instead of fostering tourist experience. Tolva and Martin (2004) also support the idea that visitor experience is the purpose of visiting museums – no longer just to view objects but rather as a digital application to enable the visitor to fully experience the collection.

Experience is also a significant issue in cultural tourism (Qiongli, 2006). He points out that due to the rapid development of transportation, cultural tourism no longer focuses only on accessibility (transportation, accommodation, and destinations). On the other hand, it increases understanding of local cultures and experiences. A number of marketing efforts promote cultural experience rather than destinations alone (Qiongli, 2006).

Museums should develop applications, programs, or digital storytelling to present the data in a more interactive way to deliver the goal of providing a successful visitor experience. In addition, the development of applications can provide too formal data and need to be more interactive and adaptive to the needs of online visitors. Therefore, merging interactive technology in cultural tourism to guide the user’s experience and increase motivation seem to be the new trends in the field (Hein, 2000; Tolva and Martin, 2004).

4. Conclusion

As new interactive technologies are developed, the potential uses for digital storytelling within other sectors will continue to increase in both number and importance (Guttentag, 2010). Digital storytelling offers a variety of potential applications that affect our lives in areas from marketing, advertising and promotion, management, and education, to personal motivation, cultural media and media and entertainment. By applying digital storytelling, there are a variety of techniques such as plot, characters, conflict, and humour to promote and advertise but which are not hard sell advertising (Miller, 2008).

In the area of cultural tourism, a digital storytelling technique could be the best answer since online users can then gain information, history and background, together with entertainment, about collections in the virtual museum (Jones, 2002; Rizvic et al., 2012; Tolva and Martin, 2004).

From this paper, the benefits of digital storytelling for cultural tourism could be concluded that 1.) it can reach the goal of increasing users’ motivation to visit the tangible cultural sites; 2.) it can increase a cultural site’s accessibility to both researchers and general tourists; and 3.) it can illustrate precise and formal data about the cultural place with entertainment to attract online visitors’ interest.
In the future, the tourism industry, museums and cultural sites will tend to develop hi-technology in applications, programs, or digital storytelling to present the data more interactively to deliver the successful visitor experience (Rizvic et al., 2012). Therefore, interactive technology in cultural tourism, guiding the user’s experience and increasing motivation, seems to be the new trend in the field. The key would be how to effectively apply and integrate these state-of-the-art technologies in human–computer interaction, resulting in meaningful, desirable and effective cultural tourism experiences.

References


