A Conceptual Framework for Inclusive Digital Storytelling to Increase Diversity and Motivation for Cultural Tourism in Thailand

Kittichai KASEMSARN[1] and Farnaz NICKPOUR
Department of Design, Brunel University London, United Kingdom

Abstract. Cultural tourism is considered to be a niche market and little attention has been paid to it, as compared with mass tourism. Moreover, visitors have little motivation to visit actual historical sites and read the story displayed behind the exhibitions. These issues highlight a good opportunity to increase further potential extended tourism and increase the motivation of visitors. To broaden and increase the potential market, this study applies inclusive design principles as 'understanding and designing for diversity' and presents reports on the first study. To increase the motivation of tourists, this study adopts digital storytelling as 'the guideline to increase motivation' and illustrates this in the second study.

Keywords. Universal Design, inclusive design, digital storytelling, cultural tourism, diversity

1. Introduction

The term 'cultural tourism' refers to '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' [1]. In a world troubled by conflicts based on misunderstandings, cultural tourism can help improve understanding among different groups and strengthen cultural harmony. However, cultural tourism is currently a niche market, with little attention paid to it compared to mass tourism [2]. There is therefore opportunity to increase the audience for cultural tourism by appealing to other groups of potential customers. To broaden and increase the potential market, this study draws upon inclusive design principles. Inclusive design refers to 'the design of mainstream products and/or services that are accessible to, and usable by, as many people as reasonably possible ... without the need for special adaptation or specialized design' [3].

Moreover, at cultural sites, visitors have no motivation to read the story displayed behind the exhibitions [4]. To increase tourists' motivation, this study adopts digital storytelling. 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 [5]. Digital storytelling is widely used to explain all kinds of

---

[1] Corresponding Author, MCST 361, Michael Sterling Building, Kingston Lane, Uxbridge UB8 3PH; E-mail: Kittichai.Kasemsarn@brunel.ac.uk

story, narrative, film, and novel in the design process of digital systems [6, 7, 8]. 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" [6]. These problems highlight a good opportunity to further facilitate cultural tourism to its potential to extend its audience in the first study and increase visitors' motivation in the second study.

2. The First Study: "Inclusive Design in Cultural Tourism: Identifying Barriers and Drivers for Five Groups in Bangkok, Thailand"

2.1. Background

Most of the tourism industry focuses upon only 15 per cent of tourists who are already motivated by cultural tourism [9, 10]. This study tries to seek out the remaining 85 per cent of tourists who are not interested in cultural tourism to increase diversity by adopting inclusive design as the understanding and design for diversity, so that drivers can be supported and barriers can be erased. Therefore, this study draws upon an inclusive design principle by seeking barriers and drivers to cultural tourism for five groups of potential customers: 1.) youth (15-24 years); 2.) people uninterested in cultural tourism (non-cultural tourists); 3.) older adults (over 60 years); 4.) people with disabilities and 5.) cultural tourists. The aim of this study is therefore to identify the barriers (why they do not) and drivers (why they do) for cultural tourism among five groups of potential customers.

2.2. Method

To gather information, 25 items of barriers and 26 items of drivers are created by collecting data from literature reviews. The sample sizes for the each group are calculated using Yamane's formula [11] with an error margin of 10% and with a confidence coefficient of 90%. Next, 500 questionnaires (100 for each group) are distributed in underground train stations, parks, and cultural and historical sites from 1-30 August 2015. Respondents are asked to indicate the extent to which various barriers an drivers were important to them on a seven-point Likert scale (1 = not important at all and 7 = extremely important). Results from this study are used in the second study to develop the initial framework further.

2.3. Results

According to Table 1, the most common barrier in cultural tourism cited by the five groups appeared to relate to 'transportation' (e.g., 'difficult public transportation to access' and 'physically difficult to get to'). However, except for disabled people, barriers about time (e.g., 'lack of time to attend' and 'inconvenient opening hours') were also important. Architecture barriers, meanwhile, were identified as a significant barrier for three groups (older adults, disabled people and non- cultural tourists), but not for young people and cultural tourists. However, compared to barriers, drivers for engaging in cultural tourism seem to differ more between groups. Only three items 'visiting a place that I have not visited before', 'just relaxing' and 'new experiences

and different lifestyles', were included in the top five for the majority of groups. By contrast, some barriers to cultural tourism in Thailand, such as 'difficulty accessing public transportation', sites being 'physically difficult to get to', a 'lack of time', 'architectural barriers' and 'inconvenient opening times and activity schedules', were common to more groups.

Table 1. Mean scores for barriers and drivers to cultural tourism among five groups

	Diversity of people				
	Youth	**Older adults**	**Disabled people**	**Non-cultural tourists**	**Established cultural tourists**
Barriers	1. Lack of time to attend (4.55)	1. Difficult to access via public transport (4.46)	1. Physical well-being (5.41)	1. Lack of time to attend (4.26)	1. Lack of time to attend (4.11)
	2. Difficult to access via public transport (4.44)	2. Lack of time to attend (4.30)	2. Difficult to access via public transport (5.24)	2. Difficult to access via public transport (4.20)	2. Inconvenient opening times and activity schedules (4.11)
	3.Inconvenient opening times and activity schedules (4.41)	3. Physically difficult to get to (4.30)	3. Physically difficult to get to (5.04)	3. Physically difficult to get to (4.08)	3. Physically difficult to get to (3.89)
	4. Physically difficult to get to (4.35)	4. Architectural barriers (e.g., cramped seating areas and unwieldy doors) (4.19)	4.Architectural barriers (e.g., cramped seating areas and unwieldy doors) (5.02)	4. Accessibility of airplanes, hotels and restaurants (4.02)	4. Service of staff (3.81)
	5. Lack of information about where to go (4.22)	5. Inconvenient opening times and activity schedules (4.04)	5.Accessibility of airplanes, hotels and restaurants (4.77)	5. Architectural barriers (e.g., cramped seating areas and unwieldy doors) (3.99)	5. Difficult to access via public transport (3.74)
Barriers for all	Difficult to access via public transport (22.08)	Physically difficult to get to (21.66)	Lack of time to attend (17.22)	Architectural barriers (13.20)	Inconvenient opening times and activity schedules (12.56)
Drivers for all	Visiting a place that I have not visited before (21.34)	Just relaxing (21.55)	New experiences and different lifestyles (15.61)		
	1. Outstanding	1. Visiting a place that I	1. Prestige, pride and	1. Spending time with	1. Increasing knowledge

Drivers					
	scenery (5.50)	have not visited before (5.14)	patriotism (5.89)	family/friends (5.48)	about foreign destinations, people and things (5.69)
	2. Spending time with family/friends (5.41)	2. Getting away from home or mundane environment (5.07)	2. Personal rewards (5.84)	2. Just relaxing (5.46)	2. Outstanding scenery (5.60)
	3. Visiting a place that I have not visited before (5.36)	3. Just relaxing (5.01)	3. Just relaxing (5.84)	3.Interesting/unique culture or environment (5.46)	3.Interesting/unique culture or environment (5.54)
	4. New experiences and different lifestyles (5.32)	4. New experiences and different lifestyles (4.96)	4. Getting away from home or mundane environment (5.68)	4. Visiting a place that I have not visited before (5.36)	4.Education/learning (5.49)
	5. Just relaxing (5.24)	5.Interesting/unique culture or environment (4.93)	5. Increasing knowledge about foreign destinations, people and things (5.59)	5. New experiences and different lifestyles (5.33)	5. Visiting a place that I have not visited before (5.48)

3. The Second Study: "Guidelines of Digital Storytelling to Increase Motivation in Cultural Tourism for Five Groups in Thailand"

3.1. Background

At cultural sites, visitors have no motivation to read the stories displayed behind exhibitions and visit actual sites [4]. This problem highlights a good opportunity to facilitate further cultural tourism to increase the motivation of visitors by using digital storytelling. Additionally, a number of cultural and heritage sites around the world have been widely digitized as virtual museums or applications with digital storytelling, making difficult stories or subjects seem more alive and connected to viewers [12,13].

However, in order to create digital storytelling, there is no guideline focusing specifically on cultural tourism and for potential viewers, especially for older adults and disabled people who are not target groups. Most guidelines regarding digital storytelling focus on educational purposes in classrooms and game designs. Moreover, for most general guidelines, there are a variety of redundant elements. Therefore, the aim of this study is to create and propose a digital storytelling guideline to motivate all five groups for cultural tourism.

3.2. Method

This study collects and creates 12 elements from eight digital storytelling guidelines. The criterion by which to select each guideline is to have more than 10 citations. Next, each element in common is clustered according to similarity of definitions by three multiple coders. In addition, the elements that do not match will not be considered in this guideline. Next, 15 face-to-face interviews are applied and set up from December 2015 to March 2016. Before interviewing, experts will be presented with the results of the first study about the barriers and drivers of five groups for cultural tourism to understand these users. The structured interviews focus on how to use each element of digital storytelling to motivate cultural tourism for the five groups based on the data from the first study. In addition, 15 interviews are separated into three groups: (a) Thai academic experts with academic positions (i.e., assistant professor, associate professor and professor) or a doctoral degree in a related area; (b) Thai industrial experts with more than five years of experience in digital storytelling; and (c) international academic and industrial experts with at least five international publications or worldwide broadcast experience in digital storytelling.

3.3. Results

Raw data from the interviews were coded by three multiple coders and categorised into themes and subthemes. The results of the interview are presented in Table 2 below in order to summarise experts' recommendations concerning 12 elements for five groups.

Table 2. Digital Storytelling Guidelines for Cultural Tourism from 15 Experts

Digital Storytelling Elements	Diversity of People				
	Youth	**Older adults**	**Disabled people**	**Non-cultural tourists**	**Established cultural tourists**
1. The storyteller's point of view What is the main point of the story and what is the perspective of the author? [14]	The 1st person point of view of a young person	The 1st person point of view of an older adult	The 1st person point of view of disabled person	The 1st person point of view of celebrities, movie stars or famous people	The 1st person point of view of real famous travellers
2. A key question A key question that keeps the viewer's attention and will be answered by the end of the story [14].	Related to tastes and trends	Related to religion	Related to Religion	Benefits of cultural tourists	Unseen information

3. The core idea and purpose Established a purpose early on and maintains a clear focus throughout [15].	To understand the meaning of cultural tourism	To understand the meaning of cultural tourism	To understand the meaning of cultural tourism	To understand the meaning of cultural tourism	To understand the meaning of cultural tourism
4. Emotional Content Good stories include essential elements such as conflict, transformation, and closure [16].	High Comedy movies, optimistic and positive thinking	Moderate To remind of the past, nostalgia and, travelling into the past	Moderate Funny and comedic theme	High Comedy movies, optimistic and positive thinking	Moderate Comedy movies, optimistic and positive thinking
5. Story structure What are the major events or challenges during the narrative? [5]	Innovative Fun, amusing and exciting	Conservative Friends and family	Conservative Relationship of family	Complicated About finding themselves: who they are?	Simple Focus on highlighting information
6. Economy Using just enough content to tell the story without overloading the viewer [14].	Low Use a hidden story & gimmick	Low Use a hidden story & gimmick	Low Present information about accessibility	Low Use a hidden story & gimmick	Low Use a hidden story & gimmick
7. The rhythm of the story The rhythm of the story and how slowly or quickly it progresses [14].	Fast Like a Hollywood movie or advertising they are familiar with	Slow Adventure movie: fast rhythm Romantic or dramatic movie: slow rhythm	Slow Adventure movie: fast rhythm Romantic or dramatic movie: slow rhythm	Fast Such as advertising, music videos, Hollywood movies or movie trailers	Standard Like a Hollywood movie
8. The storyteller's voice Storyteller gives the narrative the appropriate amount of focus [6].	Necessary Present positive or funny tone	Necessary Present positive or funny tone	Necessary Present positive or funny tone	Necessary Present positive or funny tone	Not Necessary Present positive or funny tone
9. Soundtrack Music or other sounds that	Popular Funny, contemporary	Easy-listening Simple and	Depends on their ages This group is	Depends on their ages This group is	Easy-listening Simple and

support and embellish the story [14].	or popular music, such as pop	easy-listening	too broad. It depends on their ages	too broad. It depends on their ages	easy-listening
10. Quality of media What is the medium (e.g., mobile phones, TV or the Internet)? [5]	Mobile devices	Television	Television	Mobile devices	Mobile devices
11. Background and characters What is the world and where is it set? [5]	Fantasy Use characters that relate and are popular to this group	The real world Use real older characters who are popular with this group	The real world Use real older characters who are popular with this group	The real world Use real older characters who are popular with this group	The real world Use real and professional presenters who are popular with each group to make them believe
12. Interaction The degree to which the storytelling activity takes place in the real environment of the user or in a virtual world [8].	High Freely customise	Low Should not let them choose freely	Low Freely customise	High Freely customise	High Freely customise

According to this table, some results are interesting. For example, for the first element, 'the storyteller's point of view', experts recommend that the 1st person point of view should be used for all groups because telling stories via this perspective is the main issue of digital storytelling. For 'the core idea and purpose' element, experts suggest that storytellers should inform all groups about basic information of cultural tourism, such as the meaning of cultural tourism. They recommend that the term 'cultural tourism' is very new for Thai people. Therefore, we should present to them what it is and how it is important. In regards to the 'economy', experts suggest that, due to shortened form of digital storytelling, using small amounts of information will be enough for all groups. In terms of the 'storyteller's voice', this element is still necessary for all groups except cultural tourists. The next interesting point is that 'quality of media' answered only two main mediums: mobile devices and television. The last interesting issue is 'background and characters', wherein experts recommended that for all groups except youth, storytellers should present only real locations, not fantasy to attract visitors. They recommend that most viewers need to see the real, interesting and beautiful locations, not fantasy or animation.

4. Conclusion

This paper integrates principles of inclusive design and digital storytelling in order to explore, suggest links and illustrate the initial framework of three factors: inclusive design, digital storytelling and cultural tourism. From the first study, the link between inclusive design and cultural tourism, advocating the increase of diversity by researching barriers and drivers in cultural tourism among different groups, demonstrates how the industry and government organizations may be better able to recognise the significance of neglected groups and increase accessibility for these people. Such a new perspective requires inclusive design, conceived as understanding and designing for diversity. In addition, tourists have a wide variety of needs, including the terms of the barriers and drivers for engaging in cultural tourism. In order to design effective marketing strategies, marketers need to be aware of these barriers and aim to remove them.

According to the second study, the link between digital storytelling and cultural tourism, advocating increased motivation, centralises many general guidelines of digital storytelling into a single guideline. As stated previously, there is no guideline in digital storytelling focusing specifically on cultural tourism, especially for Thailand. From these interviews, storytellers or researchers can use these data to understand digital storytelling that matches each group in the context of Thailand. Finally, it creates a new digital storytelling guideline from expert interviews for five groups representing specifically the motivation for cultural tourism in Thailand.

These issues highlight a good opportunity to increase further potential extended tourism and increase the motivation of visitors. The outcomes of this analysis are to (a) create a new conceptual framework for inclusive digital storytelling to increase diversity and motivation for cultural tourism in Thailand; (b) suggest a link between digital storytelling, inclusive design and cultural tourism; and (c) provide the tourism industry and researchers an understanding of the future trends of cultural tourism and prepare them to face the new challenges by applying digital storytelling and inclusive design.

5. Future Plans

For my future plans, a third study will be the link between inclusive design and digital storytelling. According to previous research data, digital storytelling is useful and motivated; however, what if people (especially older adults and disabled people) cannot access and understand this form of technology? Therefore, the next study will provide insights into diverse audiences in terms of reaching out to (accessibility and understanding) and engaging with (usefulness, usability, desire) digital storytelling in order to increase motivation in cultural tourism. Lastly, the fourth study will evaluate and refine the framework from the previous three studies to answer the main research question: "Could the use of inclusive design and digital storytelling help increase the motivation and diversity in cultural tourism, and how?" These four studies will be combined to illustrate a conceptual framework for inclusive digital storytelling in cultural tourism as part of my PhD research.

6. Implications

From a marketing perspective, these five groups can be targeted more effectively if the tourism industry can develop advertising campaigns that reflect the different barriers and drivers of each group. Moreover, tourism marketers need to understand the digital storytelling guidelines about how to create a story for all five groups. Therefore, they can increase both the diversity and motivation of potential customers.

Moreover, the results of the first study could also contribute to management within government and tourism organisations in Thailand. For example, issues related to transportation (e.g., difficulty accessing sites via public transportation) were identified by all five groups, while four groups also highlighted concerns about a lack of free time and inconvenient opening hours. Architectural barriers were further identified as significant by three groups (older adults, disabled people and non-cultural tourists). This information could be used to inform government decisions about improving transportation to historical sites so that the tourism industry can establish appropriate programmes for their customers.

References

[1] International Recommendations for Tourism Statistics Draft Compilation Guide [Internet]. Madrid: Statistics and Tourism Satellite Account Programme; 2011-03. [accessed 21 April 2015]. http://unstats.un.org/unsd/tradeserv/egts/CG/IRTS%20compilation%20guide%207%20march%202011% 20-%20final.pdf.

[2] Baltic Cultural Tourism Policy Paper. [Internet]. UNESCO; 2003. [accessed 19 April, 2015] http://portal.unesco.org/culture/en/files/23640/11033006043bct_short1.pdf/bct_short1.pdf.

[3] Standard B. 7000-6: Design management systems. guide to managing inclusive design. British Standards Institute, London, UK 2005.

[4] Interactive digital storytelling in the sarajevo survival tools virtual environment. Proceedings of the 28th spring conference on computer graphicsACM; 2013.

[5] Miller CH. Digital storytelling: A creator's guide to interactive entertainment. Taylor & Francis; 2004.

[6] Ohler J. The world of digital storytelling. Educational Leadership 2006;63(4):44-7.

[7] Ryan P. The storyteller in context: Storyteller identity and storytelling experience. Storytelling, Self, Society 2008;4(2):64-87.

[8] Schäfer L. Investigations on digital storytelling: The development of a reference model. VDM Publishing; 2008.

[9] The power of cultural tourism. a keynote presentation presented at the wisconsin heritage tourism conference; 1999.

[10] Silberberg T. Cultural tourism and business opportunities for museums and heritage sites. Tourism Management 1995;16(5):361-5.

[11] Yamane T. Statistics: An Introductory Analysis. 1967.

[12] Hein HS. The museum in transition: A philosophical perspective. Smithsonian Institution; 2014.

[13] Tolva J, Martin J. Making the transition from documentation to experience: The eternal egypt project. Archives & Museum Informatics 2004:2.

[14] Lambert J. Digital storytelling: Capturing lives, creating community. Routledge; 2013.

[15] Robin BR. Digital storytelling: A powerful technology tool for the 21st century classroom. Theory into Practice 2008;47(3):220-8.

[16] Salpeter J. Telling tales with technology: Digital storytelling is a new twist on the ancient art of the oral narrative. Technology & Learning 2005;25(7):18.