
DIGITAL TECHNOLOGIES, TOURISM AND CULTURAL HERITAGE: THE CASE OF HOLOGRAMMATIC CORFU

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Abstract

This paper explores the role of transmediality in the digitization of cultural heritage, focusing especially on the connection between media convergence and cultural heritage preservation. Transmedia theory refers to the use of multiple platforms to engage different audiences in storytelling cultural expression. The vast development of digital technologies, has urged cultural heritage institutions to increasingly embrace digitization processes as a means of preserving, promoting, and disseminating their collections. The paper discusses the opportunities, challenges, and implications arise from the convergence of media forms and the digitization of cultural heritage, drawing attention on specific case studies designed by the Ionian University AVARTS Research Team. By shedding light on the transformative impact of transmediality and digitization of cultural heritage, the paper contributes to the ongoing discourse on these topics. The main goal is to offer insights into the potential synergies and complexities that arise from the convergence of these fields, helping cultural heritage institutions and creators navigate the digital landscape more effectively to ensure the safeguarding and accessibility of our shared cultural legacy for future generations.

Keywords: *transmedia storytelling, cultural heritage, cultural tourism, personalized experiences*

Introduction

The digital age has brought significant changes in various aspects of society, including the preservation and dissemination of cultural heritage. Traditional methods of preserving cultural assets such as books, paintings, sculptures, and historical documents, are being complemented and replaced by digitization initiatives (Kuo, 2017) . Transmediality has recently come to light and alters the way stories are presented and artistic expression is shared across various media platforms (Ojamaa et al., 2019). Transmedia is the process by which stories, concepts, and characters spread beyond the confined boundaries of traditional methods, impacting and affecting a wider range of media (Kidd, 2014). This process is attracting a lot of interest in the fields of media studies, cultural studies, and communication as it examines how media formats interact with one another and how this leads to a convergence of storytelling strategies. At the same time, cultural heritage institutions such as museums, libraries, and archives institutions have recognized the potential of digitization to preserve their collections and enhance increase access to their collections (Giannakoulopoulos et al., 2021) . By converting physical artifacts into digital formats, cultural heritage professionals seek to overcome the limitations of physical deterioration, geographic limitations, and restricted

public access. Digitization provides opportunities for wider dissemination, expanded engagement and new forms of interpretation (Pavlidis et al., 2007).

The aim of this paper is to explore the interplay between transmedia process and the digitization of cultural heritage, focusing on the dynamic relationship between media convergence and preservation. By investigating this interplay, we present some insights into the transformative impact of digital technologies on cultural heritage institutions, creators, and audiences. Exploring transmediality in the context of cultural heritage digitization, offers a unique perspective on how storytelling and artistic expression can be extended beyond traditional boundaries and enrich our understanding and appreciation of cultural artifacts. To achieve this goal, some case studies are presented that illustrate successful applications of transmedia storytelling in cultural heritage projects, highlighting innovative approaches and best practices. In addition, the paper addresses the challenges and considerations inherent in associated with the digitization of cultural heritage.

2. Media Convergence and transmedia narratives

The understanding and promotion of cultural heritage sites benefit greatly from media convergence and transmedia storytelling. Transmedia narratives expand storytelling across numerous media channels, whereas media convergence refers to the blending of different media types into a single digital format. These ideas present innovative possibilities for participation, interpretation, and preservation when used in relation to cultural heritage sites. The incorporation of various media forms, such as audiovisual content, mobile applications, and augmented/virtual/mixed reality, allows visitors to engage with the site's narratives in an interactive and dynamic manner rather than relying on traditional modes of interpretation (Koukopoulos et al, 2019) . This multifaceted approach promotes greater understanding of the site's cultural value while accommodating various learning styles (Deliyannis et al, 2018) . By utilizing digital technology, transmedia narratives at cultural heritage places enable greater accessibility and outreach (Holloway-Attaway et al, 2020) . Cultural heritage organizations can reach audiences outside of physical limits and time constraints thanks to the convergence of media. Virtual visits, interactive storytelling, and knowledge sharing are made possible by online platforms, social media, and digital archives, allowing people to participate remotely, especially when the face physical barriers and restraints. This encourages inclusion and accessibility for a wide range of users, including those who are not only physically limited but also geographically.

At cultural heritage sites, transmedia narratives promote user engagement and participation. Visitors are encouraged to participate in the creation of the narrative by using interactive technologies and storytelling approaches. Users can browse a website, solve riddles, or offer their own stories and interpretations by using user-generated content, crowd-sourced data, or gamification aspects. By encouraging this interactive approach, cultural heritage organizations enable visitors to form a personal bond with the location and add to the general understanding of its value. Media convergence and transmedia narratives can also contribute to the preservation and documentation of cultural heritage sites. Digitization of multimedia can create comprehensive digital records that capture the site's physical attributes, stories, and intangible heritage (Park et al., 2019). These digital archives not only ensure the long-term preservation of cultural heritage but also provide a valuable resource for future research, restoration efforts, and public access. Innovative storytelling strategies can be used in transmedia narratives in cultural heritage locations. Cultural heritage organizations can develop multi-layered, interrelated storylines that improve tourists' emotional connections and participation by extending narratives across numerous media platforms and immersive

experiences (Zhang et al., 2022). These strategies might incorporate interactive simulations and reenactments, giving visitors a new viewpoint and a more in-depth understanding of the stories on the site.

Media convergence and transmedia narratives offer a revolutionary approach to interpretation, access, and involvement with cultural heritage locations (Sullivan, 2016). Cultural heritage institutions can improve the tourist experience, establish a stronger connection to the place, and contribute to the preservation and wider distribution of cultural heritage by utilizing a variety of media forms, digital technologies, and participatory experiences. These methods promote lively and engaging interactions with cultural material, ensuring its applicability and resonance in the digital age.

In the framework of heritage democratisation, cultural institutions try to find new ways to connect with audiences in more aspirational ways and in new forms that allow to explore new ways for interpreting cultural heritage. This goal is further enhanced with the vast digitization of cultural heritage that leads to transformative impact especially regarding accessibility and inclusivity. Digital cultural heritage allow people from around the world and people facing several accessibility barriers to access and engage with cultural heritage.

2.1 Transmedia narratives in world cultural heritage

The World Heritage Sites due to their Outstanding Universal Value are an important field for the development of new narratives, allowing personal interpretation as well as ways of discovering and interacting with cultural heritage. As these sites are acknowledged for their extraordinary worldwide significance, they present ideal opportunities to attract more visitors, enabling creative approaches in learning about and engaging with cultural heritage across a variety of media channels (Osipova et al., 2017). This highlights the significance of World Heritage Sites as productive environments for the exploration and application of transmedia narratives (Fiorelli, 2013).

World Heritage Sites usually are characterized by complex histories that span different historical eras, cultural styles, architectural differentiations, and natural aspects (Makuvaza, 2017). Transmedia applications provide a contemporary approach to reveal and portray complicated stories in an approachable manner (Scolari et al., 2018). Transmedia narratives offer audiences engaging opportunities, active interpretation and redefining of a site's cultural history and empower visitors to become co-creators and engage with heritage places in new ways by including interactive components, immersive technologies, and participatory experiences. This approach creates a stronger connection to cultural heritage and improves the touristic experience building the sense of common heritage and enhancing the feeling of protection and respect to both the physical elements (the site itself) but also the historical continuity and relevance. This kind of means for better understanding history and culture increase the value of World Heritage Sites. Cultural heritage experts and stakeholders can create immersive, inclusive, and transformative experiences that promote a deeper understanding and appreciation of shared global heritage by incorporating transmedia storytelling techniques into the preservation and promotion of World Heritage Sites.

2.2 Cultural narrative environment and users

A cultural heritage site has the potential to become a narrative environment for various user categories by leveraging its historical, architectural, and cultural significance. User categories as well as their interests and dynamics on the narration perspective, can be analysed as follows:

• **Visitors and Tourists**

A cultural heritage site can be transformed into a narrative environment by using interpretive signage, multimedia promotion and interactive experiences. Using these forms of engagement, allows visitors to connect emotionally with the place and its significance with their own personal stories (Mattia et al., 2017). The narratives of guiding applications and tours can highlight different optics of a site's cultural value. Furthermore, developing a deeper understanding of the site, creates deeper appreciation (Stevenson, 2019) and leads to more frequent and loyal visits and the relevant economic benefits of increased spending in local businesses.

• **Students and Researchers**

Cultural heritage sites may be an important source of knowledge for students and academics. They may serve as living laboratories (tom Dieck & Jung, 2017) for the study of architectural designs, historical events, or cultural practices. Through educational programs, workshops, and seminars that may be hosted there, students and academics can explore and examine the tangible and intangible heritage. Access to local historical documents, publications, and artifacts can enhance research potential and foster intellectual discourse (S. M. Poulimenou et al., 2022; S.-M. Poulimenou, Kaimara, & Deliyannis, 2018; S.-M. Poulimenou, Kaimara, Papadopoulou, et al., 2018).

• **Local Community**

Local community may interact with a cultural heritage (Ginzarly & Teller, 2018) site as a narrative, through cultural gatherings, festivals, performances and other events that highlight regional customs, folklore, or contemporary artistic expressions. The community's sense of pride, identity, and continuity may be bolstered by participating in its history. Through community-led initiatives like oral history projects or joint displays, residents may also be able to contribute their individual histories and points of view to the site's overall narration.

• **Artists and Creative Practitioners**

Artists may create narratives that reinterpret or respond in novel ways to cultural heritage by engaging with the historical and cultural context of the site. This multidisciplinary approach fosters new interpretations of the significance of the site, stimulates creativity, and fosters dialogue between the past and the present. Within the site, artistic expressions, either temporary or permanent create a new narrative environment and a constantly changing storytelling.

A world cultural site also considers the requirements of inclusiveness especially for narrative settings. A cultural heritage site may be used as a platform for education, cultural expression, and community participation by using it as a narrative context for the above mentioned (and more) user categories. It is possible for tourists, students, locals, artists, and others to forge a stronger relationship with the place and a clearer understanding of its cultural and historical value thanks to the combination of storytelling techniques, technology, and interactive approaches.

3. Narrative storytelling at the Old Town of Corfu, Greece

The integration of narrative and cultural heritage is emphasized by using the monument of the Old Town of Corfu as the setting for the narrative. Corfu receives on an annual basis a large flow of incoming visitors and the monument serves as a physical environment that facilitates the creation and transmission of stories to visitors. This approach recognizes the potential of the physical environment to evoke historical and cultural interconnections, thereby enhancing the overall visitor experience.

The Old Town of Corfu has been a recognized as historical monument by the Greek state since 1980 and has been a UNESCO World Heritage Site (decision 31 COM 8b.40) since 2007. The Old Town of Corfu is a historical town that has preserved its settings mostly unaltered for more than 5 centuries till today, retaining its authenticity and cultural value through time. The setting of the monument combines several different characteristics from different historical periods, including the two fortresses (the Old and the New Fortress), architectural blocks, archaeological sites, museums, cultural monuments, public areas and squares, private buildings (mansions), characteristic small roads (termed locally using the word “kantounia”), many churches and other places of worships, large parks and many contemporary elements such as houses, schools, shops, services, etc.

According to the Management Plan for the Old Town of Corfu, the uniqueness of the monument is shaped by the composition of the following cultural values and specifically a) the Old and New Fortress, typical example of Venetian fortification architecture, b) the residential structure and street system which is structured in three sectors, subdivided into ten districts, c) the open spaces such as squares and parks, that occupy almost one third of the town’s historic centre, d) the building infrastructure, especially those inspired by the Venetian, French and the British architecture and e) the rest cultural characteristics, which were formed over the centuries.



Picture 1: View of the Old Town of Corfu
Creator: Nikolaos Mamalos

The above-mentioned characteristics of the Old Town of Corfu have been utilised for research in the field of transmedia presentation of cultural elements, due to their important cultural significance and value. The research recognised the importance of transmedia storytelling for the interpretation of the monument. During the research, different media such as audio guides, interactive exhibits, digital displays, and multimedia installations were used to convey information and engage visitors, in the framework of a co funded by the European Union project, named Hologrammatic Corfu (S. M. Poulimenou et al., 2022). The creation of

transmedia storytelling highlighted the need to accommodate different learning styles and preferences by using multiple presentation means, thereby increasing the accessibility and inclusiveness of the interpretive experience. Different presentation means used in the interpretation of the Old Town of Corfu encourage visitors to express and create their own narratives. This implies that the interpretive approach not only provides information but also stimulates visitor engagement and active participation (Kaimara et al., 2020). By empowering visitors to contribute their perspectives and narratives, the research recognized the importance of visitor employment and the potential for a more personalized and meaningful experience (S.-M. Poulimenou et al 2018), especially to users who prefer to immerse themselves into the cultural experience.

The research during the implementation of the above-mentioned project, focused on the documentation of the monument of the Old Town of Corfu using different media means, from the very classic ones such as photographs to the more contemporary, such as holographic presentations. The goal was to experience the transmedia approach to a cultural heritage monument that is already highly documented by both professionals and individuals (visitors and locals). The points of interest remained the same in every approach but they were presented differently, with gradual detail and in some case studies presenting views and aspects that are not generally known as they cannot be reached by visiting a point of interest (eg. Use of drone for bird eye view aspect in more than thirty points of interest). The adoption of this methodology allowed us, as researchers to conceive a different understanding of our hometown and to offer the same options to other users of the monument, establishing new perspectives and elaborating a co-creator role for all the users involved.



*Picture 2: Holographic presentation of part of the New Fortress
Creator: Leonidas Goudelis*

During the implementation of the project, innovative transmedia storytelling techniques were used in the framework of enhancing visitors' experiences. Those techniques include **interactive storytelling** (Papadopoulou, 2018) that allows visitors to engage with the monument through interactive media, such as augmented reality and the mobile app, **visual storytelling** as the project used visual imagery to illustrate points of interest and create an interesting narrative, **personal storytelling**, as the guided tours suggested by the project were

based on users personal stories and needs in order to create an emotional connection with the cultural heritage site **immersive storytelling** as the elaboration of 3d imaginaries of the monument can create an immersive experience for visitors, such as re-enacting history. The next step of elaboration is the creation of **collaborative models**, involving visitors in the creation of digital content and the management of cultural heritage sites.

The designation, protection and management of World Heritage Sites operate on the basis of certain official rules. Also, each monument is unique, as this is expressed and declared by its Outstanding Universal Value. Contemporary views on cultural management attribute an important role to the involvement and participation of communities in the management of cultural heritage (Kim et al., 2019; Li et al., 2017) . World heritage monuments are being developed by their users, who experience and perceive both the problems that exist and the benefits that arise from the sustainable promotion of a monument. In this light the participation of the users of the monument in transmedia storytelling cannot be ignored, instead they should be part of the whole preservation and promotion process. By considering these factors, the transformative potential of transmediality and the digitization of cultural heritage are of high impact factors into fostering meaningful and inclusive experiences.

4. Conclusions

The research presented in this paper, highlights that the process of employing different presentation means and encouraging personal narratives extends beyond the visitor experience. It acknowledges that permanent residents and other users of the monument of the Old Town of Corfu are also affected by this approach. Increasing tourism to World Heritage sites can contribute to the global community's awareness of the monument's international significance as a World Heritage site by raising feelings of respect and protection. On the other hand, uncontrolled tourism can undermine the authenticity of the monument. The research implies that the utilization of new storytelling methods and experiences can provide a fresh perspective even for individuals who are already familiar with the location. This recognition of the impact on various user groups expands the scope of the research and emphasizes the potential benefits for the broader community. Overall, the research explores the use of the monument of the Old Town of Corfu as a narrative environment, emphasizing the importance of diverse presentation means for interpretation. It also recognizes the role of personal narratives in enhancing visitor engagement and acknowledges the wider impact on permanent residents and other users.

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