

A Study on the Influencing Factors of Social Media in the Communication of Cultural Heritage Education: A Systematic Literature Review

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Abstract

This study examined the impact of social media on disseminating cultural heritage education. After reviewing two databases, 29 articles met our inclusion criteria. This study found that social media can expand the educational scope of cultural heritage and increase public awareness and interest in cultural heritage tourism sites and museums. However, social media is only a publicity channel. It is necessary to consider five influencing factors in social media: the subject of information distribution, the motivation of distribution, the purpose of distribution, the content of distribution, and the method of distribution, and to analyze the specific practices of social media in disseminating cultural heritage education. Therefore, more research is needed to explore the influence of social media on cultural heritage education dissemination, to explore the educational nature of social media in cultural heritage education communication, and to provide a theoretical basis for social media to promote cultural heritage education dissemination.

Keywords: cultural heritage, communication, education

1. Introduction

Cultural heritage refers to the wealth left to humanity by history and includes both tangible cultural heritage (tangible cultural heritage) and intangible cultural heritage (Skublewska-Paszowska, 2022). Convention for the Safeguarding of the Intangible Cultural Heritagesummarizes tangible cultural heritage as historical objects, historical buildings, and sites of human culture (Unesco, 2020). In the Convention for the Safeguarding of the Intangible Cultural Heritage, UNESCO defines intangible cultural heritage as the practices, performances, expressions, knowledge, and skills, as well as their associated instruments, objects, artifacts, and cultural spaces, that groups, communities consider and sometimes individuals as their cultural heritage (Romagnoli, 2019).

With the development of the times, the profound meaning and historical value of cultural heritage have been gradually valued, and the conservation and dissemination of cultural heritage have evolved from a single sectoral act to a social issue involving a wide range of fields (Labad et al., 2021). First, cultural heritage tourism continues to grow, and cultural heritage value is increasingly conveyed in various mass communication practices (Qiu et al., 2021). Second, the consumer market for cultural heritage is booming, and various industries, such as manufacturing and service industries, are gradually branching out into cultural heritage, providing a broad and diverse range of communication vehicles and scenarios for cultural heritage (Buhalis & Karatay, 2022). Third, social media has been upgraded from an interpersonal communication tool to a mainstream channel of cultural communication (Li & Kent, 2021). The "circle culture" of online social networking is gradually becoming an alternative form of real society (Huang, 2022), and the dissemination of cultural heritage education based on social media has a broader coverage and more profound acceptance. In addition, since social media is mainly a user content production model (UGC), the content published by users under the influence of circle culture usually includes but is not limited to cultural heritage tourism and the consumer market (Leung, 2013). Social media's popularization of cultural heritage science is also the mainstream of user-produced content (Martin, 2020). Social

media has essential significance for cultural heritage education dissemination (Samaroudi et al., 2020).

Communication scholars Andreas Kaplan and Michael Kepler (2019) have been working on this project. Andreas Kaplan and Michael Haenlein define social media as web applications built on Web 2.0 technologies and ideologies, allowing users to create and communicate content. Michael Haenlein defines social media as a set of web applications based on the technologies and ideologies of Web 2.0, allowing users to create and communicate content independently.

With the continuous advancement of information network technology, it has thoroughly penetrated people's daily life (Fan et al., 2020). Social media is not only an interpersonal communication tool based on the Internet but has become the source and diffusion platform of massive content and has the properties of information and knowledge dissemination medium and economic and social culture representation carrier (Singh et al., 2020). The maturity of big data technology has provided social media with circle cohesion, making virtual communities among users, and these communities have become the substantive carriers of cultural dissemination and exchange (Langevang et al, 2022).

Cultural heritage, which has both connotations of cultural concepts and artistic-aesthetic relationships, is part of the cultural circle in social media (Wu et al., 2022). However, current research on social media and cultural heritage is scattered, covering the use of social media in communicating cultural heritage and the datafication of cultural heritage. There is no focus on the impact of social media on the educational dissemination of cultural heritage, nor does it explore the relationship, internal logic, and influencing factors between the two. In the online environment where social media are widely used, cultural heritage cannot fully use the Internet for dissemination and cannot maximize its educational role. Therefore, this article focuses on exploring the applications, effects, and influencing factors of social media in cultural heritage education communication to provide a theoretical basis for the full potential of social media in cultural heritage education communication.

1.1 Objective

The circle culture in social media has an essential influence on disseminating cultural heritage education (Slim & Hafedh, 2019). However, because the current research does not focus on the influence of social media on the dissemination of cultural heritage education and the influencing factors, the dissemination of cultural heritage education on social media is arbitrary, lacks theoretical guidance, and fails to play the role of social media. Therefore, this article is dedicated to combing the literature on social media and cultural heritage education communication, exploring the application, effect, and influencing factors of social media in cultural heritage education communication to clarify the positioning, role, and influencing mechanism of social media in cultural heritage education communication. We aim to provide theoretical guidance for social media to enhance cultural heritage education communication and promote the role of social media.

2. Research Methodology

2.1 Study Screening

The databases used for the literature search were Scopus and Web of Science, and the indexing terms were set to "social media" and "cultural heritage education." The indexing period was limited to the last five years and complied with the PRISMA 2020 statement. The search was based on the following principles:

First, the articles must be original and contain the most original data. Furthermore, the articles must be peer-reviewed. This ensures that the articles contain helpful information for our research and that the quality of the articles is maintained.

The most critical point is that this study's time control was from 2017 to 2022; studies outside this time frame were first excluded from this study. From 669 articles (from Scopus & Web of Science), 378 were retained for further screening.

Second, to ensure the unity of the themes of -this study, the topics of these articles had to include both social media and cultural heritage education. If the articles did not include these two topics, they were excluded to ensure that the screened literature was consistent with the theme of this paper. These two sets of keywords involved two screenings, which excluded 242 articles and retained 74 articles.

In the final step, this study screened for the vital term influence, and since this research study, as a review article, emphasizes the influencing factors of social media, articles that did not include or whose research focus was not on influencing factors were excluded. Therefore, 45 articles were excluded from 74, leaving 29 available for the study. (Added a detail section for filtering articles to make the operation of filtering articles clearer.)

Table 1. The search strings

Database	Search string
Scopus	(TITLE-ABS-KEY (online AND learning)) AND (dyslexia) AND (LIMIT-TO (PUBYEAR, 2023) OR LIMIT-TO (PUBYEAR, 2022) OR LIMIT-TO (PUBYEAR, 2021) OR LIMIT-TO (PUBYEAR, 2020) OR LIMIT-TO (PUBYEAR, 2019) OR LIMIT-TO (PUBYEAR, 2018) OR LIMIT-TO (PUBYEAR, 2017)) AND (LIMIT-TO (PUBSTAGE, "final")) AND (LIMIT-TO (DOCTYPE, "ar")) AND (LIMIT-TO (SUBJAREA, "SOC1")) AND (LIMIT-TO (LANGUAGE, "English"))
Web of Science	Results for ((TS=(online AND learning)) AND TS=(dyslexia) and Article or Review Article (Document Types) and English (Languages)

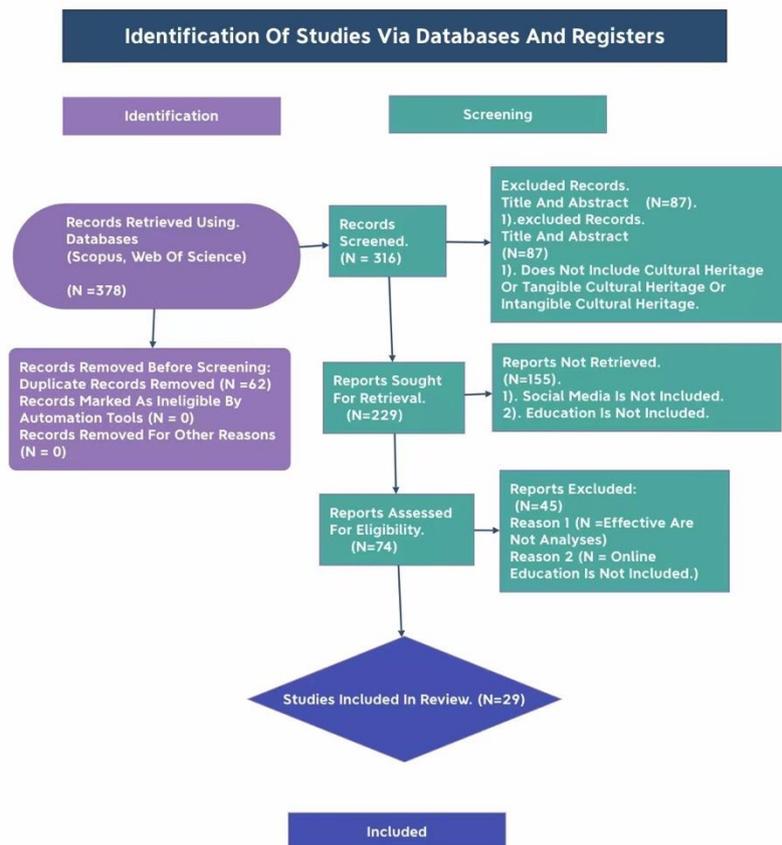


Figure 1. Prisma search

3.Results

3.1 Time (Adjusted Order from 3.3 to 3.1)

The year range of the literature covered in this article is 2018-2023. Since 2023 is not over, the literature in this period must be completed and have research value. This section will analyze the relevant literature from 2018-2022 to explore the research themes in different years from the temporal dimension to sort out social media and cultural heritage education research lineage.

Three articles were published in 2018, and the topics covered were promoting personalized services in museums through social media (Kim & Yu, 2018), social networks as sources of information for cultural heritage (Monti et al., 2018), and social media for cultural heritage communication (Farahani et al., 2018).

Four articles were published in 2019, and the topics covered were the role of social media on the digitization of cultural heritage (Kim et al., 2019), customized cultural heritage recommendations for users through social media (Su et al., 2019), social media for the dissemination of cultural heritage (Lopez et al., 2019; Grimaldi et al., 2020)

Five articles were published in 2020, focusing on the themes of the role of social media in cultural heritage conservation (AYDOĞDU, 2020), the role played by social networks for cultural heritage museums (Myna et al., 2020), social media

for cultural heritage communication (Dávila et al., 2020; Hoeven, 2020; Kidd et al.,).

Eight articles were published in 2021, focusing on the themes of the role of social media in cultural heritage education (Benedetti et al., 2021), the role of social media in the digital conservation of cultural heritage (Ocón, 2021), and museums enhancing public interaction with cultural heritage through social media (Varriale et al., 2021). Cui et al., 2021; Zollo, 2022; Ruggiero, 2022), the role of social media in facilitating the dissemination of cultural heritage and the renewal of projects (Roszczyńska-Kurasińska, 2021; Kelpšienė, 2021).

Nine articles were published in 2022, and the topics covered were the role of social media in performing the educational function of cultural heritage (Gao & Lee, 2022; Kamba & Buba, 2022), research on the factors influencing sharing by cultural heritage visitors on social media (Han & Bae, 2022), customization of museum services through social media (Chang, 2022), dissemination of digital cultural heritage through social media (Pu & Kim, 2022), the impact of social media on cultural heritage tourism (Aldhanhani & Zainudin, 2022; Huang et al., 2022), social media for cultural heritage dissemination (Longhi-Heredia, 2022; Kidd et al., 2022) (See the Figure 5 Article Publication Time).

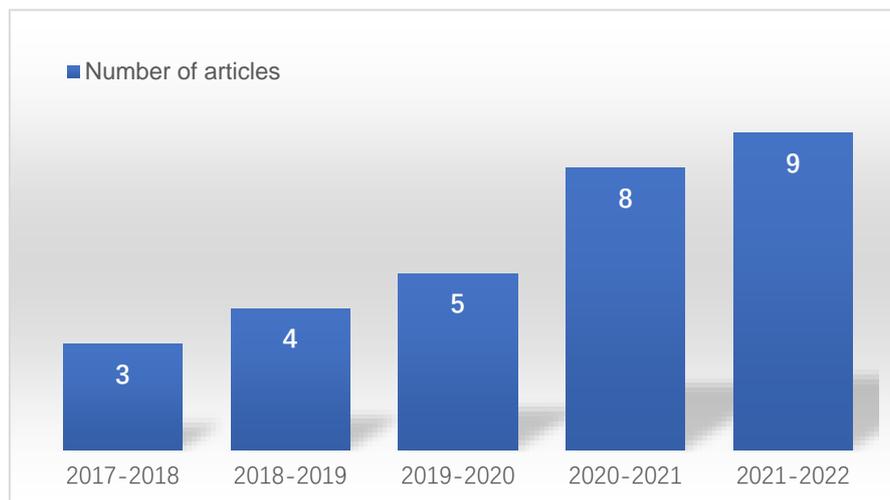


Figure 2. Article Publication Time

Social media and cultural heritage research show a growing trend from 2018-2022. Among them, social media facilitating the communication of cultural heritage is a hot research topic. 2018 needs more literature and research themes focusing on social media as a medium to provide personalized services to museum visitors, for example, through social media (Kim & Yu, 2018). 2019 also has less literature and research themes focused on the function of social media itself; for example, social media can facilitate the digitization of cultural heritage (Kim et al., 2019). From 2020 onwards, the amount of relevant literature started to rise significantly, and the topics covered are more refined; for example, researchers started to explore the various ways in which social media can be used in cultural heritage museums, such as enhancing the interaction between the public and cultural heritage (Varriale et al., 2021) and attracting tourists (Cui et al., 2021). In addition, the impact of social media on promoting cultural heritage tourism is also starting to come into the view of researchers, with three related studies in 2022 alone filling the gap of social media in the cultural heritage tourism industry.

(The formatting of the article has been adjusted to enhance the logic of the article. In chronological, country, and thematic order. Gradual description from big to small, macro to micro)

3.2 Country

Among the 29 articles, 22 have a clear geographical orientation, which shows that the research on cultural heritage has a clear geographical character. Among them, three are in Italy (Benedetti et al., 2021; Varriale et al., 2021; Zollo, 2022). Six are in Korea (Kim et al., 2019; Gao & Lee, 2022; Han & Bae, 2022; Chang, 2022; Pu One theme is in Southeast Asia (Ocón, 2021). One theme is in Turkey (AYDOĞDU, 2020). One theme is in Lithuania (Kelpšienė, 2021). One theme is in Nigeria (Kamba & Buba, 2022). Two themes are in Spain (Lopez et al., 2019; Longhi-Heredia, 2022). One is in the United Arab Emirates (Aldhanhani & Zainudin, 2022). One theme is in Cuba (Dávila et al., 2020). Three are in the UK (Hoeven, 2020; Kidd et al., 2022; Verboord & Nørgaard, 2021) (See the Figure 4 Classification of Countries).

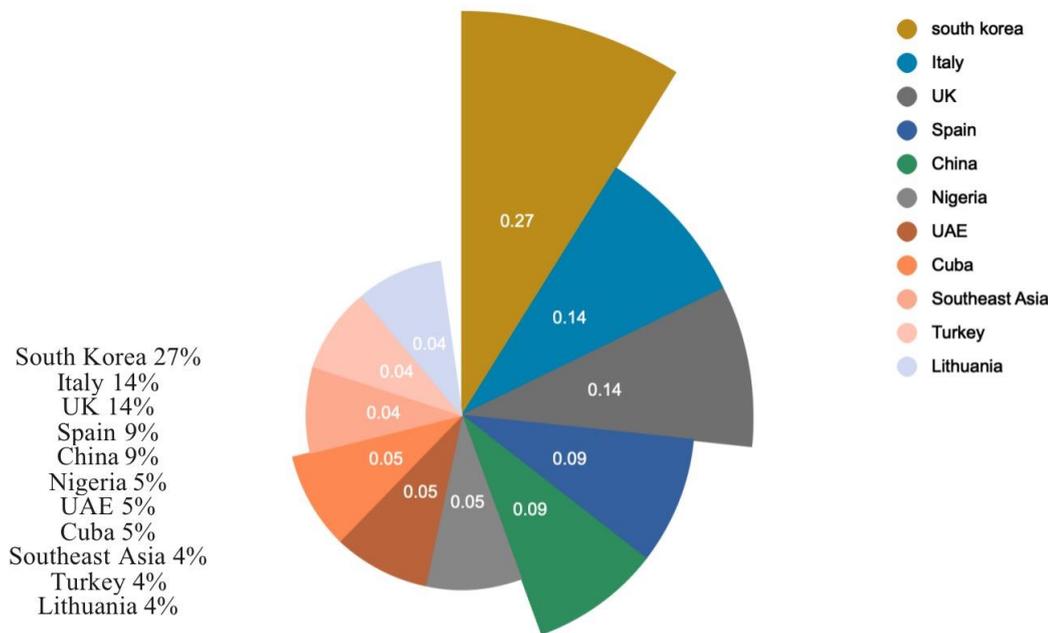


Figure 3. Classification of Countries

Examining the research topic from the perspective of the country's geography, Europe and Asia pay more attention to this topic, with Korea, Italy, and the United Kingdom being the most prominent ones. It can be found that Italy, the United Kingdom, and South Korea are developed countries that pay more attention to the link between cultural heritage and the people, the impact of cultural heritage on the people, and the people's need for cultural heritage on a spiritual level. Moreover, the three countries are rich in cultural heritage resources.

Italy has numerous monuments, works of art, historical buildings, and natural landscapes, covering various artistic and cultural elements of the Roman, Renaissance, and modern times, with significant global influence and importance.

The cultural heritage of the United Kingdom also covers a wide range of fields such as art, literature, and architecture, and the British Museum is internationally renowned for its high level of cultural standards. Korea emphasizes the protection and excavation of its cultural heritage and is not only engaged in developing cultural heritage but is also keen to "apply for heritage." Compared with Italy, the UK, South Korea, Spain, China, Nigeria, Arabia, Cuba, Turkey, Lithuania, and some Southeast Asian countries have done less research on this topic.

Among them, Spain belongs to the ranks of developed countries, and the Serbian Cathedral belongs to the ranks of World Heritage Sites, and cultural heritage tourism is more developed. However, Spain has a slightly weaker cultural heritage than Italy and the UK. It allocates more limited resources to the cultural heritage sector, so Spain has conducted slightly fewer studies on this topic than Italy and the UK. China, Nigeria, Cuba, Turkey, Lithuania, and some Southeast Asian countries are developing countries with fewer resources allocated to cultural heritage than developed countries. The influence of national factors impacts this research topic, as more developed countries, which attach more importance to cultural heritage and have a rich cultural heritage, are more likely to focus on cultural heritage research.

3.3 Research Theme((Adjusted Order from 3.1 to 3.3)

Of the 29 studies screened in the literature since 2018-2023, 2 studies focused on cultural heritage education through social media. One study was based on school education and focused on targeting the importance of social media in the cultural heritage education industry and exploring related curriculum models (Benedetti et al., 2021); the other study broke away from the limitations of school education and defined the education target as a youth to explore a new model of cultural heritage education (Gao & Lee, 2022). Two articles use social media to change users' views and perceptions of cultural heritage (Roszczyńska-Kurasińska, 2021; Hoeven, 2020). nine articles create cultural heritage communities through social media and explore the importance of communities for the dissemination and development of cultural heritage (Kelpšienė, 2021; Monti et al., 2018; Kamba & Buba, 2022; Su et al., 2019; Lopez et al., 2019; Farahani et al., 2018; Dávila et al., 2020; Grimaldi et al., 2020; Longhi-Heredia, 2022; Kidd et al., 2022; Verboord & Nørgaard, 2021). three studies focus on the digitization of cultural heritage, attempting to expand the forms of cultural heritage, better integrate it with public life, and increase public participation (Kim et al., 2019; Varriale et al., 2021; Cui et al., 2021). In addition, three studies also focus on the digitization of cultural heritage and its preservation through digitization to

prolong its life (Ocón, 2021; AYDOĞDU, 2020; Pu & Kim, 2022).

Among the previous studies, one study focused on exploring the challenges and difficulties encountered in digitizing cultural heritage (Ocón, 2021), and two studies focused on exploring conservation models (AYDOĞDU, 2020; Pu & Kim, 2022). three studies were rooted in the field of cultural heritage tourism, using social media communication three studies are rooted in the field of cultural heritage tourism, examining social media communication as an essential way of promoting cultural heritage tourism or examining social media as a way of sharing cultural heritage tourism afterward (Han & Bae, 2022; Aldhanhani & Zainudin, 2022; Huang, 2022). Five articles are based on museums themselves and attempt to collect user social media data through social media to provide customization of museum tours and the importance of social media promotion for museums (Chang, 2022; Kim & Yu;2018 Myna et al., 2020; Zollo, 2022; Ruggiero, 2022) (See the Figure 2 Theme Analysis).

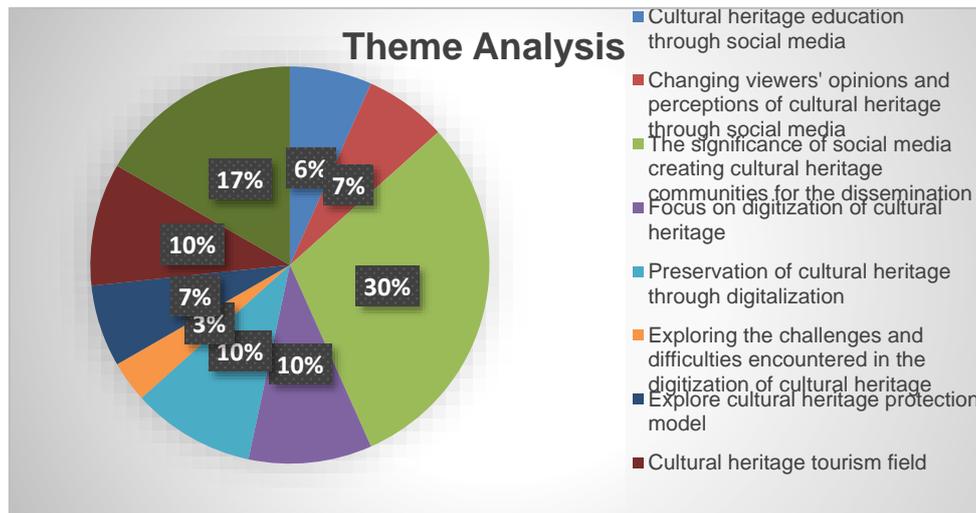


Figure 4. Theme Analysis

Researchers' studies on social media and cultural heritage are more scattered. It mainly deals with the role of social media in cultural heritage education, the role of social media on cultural heritage, the role of social media in cultural heritage digitization, the role of social media in cultural heritage tourism, and the role of social media on cultural heritage museums. Among them, researchers focused more on the role of social media on cultural heritage, with 13 articles focusing on this. However, the role of social media in cultural heritage needs to be narrower. It involves both changing or refining users' perceptions of cultural heritage (Roszczyńska-Kurasińska, 2021), using information data about cultural heritage in social media as one of the sources of information about cultural places (Monti et al., 2018), using social media to promote the dissemination of cultural heritage (Kamba & Buba, 2022; Farahani et al., 2018), using social media to push customized cultural heritage recommendations to the population (Su et al., 2019) (see Figure 3 The role of social media for cultural heritage).

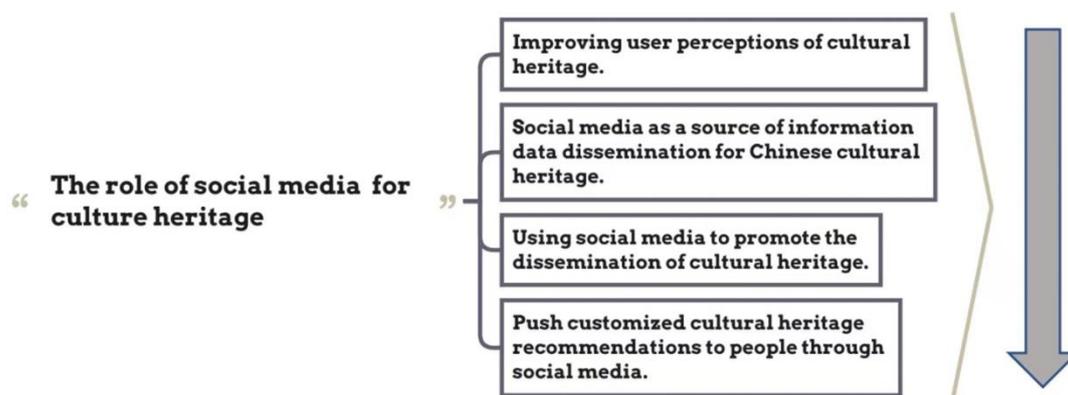


Figure 5. The role of social media for cultural heritage

As can be seen, researchers have focused on a wide range of perspectives on social media and cultural heritage. It is important to clarify that some of these studies, although focusing on the digitization of cultural heritage, also involve the field of social media, such as using social media as a vehicle for digital communication. Therefore, such studies also fall within the field of the impact of social media on cultural heritage.

3.4 Application of social media in Cultural Heritage Education Communication

3.4.1 Application Scenarios

With the development of information technology, the role of social media is gradually being explored. In the field of cultural heritage, social media is usually applied in the fields of cultural heritage education, cultural heritage communication, cultural heritage online communities, and cultural heritage customized services. Cultural heritage education is currently divided into two dimensions, the first being school-based professional education, such as cultural heritage management, conservation, and communication (Benedetti et al., 2021). This field usually requires education systems to develop appropriate training programs for students in the humanities and sciences. As an additional tool, social media can help students with humanities learning in online communities and support them in science learning. The second type of education is mass education based on the social population, which is more inclined to cultural transmission. Social media provides the technological fulcrum to arouse the interest and enthusiasm of the public, especially the younger generation, to understand and experience cultural heritage in depth (Gao & Lee, 2022).

In cultural heritage communication, social media is used in various scenarios. For example, social media can be used to stimulate the public to experience cultural heritage (Roszczyńska-Kurasińska, 2021), to influence the public through the community of cultural heritage enthusiasts in social media, and to actively involve the public in the construction and development of cultural heritage (Kelpšienė, 2021, p. 23). The information about cultural heritage in social media is added to the presentation of cultural heritage in museums (Monti et al., 2018). Promoting cultural heritage through social media to attract tourists to cultural heritage tours (Kelpšienė, 2021; Lopez et al., 2019; Farahani et al., 2018; Dávila et al., 2020; Longhi-Heredia, 2022; Kidd et al., 2022; Verboord & Nørgaard, 2021). Understanding user preferences through social media to provide customized cultural heritage recommendations to users (Su et al., 2019). Preserve cultural heritage memories through social media to enhance the public's identification with cultural heritage (Grimaldi et al., 2020).

There are two main categories of social media applications in cultural heritage communities: official communities dedicated to cultural heritage education and promotion (Kidd et al., 2022) and informal communities built based on hobbies and interests in cultural heritage (Kelpšienė, 2021). Due to the different attributes of communities and their functions, the main target groups and the ways of working differ.

The official community is mainly for the public. It does not differentiate whether the public is interested in cultural heritage or not and publishes content and recommends cultural heritage without distinction (Kidd et al., 2022), which is why the official community is more inclusive and can provide a place for cultural heritage education and communication for the public without any threshold (Longhi-Heredia, 2022). Informal communities, on the other hand, are often sustained by hobbies that are also open to the public but have their unique logic of community exchange (Kelpšienė, 2021) and can act as a catalyst or influence on the public (Farahani et al., 2018).

In the commercial functions of cultural heritage, social media mainly takes on the functions of information gathering, information distribution, and digital experience. Information gathering refers to the ability of cultural heritage museums or cultural heritage tourism sites to collect users' social media information to provide customized services to enhance users' interests and experiences (Chang, 2022). The information dissemination function is to provide information about cultural heritage through social media, such as cultural heritage tourist destination recommendations (Huang et al., 2022), cultural heritage news (Longhi-Heredia, 2022), and cultural heritage knowledge (Kamba & Buba, 2022), to enhance users' understanding and interest in cultural heritage (Kim et al., 2022). interest (Kim et al., 2019) and enhance public interaction and engagement with cultural heritage (Han & Bae, 2022). In addition, digitization of cultural heritage refers to the digital processing of cultural heritage to generate digital experiences such as metaverse content (Gao & Lee, 2022), virtual reality content (Varriale et al., 2021), and promotion and delivery through social media platforms to expand the boundaries of cultural heritage (Pu & Kim, 2022) and enhance users' and cultural heritage (Roszczyńska-Kurasińska, 2021) (s See the Figure 6 Application Scenarios).

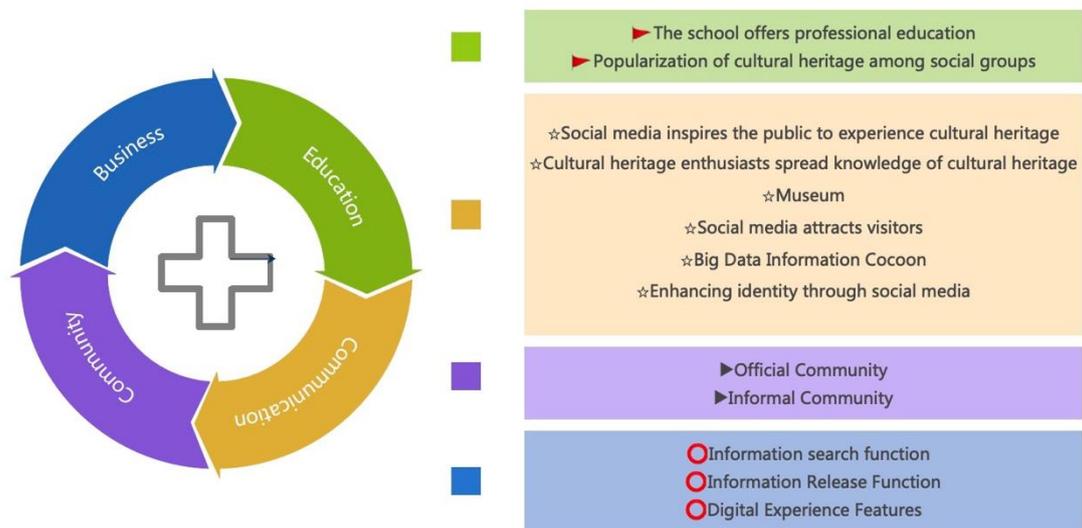


Figure 6. Application Scenarios

3.4.2 Application Models

The application model of social media in cultural heritage can be discussed from two perspectives: the purpose-oriented application model and the function-oriented application model. The purpose-oriented application model can be divided into four dimensions: communication purpose, community purpose, educational purpose, and commercial purpose. Among them, communication purpose refers to communication about cultural heritage through social media. In contrast, the communication of cultural heritage can be divided into educational communication (Gao & Lee, 2022), knowledge communication (Varriale et al., 2021), and awareness communication (Kim et al., 2019) to increase users' understanding and recognition of cultural heritage and give full play to The purpose of the community is to increase users' understanding and recognition of cultural heritage and to make full use of the practical utility of cultural heritage.

Community-based activities include the formation of cultural heritage communities on social media (Kelpšienė, 2021) and the holding of cultural heritage community events on social media (Myna et al., 2020), which can expand the scope and influence of cultural heritage communities and provide community support for the dissemination of cultural heritage.

Educational purposes of communication emphasize education related to cultural heritage through social media, with school-based subject training programs (Benedetti et al., 2021) and meta-universe cultural heritage education programs for the younger generation: dissemination and construction.

Finally, using social media for commercial purposes refers to disseminating information about cultural heritage tourism or museum tours through social media (Huang et al., 2022) to increase the visibility and visitation of cultural heritage tourism and enhance the visitor experience.

The practical orientation of social media in cultural heritage needs to be described as the types of information publishers in social media. In 29 studies, there are three main types of information posted on social media: official acts (Longhi-Heredia, 2022), informal organizational acts (Kelpšienė, 2021), and individual acts (Han & Bae, 2022). Official behaviors are mostly conscious behaviors, which are specific activities carried out officially and are usually issued regularly (Longhi-Heredia, 2022). On the other hand, informal organizational behaviors and individual behaviors are more discretionary, occur irregularly, and are influenced by multiple factors, such as nostalgia and regional culture (Han & Bae, 2022; Kim & Yu, 2018).

Whether official, informal organizational, or individual behaviors, although behaviors have various purposes and different behavioral paths, they all point to the same functional orientation, i.e., educational orientation. For example, the official act of providing users with recommendations for cultural heritage tourism is based on social media (Aldhanhani & Zainudin, 2022); even if this act is commercial, there is an introduction to cultural heritage tourism. Once the user enters this segment, he or she enters the field of education. The essence of education is defined as a social activity that nurtures people. Since cultural heritage itself is a condensation of culture, whenever social media involves disseminating, presenting, or recommending cultural heritage, it inevitably educates the audience. The educational function of social media in conveying information about cultural heritage is also one of the critical application modes of social media in cultural heritage (See the Figure7 Application Models).

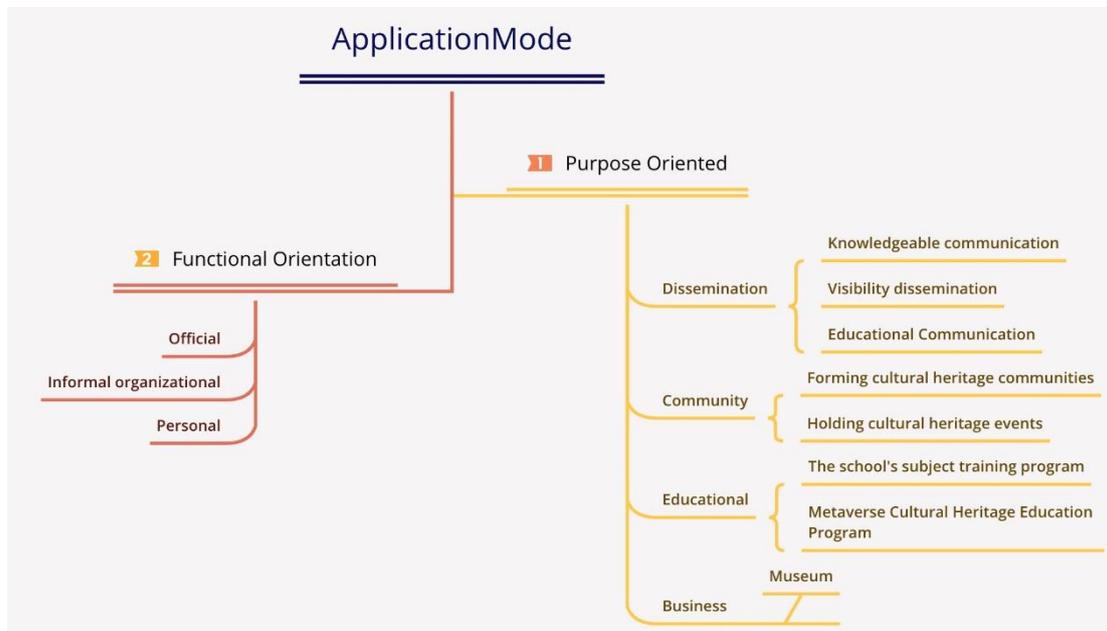


Figure 7. Application Models

3.4.3 Application Effect

Of the 29 articles covered in the study, 20 directly set the premise that using social media can positively affect cultural heritage as a study exploring the difficulties encountered in applying social media to cultural heritage ((Ocón, 2021). In such studies, researchers argue that social media can provide learning support about cultural heritage (Benedetti et al., 2021; Gao & Lee, 2022), that social media can encourage public participation in cultural heritage (Kim et al., 2019; AYDOĞDU, 2020; Han & Bae, 2022), the ability of social media to facilitate the dissemination and preservation of cultural heritage (Varriale et al., 2021; Pu & Kim, 2022; Myna et al., 2020; Monti et al., 2018; Farahani et al., 2018; Dávila et al., 2020; Grimaldi et al., 2020; Huang et al.,2022; Hoeven, 2020; Cui et al.,2021), social media can support cultural heritage to customize services for users (Chang, 2022;1 Kim & Yu, 2018; Su et al.,2019; Aldhanhani & Zainudin, 2022).9 The literature, on the other hand, validates the effectiveness of social media applications in cultural heritage through quantitative analysis of website statistics (Roszczyńska-Kurasińska, 2021; Longhi-Heredia, 2022; Verboord & Nørgaard,2021), case studies (Kelpšienė, 2021; Lopez et al., 2019), questionnaires (Kamba & Buba, 2022), hybrid studies (Kidd et al., 2022), data modeling of visitor samples (Zollo, 2022), *Facebook* thematic analysis of posts (Ruggiero, 2022) to analyze the impact of social media on cultural heritage.

Empirical studies have partially supported the positive impact of social media on cultural heritage and are a consensus among researchers. However, it is essential to note that not all social media activities positively impact cultural heritage. For example, in the case of cultural heritage museums' outreach, it is mentioned that if the museum's communication on social media is one-sided and promotional, it can limit stakeholder engagement and future development (Ruggiero, 2022).

3.5 Influencing Factors of Social Media in Cultural Heritage Education Communication

There are five main types of factors influencing social media in cultural heritage education communication: subject factor, motivation factor, purpose factor, content factor, and mode factor. Among them, subjective factors are official organizations (Longhi-Heredia, 2022), communities of cultural heritage enthusiasts (Kelpšienė, 2021), and individuals (Han & Bae, 2022); motivational factors are intrinsic and extrinsic motivations, and intrinsic motivations include the need to share (Han & Bae, 2022), the need to socialize (Aldhanhani & Zainudin, 2022); extrinsic motivation mainly refers to task-driven (Kim & Yu, 2018); purpose factors include communication purpose (Gao & Lee, 2022; Varriale et al., 2021), community purpose (Kelpšienė, 2021), educational purpose (Benedetti et al., 2021) and commercial purposes (Huang et al., 2022); content factors include knowledge content (Benedetti et al., 2021), promotional content (Ruggiero, 2022), and advertising content (Lopez et al., 2019); and mode factors include visual approach (Huang et al., 2022), video approach (Pu & Kim, 2022), digital approach (Varriale et al., 2021), and text-only approach (Longhi-Heredia, 2022) (See the Figure 8 Application Effect).

Influencing Factors		
Subject Factors	Official Organizations	
	Cultural heritage hobby community	
	Personal	
Motivational factors	Intrinsic motivation	Share Demand
		Social Needs
	Extrinsic motivation	Task Driven
Purpose Factors	Dissemination purpose	
	Community Purpose	
	Educational Objectives	
	Business Purpose	
Content Factors	Knowledge content	
	Promotion content	
	Advertising content	
Mode factors	Graphic method	
	Video method	
	Digital approach	
	Text-only approach	

Figure 8. Application Effect

These five types are not independent but are linked to each other as a complete system of influence. For example, when official platforms of social media publish information about cultural heritage education, the motive of publishing is to promote cultural heritage (Ruggiero, 2022) to attract tourists to cultural heritage museums and tourist places (Aldhanhani & Zainudin, 2022; Lopez et al., 2019), or to engage the public in the purpose of cultural heritage conservation and dissemination (Kim et al., 2019). Thus, social media postings are cultural heritage related newspaper content (Longhi-Heredia, 2022), museum promotion (Su et al., 2019), cultural heritage tourism place promotion (Aldhanhani & Zainudin, 2022), cultural heritage knowledge (Gao & Lee, 2022), and the adopted methods are graphic information (Huang et al., 2022), digital cultural heritage information (Varriale et al., 2021), and textual information (Longhi-Heredia, 2022). Moreover, the five influencing factors interact with each other, and a change in one factor causes a change in the other factors, such as when the motivation for publishing information changes, the content and manner of publishing will also change (Han & Bae, 2022).

In addition, different influencing factors can impact the effectiveness of social media in cultural heritage education communication. For example, when the motivation for posting information on social media by official websites is to attract tourists to visit cultural heritage sites, but the content tweeted is customized, it is more effective than non-customized content (Su et al., 2019); if the method used is graphic content, it is more effective than text-only content (Huang et al., 2022).

4. Discussion

With the rapid development of digital technology, people can easily share, disseminate, and obtain information from the Internet. Social media platforms have become an essential platform for displaying cultural heritage. Moreover, social media have broken the limitations of geography and national boundaries so that people can easily carry out diversified cultural exchanges and understandings and make cultural heritage exchanges have the attributes of education, entertainment, and socialization. Specifically, by increasing the number of subjects of cultural heritage education and communication, social media enable groups of cultural heritage enthusiasts and individual users to participate in cultural heritage education and communication, which contributes to the formation and expansion of circle culture and provides network soil for cultural heritage education and communication. (Koukopoulos, 2017).

This study recognizes the potential and good prospects of combining social media with cultural heritage in the context of the information age. Through this study, we have found the links between social media and cultural heritage and recognized the positive impact of social media on cultural heritage in different application scenarios and modes. Moreover, we also found the shortcomings of the current social media for cultural heritage education and dissemination under the influence of the subject, motivation, purpose, content, and mode factors. That is, the combination of social media and

cultural heritage needs to be improved in educational perspectives, ignoring the influence of social media's cultural heritage and aesthetic nature on users of cultural heritage communication. In addition, researchers focus on exploring the sound effects of social media on the education and communication of cultural heritage and ignore the harmful effects of social media on the education and communication of cultural heritage, which makes the study one-sided and needs more rational thinking about social media.

Therefore, our research not only summarizes and categorizes the current studies on the relationship between social media and cultural heritage education and dissemination but also points out the shortcomings of the current research on the integration of social media and cultural heritage, which provides a better perspective and practical direction for this research. It also points out the shortcomings of the current combination of social media and cultural heritage, which provides a more complete research perspective and practical direction for this topic. More importantly, the application scenarios and modes of social media in cultural heritage education and communication summarized in this study are all feasible and can provide practitioners with an actionable collection that is convenient for them to choose or think about according to their situation. On an individual level, this study can facilitate the publication of effective content by cultural heritage communication enthusiasts in social media. In terms of countries, this study can help researchers in different countries to think about the relationship between social media and cultural heritage and thus promote the education and dissemination of their cultural heritage. (Re-summarized the concluding section, emphasizing the significance of this thesis, versus the importance of researching its field)

5. Limitations and Future Research

Because the literature review is limited to specific databases, the review does not include information on surveys and other studies of other primary and secondary databases. This narrows the scope of information that can be analyzed in the study to the largest and most valuable databases but may overlook potentially valuable data. The breadth of research and the number of databases will be increased in future studies.

For future research, this study lacks an all-encompassing study of social media communication on cultural heritage education but focuses on one aspect. Therefore, in future research, the positive effects brought about by social media will be studied along with the adverse effects brought about by social media, and a more reliable path for using social media for cultural heritage education communication will be derived from it. Moreover, the current research needs an educational perspective, so future research will analyze the educational aspects of social media in disseminating cultural heritage so that social media can also be effective in its educational function.

In addition, the development of information networks will inevitably bring about changes in social media, so studying social media and cultural heritage educational communication is not constant but a process of continuous exploration and improvement. Research on social media and cultural heritage education communication needs more scholars to continue to explore in-depth and keep adapting to the changes and requirements of the development of the times.

6. Conclusion

With the development of information networks, social media has changed from an interpersonal communication tool on the Internet to a source and diffusion platform for a large amount of content, and the communication properties of social media have been emphasized and become an essential platform for cultural heritage education dissemination.

Social media has expanded the scope of cultural heritage education and communication subjects to three types: official, cultural heritage enthusiasts' communities, and individual users. The dissemination of cultural heritage in social media is influenced by five factors: subject, motivation, purpose, content, and form, but regardless of the changes in the five factors, education is always present in disseminating cultural heritage in social media. However, the current research has not paid attention to the educational nature of social media communication of cultural heritage, nor has it paid attention to the adverse effects of social media on the educational communication of cultural heritage, which is a shortcoming of the relevant research. Future research should pay more attention to the educational aspects of social media communication of cultural heritage and the adverse effects of social media on the educational communication of cultural heritage to improve the relevant research.

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Authors contributions

Sample: Dr. AAA and Dr. BBB were responsible for study design and revising. Prof. CCC was responsible for data collection. Prof. DDD drafted the manuscript and Prof. CCC revised it. All authors read and approved the final manuscript. In this paragraph, also explain any special agreements concerning authorship, such as if authors contributed equally to the study.

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References

- Aldhanhani, H. M. O. R., & Zainudin, M. Z. (2022). Study on the Satisfaction Level of Heritage and Cultural Tourism Information Available in Media. *International Journal of Sustainable Construction Engineering and Technology*, 13(4), 244-253. <https://doi.org/10.30880/ijscet.2022.13.04.022>
- Aydoğdu, E. (2020). Social networking sites as a tool for conservation of cultural heritage: the case of eskihisar (stratoniceia), Turkey. *Kent Akademisi*, 13(2), 185-202. <https://dergipark.org.tr/en/pub/kent/issue/56363/680687>
- Benedetti, B., Abbondandolo, I., & Gaiani, M. (2021). The Origins of the Postgraduate Programs on Cultural Heritage Knowledge, Management, Conservation, and Communication in Italy: A Vision of the Past as Engine for the Next Future. *Heritage*, 4(4), 2691-2720. <https://doi.org/10.3390/heritage4040152>
- Blaschitz, E., Mayr, E., & Oppl, S. (2022). Too Low Motivation, Too High Authority? Digital Media Support for Co-Curation in Local Cultural Heritage Communities. *Multimodal Technologies and Interaction*, 6(5), 33. <https://doi.org/10.3390/mti6050033>
- Buhalis, D., & Karatay, N. (2022). Mixed Reality (MR) for generation Z in cultural heritage tourism towards metaverse. In *Information and Communication Technologies in Tourism 2022: Proceedings of the ENTER 2022 eTourism Conference, January 11–14, 2022* (pp. 16-27). Springer International Publishing. https://doi.org/10.1007/978-3-030-94751-4_2
- Chang, M., Yi, T., Hong, S., Yan Lai, P., Jun, J. Y., & Lee, J. H. (2022). Identifying Museum Visitors via Social Network Analysis of Instagram. *Journal on Computing and Cultural Heritage (JOCCH)*, 15(3), 1-19.

- <https://doi.org/10.1145/3505635>
- Cui, C., Zhao, Y., & Wang, L. (2021). Protection and dissemination of Chinese intangible cultural heritage based on digital games. *International Communication of Chinese Culture*, 8, 483-491. <https://doi.org/10.1007/s40636-021-00237-x>
- David Ocón, Ocón, D. (2021). Digitalising endangered cultural heritage in Southeast Asian cities: preserving or replacing?. *International Journal of Heritage Studies*, 27(10), 975-990. <https://doi.org/10.1080/13527258.2021.1883711>
- Dávila-Lorenzo, M., & Saladrigas-Medina, H. M. (2020). Public communication management model of heritage: a systemic alternative for the offices of the conservator and historian in Cuba. Proposal based on a case study I. *Revista Latina de Comunicación Social*, (77), 329-360. <https://doi.org/10.4185/RLCS-2020-1461>
- Fan, B., Li, Y., Zhang, R., & Fu, Q. (2020). Review on the technological development and application of UAV systems. *Chinese Journal of Electronics*, 29(2), 199-207. <https://doi.org/10.1049/cje.2019.12.006>
- Farahani, L. M., Motamed, B., & Ghadirinia, M. (2018). Investigating heritage sites through the lens of social media. *Journal of Architecture and Urbanism*, 42(2), 199-211. <https://doi.org/10.3846/jau.2018.7057>
- Galla, A. (Ed.). (2012). World Heritage: benefits beyond borders. *Cambridge University Press*. <https://doi.org/10.1017/CBO9781139567657>
- Geissinger, A., Laurell, C., Öberg, C., & Sandström, C. (2023). Social media analytics for innovation management research: A systematic literature review and future research agenda. *Technovation*, 123, 102712. <https://doi.org/10.1016/j.technovation.2023.102712>
- Grimaldi, S. S. L., Rosa, M. N. B., Loureiro, J. M. M., & Oliveira, B. F. D. (2020). The digital heritage and the liquid memories in the instagram show. *Perspectivas em Ciência da Informação*, 24, 51-77. <https://doi.org/10.1590/1981-5344/3340>
- Haenlein, M., & Kaplan, A. (2019). A brief history of artificial intelligence: On the past, present, and future of artificial intelligence. *California management review*, 61(4), 5-14. <https://doi.org/10.1177/0008125619864925>
- Han, J. H., & Bae, S. Y. (2022). Roles of authenticity and nostalgia in cultural heritage tourists' travel experience sharing behavior on social media. *Asia Pacific Journal of Tourism Research*, 27(4), 411-427. <https://doi.org/10.1080/10941665.2022.2075776>
- Huang, S. (2022, February). Intergenerational Alienation of Emoji Used in Social Contexts: A Case Study of the Wechat Platform Based on Goffman's Dramaturgical Theory. In *2021 International Conference on Education, Language and Art (ICELA 2021)* (pp. 668-674). Atlantis Press. <https://doi.org/10.2991/assehr.k.220131.123>
- Huang, Z., Weng, L., & Bao, J. (2022). How do visitors respond to sustainable tourism interpretations? A further investigation into content and media format. *Tourism Management*, 92, 104535. <https://doi.org/10.1016/j.tourman.2022.104535>
- Kai Gao, & Dong-Yeop, L. (2022). A Study on the Suitability of Cultural Heritage Education Using Metaverse: Focused on Focus Group Interview. *Journal of Korea Game Society*, 22(3), 13-22. <https://doi.org/10.7583/JKGS.2022.22.3.13>
- Kamba, M. A., & Buba, A. A. (2022) The Use of Social Media for the Dissemination of Cultural Heritage in North-East Nigeria. Emerging Trend and Technologies LIS Education During the Covid-19 Era Chapter: Chapter 20 Publisher: Ijaoye Printing & Comm. Ent. Ilorin.
- Kelpšienė, I. (2021). Participatory heritage: a multiple-case study of Lithuanian grassroots cultural heritage communities on Facebook (Doctoral dissertation, Vilniaus Universitetas). <https://epublications.vu.lt/object/elaba:104787764/>
- Kidd, J., McAvoy, E. N., & Ostrowska, A. (2022). Negotiating hybridity, inequality, and hyper-visibility: museums and galleries' social media response to the COVID-19 pandemic. *Cultural Trends*, 1-18. <https://doi.org/10.1080/09548963.2022.2122701>
- Kim, H., & Yu, J. (2018). Personalized Heritage Museum Guide for Married Immigrant Women. In *Digital Heritage. Progress in Cultural Heritage: Documentation, Preservation, and Protection: 7th International Conference, EuroMed 2018, Nicosia, Cyprus, October 29–November 3, 2018, Proceedings, Part I 7* (pp. 224-235). Springer International Publishing. https://doi.org/10.1007/978-3-030-01762-0_19
- Kim, S., Im, D. U., Lee, J., & Choi, H. (2019). Utility of digital technologies for the sustainability of intangible cultural heritage (ICH) in Korea. *Sustainability*, 11(21), 6117. <https://doi.org/10.3390/su11216117>
- Koukopoulos, Z., Koukopoulos, D., & Jung, J. J. (2017). A trustworthy multimedia participatory platform for cultural heritage management in smart city environments. *Multimedia Tools and Applications*, 76, 25943-25981.

<https://doi.org/10.1007/s11042-017-4785-8>

- Labadi, S., Giliberto, F., Rosetti, I., Shetabi, L., & Yildirim, E. (2021). Heritage and the sustainable development goals: Policy guidance for heritage and development actors. *International Journal of Heritage Studies*. <https://kar.kent.ac.uk/89231/T>
- Langevang, T., Resario, R., Alacovska, A., Steedman, R., Amenuke, D. A., Adjei, S. K., & Kilu, R. H. (2022). Care in creative work: exploring the ethics and aesthetics of care through arts-based methods. *Cultural Trends*, 31(5), 448-469. <https://doi.org/10.1080/09548963.2021.2016351>
- Leung, D., Law, R., Van Hoof, H., & Buhalis, D. (2013). Social media in tourism and hospitality: A literature review. *Journal of travel & tourism marketing*, 30(1-2), 3-22. <https://doi.org/10.1080/10548408.2013.750919>
- Li, C., & Kent, M. L. (2021). Explorations on mediated communication and beyond: Toward a theory of social media. *Public Relations Review*, 47(5), 102112. <https://doi.org/10.1016/j.pubrev.2021.102112>
- Longhi-Heredia, S. A. (2022). Cultural Press in Spain. *The uses of Cultural Heritage. doxa. comunicación*, 1(35).
- Lopez, L., Antelo, M. D. L. Á. P., & Gusman, I. (2019). The Portuguese Coastal Way and Maritime Heritage: *An Outstanding Debt with the New Technologies*. In *New Metropolitan Perspectives: Local Knowledge and Innovation Dynamics Towards Territory Attractiveness Through the Implementation of Horizon/E2020/Agenda2030*—Volume 1 (pp. 165-172). https://doi.org/10.1007/978-3-319-92099-3_20
- Martin, F. (2020). Iphones and “African gangs”: Everyday racism and ethno-transnational media in Melbourne’s Chinese student world. *Ethnic and Racial Studies*, 43(5), 892-910. <https://doi.org/10.1080/01419870.2018.1560110>
- Monti, L., Delnevo, G., Mirri, S., Salomoni, P., & Callegati, F. (2018). Digital invasions within cultural heritage: Social media and crowdsourcing. In *Smart Objects and Technologies for Social Good: Third International Conference, GOODTECHS 2017, Pisa, Italy, November 29-30, 2017, Proceedings 3* (pp. 102-111). Springer International Publishing. https://doi.org/10.1007/978-3-319-76111-4_11
- Myna, Z., Banakh, V., Nahirnyak, A., & Iavich, M. (2020). Analysis of the Essence of Social Networks as a Tool for Mediatization of the Historical and Cultural Heritage of Museums. In COAPSN (pp. 199-213). <https://ceur-ws.org/Vol-2616/paper17.pdf>
- Özdemir, D. (2022). A Conceptual Framework on the Relationship of Digital Technology and Art. *International Journal on Social & Education Sciences (IJonSES)*, 4(1). <https://doi.org/10.46328/ijonSES.313>
- Pu, J., & Kim, H. G. (2022). Analysis on the Research Hotspot and Development Trends of Cultural Heritage Digitalization—An Analysis Based on CiteSpace Visual Map. 28(1), 161-171. <https://doi.org/10.18208/ksdc.2022.28.1.161>
- Qiu, Q., & Zhang, M. (2021). Using content analysis to probe the cognitive image of intangible cultural heritage tourism: An exploration of Chinese social media. *ISPRS International Journal of Geo-Information*, 10(4), 240. <https://doi.org/10.3390/ijgi10040240>
- Romagnoli, M. (2019). Gastronomic heritage elements at UNESCO: Problems, reflections on and interpretations of a new heritage category. *International Journal of Intangible Heritage*, 14, 158-171.
- Roszczyńska-Kurasińska, M., Domaradzka, A., Ślosarski, B., & Żbikowska, A. (2021). Facebook data as part of cultural heritage investments toolbox: Pilot analysis of users interests and preferences concerning adaptive reuse. *Sustainability*, 13(4), 2410. <https://doi.org/10.3390/su13042410>
- Ruggiero, P., Lombardi, R., & Russo, S. (2022). Museum anchors and social media: possible nexus and future development. *Current Issues in Tourism*, 25(18), 3009-3026. <https://doi.org/10.1080/13683500.2021.1932768>
- Samaroudi, M., Echavarria, K. R., & Perry, L. (2020). Heritage in lockdown: digital provision of memory institutions in the UK and US of America during the COVID-19 pandemic. *Museum Management and Curatorship*, 35(4), 337-361. <https://doi.org/10.1080/09647775.2020.1810483>
- Singh, T., Roberts, K., Cohen, T., Cobb, N., Wang, J., Fujimoto, K., & Myneni, S. (2020). Social Media as a Research Tool (SMaaRT) for risky behavior analytics: methodological review. *JMIR public health and surveillance*, 6(4), e21660. <https://doi.org/10.2196/21660>
- Skublewska-Paszkowska, M., Milosz, M., Powroznik, P., & Lukasik, E. (2022). 3D technologies for intangible cultural heritage preservation—literature review for selected databases. *Heritage Science*, 10(1), 1-24. <https://doi.org/10.1186/s40494-021-00633-x>
- Slim, H., & Hafedh, M. (2019). Social media impact on language learning for specific purposes: A study in English for

- business administration. *Teaching english with technology*, 19(1), 56-71. <https://www.cceol.com/search/article-detail?id=737372>
- Su, X., Sperli, G., Moscato, V., Picariello, A., Esposito, C., & Choi, C. (2019). An edge intelligence empowered recommender system enabling cultural heritage applications. *IEEE Transactions on Industrial Informatics*, 15(7), 4266-4275. <https://doi.org/10.1109/TII.2019.2908056>
- Unesco, I. (2020). Basic texts of the 2003 convention for the safeguarding of the intangible cultural heritage. <http://culturainmaterial.es/id/eprint/38>
- van der Hoeven, A. (2020). Valuing urban heritage through participatory heritage websites: Citizen perceptions of historic urban landscapes. *Space and Culture*, 23(2), 129-148. <https://doi.org/10.1177/1206331218797038>
- Varriale, L., Volpe, T., & Noviello, V. (2021). Enhancing cultural heritage at the time of the COVID-19 outbreak: An overview of the ICT strategies adopted by museums in the Campania Region of Italy. *Tourism Destination Management in a Post-Pandemic Context*, 201-218. <https://doi.org/10.1108/978-1-80071-511-020211014>
- Verboord, M., & Nørgaard Kristensen, N. (2021). EU cultural policy and audience perspectives: how cultural value orientations are related to media usage and country context. *International Journal of Cultural Policy*, 27(4), 528-543. <https://doi.org/10.1080/10286632.2020.1811253>
- Wu, J., Ju, L. H., Lin, P. H., & Lyu, Y. (2022). The Relationship between Form and Ritual in Cultural Sustainability. *Sustainability*, 14(15), 9157. <https://doi.org/10.3390/su14159157>
- Zollo, L., Rialti, R., Marrucci, A., & Ciappei, C. (2022). How do museums foster loyalty in tech-savvy visitors? The role of social media and digital experience. *Current Issues in Tourism*, 25(18), 2991-3008. <https://doi.org/10.1080/13683500.2021.1896487>