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NATIONAL STRATEGIES FOR DIGITALIZATION OF CULTURAL HERITAGE IN SOUTH KOREA: AN ANALYSIS OF EXTERNAL FACTORS

Abstract. The article examines external factors influencing the digitalization of cultural heritage in South Korea using the PEST analysis model (political, economic, social and technological aspects). The study is based on the analysis of scientific literature, official documents, as well as programs and initiatives implemented by government and cultural institutions. The scientific novelty of the work lies in a comprehensive assessment of the digitalization of cultural heritage in the national context using the PEST approach, which allows for a systematic understanding of the influence of the external environment on the development of this area. The study found that the main conditions for successful digitalization are government support, economic stability, a high level of digital literacy and the active implementation of virtual and augmented reality technologies, as well as artificial intelligence. The practical significance of the work lies in the formulation of recommendations for developers of digital projects, as well as for the formation of effective public policy in the field of digitalization of cultural heritage. In conclusion, the need to coordinate the efforts of various sectors of society to create a sustainable digital ecosystem in the field of culture is emphasized.

Key words: digitalization of cultural heritage, PEST analysis, South Korea, cultural policy

Introduction

In the period of development of digital technologies, issues of preservation and dissemination of cultural heritage are becoming especially relevant. Digitalization allows for long-term storage and accessibility of artifacts, and the creation of new forms of interaction with cultural content. Such processes are developing especially actively in countries with a high level of digital infrastructure and government support, such as South Korea.

In the academic community, the issues raised by the digitalization of cultural heritage are growing every year. Scholars around the world discuss topics such as new challenges and complexities of the processes of digitalization of cultural objects. For example, Merindo-Aranda et al. (2021) support the idea of the protection of historical objects, linking tangible and intangible values. They also positively note the importance of cultural diversity in the World Heritage process to determine the future direction based on past foundations. At the same time, the solution to many emerging problems lies in the conservation and preservation process, which should be ensured through community participation, the involvement of local labor and the use of a hybrid combination of traditional and modern methods. According to Maraieva (2022), technologies serve as tools, and information plays a synergistic role that links people, society, nature, and technology. In this proposed framework, technological advances are not simply isolated developments, but integral components that interact harmoniously with information to create symbiotic relationships between individuals, communities, the environment (Maraieva, 2022). Thus, technology and information within this framework seeks to promote a holistic approach to progress, emphasizing the interconnectedness and interdependence of various elements in the current evolving societal and scientific landscape. International experience provides valuable insights into the normative clarification of the concept of cultural heritage, especially in the sphere of global intellectual

discourse. This clarification is closely intertwined with conceptual generalizations found in scientific disciplines in the humanities (Marsili, Orlandi, 2020; Synowiec, 2021).

Growing research interest in the complex nuances of cultural heritage has not only stimulated a significant expansion of cognitive and axiological dimensions, but also increased the urgent need for constructive answers to fundamental questions. These critical studies delve into identifying elements to be preserved and methodologies for selecting cultural values worthy of protection. Diverse approaches to understanding the essence of cultural heritage contribute to the construction of a nuanced and multifaceted image of this concept (Shevchenko, 2020).

The rapid advancement of digital technologies has fundamentally reshaped the landscape of cultural heritage preservation, transforming both how cultural assets are conserved and how they are communicated to diverse audiences. In South Korea, national strategies for the digitalization of cultural heritage have evolved in response to external drivers such as global digitization trends, technological innovation, and increased public demand for accessible heritage experiences (Khan, Shafi, Ahangar, 2018; Synowiec, 2021). These strategies aim to bridge the gap between tradition and modernity, facilitating wider participation in heritage stewardship and ensuring that the multifaceted nature of Korean culture is effectively represented in the digital domain. Digital platforms and storytelling approaches not only enhance the dissemination of heritage values but also enable the integration of intangible cultural elements into interactive and immersive experiences, as demonstrated in initiatives like virtual reconstructions of heritage sites (Shim et al., 2024; Lee et al., 2024). Furthermore, the involvement of various stakeholders – ranging from government bodies and cultural institutions to the general public – has necessitated adaptive policies that foster the collaborative production and management of cultural knowledge, highlighting the significance of external socio-technical factors in shaping South Korea's heritage digitalization agenda.

Despite the many opportunities, the digitalization of cultural heritage faces a number of challenges. These challenges are related to both technological and organizational, legal and socio-economic aspects. There is a need to understand which external conditions facilitate the effective implementation of digital projects and which may hinder it. In this context, a systems approach to the analysis of the external environment takes on special significance.

The object of this study is the process of digitalization of cultural heritage in South Korea. The subject of the study is external factors influencing the implementation of digital cultural projects in this country. The purpose of the study is to analyze the political, economic, social and technological conditions that determine the development of digitalization of cultural heritage in South Korea. To achieve this goal, the following tasks are solved in the work:

1. To analyze key public and private initiatives in the field of digitalization of cultural heritage.
2. To identify political, economic, social and technological factors influencing the implementation of digital projects.
3. To assess the impact of these factors on the effectiveness of digital initiatives.
4. To formulate practical recommendations for participants in cultural and digital policy.

The methodological basis of the study is the PEST analysis model, which allows studying the external environment in a comprehensive manner and taking into account the interaction of various macro-level factors. The scientific novelty of the work lies in the application of this model to the context of digitalization of the cultural heritage of South Korea, which allows us to take a fresh look at the conditions for the development of this sphere. The practical significance of the study is that the findings and recommendations obtained can be used by cultural organizations and private initiatives in planning and implementing digital projects. In addition, the results can serve as a basis for developing strategies for the sustainable development of digital transformation in the cultural sphere.

Research Materials and Methods

The study focuses on official documents, government projects, and strategies aimed at supporting the digitalization of the cultural sphere, as well as reports and statistics on the introduction of technologies into cultural processes. At the same time, scientific articles on the impact of digital technologies on cultural changes are considered.

The PEST analysis method is used to analyze the collected data and study the influence of external factors on the process of digitalization of cultural heritage in South Korea. This method helps to study the political, economic, social, and technological aspects that influence the implementation of the digitalization policy of cultural projects. PEST analysis allows not only to assess the current situation of cultural projects, but also to identify important factors and difficulties for its successful development (Tanya, David, 2015).

The stages of the study include several key phases. The preparatory stage includes the collection and study of data, regulations, and government strategies related to the digitalization of cultural heritage in South Korea. The analytical stage includes the analysis of literature and data by categories: political, economic, social, and technological influence. The final stage involves the presentation of results and conclusions on the further development of digitalization of cultural heritage.

Results

An analysis of the context of digitalization of cultural heritage in South Korea using the PEST model (political, economic, social and technological factors) revealed a set of external conditions that contribute to the successful implementation of projects in this area (Table 1.).

Table 1. PEST - Analysis on the Digitalization of Cultural Heritage in South Korea

Factor	Description	Impact on the project	Possible recommendations
Political (P)	<ul style="list-style-type: none"> - Support the digitalization of cultural heritage from the South Korean government. - Legislative initiatives aimed at protecting cultural content and copyrights. 	<ul style="list-style-type: none"> - Positive impact: support from the state and legislation helps the implementation of projects. 	<ul style="list-style-type: none"> - Strengthen cooperation with government agencies to ensure sustainable funding and data protection.
Economic (E)	<ul style="list-style-type: none"> - Economic stability of the country. - Financing of cultural initiatives and grants for digital projects. 	<ul style="list-style-type: none"> - Positive impact: the availability of funding and a stable economy facilitates the development of projects. 	<ul style="list-style-type: none"> - Continue to attract private investment and support economic infrastructure for the sustainability of projects.
Social (S)	<ul style="list-style-type: none"> - Growing interest in digital cultural platforms among the population. - Availability of the Internet and technology in the country. 	<ul style="list-style-type: none"> - Positive impact: high public perception of digitalization and high digital literacy of the population. 	<ul style="list-style-type: none"> - Develop educational programs on digital literacy and improving access to cultural content.
Technological (T)	<ul style="list-style-type: none"> - Rapid development of technologies in the field of virtual reality and artificial intelligence. - Availability of new platforms and methods for digitalization of cultural heritage. 	<ul style="list-style-type: none"> - Positive impact: new technologies offer opportunities to improve the quality and accessibility of digital archives. 	<ul style="list-style-type: none"> - Implement new technologies such as VR (virtual reality) and AI (artificial intelligence) to increase the interactivity and accessibility of cultural sites.

Political factors (P). State support is provided through specialized digitalization programs and legislative initiatives aimed at protecting cultural content. These measures have a positive impact on projects: the presence of a regulatory framework and institutional support significantly simplifies the implementation of digital initiatives. The Ministry of Culture, Sports and Tourism, Cultural

Heritage Administration (CHA), Korea Creative Content Agency (KOCCA), etc. are actively involved in the implementation of the policy of such projects. Thus, interaction with government agencies is a key condition for the sustainability of projects, especially in terms of financing and legal regulation.

Economic factors (E). The country's economic stability and rational financing, which includes government grants and private investment, influence the development of digital projects. These resources make it possible to implement both large-scale and local initiatives in the field of digitalization. In a broader context, the use of digital technologies can provide economic benefits to local communities by promoting their cultural heritage and attracting virtual visitors. This can lead to job creation and sustainable development, especially in regions where physical tourism is limited. (Poulopoulos, Wallace, 2022). For sustainable growth, it is recommended to expand partnerships with the private sector and strengthen economic infrastructure in related industries.

Social factors (S). The high level of public interest in digital cultural platforms and the widespread use of the Internet create a favorable environment for the perception of digital content. Mandujano (2020) added that tourism with a constant flow of visitors can have a significant number of valuable economic impacts on the visitor destination. Therefore, it is essential for cultural heritage sites to ensure sustainable tourism development. In addition, a high level of digital literacy contributes to the active involvement of citizens in the processes of consumption and creation of digital cultural heritage. In this context, the development of educational programs on digital literacy and improving access to digital resources becomes a priority.

Technological factors (T). Rapid advances in virtual reality (VR), artificial intelligence (AI) and digital platforms open up new possibilities for a more in-depth and interactive presentation of cultural heritage. The use of these technologies improves the quality and accessibility of digital archives, as well as user engagement. It is recommended to actively implement modern technologies to create innovative formats for presenting cultural content.

Discussions

National cultural heritage digitalization initiatives in South Korea play a critical role in both preserving the country's unique cultural assets and enhancing their global visibility. Key efforts such as the National Digital Heritage Project aim to make UNESCO World Heritage sites accessible to a global audience, thereby promoting international cultural recognition and dialogue (Kim, Pu, 2020). These initiatives rely on new technologies to ensure the effective preservation of heritage materials while facilitating cross-cultural exchange on a global scale. From a policy perspective, the framework for cultural heritage protection in South Korea was formally established with the enactment of the Cultural Property Protection Act in December 1961, which came into effect in January 1962 (Sang, 2022). This legislation marked a significant institutional commitment to heritage preservation and created the legal infrastructure necessary for subsequent digitalization policies. Government agencies such as the Cultural Heritage Administration (CHA), the Ministry of Culture, Sports and Tourism, and the Ministry of Science and ICT play a key role in developing and implementing the strategic framework. In particular, the CHA has outlined both short-term and long-term digital goals, including the integration of big data and artificial intelligence into heritage management systems by 2030 (Figure 1). These goals are part of a broader government agenda to strengthen Korea's soft power through culture and technology.

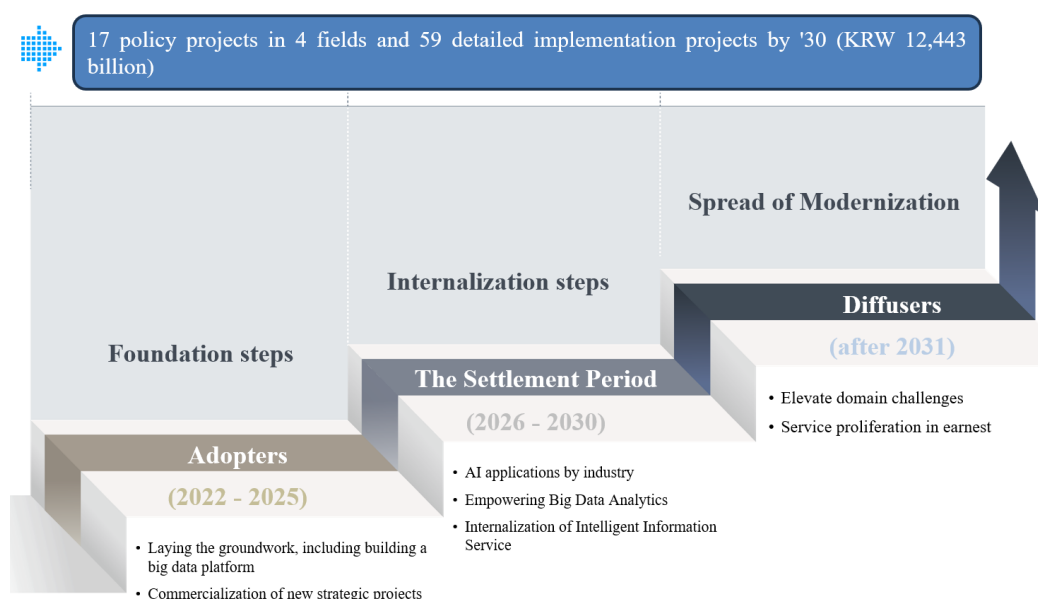


Figure 1. The short-term and long-term plan of a digital system
Source: Cultural Heritage Administration, 2021

In terms of economic factors, sustained government funding and investment in the cultural industries have played a vital role in the implementation of digital heritage projects. Agencies such as the Korea Creative Content Agency (KOCCA) and the Korea Cultural Heritage Foundation facilitate the financial and infrastructural support needed for digital innovation in the cultural sector. These investments reflect a broader national strategy that views digital heritage not only as a preservation effort but also as an opportunity for economic development through cultural tourism, content creation, and global branding. Public participation and educational activities play a central role in South Korea's digitalization strategy. Initiatives such as the "Year of Local Folklore" (2006) and the "Experience for Young People Majoring in Cultural Heritage" (2016) highlight the government's efforts to develop public awareness and participation, especially among young people (Han, 2010). Since 2021, collaboration between CHA and the Voluntary Agency Network of Korea (VANK) aims to internationalize Korean cultural narratives by engaging both local and international students. These programs recognize the importance of digital literacy and cultural identity in promoting a sustainable heritage ecosystem. In the field of technology, South Korea's digital strategy emphasizes innovation and long-term capacity building. CHA's roadmap includes the integration of digital tools such as virtual reality (VR), augmented reality (AR), and AI to enhance the preservation, interpretation, and dissemination of cultural content. Partnerships with private firms and international stakeholders are encouraged to ensure the scalability and interoperability of digital platforms. In addition, plans to establish training centers and develop professional programs aim to build human capital and ensure continuous adaptation to technological advances. An analysis of the digitalization of cultural heritage in South Korea has revealed significant achievements driven by consistent government policies and the active adoption of modern technologies. The Digital New Deal program, launched in 2020, has become a key tool for accelerating digital transformation, including in the cultural sphere. Within the framework of this initiative, projects on 3D scanning and virtual reconstruction of cultural objects are being implemented, which contributes to the preservation and popularization of national heritage (Oh, Bae, 2023).

Another important cultural institution is national museums, among which the National Museum of Korea plays a vital role in preserving and showcasing the country's rich history. In 2019, the museum allocated 10 billion won to create 13 virtual reality (VR) experiences and seven

projection maps related to cultural heritage. In addition, it created the K-Museum initiative, demonstrating growing interest in digital approaches to cultural assets. Since 2000, South Korea has led the way in digitizing its cultural history through various efforts, including the creation of high-quality digital archives, 3D reconstructions, and virtual museums. The programs in Table 2 show South Korea's significant progress in this area.

Table 2. Main Initiatives for the Digitalization of Cultural Heritage

№	Program period	Program	Organization	Program policy
1	Since 1996	“Korea Rare Materials Digitalization Projects”	National Library of Korea	Korean old and rare collection digitalization project <ul style="list-style-type: none"> The collected materials are available through the Korean Old and Rare Collection Information System (KORCIS)
2	September - November, 2000	“In the Breath of Seorabeol (now Gyeongju city)” VR Theater Exhibition	The Gyeongju World Culture Expo Foundation	The world's largest virtual reality (VR) theater; It provides 3D audio, vibration, and olfactory display <ul style="list-style-type: none"> Interactive storytelling that combines artistic expression and virtual heritage
3	2000	“National Museum of Korea Immersive Content”	National Museum of Korea	High-tech media galleries <ul style="list-style-type: none"> The collections allow visitors to engage with cultural heritage through engaging visual content.
4	2004	“Online Archiving & Searching Internet Sources (OASIS)”	The National Library of Korea	The digital materials collected primarily websites and web-based documents (research reports, publications, policy materials, and statistical reports) <ul style="list-style-type: none"> Accessible through the main website.
5	2007	“3D Scan of the Excavation Site of Manwoldae, the Koryo Royal Palace in Kaesong, North Korea”	National Research Institute of Cultural Heritage	15 pieces of major artifacts (convex roof tiles and plates) were replicated through 3D printing, and virtual reality simulation of the Manwoldae Palace site <ul style="list-style-type: none"> Visitors could explore the simulated space with the Head Mounted Display tools.
6	2008	“Hue Imperial City of Vietnam Digital Project”	Official Development Aid (ODA) 's first overseas digital project Korea CHA	The representative of the CHA handed over the digital film to the Hue Monuments Conservation Centre on June 7. <ul style="list-style-type: none"> With state-of-the-art technology provided by KAIST, the palace was digitally reconstructed to its original appearance.
7	2009-2010	“DB Basic Work/3D Image Development on the Woodblocks of the Tripitaka Koreana”	Cultural Heritage Administration	Construction of a database of materials related to the Tripitaka Koreana woodblocks and the restoration work of the woodblocks at Haeinsa Temple

8	September, 2019	“Three Innovation Strategies for the Content Industry”	Ministry of Culture, Sports and Tourism	Museum innovation • The National Museum of Korea’s newly-opened Immersive Digital Gallery
9	2020-2021	“Building a Hanyangdoseong time machine”	Korea Heritage Service	Restoring the 600-year history and culture of Hanyangdoseon (fortress wall) in virtual space.
10	2021	The World Heritage Media Art project	Cultural Heritage Administration	The project aims to use the latest technology to uncover new qualities in outdoor cultural heritage • Gochang Dolmen Site, Namgye Seowon Jeju Volcanic Island, and Lava Tubes will be transformed into media art.
11	2021	“Age of Light” project in Gwanghwamun (the main gate of Gyeongbokgung Palace)	Korea Creative Content Agency (KOCCA)	The aim was to create a content “Renaissance” in Korea through immersive content had VR, AR, AI, and holograms that incorporated 5G technology.
12	Since 2022	"Digital Homecoming" (unofficial title)	Overseas Cultural Heritage Foundation	Producing realistic digital content based upon data Interactive 3D content

Source: Lee, 2016; KHS, 2008; Park, 2021: 63; Kang, 2011; Lee, 2022; Amber, 2024

From a political and institutional perspective, these initiatives are closely aligned with national policy goals aimed at increasing Korea’s global cultural visibility. Projects such as the Mireuksa Temple Digitalization Project (1991) and In the Breath of Seorabeol (2000) serve as early examples of government-supported digital preservation, marking South Korea’s long-standing commitment to integrating heritage protection with cutting-edge innovation. These state-supported efforts signal a deliberate strategy to position Korea as a global leader in digital cultural policy. The economic dimension is evident in ongoing government investment and international cooperation. For example, the digital reconstruction of the Hue Imperial City (2008) in Vietnam was supported both diplomatically and financially through Korea’s Official Development Assistance (ODA), illustrating how cultural digitalization is used as a tool of cultural diplomacy and soft power (KHS, 2008). Leveraging the resources of cutting-edge research institutes such as KAIST further highlights the interrelationship between economic investment, scientific innovation, and cultural development. In addition, large-scale funding enables the development of immersive, multi-sensory museums that not only preserve heritage but also promote domestic tourism and the creative economy.

Socially, digital initiatives aim to democratize access to cultural heritage by engaging both domestic and international audiences. The World Heritage Media Arts project (2021), part of the Digital Accessibility Program, is an example of how digital technologies are being used to reach a wider public through outdoor exhibitions, digital walks, and festivals (Lee, 2022). These programs make cultural content accessible beyond traditional museums, engaging diverse audiences and encouraging public interaction with heritage. Projects such as Digital Homecoming aim to virtually repatriate Korean artifacts held in foreign institutions, reflecting strong public sentiment regarding heritage ownership and identity (Amber, 2024). A recent 2022 project to promote innovation in social economy, “Experience Cultural Heritage Education through Touch,” used 3D-printed models to improve the accessibility of cultural heritage for visually impaired people by helping them directly touch and appreciate the shape and texture of cultural heritage. (Oh, Bae, 2023) Such initiatives promote national pride and cultural continuity, especially among the younger generation.

On the technology front, South Korea is at the forefront of adopting cutting-edge solutions such as 3D reconstruction, VR, AR, and projection mapping. The Mireuksa Temple and Seorabeol projects pioneered the use of immersive technologies for cultural heritage in the early 1990s and 2000s, laying the foundation for subsequent innovations. Recent efforts include real-time applications and multi-sensory environments, reflecting an evolving digital infrastructure capable of producing globally competitive cultural content. The ongoing digitization of the National Library's archives, which began in 1996, and the development of 3D environments for interacting with artifacts further demonstrate the country's long-term digital preservation capability.

In summary, South Korea's national museums and cultural institutions are deeply engaged in a multidimensional strategy that integrates political will, economic investment, social engagement, and technological advancement. These efforts have made significant contributions to preserving cultural heritage and increasing its accessibility both locally and globally. However, ongoing challenges such as high costs, technical limitations, and data preservation risks need to be addressed. In the context of global uncertainties such as climate change and geopolitical instability, the digitalization of cultural heritage is becoming not only a strategic cultural project, but also a vital tool for preserving fragile cultural memory.

Conclusion

An analysis of external factors influencing the digitalization of cultural heritage in South Korea has shown that a key role is played by a consistent government policy, expressed in the presence of a regulatory framework, long-term strategies, and active support from relevant organizations (CHA, KOCCA, the Ministry of Science and ICT, etc.). Significant investments in digital technologies, including VR projects and international ODA programs, demonstrate that digitalization is viewed not only as a tool for preservation, but also as a resource for cultural diplomacy and economic growth. It is recommended to strengthen interdepartmental cooperation and continue to develop sustainable government policies that support digital innovation in culture.

At the social level, there is a high level of involvement of the population, especially young people and educational institutions, in digitalization projects. This contributes to the formation of cultural identity and expanded access to heritage through virtual museums, digital archives, and educational programs. Initiatives to return cultural values in digital format, as well as international cultural projects, play a special role. It is recommended to increase the participation of local communities in digital initiatives and integrate digital heritage into the education system at various levels. And technologically, South Korea demonstrates a high level of implementation of digital solutions: from 3D reconstructions to the use of artificial intelligence and immersive technologies. However, challenges remain related to technical limitations, risks of data loss, and the need for standardization of formats. It is recommended to invest in sustainable digital infrastructure, develop human resources, and form unified protocols for data storage and exchange to ensure the long-term availability and compatibility of digital heritage objects.

In conclusion, this analysis of South Korea's national strategies for the digitalization of cultural heritage reveals a nuanced and dynamic approach shaped by a range of external factors, including technological innovation, global digital trends, and evolving public expectations. The country's policies effectively leverage advancements in ICT and digital storytelling to safeguard and promote both tangible and intangible heritage, reinforcing cultural identity while expanding global outreach. Collaborative models that integrate public, private, and civic efforts, such as the formal coproduction of heritage information with antiquarian booksellers, demonstrate the value of participatory frameworks that enhance accessibility and public benefit. Moreover, the strategic use of diverse digital media platforms for marketing and communication encourages greater public engagement and the sustainability of heritage assets over time.

To maximize the impact and resilience of these initiatives, future strategies should prioritize the continued integration of digital media literacy programs, ensuring that communities can actively

participate in the creation and interpretation of digital heritage experiences. Policies should further promote cross-sector collaboration and the adoption of emerging technologies, such as advanced VR and value-based digital storytelling, to deepen user engagement and foster inclusive representations of national identity. Addressing challenges related to funding, long-term data management, and standardization remains essential for the sustainable preservation of digital cultural assets. By embracing these recommendations, South Korea can continue to position itself as a leader in the digital transformation of cultural heritage, setting international benchmarks for innovation, collaboration, and cultural sustainability.

References:

- Amber, 2024 - *Amber, R.* South Korea Holds a Cultural Heritage Digital Exhibition Powered by UE. // *80lv* (webzine), April 10. <https://80.lv/articles/south-korea-holds-a-cultural-heritage-digital-exhibition-powered-by-ue/> (Accessed February 02, 2025)
- Han, 2010 – *Han M. H.* The Year of Jeju Folklore Project Reviving the Cultural Heritage of Nature's Paradise. // *International Journal of Intangible Heritage*. 2010. №2. P. 118-121
- Kang, 2011 – *Kang S. N.* Digitization and Popularization of Printing Woodblocks of the Tripitaka Koreana and Miscellaneous Buddhist Scriptures, Memory of the World. // *Journal of Korean Biblia Society*. 2011. №1(22). P. 27-46
- Khan, Shafi, Ahangar, 2018 – *Khan N. A., Shafi S. M., Ahangar H.* Digitization of Cultural Heritage: Global Initiatives, Opportunities and Challenges // *Journal of Cases on Information Technology*. 2018. Vol. 20. P. 1–16.
- KHS (Korea Heritage Service). 2008 – Hue Imperial City Gaining a New Life, <https://english.khs.go.kr/cha/idx/SubIndex.do?mn=EN> (Accessed October 1, 2024)
- Kim, Pu, 2020 – *Kim H. G., Pu J.* A Study on the Protection of the Digitization of Sacheon Gongyo Ceramics. // *Journal of Korean Society of Design Culture*. 2020. № 4(26). P. 256-263
- Lee, 2022 – *Lee C. K.* World Heritage Media Art Enables Cultural Heritages Digitally Accessible. // *National Museum of Korea* (webzine), April. 2022. <https://webzine.museum.go.kr/eng/sub.html?amIdx=16006> (Accessed March 03, 2025)
- Lee, 2016 – *Lee J. S.* Digital reunification of dispersed collections: The National Library of Korea digitization project. // *IFLA WLIC 2016*. Columbus, OH. Connections. Collaboration. National Libraries. <https://library.ifla.org/id/eprint/1337/1/201-lee-en.pdf>
- Lee, Jung, Dieck et al., 2024 – *Lee J., Jung T., Dieck M. T. T., García-Milon A., Kim C.* Affordance, digital media literacy, and emotions in virtual cultural heritage tourism experiences // *Journal of Vacation Marketing*. 2024.
- Mandujano, 2020 – *Mandujano Rodríguez M. G.* Relationship between historic building information modeling and conventional valuation approaches for managing cultural heritage sites and its impact on tourism. // *Journal of Heritage Tourism*. 2020. №4(15). P. 381–397. <https://doi.org/10.1080/1743873X.2019.1655028>
- Maraieva, 2022 – *Maraieva U.* On the formation of a new information worldview of the future (literature review). // *Futurity Philosophy*. 2022. №1(1). P. 18-29. <https://doi.org/10.57125/FP.2022.03.30.02>
- Marsili, Orlandi, 2020 – *Marsili G., Orlandi, L. M.* Digital Humanities and Cultural Heritage Preservation. // *Studies in Digital Heritage*. 2020. №2(3). P. 144-155. <https://doi.org/10.14434/sdh.v3i2.27721>
- Merino-Aranda, Castillejo-González, Velo-Gala, Montes-Tubío, Mesas-Carrascosa, Triviño-Tarradas, 2021 - *Merino-Aranda A., Castillejo-González I.L., Velo-Gala A., Montes-Tubío F.D.P., Mesas-Carrascosa F.J., Triviño-Tarradas P.* Strengthening efforts to protect and safeguard the industrial cultural heritage in montilla-moriles (Pdo). characterisation of historic wineries. // *Sustainability*. 2021. №13. P. 5791. [CrossRef]

Oh, Bae, 2023 – *Oh J., Bae M. J.* Production of digital content (3D asset) source resources for cultural heritage // *Int. Arch. Photogramm. Remote Sens. Spatial Inf. Sci.*, XLVIII-M-2-2023. 1141–1147

Park, 2021 – *Park J. H.* A study on the types of Digital Heritage – Focusing on the Seokguram cultural heritage sit. PhD diss., Sangmyung University, Seoul

Poulopoulos, Wallace, 2022 – *Poulopoulos V, Wallace M.* Digital technologies and the role of data in cultural heritage: the past, the present, and the future. // *Big Data Cogn Comput.* 2022. №3(6) <https://doi.org/10.3390/bdcc6030073>.

Tanya, David, 2015 – *Tanya S. B., David G.* PEST Analysis. // *Wiley Encyclopedia of Management.* 2015. №1. <https://doi.org/10.1002/9781118785317.weom120113>.

Sang, 2022 – *Sang, W. H.* Korean Cultural Heritage Protection System beyond Hidden Agenda: A Case Study of Institutional Strategies and Practical Actions. // *Baltic Journal of Law and Politics.* 2022. №3(15). P. 2108-2122

Shevchenko, 2020 – *Shevchenko M. O.* European Union experience in digitizing historical and cultural heritage: ways of implementation in Ukraine. // *Science and Education a New Dimension.* 2020. P. 41-45. <https://doi.org/10.31174/send-pp2020.227viii91-09>

Shim, Oh, O'Malley et al., 2024 – *Shim H., Oh K. T., O'Malley C., Jun J. Y., Shi C.* Heritage values, digital storytelling, and heritage communication: the exploration of cultural heritage sites in virtual environments // *Digital Creativity.* 2024. Vol. 35. P. 171–197.

Synowiec, 2021 – *Synowiec A.* Historical and cultural heritage in the development of local communities in peripheral areas in Western Ukraine. // *Scientific Papers of Silesian University of Technology Organization and Management Series.* 2021. <https://doi.org/10.29119/16413466.2021.151.46>

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ОҢТҮСТІК КОРЕЯДАҒЫ МӘДЕНИ МҰРАЛАРДЫ ЦИФРЛАНДЫРУДЫҢ ҰЛТТЫҚ СТРАТЕГИЯЛАРЫ: СЫРТҚЫ ФАКТОРЛАРДЫ ТАЛДАУ

Аңдатпа. Бұл мақалада PEST (саяси, экономикалық, әлеуметтік және технологиялық аспектілер) талдау үлгісін қолдану арқылы Оңтүстік Кореядағы мәдени мұраны цифрландыруға әсер ететін сыртқы факторлар қарастырылады. Зерттеу ғылыми әдебиеттерді, ресми құжаттарды, сондай-ақ мемлекеттік және мәдениет мекемелері жүзеге асыратын бағдарламалар мен бастамаларды талдауға негізделген. Жұмыстың ғылыми жаңалығы сыртқы ортаның осы саланың дамуына әсерін жүйелі түрде түсінуге мүмкіндік беретін PEST тәсілін пайдалана отырып, ұлттық контексте мәдени мұраны цифрландыруды кешенді бағалауда. Зерттеу табысты цифрландырудың негізгі шарттары мемлекеттік қолдау, экономикалық тұрақтылық, цифрлық сауаттылықтың жоғары деңгейі және виртуалды және толықтырылған шындық технологияларын, сондай-ақ жасанды интеллектті белсенді енгізу болып табылатыны анықталды. Жұмыстың практикалық маңыздылығы цифрлық жобаларды әзірлеушілерге, сондай-ақ мәдени мұраны цифрландыру саласындағы тиімді мемлекеттік саясатты қалыптастыруға арналған ұсынымдарды қалыптастыруда. Қорытындылай келе, мәдени салада тұрақты цифрлық экожүйені құру үшін қоғамның әртүрлі секторларының күш-жігерін үйлестіру қажеттілігі атап өтілді.

Кілт сөздер: мәдени мұраны цифрландыру, PEST талдауы, Оңтүстік Корея, мәдени саясат

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НАЦИОНАЛЬНЫЕ СТРАТЕГИИ ОЦИФРОВКИ КУЛЬТУРНОГО НАСЛЕДИЯ В ЮЖНОЙ КОРЕЕ: АНАЛИЗ ВНЕШНИХ ФАКТОРОВ

Аннотация. В статье рассматриваются внешние факторы, влияющие на цифровизацию культурного наследия в Южной Корее с использованием модели анализа PEST (политические, экономические, социальные и технологические аспекты). Исследование основано на анализе научной литературы, официальных документов, а также программ и инициатив, реализуемых государственными и культурными учреждениями. Научная новизна работы заключается в комплексной оценке цифровизации культурного наследия в национальном контексте с использованием подхода PEST, который позволяет системно понять влияние внешней среды на развитие данной сферы. В ходе исследования установлено, что основными условиями успешной цифровизации являются государственная поддержка, экономическая стабильность, высокий уровень цифровой грамотности и активное внедрение технологий виртуальной и дополненной реальности, а также искусственного интеллекта. Практическая значимость работы заключается в формулировании рекомендаций для разработчиков цифровых проектов, а также для формирования эффективной государственной политики в области цифровизации культурного наследия. В заключение подчеркивается необходимость координации усилий различных секторов общества для создания устойчивой цифровой экосистемы в сфере культуры.

Ключевые слова: цифровизация культурного наследия, PEST-анализ, Южная Корея, культурная политика

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