The Eastasouth Journal of Social Science and Humanities
Vol. 1, No. 02, February 2024, pp. 58 – 67
ISSN: 3026-5592, DOI: 10.58812/esssh.v1i02

Bibliometric Study on the Influence of Digital Technology in the Field of Arts and Culture

Eri Mardiani[1], Arief Yanto Rukmana[2], Poetri AL-Viany Maqfirah[3], Patriandi Nuswantoro[4], Sabalius Uhai[5]
[1] Universitas Nasional
[2] Universitas Pendidikan Indonesia
[3] UIN Syarif Hidayatullah Jakarta
[4] Universitas Gajah Putih
[5] Politeknik Negeri Samarinda

Article Info

Article history:

Received Feb, 2024
Revised Feb, 2024
Accepted Feb, 2024

Keywords:

Arts
Bibliometric analysis
Culture
Digital technology

ABSTRACT

This bibliometric study delves into the impact of digital technology on the field of arts and culture through a systematic examination of scholarly literature. By employing bibliometric methodologies, the research identifies key themes, trends, and gaps in existing research, shedding light on the multifaceted influence of digital innovation in artistic creation, distribution, preservation, education, and industry dynamics. Through data collection, extraction, and analysis, the study reveals evolving research patterns over time and offers insights into potential avenues for future inquiry. The findings contribute to a deeper understanding of the dynamic relationship between technology and cultural expression, informing decision-making and inspiring innovative practices in the digital age.

Corresponding Author:

Name: Eri Mardiani
Institution: Universitas Nasional
Email: erimardiani1@gmail.com

1. INTRODUCTION

The rapid evolution of digital technology has ushered in an era of unprecedented accessibility and connectivity, fundamentally reshaping how individuals interact with art and culture [1]–[4]. From virtual exhibitions to digital archives, the spectrum of possibilities enabled by technology continues to expand, prompting scholars and practitioners alike to explore its multifaceted impacts [5]. However, despite the growing body of literature on this subject, there remains a gap in synthesizing and analyzing the existing research comprehensively [6]–[8].

The fusion of digital technology with the arts and culture has fundamentally altered the creation, distribution, and consumption of cultural artifacts [9], [10]. From the advent of digital art forms to the proliferation of online platforms for cultural exchange, the landscape of artistic expression has undergone a profound transformation [11]–[13]. Digital tools have not only democratized access to the arts but have also facilitated new modes of collaboration, experimentation, and audience participation [14], [15].

Moreover, the digitization of cultural heritage has revolutionized preservation efforts, enabling unprecedented access to historical artifacts and artworks while

simultaneously raising questions about authenticity, ownership, and the ethics of digital representation [16]. The emergence of virtual reality (VR) and augmented reality (AR) technologies has further blurred the boundaries between physical and digital realms, offering immersive experiences that redefine traditional notions of space and time within artistic practice [17]. Simultaneously, the influence of digital technology extends beyond the creation and dissemination of art to encompass cultural industries such as film, music, literature, and gaming [18]. The rise of digital platforms for content distribution has disrupted traditional modes of cultural production and consumption, challenging existing business models and reshaping audience engagement strategies [19].

Amidst these transformative shifts, scholars and practitioners have sought to unpack the implications of digital technology for arts and culture, examining its impact on artistic aesthetics, cultural identity, social dynamics, and economic structures. However, the rapid pace of technological innovation and the interdisciplinary nature of this inquiry pose challenges for synthesizing and comprehensively analyzing the existing body of research.

Within this context, the research problem arises: How has digital technology influenced the field of arts and culture, and what are the key trends, patterns, and gaps in existing scholarly discourse? Addressing this question requires a systematic examination of the academic literature, employing bibliometric methodologies to identify seminal works, emerging themes, and areas ripe for further exploration.

The primary objective of this study is to conduct a bibliometric analysis of the influence of digital technology in the field of arts and culture. Specifically, the research aims to:

1. Enumerate and arrange the primary concepts, themes, and supporting issues that have come up in Influence of Digital Technology on the Field of Arts and Culture.
2. Analyze how research patterns have evolved over time, accounting for shifts in methods, approaches, and collaboration across disciplines.
3. Evaluate the potential topics for further research in this field.

This research holds significant implications for academics, practitioners, policymakers, and cultural institutions alike. By providing a comprehensive overview of the scholarly landscape, it offers insights into the trajectory of digital technology's impact on arts and culture. Additionally, the identification of research gaps and emerging trends can inform future studies, guide policy decisions, and inspire innovative approaches to cultural production and preservation in the digital age. Ultimately, this study contributes to a deeper understanding of the dynamic relationship between technology and cultural expression, facilitating informed discourse and fostering creative exploration in the field.

2. LITERATURE REVIEW

Digital technology refers to the use of electronic devices, software, and networks to create, process, store, and share information [20], [21]. It has had a significant impact on the field of arts and culture, as demonstrated by various research studies [22]. The influence of digital technology on the field of arts and culture is significant and diverse. Research has shown that digital technology, such as 3D animation, has rapidly developed the animation art, expanding the creation field for animation art and providing broader creation space [23], [24]. Furthermore, the impact of NFT (Non-Fungible Tokens) on digital art and its significance for culture has been explored, highlighting the transformation of digital art under the influence of NFT and its implications for culture [25]. Additionally, a study investigated the influence of demographic characteristics, Internet use, computer knowledge, and technology self-efficacy on personal digital information management activities in the context of arts and design institutes, indicating that technology-related factors influenced the arts and design academic community's personal information management activities [26]–[28]. Moreover, educators' motivations for digital

and media literacy have been examined, revealing distinctive identity positions of teachers in terms of digital learning motivation profiles, which are influenced by their subject-area specialization [29], [30]. These findings collectively demonstrate the multifaceted influence of digital technology on the arts and culture, encompassing areas such as animation, digital art, personal information management, and digital and media literacy in educational contexts.

3. METHODS

3.1 Data Collections

The first step in this bibliometric study involves collecting relevant scholarly literature from reputable academic databases and repositories. The selection criteria for inclusion will encompass articles, conference papers, reviews, and other scholarly publications that address the influence of digital technology in the field of arts and culture. Keywords and search strings tailored to capture the interdisciplinary nature of the topic will be employed to ensure comprehensive coverage of the literature.

3.2 Data Extraction and Preprocessing

Upon compiling the initial dataset, a rigorous process of data extraction and preprocessing will be undertaken. This involves extracting metadata such as publication year, author affiliations, journal/conference details, keywords, and abstracts from each identified publication. Additionally, standardization techniques will be applied to ensure consistency in data formatting and terminology.

3.3 Bibliometric Analysis

The bibliometric analysis will be conducted using specialized software tool such as VOSviewer, which facilitate the visualization and quantitative analysis of bibliographic data [31].

3.4 Interpretation and Synthesis

The findings from the bibliometric analysis will be interpreted and synthesized to derive insights into the overarching trends, patterns, and gaps in the existing scholarly discourse. This will involve identifying key research clusters, emerging themes, interdisciplinary connections, and potential areas for further investigation. The synthesized findings will be presented through descriptive statistics, visualizations, and narrative summaries to facilitate comprehension and interpretation.

4. RESULT AND DISCUSSION

4.1 Research Data Metrics

Tabel 1. Metrik Data Penelitian

Metrics Data	Information
Publication years	1975-2024
Citation years	49
Papers	1000
Citations	7651
Cites/year	156.14
Cites/paper	7.65
Cites/author	5487.64
Papers/author	728.89
Authors/paper	1.87
h-index	39
g-index	78
hI,norm	35
hI,annual	0.71
hA, index	10

Sumber: *Output* Publish or Perish, 2024

The metrics data provided encompasses a dataset of 1000 papers spanning publication years from 1975 to 2024, with a total of 7651 citations received over 49 citation years. On average, each paper has garnered 7.65 citations, translating to a robust citation rate of 156.14 cites per year across the entire dataset. Authors have contributed to the corpus at an average rate of 1.87 authors per paper, with an impressive average of 728.89 papers per author. Notably,

the h-index, a measure of the productivity and impact of a researcher's work, stands at 39, indicating that 39 papers in the dataset have received at least 39 citations each. The g-index, another productivity metric, is higher at 78, suggesting that the top 78 papers collectively account for a significant portion of the total citations. Additionally, the hI,norm and hI,annual values reflect the normalized and annual h-indices, respectively, while the hA index is indicative of the cumulative impact of an author's publications. These metrics collectively offer insights into the productivity, impact, and influence of the scholarly literature on the topic of digital technology in arts and culture over the specified time period. The image shows a few distinct clusters:

4.2 Network Visualization Analysis

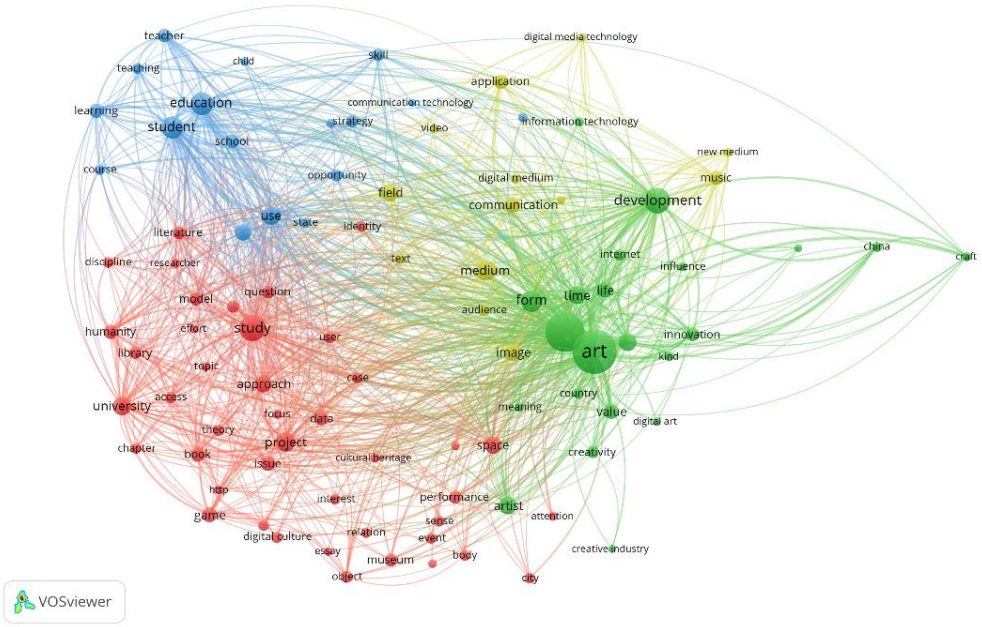

Figure 1. Network Visualization
Source: Data Analysis Result, 2024

Clusterization in this context refers to the grouping of terms that are closely related or frequently occur together. Each cluster is usually indicated by a different color and may represent a thematic concentration of research or a specific area of study within the broader field.

1. Green Cluster: This cluster has the term "art" at its center, with strong connections to terms like "form," "image," "audience," "life," "country," "value," "creativity," "digital art," and "innovation." It suggests a focus on the conceptual and practical aspects of art, particularly within the context of digital media and technology.
2. Red Cluster: The central term here is "study," and it is closely related to "university," "library," "data," "book," "theory," "approach," "project," and "cultural heritage." This cluster may represent scholarly research, educational methods, and the study of culture and heritage.
3. Blue Cluster: The core term in this cluster is "education," which is connected to "learning," "student," "teacher," "school," "literature," "course," and "teaching." This cluster evidently

pertains to educational processes, teaching methodologies, and learning practices.

4. Yellow Cluster: This one has "development" as a central node, linked to "communication," "digital medium," "information technology," "application," and "strategy." It indicates a focus on the development and application of technology in communication and media.

The size of the nodes (terms) indicates the weight or frequency of the term within the dataset, and the lines (edges) between them indicate the strength of the relationship. The largest and most central node in the network is "art," suggesting it is a key focus within the dataset, with strong connections to multiple clusters. This indicates that art is an interdisciplinary topic that connects with education, digital media, and development.

4.3 Overlay Visualization Analysis

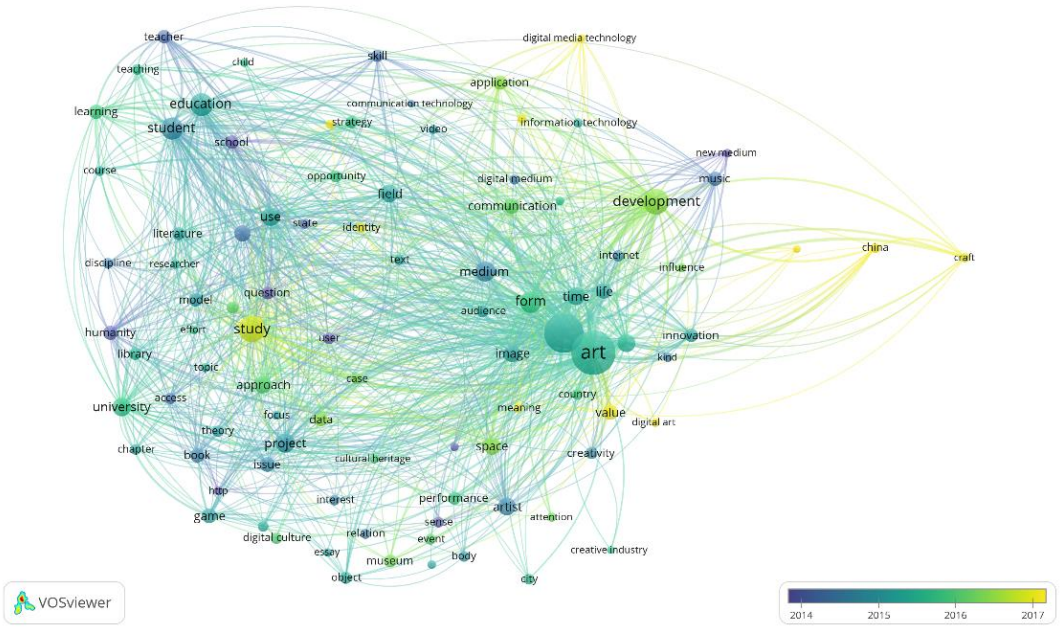

Figure 2. Overlay Visualization
Source: Data Analysis Result, 2024

The image shows a network visualization with an overlay of time, which is indicated by the color gradient at the bottom of the image, spanning from the year 2014 to 2017. This kind of visualization is often used to illustrate the evolution of research trends over time within the depicted network of terms.

1. Terms colored closer to the 2014 side of the gradient (likely blue) represent topics that were more prominent or received more focus in the literature around the year 2014.
2. Terms colored closer to the 2017 side of the gradient (likely yellow) indicate topics that have become more prominent or received increased attention in the literature around the year 2017.

From the image, we can deduce the following:

1. The core node, "art," is in a shade that appears to be in the middle of the gradient, suggesting that "art" as a topic has maintained a consistent presence throughout the observed time period.

2. If we observe other terms, we can identify which ones are shaded more closely to blue or yellow to understand their relative prominence at the beginning or end of the time period. For example, terms like "development" and "China" seem to be shaded closer to yellow, indicating they may have gained more emphasis in the literature around 2016-2017.
3. The transition of colors from one end of the spectrum to the other across different terms indicates the shifting focus or emerging trends in the field.

The general trend seems to suggest an increasing focus on the intersection of art with digital media, technology, and perhaps cultural influences (as indicated by the term "China"), as well as the development of new media and information technology in relation to art. This could reflect a growing interest in how technology is influencing art and culture, particularly in certain regions or contexts.

Table 2. Most Cited Documents

Citations	Author and Year	Title
556	L. Bowker, Dorothy Kenny, Jennifer Pearson	Interpreting
406	Steven K. Johnson	Interface Culture: How New Technology Transforms the Way We Create and Communicate
378	P. Jandrić, Jeremy Knox, Tina Besley, T. Ryberg, Juha Suoranta, Sarah Hayes	Postdigital science and education
292	Alan Liu	The Laws of Cool: Knowledge Work and the Culture of Information
247	U. Huws	Labor in the Global Digital Economy: The Cybertariat Comes of Age
215	L. Bresler	International handbook of research in arts education
212	De la Rosa-Carrillo, E. León	On the Language of Internet Memes
202	J. Olsson, L. Spigel	Television after TV : essays on a medium in transition
195	Neil Gershenfeld	MIT-Media Lab
192	Andrey Tsezarevich Masevich, Leonard Абрамович Ходоровский	Section “Electronic (digital) libraries” in the training course “Design of library and information systems” at the St. Petersburg State University of Culture and Arts

Source: *Output* Publish or Perish, 2024

The table presents a list of the most cited documents, along with their respective citation counts, as of 2024. At the top of the list is "Interpreting" by L. Bowker, Dorothy Kenny, and Jennifer Pearson, with 556 citations, followed by Steven K. Johnson's "Interface Culture: How New Technology Transforms the Way We Create and Communicate" with 406 citations. Other notable entries include "Postdigital science and education" by P. Jandrić et al., "The Laws of Cool: Knowledge Work and the Culture of Information" by Alan Liu, and "Labor in the Global Digital Economy: The Cybertariat Comes of Age" by U. Huws. The range of topics covered in the cited documents reflects the interdisciplinary nature of contemporary research,

encompassing fields such as digital culture, education, media studies, and information science.

4.4 Density Visualization Analysis

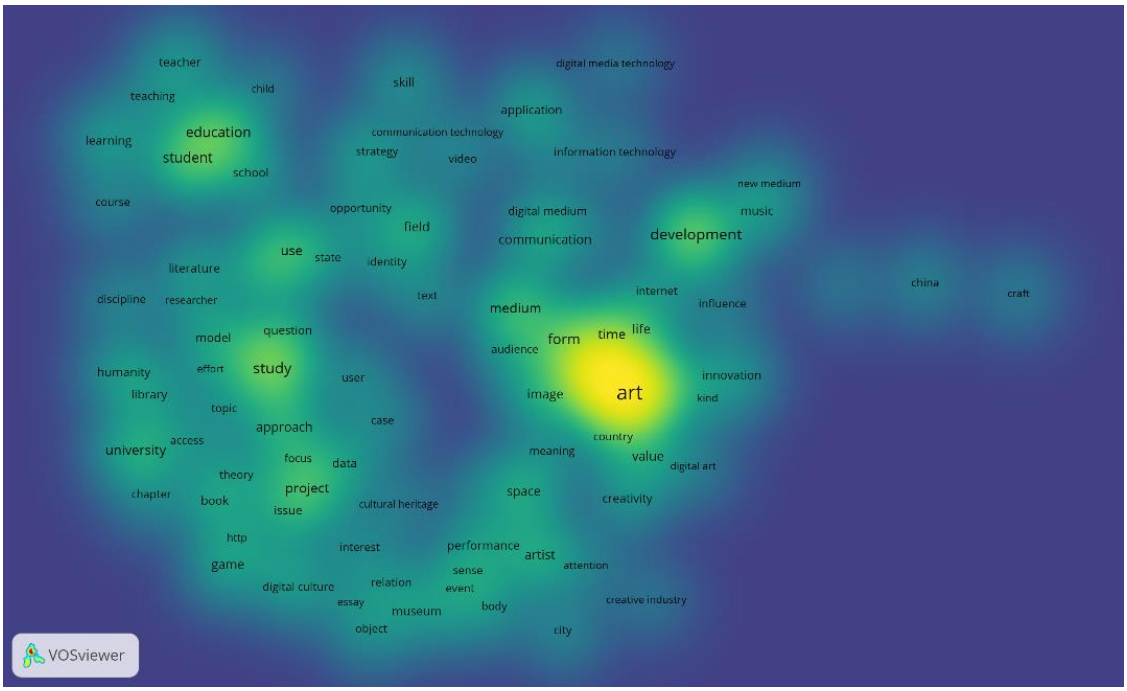

Figure 3. Density Visualization
Source: Data Analysis Result, 2024

The image depicts a network of interconnected terms, suggesting various potential research topics based on the proximity and connections between the terms. Analyzing the terms and their associations, there are some potential research topics for further investigation:

1. Integration of Digital Media in Art:
   - Focus on the convergence of art with digital media, examining the impact of digital technology on artistic creation, distribution, and reception.
   - Explore the transformation of the audience's experience with art in the digital age.
2. Educational Technology and Methodologies:
   - Study the influence of technology on education, particularly the use of digital mediums and communication technologies in teaching and learning.
   - Examine the role of educators in integrating new media and information technology into the classroom.
3. Cultural Heritage and Digitalization:
   - Investigate the digitization of cultural heritage, including the challenges and opportunities presented by digital archives and the preservation of cultural artifacts.
   - Research the role of digital culture in museums and how it affects the sense of history and identity.
4. Development of New Media:
   - Analyze the development of new media technologies and their influence on various aspects of life, including music, communication, and the creative industry.

- Assess the impact of the internet and innovation on contemporary art forms.

5. Sociotechnical Impact on Communication and Information:
   - Study the sociotechnical aspects of communication technology and the evolving landscape of information dissemination and consumption.
   - Explore the strategic application of communication technology in educational and artistic fields.
6. Global Influence and Localization in Art:
   - Consider the influence of global trends on local art forms, particularly examining the interplay between traditional crafts and modern digital art practices.
   - Assess the impact of international influences, possibly with a focus on specific regions like China, on the value and meaning of art.
7. Intersection of Art and Life in the Digital Era:
   - Explore how digital mediums have blurred the lines between art and life, influencing the form and content of contemporary artistic expressions.
   - Investigate the relationship between digital art and everyday life, including how art reflects and shapes current societal values and creativity.
8. Technological Innovation in the Creative Industry:
   - Research the role of innovation in the creative industry, focusing on how technology drives changes in artistic production, distribution, and monetization.
   - Study the kind of innovations that are shaping the creative sectors and their implications for artists, audiences, and the art market.

4.5 Practical Implication

The comprehensive bibliometric analysis conducted in this study offers several practical implications for academics, practitioners, policymakers, and cultural institutions involved in the intersection of digital technology and arts and culture. By identifying key trends, patterns, and gaps in existing scholarly discourse, this research provides valuable insights into the evolving landscape of digital innovation in the arts. For educators, understanding the influence of digital technology on artistic creation, distribution, and reception can inform curriculum development and teaching methodologies, enabling more effective integration of digital mediums and communication technologies in arts education. Practitioners in the creative industry can leverage insights from this study to innovate their approaches to artistic production, distribution, and audience engagement, thereby remaining relevant in the rapidly evolving digital landscape. Policymakers and cultural institutions can use the findings to develop informed policies and strategies for preserving cultural heritage, supporting digital arts initiatives, and promoting equitable access to cultural resources in the digital age. Overall, this research contributes to a deeper understanding of the dynamic relationship between technology and cultural expression, providing a foundation for informed decision-

making and innovative practices in the field of arts and culture.

5. CONCLUSION

In conclusion, this bibliometric study provides a comprehensive overview of the influence of digital technology on the field of arts and culture, synthesizing and analyzing a vast body of scholarly literature. Through rigorous data collection, extraction, and analysis, key themes, trends, and gaps in existing research have been identified, offering valuable insights into the transformative impact of digital innovation in the arts. The study highlights the multifaceted nature of this influence, encompassing areas such as artistic creation, distribution, preservation, education, and industry dynamics. By examining the evolution of research patterns over time and delineating potential avenues for future inquiry, this research informs academics, practitioners, policymakers, and cultural institutions alike, facilitating informed decision-making and fostering innovative approaches to cultural production and preservation in the digital age. Ultimately, this study contributes to a deeper understanding of the complex interplay between technology and cultural expression, paving the way for continued exploration and advancement in the field of arts and culture in the digital era.

REFERENCES

[1] G. B. Takala, "The Interactive Creativity of the Digital Era: Exploring How Media Art Redefines the Relationship Between Audience and Artwork," *Stud. Art Archit.*, vol. 2, no. 3, pp. 28–44, 2023, doi: 10.56397/saa.2023.09.04.

[2] S. Sutrisno, "Changes in Media Consumption Patterns and their Implications for People's Cultural Identity," *Technol. Soc. Perspect.*, vol. 1, no. 1 SE-Articles, pp. 18–25, Aug. 2023, doi: 10.61100/tacit.v1i1.31.

[3] R. H. Shannon, "The impact of computers on society," *ACM SIGCAS Comput. Soc.*, vol. 11, no. 3, pp. 44–50, 1981, doi: 10.1145/957859.957866.

[4] J. ZHAO and O. Yezhova, "Impact Of Digital Art On Design Of Online Museum: User-Centered Design, Narrative Design, And Integration Of Technology," *Art Des.*, pp. 92–100, Nov. 2023, doi: 10.30857/2617-0272.2023.3.8.

[5] S. Sylaiou and P. Dafiotis, "Storytelling in Virtual Museums: Engaging A Multitude of Voices BT - Visual Computing for Cultural Heritage," F. Liarokapis, A. Voulodimos, N. Doulamis, and A. Doulamis, Eds., Cham: Springer International Publishing, 2020, pp. 369–388. doi: 10.1007/978-3-030-37191-3_19.

[6] P. C. Sauer and S. Seuring, "How to conduct systematic literature reviews in management research: a guide in 6 steps and 14 decisions," *Rev. Manag. Sci.*, vol. 17, no. 5, pp. 1899–1933, 2023, doi: 10.1007/s11846-023-00668-3.

[7] S. E. Bibri, J. Krogstie, A. Kaboli, and A. Alahi, "Smarter eco-cities and their leading-edge artificial intelligence of things solutions for environmental sustainability: A comprehensive systematic review," *Environ. Sci. Ecotechnology*, vol. 19, p. 100330, 2024, doi: https://doi.org/10.1016/j.ese.2023.100330.

[8] M.-Á. García-Madurga and A.-J. Grilló-Méndez, "Artificial Intelligence in the Tourism Industry: An Overview of Reviews," *Administrative Sciences*, vol. 13, no. 8. 2023. doi: 10.3390/admsci13080172.

[9] G. Vial, "Understanding digital transformation," *Manag. Digit. Transform.*, pp. 13–66, 2021, doi: 10.4324/9781003008637-4.

[10] N. Acomi *et al.*, *Creativity and Arts in Digital Social Innovation*. 2023. doi: 10.5281/zenodo.8052835.

[11] L. F. Garcia-Lara and I. G. Bugueno-Cordova, "Transcultural language, native Chilean peoples and a new AI-based artistic-cultural expression: Creating a new expression driven by intelligent technologies," *Hum. Rev. Int. Humanit. Rev. / Rev. Int. Humanidades*, vol. 19, no. 5 SE-Research Articles (Special Issue), pp. 1–10, Mar. 2023, doi: 10.37467/revhuman.v19.4932.

[12] B. Zhou, P. Perel, G. A. Mensah, and M. Ezzati, "Global epidemiology, health burden and effective interventions for elevated blood pressure and hypertension.," *Nat. Rev. Cardiol.*, vol. 18, no. 11, pp. 785–802, Nov. 2021, doi: 10.1038/s41569-021-00559-8.

[13] T. Giannini and J. P. Bowen, "Curating Digital Life and Culture: Art and information," no. Tongco, pp. 237–244, 2016, doi: 10.14236/ewic/eva2016.46.

[14] J. Jing, "Analysis of Fashion in Film and Television Works," *Proc. 2021 Int. Conf. Soc. Dev. Media Commun. (SDMC 2021)*, vol. 631, no. Sdmc 2021, pp. 1502–1505, 2022, doi: 10.2991/assehr.k.220105.277.

[15] G. Caruso and L. Nijs, "When arts and science meet: Digital technology in artistic research," *J. Music. Technol. & Educ.*, vol. 13, no. 2–3, pp. 117–140, 2020, doi: https://doi.org/10.1386/jmte_00019_1.

[16] C. Kiourt, G. Pavlidis, and S. Markantonatou, *Deep learning approaches in food recognition*. 2020.

[17] R. Kramar, "Beyond strategic human resource management: is sustainable human resource management the next approach?," *Int. J. Hum. Resour. Manag.*, vol. 25, no. 8, pp. 1069–1089, 2014.

[18] C. Voinea, C. Vică, E. Mihailov, and J. Savulescu, "The Internet as Cognitive Enhancement," *Sci. Eng. Ethics*, vol. 26, Aug. 2020, doi: 10.1007/s11948-020-00210-8.

[19] T. Caciora *et al.*, "Digitization of the Built Cultural Heritage: An Integrated Methodology for Preservation and

Accessibilization of an Art Nouveau Museum," *Remote Sensing*, vol. 15, no. 24. 2023. doi: 10.3390/rs15245763.

[20] M. Silajadja, P. Magdalena, and T. P. Nugrahanti, "Pemanfaatan Media Sosial (Digital Marketing) untuk Pemasaran Produk UMKM," *Cakrawala J. Pengabdi. Masy. Glob.*, vol. 2, no. 2, pp. 88–100, 2023.

[21] H. Ashari and T. P. Nugrahanti, "Household economy challenges in fulfilling life needs during the Covid-19 pandemic," *Glob. Bus. Econ. Rev.*, vol. 25, no. 1, pp. 21–39, 2021.

[22] R. Towse and T. Navarrete Hernández, *Handbook of Cultural Economics, Third Edition*. Cheltenham, UK: Edward Elgar Publishing, 2020. doi: 10.4337/9781788975803.

[23] B. Liu, "Research of Digital Media Art based on Virtual Reality on Animation Design," vol. 325, no. Emehss, pp. 340–344, 2019, doi: 10.2991/emehss-19.2019.68.

[24] H. Liang, J. Sit, J. Chang, and J. J. Zhang, "Computer animation data management: Review of evolution phases and emerging issues," *Int. J. Inf. Manage.*, vol. 36, no. 6, Part A, pp. 1089–1100, 2016, doi: https://doi.org/10.1016/j.ijinfomgt.2016.07.008.

[25] Y. Cheng *et al.*, "The Prevalence of Mycoplasma Pneumoniae Among Children in Beijing Before and During the COVID-19 Pandemic.," *Front. Cell. Infect. Microbiol.*, vol. 12, p. 854505, 2022, doi: 10.3389/fcimb.2022.854505.

[26] A. Arshad, Q. U. A. Saleem, and K. Mahmood, "Predictors affecting personal digital information management activities: A hierarchical regression analysis," *J. Inf. Sci.*, vol. 49, no. 6, pp. 1677–1691, Feb. 2022, doi: 10.1177/01655515211072299.

[27] W. E. Tusiime, M. Johannesen, and G. B. Gudmundsdottir, "Teaching art and design in a digital age: challenges facing Ugandan teacher educators," *J. Vocat. Educ. Train.*, vol. 74, no. 4, pp. 554–574, Oct. 2022, doi: 10.1080/13636820.2020.1786439.

[28] D. Hu, B. Yuan, J. Luo, and M. Wang, "A review of empirical research on ICT applications in teacher professional development and teaching practice," *Knowl. Manag. E-Learning*, vol. 13, no. 1, pp. 1–20, 2021, doi: 10.34105/j.kmel.2021.13.001.

[29] S. Mystakidis, E. Berki, and J.-P. Valtanen, "Deep and Meaningful E-Learning with Social Virtual Reality Environments in Higher Education: A Systematic Literature Review," *Applied Sciences*, vol. 11, no. 5. 2021. doi: 10.3390/app11052412.

[30] S. Sofkova Hashemi and K. Cederlund, "Making room for the transformation of literacy instruction in the digital classroom," *J. Early Child. Lit.*, vol. 17, no. 2, pp. 221–253, Mar. 2016, doi: 10.1177/1468798416630779.

[31] Y. Iskandar, J. Joeliaty, U. Kaltum, and H. Hilmiana, "Bibliometric Analysis on Social Entrepreneurship Specialized Journals," *J. WSEAS Trans. Environ. Dev.*, pp. 941–951, 2021, doi: 10.37394/232015.2021.17.87.