Original Article
ISSN (Online): 2582-7472

ShodhKosh: Journal of Visual and Performing Arts
Special Issue on Creative Intelligence and Digital Futures: Visual Narratives, Design, and Institutional Transformation 7(5s)

DIGITAL LEADERSHIP IN ARTS EDUCATION FOR TRANSFORMING TEACHING AND LEARNING IN HIGHER EDUCATION

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Received 23 January 2026
Accepted 21 March 2026
Published 25 April 2026

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DOI
10.29121/shodhkosh.v7.i5s.2026.7848

Funding: This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

ABSTRACT

This study examines the role of digital leadership in transforming teaching and learning in arts education within higher education in Vietnam. A mixed-method approach was employed, combining survey data from 212 students with semi-structured interviews involving 20 lecturers and academic leaders across three universities. The findings indicate that digital leadership was implemented at a moderate to high level (M = 3.67) and significantly influenced pedagogical transformation (β = 0.58, p < .001). Qualitative results reveal that digital leadership promotes student-centered learning and digital creative practices, but its implementation remains uneven and often relies on individual initiatives. Key challenges include limited digital culture, insufficient professional development, and difficulties in adapting practice-based arts education to digital environments. The study proposes a multidimensional framework of digital leadership and highlights the need for a context-sensitive approach that balances technological innovation with the experiential nature of arts education in Vietnam.

Keywords: Digital Leadership, Arts Education, Digital Transformation, Higher Education, Vietnam

1. INTRODUCTION

Digital transformation has become a central driver of change in higher education systems worldwide, fundamentally reshaping how knowledge is produced, delivered, and experienced. The rapid development of digital technologies, including learning management systems, artificial intelligence, and immersive environments such as virtual and augmented reality, has created new possibilities for flexible, personalized, and data-informed learning. These changes have compelled universities to rethink traditional teaching models and adopt innovative approaches that enhance learning effectiveness and student engagement while responding to evolving labor market demands (Gonzalez-Zamar & Abad-Segura, 2020; Jing et al., 2025). In this context, leadership in higher education is increasingly expected to move

beyond administrative functions toward a more strategic role in guiding digital transformation and fostering innovation (Chow & Leung, 2018; Kamran, 2025).

In Vietnam, digital transformation in higher education has been strongly promoted through national policies and institutional initiatives aimed at modernizing teaching and improving educational quality. Universities have increasingly invested in digital infrastructure, online learning platforms, and blended learning models, particularly following the disruptions caused by the COVID-19 pandemic. However, the implementation of digital transformation remains uneven across institutions and disciplines, reflecting differences in resources, institutional capacity, and readiness for change. These challenges highlight the need for effective leadership capable of navigating complex technological, pedagogical, and organizational transitions within the Vietnamese context.

Within this broader transformation, arts education presents a distinctive case. Unlike many academic disciplines, arts education is grounded in creativity, embodied experience, and expressive practice, which are not easily translated into digital environments. The shift toward online and blended learning has therefore raised critical questions about how artistic processes can be preserved and reimagined through digital platforms (Burke, 2020, 2021). While emerging technologies such as virtual reality and interactive media provide new opportunities for artistic experimentation and audience engagement, their effective use requires not only technical adoption but also significant pedagogical adaptation (Lehrman, 2025; Serna-Mendiburu & Guerra-Tamez, 2024). In Vietnam, where arts education is often closely linked to traditional forms of practice and cultural expression, this transformation becomes even more complex.

Against this backdrop, the concept of digital leadership has gained increasing relevance. Digital leadership refers to the ability of educational leaders to strategically integrate digital technologies, cultivate an innovation-oriented culture, and support stakeholders in adapting to digital change (Yadav, 2025). In higher education, such leadership plays a crucial role in aligning institutional strategies with technological development, fostering professional learning among faculty, and promoting student-centered pedagogical approaches (Jing et al., 2025). Nevertheless, existing research has predominantly examined digital leadership in general education settings, with limited attention to discipline-specific contexts such as arts education.

The intersection between digital leadership and arts education remains insufficiently explored, particularly in developing contexts like Vietnam. Previous studies have examined creative pedagogy (Ewing et al., 2018), teacher identity in arts education (Kenny et al., 2015), and the integration of digital tools in artistic learning (Dinham, 2024), yet few have addressed how leadership can systematically facilitate the digital transformation of arts education. Moreover, although international frameworks such as the UNESCO framework for culture and arts education emphasize innovation and digital integration, they offer limited guidance on leadership practices tailored to the specific characteristics of arts disciplines (UNESCO, 2023).

In response to these gaps, this study investigates the role of digital leadership in transforming teaching and learning in arts education within higher education in Vietnam. Specifically, it aims to (1) identify key characteristics and practices of digital leadership in arts education, (2) examine its influence on pedagogical innovation and student learning experiences, and (3) propose a conceptual framework to support the implementation of digital leadership in this field. By focusing on the Vietnamese context, the study contributes to a more contextualized understanding of digital transformation in higher education and provides practical insights for institutional leaders, educators, and policymakers.

2. LITERATURE REVIEW

2.1. DIGITAL TRANSFORMATION IN HIGHER EDUCATION

Digital transformation in higher education refers to the comprehensive integration of digital technologies into teaching, learning, and institutional management processes, leading to fundamental changes in educational practices and structures. It is not merely the adoption of technological tools but a systemic shift that reshapes pedagogical approaches, organizational culture, and learner engagement (Kamran, 2025; Yadav, 2025). In this context, digital transformation is characterized by increased connectivity, data-driven decision-making, and the creation of flexible and personalized learning environments.

Globally, higher education institutions are embracing a wide range of digital technologies to support this transformation. Learning management systems (LMS) have become central platforms for organizing and delivering course content, while artificial intelligence (AI) is increasingly used to personalize learning pathways and provide real-time feedback. In addition, immersive technologies such as virtual reality (VR) and augmented reality (AR) are opening

new possibilities for experiential learning, particularly in disciplines that require visualization and interaction (Gonzalez-Zamar & Abad-Segura, 2020; Lehrman, 2025). The emergence of virtual studios and collaborative digital platforms further enables students to engage in creative and interdisciplinary activities beyond traditional classroom boundaries.

The impact of digital transformation on teaching and learning is profound. It shifts the focus from teacher-centered instruction to learner-centered approaches, emphasizing active participation, collaboration, and self-directed learning. Digital tools facilitate new forms of interaction between teachers and students, as well as among learners themselves, thereby enhancing engagement and learning outcomes. However, these changes also require educators to develop new competencies and adapt their pedagogical practices to effectively integrate technology into their teaching (Jing et al., 2025).

2.2. ARTS EDUCATION IN THE DIGITAL ERA

Arts education is distinguished by its emphasis on creativity, expression, and experiential learning. It involves processes of imagination, interpretation, and meaning-making that are deeply connected to sensory and embodied experiences. As such, teaching and learning in the arts often rely on studio-based practices, collaborative creation, and direct interaction with materials and artistic media (Ewing et al., 2018; Kenny et al., 2015). These characteristics make arts education both highly dynamic and context-dependent.

The transition to digital environments presents significant challenges for arts education. Online platforms may limit opportunities for physical interaction, spontaneous creativity, and real-time collaboration, which are essential elements of artistic practice. Educators have raised concerns about the difficulty of translating embodied and practice-based learning into virtual formats, particularly in disciplines such as visual arts, music, and performance (Burke, 2020, 2021). In addition, issues related to access to digital tools, technological skills, and the authenticity of creative experiences further complicate the implementation of digital arts education.

Despite these challenges, the digital era also offers new opportunities for innovation in arts education. Emerging technologies such as VR and digital media enable new forms of artistic expression and immersive learning experiences (Serna-Mendiburu & Guerra-Tamez, 2024). Online and blended learning models have been developed to combine the flexibility of digital platforms with the richness of face-to-face interaction, allowing educators to redesign pedagogical practices in creative ways (Dinham, 2024). These models often emphasize collaborative learning, project-based activities, and the integration of digital tools into artistic processes, thereby expanding the scope and accessibility of arts education.

2.3. CONCEPT OF DIGITAL LEADERSHIP IN EDUCATION

Digital leadership has emerged as a critical concept in the context of educational transformation. It refers to the ability of leaders to guide institutions through digital change by integrating technology into strategic planning, fostering innovation, and supporting stakeholders in adapting to new learning environments (Yadav, 2025). Unlike traditional leadership models, digital leadership emphasizes agility, collaboration, and the effective use of digital resources to enhance organizational performance.

Various leadership models provide theoretical foundations for understanding digital leadership. Transformational leadership, for example, highlights the role of leaders in inspiring vision, motivating stakeholders, and driving change, which is particularly relevant in digital transformation contexts (Chow & Leung, 2018). Distributed leadership emphasizes shared responsibility and collaboration among stakeholders, recognizing that digital transformation requires collective effort across different levels of the organization. These models underscore the importance of leadership practices that are flexible, inclusive, and responsive to technological advancements.

Core competencies of digital leaders in education include strategic vision, digital literacy, innovation management, and the ability to support professional development among educators. Leaders are expected to create supportive environments that encourage experimentation and continuous learning, as well as to align technological initiatives with pedagogical goals (Jing et al., 2025). Furthermore, digital leaders play a key role in bridging the gap between technology and pedagogy, ensuring that digital tools are used effectively to enhance teaching and learning outcomes.

2.4. DIGITAL LEADERSHIP IN ARTS EDUCATION

While digital leadership has been widely studied in general education contexts, its application in arts education remains relatively underexplored. Arts education requires leadership approaches that not only address technological integration but also preserve and enhance the creative and expressive nature of artistic practices. In this regard, leaders must balance the use of digital tools with the need to maintain authentic artistic experiences and foster creative thinking.

The role of digital leadership in arts education involves connecting three critical dimensions: technology, artistic creativity, and pedagogical innovation. Leaders are responsible for facilitating the integration of digital technologies into artistic processes, supporting educators in redesigning teaching practices, and creating environments that encourage experimentation and collaboration. For instance, the use of immersive technologies and digital platforms can enable new forms of artistic creation and audience engagement, but their effective implementation depends on leadership that understands both technological and artistic perspectives (Lehrman, 2025; Gonzalez-Zamar & Abad-Segura, 2020).

Moreover, leadership in arts education must address the professional development needs of educators, who often require support in developing digital competencies while maintaining their artistic identity. Studies on arts-based teacher education emphasize the importance of reflective practice, creativity, and identity formation, which should be considered in leadership strategies (Kenny et al., 2015). In addition, institutional policies and frameworks, such as those proposed by UNESCO (2023), highlight the need for innovation and inclusivity in arts education, further reinforcing the importance of effective leadership.

Despite these developments, significant research gaps remain. There is a lack of comprehensive frameworks that integrate digital leadership with the specific characteristics of arts education. Existing studies tend to focus either on technological integration or on creative pedagogy, without adequately addressing the leadership dimension that connects these elements. Furthermore, empirical research on how digital leadership influences teaching and learning outcomes in arts education is still limited, particularly in the context of higher education. Addressing these gaps is essential for developing effective strategies to transform arts education in the digital age.

3. THEORETICAL FRAMEWORK

3.1. FOUNDATIONS

The theoretical foundation of this study is built upon the integration of leadership theory, learning theory, and technology integration frameworks in education. These perspectives provide a comprehensive basis for understanding how digital leadership can facilitate the transformation of teaching and learning in arts education.

First, transformational leadership theory offers a critical lens for examining how leaders inspire change, articulate vision, and foster innovation within educational institutions. Transformational leaders play a key role in motivating stakeholders, promoting a shared vision, and supporting organizational change processes, particularly in the context of digital transformation (Chow & Leung, 2018; Kamran, 2025). In arts education, this leadership approach is essential for encouraging experimentation, creativity, and openness to new pedagogical practices.

Second, the study draws on constructivist and experiential learning theories, which emphasize active, student-centered learning processes. Arts education inherently aligns with these perspectives, as it involves hands-on activities, creative exploration, and reflective practice (Ewing et al., 2018). Experiential learning, in particular, highlights the importance of learning through doing, which remains relevant even in digital environments where technologies can simulate or enhance artistic experiences (Lehrman, 2025).

Third, the integration of technology in education is conceptualized through frameworks such as TPACK (Technological Pedagogical Content Knowledge) and related models of digital pedagogy. These frameworks stress the importance of aligning technological tools with pedagogical strategies and subject content to achieve meaningful learning outcomes. In the context of arts education, this alignment requires careful consideration of how digital tools can support creative processes and artistic expression without compromising authenticity.

Finally, this study adopts a systems perspective, recognizing that digital transformation in education involves interconnected components, including leadership, institutional culture, technological infrastructure, teaching practices, and learner engagement. This holistic approach provides a basis for developing a comprehensive framework that captures the complexity of digital leadership in arts education.

3.2. PROPOSED FRAMEWORK OF DIGITAL LEADERSHIP IN ARTS EDUCATION

Based on the theoretical foundations and the identified research gaps, this study proposes a conceptual framework of digital leadership in arts education. The framework conceptualizes digital leadership as a multidimensional construct that influences teaching and learning transformation through interconnected components.

The proposed framework consists of six core dimensions:

Vision and Digital Strategy: This dimension refers to the ability of leaders to define a clear vision for digital transformation and align institutional strategies with technological innovation. It involves setting goals, prioritizing digital initiatives, and ensuring coherence between leadership decisions and educational objectives.

Digital Culture and Innovation Climate: Digital leadership fosters a culture that encourages creativity, collaboration, and openness to change. In arts education, this includes promoting experimentation, interdisciplinary collaboration, and risk-taking in both teaching and artistic practices.

Technological Infrastructure and Resources: Effective digital leadership ensures the availability and accessibility of technological tools and platforms, such as LMS, virtual studios, and immersive technologies. This dimension supports the implementation of digital teaching and learning practices.

Pedagogical Transformation: This dimension focuses on the redesign of teaching practices to integrate digital technologies in meaningful ways. It includes the adoption of innovative pedagogies such as project-based learning, collaborative creation, and digital storytelling in arts education.

Faculty Digital Competence and Professional Development: Leaders play a crucial role in supporting educators' professional growth by providing training, resources, and opportunities for continuous learning. This dimension emphasizes the development of both technological and pedagogical competencies among faculty members.

Student Engagement and Creative Learning Outcomes: The ultimate goal of digital leadership is to enhance student learning experiences. This dimension captures students' active participation, creative expression, collaboration, and the development of digital and artistic competencies.

These dimensions are interrelated and operate within a dynamic system, where leadership actions influence teaching practices and learning outcomes through both direct and indirect pathways.

3.3. MODEL EXPLANATION

The proposed framework explains how digital leadership contributes to the transformation of teaching and learning in arts education through a structured mechanism of influence.

At the core of the model is the assumption that digital leadership acts as a driving force that initiates and sustains change within educational institutions. Leadership shapes institutional vision, establishes a supportive culture, and provides the necessary infrastructure for digital transformation. These elements collectively create enabling conditions for pedagogical innovation.

The model further posits that pedagogical transformation serves as a mediating factor between leadership and learning outcomes. When leaders effectively support the integration of digital technologies into teaching practices, educators are more likely to adopt innovative approaches that enhance student engagement and creativity. In arts education, this may include the use of digital tools for artistic production, collaborative projects, and immersive learning experiences.

Additionally, faculty digital competence plays a critical role in moderating the effectiveness of digital leadership. Even with strong leadership and infrastructure, the success of digital transformation depends on educators' ability to use technology effectively and creatively. Therefore, continuous professional development is essential to ensure that faculty members can adapt to evolving technological and pedagogical demands.

Finally, the model highlights that student engagement and creative learning outcomes are the ultimate indicators of successful digital leadership. These outcomes include not only improved academic performance but also enhanced creativity, critical thinking, and the ability to use digital tools for artistic expression.

4. METHODOLOGY

4.1. RESEARCH DESIGN

This study adopted a mixed-method approach, combining survey research and qualitative interviews to examine digital leadership in arts education. The design enabled both statistical analysis of relationships among variables and in-depth exploration of participants' experiences.

4.2. DATA COLLECTION

Data were collected from three institutions in Vietnam: the Military University of Culture and Arts; the Hanoi National University of Education; and the National University of Arts Education.

Survey: A total of 212 students participated in the questionnaire, which included 28 items measured on a 5-point Likert scale.

Interviews: Semi-structured interviews were conducted with 20 lecturers and academic leaders (30–40 minutes each) to explore leadership practices and digital teaching experiences.

Document analysis: Institutional documents, including training programs and digital learning policies, were analyzed to contextualize the findings.

Data collection was conducted from March to June 2025.

4.3. DATA ANALYSIS

Quantitative data were analyzed using SPSS 26, including descriptive statistics and regression analysis. The reliability of the scales was confirmed with Cronbach's alpha ranging from 0.83 to 0.90.

Qualitative data were analyzed using thematic analysis, involving coding, categorization, and interpretation of key themes related to digital leadership and pedagogical transformation.

5. FINDINGS

5.1. CURRENT STATE OF DIGITAL LEADERSHIP IN ARTS EDUCATION

Survey results from 212 students indicate that digital leadership practices were implemented at a moderate to high level (M = 3.67, SD = 0.54), as shown in Table 1.

Table 1

Table 1 Descriptive statistics of digital leadership dimensions (Survey results)

Dimension	Mean (M)	SD	Level
Vision and digital strategy	3.81	0.49	High
Digital culture and innovation climate	3.42	0.58	Moderate
Technological infrastructure	3.65	0.55	Moderate
Pedagogical transformation	3.72	0.51	High
Faculty digital competence	3.55	0.6	Moderate
Student engagement	3.74	0.52	High
Overall	**3.67**	0.54	Moderate–High

Qualitative insights

Interview data from 20 lecturers and academic leaders revealed three dominant themes:

(DL1) Strategic awareness but uneven implementation: Most leaders acknowledged the importance of digital transformation; however, implementation was fragmented. "Digital transformation is part of our strategy, but in practice, each department develops its own approach." (L3)

(DL2) Limited innovation culture: Several participants noted that institutional support for experimentation remained insufficient. "Teachers are encouraged to innovate, but there is no clear mechanism to support or evaluate innovation." (L7)

(DL3) Dependence on individual initiative: Digital practices often depended on motivated individuals rather than systemic leadership. "Some lecturers are very active with digital tools, but this is not yet a shared practice across the institution." (L12)

5.2. IMPACT ON PEDAGOGICAL TRANSFORMATION

Survey results show a strong relationship between digital leadership and pedagogical transformation ($\beta = 0.58$, $p < .001$).

Table 2

Table 2 Regression Results (Survey Data)

Variables	β	t-value	p-value
Digital leadership → Pedagogy	0.58	9.42	< .001
Faculty competence (moderator)	0.31	3.87	< .01

Additionally, 72% of lecturers reported redesigning teaching methods using digital tools.

Qualitative insights

Interview data identified three key patterns:

(PT1) Shift toward student-centered learning: "Digital tools allow students to work more independently and creatively." (L5)

(PT2) Emergence of digital creative practices: Lecturers reported using digital portfolios, video-based assignments, and online exhibitions. "Students now present their artworks through digital platforms, which expands their audience." (L9)

(PT3) Difficulty in translating studio-based learning: "It is very challenging to replace hands-on practice in fields like sculpture or performance." (L14)

5.3. FACULTY DIGITAL COMPETENCE

Survey data show that faculty digital competence was moderate ($M = 3.55$, $SD = 0.60$).

Qualitative insights

Interview findings revealed two main issues:

(FC1) Basic vs. advanced competence gap: "Most teachers can use basic tools, but integrating them into artistic pedagogy is another matter." (L2)

(FC2) Need for structured professional development: "We need systematic training, not just short-term workshops." (L11)

These findings confirm that faculty competence is a critical factor influencing the effectiveness of digital leadership.

5.4. STUDENT ENGAGEMENT AND CREATIVE LEARNING OUTCOMES

Survey results indicate relatively high student engagement ($M = 3.74$, $SD = 0.52$), as shown in Table 3.

Table 3

Table 3 Student perceptions of digital learning (Survey results)

Indicator	Percentage (%)
Increased motivation in learning	68%
Improved collaboration and interaction	64%

Enhanced creative expression	70%
Reduced hands-on experience	34%

Qualitative insights

Interview data (lecturers + leaders) revealed:

(SE1) Increased flexibility and accessibility: "Students can access learning materials anytime, which improves engagement." (L6)

(SE2) Enhanced creativity through digital tools: "Digital media allows students to experiment with new forms of artistic expression." (L10)

(SE3) Loss of physical interaction: "Art requires physical interaction, which cannot be fully replicated online." (L15)

5.5. CHALLENGES AND BARRIERS

Survey results identified key challenges (Table 4).

Table 4

Table 4 Challenges in Digital Leadership Implementation (Survey + Interview)

Challenge	Frequency (%)
Difficulty in digitalizing arts practice	52%
Lack of faculty training	46%
Limited technological infrastructure	41%
Resistance to change	37%

Qualitative insights

Interview analysis revealed deeper structural issues:

(CH1) Pedagogical mismatch: "Not all art forms are suitable for digital transformation." (L8)

(CH2) Institutional constraints: "Budget and infrastructure still limit what we can do." (L13)

(CH3) Cultural resistance: "Some teachers prefer traditional methods and are reluctant to change." (L4)

6. DISCUSSION

The results of this study offer a nuanced understanding of how digital leadership operates within arts education in Vietnamese higher education institutions. Rather than simply confirming existing assumptions, the findings reveal a dynamic interaction between leadership practices, pedagogical change, and contextual constraints.

One notable insight is that digital leadership in the surveyed institutions appears to be strategically recognized but unevenly enacted. While institutional leaders have increasingly acknowledged the importance of digital transformation, its implementation often varies across faculties and departments. This suggests that, in the Vietnamese context, digital leadership is still evolving from a policy-driven orientation toward a more practice-based and system-wide approach. The relatively lower score in digital culture further indicates that fostering innovation requires more than strategic direction; it demands sustained institutional support and shared practices.

Another important finding concerns the transformative role of leadership in reshaping teaching practices. The strong statistical relationship between digital leadership and pedagogical transformation demonstrates that leadership is a key driver of change, particularly in promoting student-centered and digitally mediated learning. However, the nature of arts education introduces specific tensions. While digital tools expand creative possibilities, they also challenge the traditional studio-based and embodied modes of learning. This duality highlights the need for context-sensitive leadership that does not merely promote technology adoption but actively mediates between digital innovation and disciplinary authenticity.

In addition, the study underscores the critical role of faculty capacity in determining the effectiveness of digital leadership. The findings indicate that lecturers possess foundational digital skills but face difficulties in integrating these

skills into artistic pedagogy. This gap suggests that current professional development initiatives in Vietnam may not sufficiently address the pedagogical dimension of digital competence. As a result, leadership efforts may be constrained unless accompanied by more targeted and practice-oriented training models.

Student responses further enrich the discussion by illustrating both the opportunities and limitations of digital transformation. Increased engagement and creative expression reflect the alignment between digital environments and students' learning preferences. At the same time, concerns about reduced physical interaction reveal that digital learning cannot fully replace experiential aspects of arts education. This reinforces the argument that hybrid or blended models may be more appropriate in maintaining the integrity of artistic learning.

Finally, the challenges identified in this study point to broader structural and cultural factors shaping digital transformation in Vietnam. Issues such as infrastructure disparities, limited funding, and resistance to change are not unique but become particularly significant in arts education due to its resource-intensive and practice-based nature. These findings suggest that digital leadership should be understood not only as an individual or managerial capability but as a systemic process influenced by institutional conditions and cultural contexts.

7. CONCLUSION

This study has explored the role of digital leadership in advancing teaching and learning transformation in arts education within Vietnamese higher education. Drawing on both quantitative and qualitative data, the study highlights that digital leadership contributes significantly to pedagogical innovation, faculty development, and student engagement, while also revealing context-specific challenges.

The findings indicate that effective digital leadership extends beyond the adoption of technology to encompass strategic vision, cultural development, and capacity building. In arts education, this role is particularly complex, as leaders must balance technological integration with the preservation of creative and experiential learning processes. The study therefore emphasizes that digital transformation in this field should be approached as a holistic and context-sensitive endeavor.

In terms of theoretical contribution, the study proposes a multidimensional framework that integrates leadership, pedagogy, and digital transformation within the specific context of arts education. This framework offers a foundation for future research and provides a structured way to analyze leadership practices in similar educational settings.

From a practical perspective, the study suggests several implications for higher education institutions in Vietnam. These include the need to strengthen institutional coherence in digital strategies, foster a supportive culture for innovation, and design professional development programs that integrate technological and pedagogical competencies. Moreover, adopting blended learning models may help reconcile the benefits of digital technologies with the experiential nature of arts education.

Despite its contributions, the study is limited by its focus on a small number of institutions and a cross-sectional research design. Future studies could expand the scope to include diverse institutional contexts and longitudinal approaches to better understand the long-term impact of digital leadership.

CONFLICT OF INTERESTS

None.

ACKNOWLEDGMENTS

None.

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