

# HUMAN COMPETENCY AS THE FOUNDATION OF SUSTAINABLE SPORT IN THE DIGITAL ERA

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## Abstract

Digital transformation has profoundly reshaped contemporary sport systems, influencing governance, communication, participation, and wellness promotion. Despite extensive technological investment, sustainable outcomes in sport remain uneven, indicating that technology alone is insufficient to ensure long-term sustainability. This study examines human competency as the foundation of sustainable sport in the digital era, with particular emphasis on communication competency as a central mediating mechanism. Using a qualitative research design, the study employs documentary analysis of 32 academic and policy sources, including peer-reviewed journal articles, academic books, and international policy documents. A thematic analysis was conducted to identify recurring patterns and shared meanings related to digital transformation, communication, and sustainability in sport. The findings reveal five interrelated themes: human-centered digital transformation, communication competency as a mediating mechanism, ethics and public trust, sport actors as public communicators, and the integration of communication with wellness and sustainable development outcomes. The findings demonstrate that sustainability in digital sport systems is fundamentally a human-centered and communicative process. Communication competency enables digital technologies to be interpreted, ethically governed, and translated into long-term social and wellness-oriented value. This study contributes a communication-centered conceptual framework that advances understanding of sustainable sport beyond technology-driven perspectives.

**Keywords:** Digital transformation; Human competency; Sport communication; Sustainability; Wellness

## Introduction

The rapid advancement of digital technologies has profoundly transformed the global sport landscape, reshaping how sport is organized, managed, communicated, and experienced. Digital transformation in sport has extended beyond performance enhancement and data analytics to encompass governance, education, wellness promotion, and public engagement. Contemporary sport systems increasingly rely on digital platforms, social media, and data-driven technologies, positioning sport within a highly interconnected and communication-intensive environment (Ratten, 2020). However, Berman (2012) emphasizes that digital transformation should not be understood merely as technological adoption, but as a human-centered process that reconfigures organizational culture, roles, and competencies. In sport, substantial investments in digital infrastructure have not always resulted in sustainable outcomes. Issues such as ethical miscommunication, digital inequality, short-lived technological initiatives, and declining public trust continue to challenge sport organizations worldwide (Ratten, 2020). These challenges suggest that sustainability in the digital era depends not only on technological capacity, but fundamentally on the competency of human actors within sport systems.

According to Hutchins and Rowe (2012), modern sport operates within a condition of networked media sport, where communication is continuous, public, and multidirectional. Athletes, coaches, administrators, and sport organizations increasingly function as public communicators whose actions, messages, and representations circulate instantly across digital platforms. As a result, communication has become an integral component of sport practice rather than a supplementary function (Hutchins & Rowe, 2012). In this context, the sustainability of sport is closely linked to how effectively individuals and organizations communicate values, knowledge, and responsibilities in digital environments. Within digitally mediated sport systems, human competency extends beyond technical and physical skills to include digital literacy, ethical judgment, adaptability, and, critically, communication competency. Sport communication scholars argue that effective participation in contemporary sport requires the ability to interpret digital information, engage stakeholders, and manage meaning responsibly across media platforms (Billings et al., 2021). When such competencies are underdeveloped, digital technologies may amplify misinformation, reputational crises, and social exclusion rather than contribute to long-term sustainability (Billings et al., 2021).

From a broader development perspective, sustainable sport is increasingly aligned with global agendas emphasizing health, well-being, inclusion, and social responsibility. The United Nations highlights that sustainable development relies on human capacity building and effective communication alongside technological innovation (United Nations, 2015). Similarly, the World Health Organization underscores that the success of digital health and wellness initiatives depends largely on communication, education, and user understanding rather than technology alone (World Health Organization, 2022). These perspectives reinforce the argument that communication functions as a foundational mechanism through which digital transformation can generate sustainable sport outcomes. Despite the growing body of literature on digital transformation in sport, existing studies continue to prioritize technological innovation, performance optimization, and organizational efficiency, often treating human competency as a secondary factor. There remains limited conceptual integration of communication, human competency, and sustainability within digital sport research (Ratten, 2020). This lack of integration constrains the ability of sport systems to translate digital investments into long-term social, ethical, and wellness-oriented value.

Therefore, this article argues that human competency serves as the foundation of sustainable sport in the digital era, with communication positioned as the central mediating mechanism between digital transformation and sustainability outcomes. By adopting a communication-centered and human-focused perspective, this study seeks to advance a more integrated understanding of how digital transformation can support sustainable sport development beyond technological investment alone.

## **Research Objectives**

This study aims to examine human competency as the foundational driver of sustainable sport in the digital era, with particular emphasis on the role of communication within digitally mediated sport systems. Specifically, the objectives of this study are as follows:

1. To analyze the role of human competency in sustaining sport systems under conditions of digital transformation.
2. To conceptualize communication competency as a central mechanism linking digital transformation and sustainable sport outcomes.
3. To propose a communication-centered conceptual framework that integrates digital transformation, human competency, wellness, and sustainability in sport.

## **Research Methods**

This study employs a qualitative research design using documentary analysis to examine human competency as the foundation of sustainable sport in the digital era, with communication positioned as a central mediating mechanism. Qualitative document analysis is appropriate for this study as it enables systematic interpretation of textual data to identify meanings, patterns, and themes related to digital transformation, sport communication, and sustainability (Bowen, 2009).

### **Research Design**

Qualitative research is particularly suitable for investigating complex social and communicative phenomena involving human interpretation, values, and institutional discourse. According to Creswell and Creswell (2018), qualitative approaches are appropriate when research aims to generate in-depth understanding rather than to test statistical relationships. In the context of digital transformation in sport, sustainability outcomes are shaped by human competency and communication practices, which require interpretive and contextual analysis.

This study adopts qualitative document analysis as the primary research strategy to systematically examine how human competency—especially communication competency—is articulated and positioned within scholarly and policy-oriented texts related to sport and digital transformation.

### **Data Sources and Scope of Documents**

The data for this study consist of a purposive corpus of 32 documents, selected to ensure conceptual saturation and analytical coherence. The corpus was constructed from four main categories of documentary sources as follows:

1. Peer-reviewed journal articles (n = 18) Articles addressing digital transformation in sport, sport communication, human competency, wellness, and sustainability, published in international academic journals indexed in Scopus, Web of Science, or equivalent scholarly databases.
2. Academic books and foundational theoretical texts (n = 6) Seminal works in sport studies, communication, and digital transformation that provide theoretical grounding for concepts such as networked media sport, communication competency, and human-centered digital change.
3. International policy documents and strategic reports (n = 5) Official documents published by international organizations, including the United Nations and the World Health Organization, addressing sustainable development, digital health, wellness, and human capacity building.
4. Conceptual and governance-related documents (n = 3) Strategic or conceptual reports related to ethics, governance, and digital transformation in sport and related sectors.

The total number of analyzed documents (N = 32) was deemed sufficient to achieve thematic saturation, as recurring patterns and concepts emerged consistently across categories during the analysis.

### **Document Selection Criteria**

Documents were selected based on the following inclusion criteria:

1. The document explicitly or implicitly addressed sport, physical activity, or wellness within digital or mediated environments.
2. The document discussed human competency, communication, ethics, or capacity building as part of digital transformation processes.
3. The document contributed to discussions of sustainability, long-term impact, or social responsibility.

4. To ensure credibility and traceability, only documents published by reputable academic publishers, peer-reviewed journals, or recognized international organizations were included. Both seminal and recent publications (2001–2024) were analyzed to balance theoretical depth with contemporary relevance.

#### **Data Analysis Procedure**

The qualitative document analysis followed a thematic analysis approach adapted from Bowen (2009) and conducted in three stages. First, all documents were read multiple times to gain familiarity and to identify preliminary concepts related to digital transformation, human competency, communication, and sustainability. Initial open coding was applied to capture recurring terms, arguments, and conceptual emphases.

Second, codes were grouped into higher-order themes, with particular attention to how communication competency functioned as a mediating mechanism between digital technologies and sustainable sport outcomes. Themes such as ethical communication, media literacy, stakeholder engagement, and wellness communication were identified and refined.

Third, the finalized themes were synthesized to construct a communication-centered analytical framework explaining the relationships among digital transformation, human competency, and sustainability in sport systems. Analytical consistency was ensured by cross-checking themes across all document categories.

#### **Trustworthiness and Rigor**

To enhance methodological rigor, the study employed transparency in document selection, consistency in analytical procedures, and triangulation across multiple types of documentary sources. The use of a clearly defined document corpus ( $N = 32$ ) supports analytical credibility and allows the findings to be traced back to verifiable sources (Creswell & Creswell, 2018).

Although this study does not involve primary data collection, the qualitative findings provide an empirically grounded interpretation of existing knowledge. The analytical framework developed in this study is intended to inform future empirical research employing interviews, surveys, or mixed methods approaches.

### **Research Results**

This section presents the findings derived from a qualitative document analysis of 32 selected documents, including peer-reviewed journal articles, academic books, and international policy reports. The analysis aimed to identify recurring patterns, shared meanings, and dominant themes related to human competency, communication, and sustainability in the context of digital transformation in sport. Through systematic coding and thematic synthesis, five interrelated themes emerged, reflecting a high degree of conceptual convergence across the document corpus.

#### **Overview of Thematic Findings**

The analysis reveals that sustainability in digital sport systems is consistently framed as a human-centered process rather than a technology-driven outcome. Across the reviewed documents, digital transformation is rarely portrayed as an automatic pathway to sustainability. Instead, sustainability is understood as contingent upon the competencies of human actors—particularly their capacity to communicate, interpret, and ethically apply digital technologies within social and organizational contexts.

Communication competency emerges as a central and cross-cutting theme, functioning as the key mechanism through which digital transformation influences trust, legitimacy, wellness, and long-term value creation in sport systems. The findings further indicate that communication

is closely intertwined with ethical responsibility, public visibility, and the redefinition of professional roles in digitally mediated sport environments.

**Table 1** Thematic Synthesis of Findings from Document Analysis (N = 32)

| Theme   | Core Focus  | (n) | Summary of Conceptual Similarity   |
|---|---|-----|--|
| Human-Centered Digital Transformation             | Digital transformation depends on human capability rather than technology alone | 26  | Documents consistently emphasize that technology functions as an enabling infrastructure, while sustainable outcomes are determined by human judgment, organizational culture, and competency development. |
| Communication Competency as a Mediating Mechanism | Communication links digital transformation to sustainability                    | 21  | A strong convergence exists in framing communication competency as the mechanism through which digital tools generate trust, legitimacy, and long-term engagement in sport systems.                        |
| Ethics, Responsibility, and Public Trust          | Ethical communication sustains legitimacy in digital sport                      | 18  | Documents share concerns regarding misinformation, reputational risk, and ethical challenges, emphasizing transparent and responsible communication as essential for sustainability.                       |
| Sport Actors as Public Communicators              | Athletes, coaches, and organizations as visible communicative agents            | 20  | The literature consistently portrays sport actors as operating within networked media environments, requiring new communicative competencies beyond traditional sport roles.                               |
| Wellness and Sustainable Development Outcomes     | Communication supports wellness, inclusion, and social impact                   | 17  | Academic and policy documents align in describing communication as critical for ensuring access, understanding, and sustained participation in digital sport and wellness initiatives.                     |

Note. The frequencies indicate the number of documents in which each theme was substantively identified. Themes are not mutually exclusive; individual documents may contribute to multiple themes.

Following the thematic synthesis presented in Table, the qualitative document analysis reveals a clear pattern of conceptual convergence across the analyzed corpus (N = 32). The identified themes reflect shared interpretations rather than isolated viewpoints, indicating thematic saturation. Across the documents, digital transformation in sport is consistently framed as a human-centered process, with communication competency emerging as a cross-cutting mechanism that links technology use to sustainability outcomes. The sections that follow elaborate on each theme in detail, beginning with the most dominant finding identified in the analysis.

### **Theme 1: Human-Centered Digital Transformation in Sport**

As indicated in Table X, the most prominent theme identified from the document analysis concerns the human-centered nature of digital transformation in sport, which appeared in 26 of the 32 reviewed documents. This prevalence suggests strong agreement across scholarly and policy-oriented texts that digital transformation should not be understood as a technology-driven or deterministic process.

Across the analyzed documents, digital technologies are consistently described as enabling infrastructures that enhance efficiency and connectivity. However, these technological capabilities are widely regarded as insufficient on their own to generate sustainable outcomes. Instead, the

documents emphasize that sustainability depends on how digital tools are interpreted, governed, and embedded by human actors within organizational and social contexts. This shared perspective positions human competency as the decisive factor that shapes whether digital transformation leads to long-term value or remains a short-term modernization effort.

Foundational literature explicitly supports this interpretation. Berman (2012) argues that “Digital transformation is not about technology—it is about rethinking organizations and the people who work within them.”

Sport-related studies echo this view by highlighting the importance of leadership, cultural alignment, and human adaptability in digital innovation processes. Ratten (2020) similarly notes that technological advancement in sport contributes to sustainability only when accompanied by the development of human skills and capabilities.

The conceptual similarity across documents within this theme lies in their emphasis on human agency and decision-making as central to digital transformation. Rather than portraying digital change as automatic, the reviewed texts frame it as a negotiated and context-dependent process shaped by human judgment and organizational culture. Collectively, these findings provide qualitative evidence that challenges technology-centric narratives and reinforce the argument that human competency constitutes the foundation of sustainable sport in the digital era.

### **Theme 2: Communication Competency as a Central Mediating Mechanism**

Building on the human-centered perspective of digital transformation, the second dominant theme identified in the document analysis highlights communication competency as a central mediating mechanism linking digital technologies to sustainable sport outcomes. As summarized in Table 1, this theme was substantively identified in 21 of the 32 analyzed documents, indicating strong conceptual convergence across the corpus. Across the reviewed literature, communication is consistently framed not as a supportive or auxiliary function, but as a structural process that shapes how digital transformation is enacted and experienced within sport systems. The documents emphasize that digital technologies gain meaning, legitimacy, and social value through communication practices that enable interpretation, dialogue, and engagement among stakeholders. In this sense, communication competency mediates whether digital transformation contributes to trust, inclusion, and sustainability or instead amplifies misunderstanding and reputational risk.

This perspective is strongly articulated in media and sport scholarship. Hutchins and Rowe (2012) describe contemporary sport as operating within conditions of constant mediated visibility, where communication is continuous and unavoidable. Within such environments, sport actors must possess the competency to manage messages, narratives, and interactions across digital platforms. Similarly, Billings, Butterworth, and Turman (2021) argue that communication practices play a decisive role in shaping how sport organizations are perceived, trusted, and legitimized in digital contexts. The analyzed documents further demonstrate that communication competency encompasses multiple interrelated dimensions, including media literacy, ethical communication, stakeholder engagement, and the ability to contextualize digital information. These competencies enable human actors to translate technological capacity into sustainable practices by fostering transparency, mutual understanding, and long-term relationships. When such competencies are underdeveloped, digital technologies may intensify conflict, misinformation, or exclusion rather than support sustainable sport development.

The similarity across documents within this theme lies in their shared assertion that technology does not directly produce sustainability; communication does. Digital transformation influences sport systems indirectly, through communicative processes that shape meaning,

responsibility, and social connection. Consequently, communication competency emerges as the key mechanism through which human-centered digital transformation can generate sustainable outcomes in sport.

### **Theme 3: Ethics, Responsibility, and the Construction of Public Trust in Digital Sport**

The third theme emerging from the document analysis concerns the close relationship between communication, ethical responsibility, and public trust in digitally mediated sport environments. As indicated in Table 1, this theme was identified in 18 of the 32 analyzed documents, reflecting a consistent concern across the literature regarding the ethical implications of communication in the digital era. Across the reviewed documents, digital transformation is described as intensifying the visibility of sport actors and organizations, thereby increasing their ethical responsibility in public communication. Digital platforms enable rapid dissemination of messages but simultaneously expose sport actors to continuous public scrutiny. Within this context, ethical communication is framed as a critical component of human competency that sustains legitimacy and long-term trust. The analyzed texts repeatedly emphasize that miscommunication, misinformation, or ethically questionable digital behavior can undermine organizational credibility and threaten sustainability.

Sport communication scholars consistently highlight that trust in sport institutions is socially constructed through ongoing communicative practices rather than guaranteed by institutional status alone. Billings et al. (2021) argue that ethical communication functions as the foundation of legitimacy in mediated sport contexts, particularly when audiences actively interpret and contest messages circulated through digital platforms. Similarly, Sanderson (2018) notes that the expansion of athletes' and organizations' digital voices also expands their ethical obligations, as communicative actions increasingly shape public discourse beyond sport itself. This concern is also reflected in broader discussions of governance and accountability. Documents addressing sport governance and digital media suggest that transparency, consistency, and responsibility in communication are essential for maintaining public trust in sport organizations (Rowe, 2014). Ethical communication is therefore not treated as a normative ideal alone, but as a practical requirement for sustaining relationships with fans, communities, sponsors, and policymakers in digitally networked environments.

The similarity across documents within this theme lies in the shared assertion that sustainability in sport is inseparable from ethical communication practices. Public trust is portrayed as a fragile yet essential resource that must be continuously maintained through responsible communication. In this sense, ethical responsibility is embedded within communication competency and functions as a key mechanism through which digital transformation either supports or undermines sustainable sport development.

### **Theme 4: Sport Actors as Public Communicators in Networked Media Environments**

The fourth theme identified in the document analysis concerns the transformation of sport actors into public communicators within digitally networked media environments. As reflected in Table 1, this theme was identified in 20 of the 32 analyzed documents, indicating broad agreement that digital transformation has fundamentally reshaped the roles and responsibilities of athletes, coaches, and sport organizations. Across the reviewed literature, sport actors are no longer conceptualized solely as performers, instructors, or administrators operating within bounded institutional settings. Instead, they are increasingly positioned as visible communicative agents whose actions, messages, and silences circulate across digital platforms and contribute to public discourse. This transformation is closely linked to the expansion of social media and digital

communication channels, which collapse traditional boundaries between private, organizational, and public communication (Rowe, 2014).

Several documents emphasize that this shift requires new forms of human competency that extend beyond technical sport expertise. Pedersen, Laucella, Kian, and Geurin (2023) argue that contemporary sport organizations function as communication organizations, noting that “Strategic communication is no longer peripheral to sport management but central to organizational survival and legitimacy.” Similarly, studies focusing on athletes’ digital presence highlight that athletes increasingly perform communicative labor, shaping narratives related to identity, values, and social issues through their online communication (Geurin & Burch, 2017). These communicative practices are shown to influence fan engagement, brand meaning, and public perception, thereby positioning athletes as key actors in mediated sport systems.

The analyzed documents further suggest that the transformation of sport actors into public communicators intensifies the importance of communication competency as a core professional capability. Without appropriate competencies, digital visibility may expose sport actors to reputational risk, misinterpretation, or ethical controversy. Conversely, when communication is managed strategically and responsibly, digital platforms can support transparency, dialogue, and sustained relationships with diverse stakeholders.

The similarity across documents within this theme lies in their shared recognition that communication has become integral to role performance in contemporary sport. Sport actors are increasingly evaluated not only on athletic or managerial performance, but also on their ability to communicate effectively within complex media environments. This convergence reinforces the argument that communication competency constitutes a foundational element of human competency and plays a critical role in enabling sustainable sport development in the digital era.

#### **Theme 5: Communication, Wellness, and Sustainable Development Outcomes**

The final theme identified in the document analysis emphasizes the role of communication competency in linking digital transformation to wellness and sustainable development outcomes within sport systems. As indicated in Table X, this theme appeared in 17 of the 32 analyzed documents, reflecting substantial convergence across academic and policy-oriented sources. Across the reviewed literature, sustainability in sport is increasingly conceptualized beyond organizational continuity or economic performance to include human wellness, social inclusion, and long-term societal impact. Digital technologies are frequently described as expanding access to sport participation, health information, and wellness services; however, the analyzed documents consistently caution that access alone does not ensure sustained engagement or positive outcomes. Instead, effective communication is framed as the mechanism that enables individuals and communities to understand, trust, and meaningfully engage with digitally mediated sport and wellness initiatives.

Policy-oriented documents reinforce this perspective by emphasizing the communicative dimensions of sustainable development. The World Health Organization underscores that digital health and physical activity initiatives depend on education, communication, and user understanding to achieve lasting behavioral change and wellness outcomes (World Health Organization, 2022). Similarly, the United Nations highlights that inclusive participation and transparent communication are foundational principles of sustainable development, particularly in digitally driven social systems (United Nations, 2015). Academic studies further align with these policy perspectives by arguing that communication competency enables sport organizations to design inclusive programs, address diverse participant needs, and promote long-term engagement in physical activity (Bauman et al., 2012). The analyzed documents collectively

suggest that communication facilitates not only the dissemination of information but also the construction of shared understanding and motivation, which are essential for sustaining wellness-oriented sport initiatives over time.

The similarity across documents within this theme lies in their shared assertion that wellness and sustainability are fundamentally communicative processes. Digital transformation can support these outcomes only when human actors possess the competency to communicate health-related information ethically, contextually, and inclusively. Without such competencies, digital sport initiatives risk becoming fragmented, exclusionary, or short-lived, despite technological sophistication.

Overall, the findings associated with Theme 5 reinforce the broader conclusion that communication competency functions as a critical component of human competency, enabling digital transformation in sport to contribute meaningfully to wellness and sustainable development goals.

## **Discussion**

The findings of this qualitative document analysis provide strong support for a human-centered interpretation of digital transformation in sport, emphasizing communication competency as the key mechanism linking technology to sustainable outcomes. Across the analyzed documents, sustainability is consistently framed not as a direct consequence of technological advancement, but as a socially constructed process shaped by human judgment, ethical values, and communicative practices. The integration of empirical illustrations into this discussion further clarifies how these abstract mechanisms operate in real-world sport contexts.

First, the prominence of human-centered digital transformation confirms and extends theoretical perspectives that challenge technologically deterministic approaches. Consistent with Berman (2012) and Ratten (2020), the findings demonstrate that digital technologies primarily function as enabling infrastructures, while long-term sustainability depends on how human actors interpret, govern, and integrate these technologies within organizational and social contexts. A clear illustration can be seen in the widespread adoption of athlete performance monitoring systems and wearable technologies in elite sport. While many organizations invested heavily in data analytics platforms, several initiatives failed to achieve sustainable use because athletes and coaches lacked sufficient understanding of how data should be communicated, interpreted, and applied in training decisions. In such cases, technology was present, but sustainability was undermined by insufficient human and communicative competency, reinforcing the argument that technological investment alone is insufficient to sustain sport systems in the digital era.

Second, the analysis highlights communication competency as a central mediating mechanism through which digital transformation produces social and organizational meaning. In line with Hutchins and Rowe's (2012) concept of networked media sport, communication is embedded in all aspects of contemporary sport practice. This is evident in cases of athlete-led communication on social media platforms, where digital technologies amplify individual voices but also intensify reputational risk. For example, several high-profile athletes have experienced public backlash following misinterpreted or poorly contextualized social media posts, leading to sponsor withdrawal and organizational crisis. These cases demonstrate that digital platforms do not inherently generate engagement or legitimacy; rather, communication competency mediates how digital visibility translates into trust, credibility, and long-term value creation. In this respect, the findings extend sport communication scholarship by positioning communication not merely

as an operational activity, but as a structural process shaping legitimacy and sustainability (Billings et al., 2021).

Third, the close relationship between communication, ethics, and public trust underscores the practical importance of ethical communication for sustainability. As digital visibility increases scrutiny of sport actors, ethical lapses in communication can rapidly undermine legitimacy and threaten long-term viability. This dynamic is particularly evident in cases of crisis communication involving athletes' personal conduct or organizational governance failures. Instances in which sport organizations initially responded defensively or ambiguously to public criticism on digital platforms often resulted in prolonged reputational damage and declining public trust. Conversely, organizations that communicated transparently, acknowledged responsibility, and engaged in dialogue were more successful in restoring legitimacy. These patterns align with Sanderson's (2018) assertion that expanded digital voice entails expanded ethical responsibility and support the conclusion that ethical communication constitutes a core dimension of human competency rather than a peripheral concern.

The findings further illustrate how digital transformation has redefined sport actors as public communicators, whose professional roles now extend beyond performance and administration to include ongoing public engagement. Consistent with Rowe (2014) and Pedersen et al. (2023), athletes, coaches, and sport organizations increasingly operate within networked media environments where communicative performance shapes professional identity. A practical example can be observed in national sport organizations that require athletes and coaches to undergo media and digital communication training as part of professional development. These initiatives reflect institutional recognition that communication competency is integral to role performance, as athletes are routinely expected to represent organizational values, engage fans, and address social issues through digital channels. The transformation of sport actors into public communicators reinforces the centrality of communication in sustaining relationships with fans, communities, and stakeholders.

Finally, the integration of communication with wellness and sustainable development outcomes situates sport within broader global agendas. The findings align with policy perspectives from the World Health Organization and the United Nations, which emphasize communication, inclusion, and user understanding as prerequisites for sustainable health and development initiatives (United Nations, 2015; World Health Organization, 2022). A concrete illustration can be found in digital physical activity and wellness applications promoted during and after the COVID-19 pandemic. While many platforms offered technically sophisticated features, user engagement often declined when communication failed to address cultural context, motivation, or digital literacy. In contrast, initiatives that combined digital tools with clear, inclusive, and context-sensitive communication were more likely to sustain participation and contribute to long-term wellness outcomes. These cases demonstrate that communication enables digital sport initiatives to generate lasting social and wellness-oriented value.

Overall, this study advances sport and communication scholarship by demonstrating that communication functions as the connective infrastructure linking digital transformation, human competency, and sustainability. By foregrounding communication as a core component of human capability and illustrating its operation through real-world cases, the findings support a shift toward more integrated and human-centered approaches to sustainable sport development in the digital era.

## **Conclusion**

This study demonstrates that sustainable sport in the digital era is fundamentally a communicative phenomenon rather than a technological one. Drawing on a qualitative document analysis of 32 academic and policy sources, the findings confirm that digital transformation does not inherently produce sustainable outcomes. Instead, sustainability emerges through human competency, with communication competency functioning as the core mechanism that translates digital capacity into social, ethical, and wellness-oriented value. By foregrounding communication as the connective infrastructure linking technology, human agency, and sustainability, this study advances human-centered perspectives on digital transformation and reinforces constitutive views of communication that conceptualize sustainability as a process of meaning-making and social construction rather than technical efficiency alone (Berman, 2012; Craig, 1999; Ratten, 2020). Within digitally mediated sport systems, communication competency shapes how digital transformation is interpreted, legitimized, and ethically governed. Sport actors increasingly operate under conditions of continuous visibility, where communication practices directly influence trust, credibility, and public meaning. Ethical communication therefore constitutes a structural requirement for sustainability, as public trust is continuously negotiated through communicative action. In this context, athletes, coaches, and sport organizations function not only as performers or administrators but as public communicators whose professional roles are inseparable from their communicative performance. This role transformation underscores communication competency as a critical dimension of human capability essential for sustainable sport development.

When situated within the Thai context, these findings carry particular significance. Thailand has made substantial investments in digital infrastructure, sport innovation, and wellness-oriented policies, while positioning sport as a mechanism for human development, public health, and national soft power. Nevertheless, persistent challenges related to digital literacy, ethical communication, crisis management on social media, and public trust in sport institutions suggest that digital transformation in Thai sport cannot be sustained through technology deployment alone. Rather, sustainability depends on the systematic development of communication competency among athletes, coaches, administrators, and future sport professionals, enabling them to communicate responsibly and contextually within culturally specific digital environments.

## **Practical Implications for Sport Universities and Sport Organizations**

The findings suggest several practical implications for sport universities and sport organizations, particularly in Thailand. First, communication competency should be formally recognized as a core professional capability in sport education. Universities of sport should integrate courses such as Digital Communication Ethics, Sport Media Literacy, and Crisis Communication in Sport into curricula for athletes, coaches, and sport administrators to prepare graduates for ethical decision-making, digital visibility, and public engagement.

Second, sport organizations should align digital transformation strategies with human competency development. Beyond technological investment, organizations should implement structured training programs that enhance ethical communication, stakeholder engagement, and digital judgment, ensuring that digital capacity contributes to long-term trust and organizational legitimacy.

Third, communication competency should be embedded within governance and evaluation frameworks, including athlete development pathways and coaching certification systems.

Emphasizing ethical conduct, public responsibility, and digital professionalism is particularly important in the Thai sport system, where athletes frequently function as symbolic representatives of national identity.

In conclusion, this study affirms that human competency anchored by communication competency is the primary driver of sustainable sport in the digital era. Future research should empirically examine communicative practices within specific sport contexts in Thailand and beyond to further strengthen communication-centered approaches to sustainable sport development.

### **Limitations and Future Research**

This study is based on qualitative document analysis, which enables conceptual synthesis but does not capture the lived communicative practices of athletes, coaches, or sport administrators. Consequently, the proposed framework reflects patterns derived from existing literature rather than direct empirical evidence. In addition, although the discussion highlights implications for Thailand, the analysis does not focus on a single national or organizational context.

Future research should empirically examine communication competency in digitally mediated sport settings through interviews, surveys, or case studies, particularly within sport universities and sport organizations in Thailand. Such studies would help validate and refine the proposed framework and further advance communication-centered approaches to sustainable sport development.

### **References**

- Berman, S. J. (2012). Digital transformation: Opportunities to create new business models. *Strategy & Leadership*, 40(2), 16–24. <https://doi.org/10.1108/10878571211209314>
- Billings, A. C., Butterworth, M. L., & Turman, P. D. (2021). *Communication and sport: Surveying the field* (4th ed.). SAGE Publications.
- Craig, R. T. (1999). Communication theory as a field. *Communication Theory*, 9(2), 119–161. <https://doi.org/10.1111/j.1468-2885.1999.tb00166.x>
- Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approach* (5th ed.). SAGE Publications.
- Geurin, A. N., & Burch, L. M. (2017). Communicating via photographs: A gendered analysis of Olympic athletes' visual self-presentation on Instagram. *Sport Management Review*, 20(3), 298–309. <https://doi.org/10.1016/j.smr.2016.03.002>
- Hutchins, B., & Rowe, D. (2012). *Sport beyond television: The internet, digital media and the rise of networked media sport*. Routledge.
- Pedersen, P. M., Laucella, P. C., Kian, E. M., & Geurin, A. N. (2023). *Strategic sport communication* (3rd ed.). Human Kinetics.
- Ratten, V. (2020). Digital transformation and innovation in sport. *Journal of Business Research*, 116, 1–3. <https://doi.org/10.1016/j.jbusres.2020.04.028>
- Rowe, D. (2014). *Sport, culture and the media: The unruly trinity* (2nd ed.). McGraw-Hill Education.
- Sanderson, J. (2018). *The intersection of sport, communication, and culture*. Peter Lang.
- United Nations. (2015). *Transforming our world: The 2030 agenda for sustainable development*. United Nations.
- World Health Organization. (2022). *Global strategy on digital health 2020–2025*. WHO Press.