

Introduction to the thematic issue: transformative relationships between tourism and technology

Worldwide
Hospitality and
Tourism Themes

Sotiroula Liasidou

*Department of Hospitality and Tourism Management,
Cyprus University of Technology, Limassol, Cyprus, and*

Kosmas Pipyros

Department of Computer Science, Philips University, Nicosia, Cyprus

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Abstract

Purpose – The article offers a thorough and insightful examination of the transformative role technology plays in the tourism industry by introducing the articles of the thematic issue.

Design/methodology/approach – The discussion approach involves reviewing relevant literature and providing a detailed description of each article in the thematic issue. In particular, the issue consists of a compilation that includes a series of research articles, case studies and theoretical discussions; quantitative and qualitative research enquiries that examine various aspects of tourism technology, such as cybersecurity, digital marketing, smart tourism initiatives, the role of social media and the impact of emerging technologies like artificial intelligence through different perspectives of discussion.

Findings – Each article provides useful conclusions that shed light on the various ways that technologies can transform and revolutionize the tourism industry. Technology and tourism have a reciprocal relationship, where technology not only transforms tourism but also shapes it.

Originality/value – This thematic issue contributes and provides new insights into the evolving dynamics of tourism and technology, offering a multidisciplinary perspective that bridges theoretical frameworks and practical applications for industry stakeholders.

Keywords Tourism, Technology, Digital marketing, Smart tourism, Consumer behavior, Artificial intelligence, Internet of Things, Sustainable tourism, Cybersecurity, Revenue management

Paper type Viewpoint

Technology and tourism: a transformative relationship

In recent years, the tourism industry has experienced profound changes, driven by rapid technological advancements. Technology has initiated a new era in the tourism industry, particularly with the evolution of artificial intelligence (AI), the integration of smart technologies, and the development of data-driven tools that have revolutionized both the operational and experiential aspects of tourism (Bulchand-Gidumal *et al.*, 2023; Gursoy *et al.*, 2023). The thematic issue examines the transformative relationship between tourism and technology, focusing on how technological innovations are reshaping tourism in all layers of interactions among providers and consumers (Karadayi-Usta, 2024; Park *et al.*, 2023). The intersection of tourism and technology represents one of the most transformative relationships in the modern business landscape. Technological advancements, particularly in AI, Internet of Things (IoT), and digital innovations, are reshaping how the tourism industry operates, affecting both consumer behaviors and business models (Ivanov *et al.*, 2023). By addressing key questions about the role of AI, digital platforms, and various technological tools, discussion of the evolution of technology provides both scholarly insight and practical guidance for industry stakeholders (Khaliq *et al.*, 2022). These technologies enable a more

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WHAT

personalized and efficient travel experience, catering to the diverse desires and preferences of modern tourists while simultaneously allowing businesses to respond swiftly to market demands (Buhalis *et al.*, 2023). As consumers become more tech-savvy, they seek out enhanced experiences, pushing hospitality businesses to adopt new strategies in order to stay competitive. This reciprocal influence fosters a dynamic environment where innovation thrives, encouraging ongoing research into both current applications and future possibilities.

In particular, the amalgamation of the topics sets the stage for a compelling exploration of the intersection between tourism and technology, emphasizing the profound transformations impacting the industry. As the world becomes increasingly digital, reliance on technology in tourism is not merely a trend; it is a fundamental shift that affects how travelers plan, experience, and reflect on their journeys (Bulchand-Gidumal *et al.*, 2023). This thematic issue seeks to dissect these changes, providing a platform for researchers, practitioners, and industry experts to share their insights and findings related to the technological innovations reshaping the tourism landscape (Jalilvand and Ghasemi, 2024; Sustacha *et al.*, 2023). Additionally, the thematic's issues articles will help policymakers, business owners, educators, and researchers navigate the future of tourism in an increasingly technology-driven world, fostering innovation while promoting sustainability (Kim *et al.*, 2024).

Design of the theme issue

Topics

Zvaigzne *et al.* (2025) provided an extensive literature review discussion on the negative impact of artificial intelligence technologies on the tourism industry. The results of the study suggest that AI can have negative impacts on the industry, such as replacing labor and decreasing the interaction between tourists and service providers. Therefore, it is crucial for tourism practitioners to pinpoint the primary threat and devise strategies that effectively utilize AI without leading to adverse outcomes.

Poulaki *et al.* (2025) emphasize the use of information systems (IS) in relation to the latest trends of adaptation to airline revenue management, distribution, and passengers. The study employs content analysis, which involves a review of existing secondary sources on the discussed issue. The results suggest that a relational triangle of dependence and competition, which includes revenue management systems (RMS) and reservation systems (RS) through third parties (aggregators), affects the utilization of IS in the airline industry.

The study by Panagopoulos *et al.* (2025) lays the groundwork for establishing a comprehensive structural framework for smart stadiums. It examines their integration as essential components of smart tourism destinations and investigates their influence on visitors' intentions to visit. The methodological approach relies on a literature review to establish the dimensions and understand their relationships. The results indicate that sustainability is the primary driving force behind the establishment of smart stadiums.

Christofi *et al.* (2025) used a scenario-case discussion to identify whether ChatGPT information is valid for guiding young travelers to address sexually transmitted infections. The results indicate that ChatGPT, when provided by a health professional, was both adequate and correct.

Pipyros and Liasidou (2025) discuss the vulnerabilities of the hotels to cybersecurity threats and suggest a new methodological approach for risk assessment management. In particular, the study deals with the main cyberthreats of hotels and provides an understanding of the way the threats are confronted. Semi-structured interviews were facilitated with hotel managers explaining the procedures followed to cybersecurity and data protection. The paper provides a new cybersecurity risk assessment framework for the hospitality industry.

Stylianou and Pericleous (2025) investigate the levels of digital skills, competencies, and readiness among graduates in the hospitality and tourism fields. The study uses semi-structured interviews for the collection of primary data with hotel and tourism graduates. The study's results indicate a deficiency in updating the digital skills of graduates. Therefore,

academic institutions and hospitality and tourism businesses must bridge the gap by providing the necessary technological resources to prepare students as a future working force for their employment.

[Stylianou et al. \(2025\)](#) provide an in-depth understanding and analysis of the stakeholders' perspective in relation to social media exposure and how the rural areas place branding is framed. The study employs a qualitative methodology, utilizing semi-structured interviews to gather insights from key stakeholders. The results indicate that social media plays a crucial role in establishing a branding image for rural areas. However, the primary challenge lies in ensuring the involved stakeholders possess the necessary digital skills to effectively utilize the generated social media content through various methods, thereby meeting the diverse needs of potential visitors.

[Neophytou et al. \(2025\)](#) argued that AI can enhance the teaching and learning capabilities of sustainable tourism using various tools. The study incorporates semi-structured interviews with hospitality and tourism educators, and the results suggest that AI can further facilitate tourism education, particularly in sustainability. However, the main challenge is to establish both educators and learners' competence in the use and utilization of AI tools.

[Socratous et al. \(2025\)](#) in the paper examine the way that Cyprus, through technology, can be established as a technologically driven sustainable destination. The study employs a qualitative methodology, utilizing focus groups with key industry stakeholders. The results indicate that despite the potential for technological adaptations and innovation, there are significant obstacles that impede progress. In particular, there is a lack of substantial investments, complicated and delayed bureaucratic processes for decision-making, and reliance on outdated systems.

[Pericleous et al. \(2025\)](#) examine the relationship between AI and hotel operations, considering employees' perceptions of coexistence. The study follows a quantitative approach through questionnaires with hotel employees, and the results highlight that, indeed, employees feel threatened and insecure about losing their jobs because of AI. However, the perception of AI as a competitive tool requires hotel management teams to create a secure environment by promoting the idea that AI is an enabling tool that enhances hotel services.

Summary

The objective of this issue is to examine how smart tourism, artificial intelligence, and digital platforms are transforming travelers' interactions with aspects such as destination management, digital competences, guest services, travelers' safety, and tourism education. The perspective of technology in these articles, is ranging from smart cities to AI-driven education, destination management systems, cyber security, health and safety, and digital competencies, provides distinctive approaches to resource management, visitor engagement, and sustainability improvements. The thematic issue presents managerial implications for tourism stakeholders, considering the impact of technological advancements on both the supply and demand sides of the economy. The incorporation of AI in destination management receives attention, and the use of big data to forecast travel trends creates novel opportunities for enterprises but also raises privacy, security, and adaptability issues. Finally, the generated issues and ideas serve as a foundation for future research that can explore the evolution of technological innovations in the industry. The thematic issue presents managerial implications for tourism stakeholders, considering the impact of technological advancements on both the supply and demand aspects of the sector.

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Corresponding author

Sotiroula Liasidou can be contacted at: sotiroula.liasidou@cut.ac.cy