
Editorial: Technology revolution in the tourism and hospitality industry

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Artificial intelligence (AI) in tourism has a new space to grow in the industry. AI in tourism has gone beyond robotics attractions for the customers as it is now emerging as a tool for decision-making among the tourism companies. Coding multiple information and communication technologies (ICTs) have been central to the value creation and have provided efficient services to enhance tourists' experiences. AI is now able to manage the data analysis and deliver managerial decisions to the tourism firms, however, the human element is not totally replaced with the machines in managing firms. AI is integrated with ICTs to be omnipresent in all stages of a tourist's journey and support the ecstasy of customers in the tourism and hospitality industry (Buhalis et al., 2019). Early this century, social robots played a pivotal role in serving the social institutions and tourism industry to disseminate information and converse with humans. Broadly, Alexa and Siri are also accommodated as social robots with AI to interact with humans. The Chat-GPT has the new AI revolution in the public domain to develop interactive relationships and mutual dependency to learn and widen the information silos. AI robots serve as co-workers and analysts for decision making in large multi-brand and transnational leisure and tourism firms. AI has yet to support the tourism and hospitality industry robots with trust, anticipation, and emotions. Happiness, arousal, and merriment have a significant impact on robot sentiment polarity, while anticipation and surprise do not significantly affect the AI logarithms. Therefore, one major challenge is to anthropomorphise robots for the tourism and hospitality industry (Jörling et al., 2019).

Coevolving with academics and stakeholders, firms can identify appropriate technologies, carry out innovations, and prepare for effective technology transfer through training programs on face-to-face and digital platforms. Such integrated efforts leverage social and industrial consciousness for developing new products in the fields of renewable energy and sustainability, and meeting the social challenges like poverty alleviation, housing and community health. The technological revolution has driven the digital transformation, as firms are engaged in co-creating value in industrial markets. Among the many forms of technology development, digital technologies have encouraged AI which has the strongest pervasive impact (Monila and Rajagopal, 2023). The AI is being actively used in public parks to regulate resource use and reinforce the

basic civil laws in public places. Robot dog, a machine with AI and cameras, is used for surveillance and maintaining social distancing during the COVID-19 pandemic (2020–2022) in Singapore. In a real-life situation, using AI to train dogs and train low-cost robots to perform tasks previously achievable by machines is ten times more expensive (Hsu, 2022).

ICT and AI make a strong contribution to adventure sports and tourism. Eudaimonism in adventure tourism is an attractive attribute of tourists to gain a sense of self-achievement, ultimately leading to health and wellbeing. The ICT and AI complement tourist knowledge and help in narrowing down the unveiled biases and encourage eudaimonic behaviour in adventure tourism. Adventure tourism enhances eudaimonic emotions, which is marginally different from perceived happiness or hedonic pleasure. The adventure tourism has emerged as family tourism rather than for an individual's wellbeing (George et al., 2021). However, when adventure tourism is commoditised, its benefits would be enormous to the tourism and hospitality industry. AI-based robots, unlike machines with predefined functions, could revolutionise the tourism industry by offering interactive solutions. Cutting-edge technologies significantly affect social and industrial development in transitional economies. The prominent technological edges that drive challenge-based research include AI, augmented reality, virtual reality, wearable technology, robotics and big data analytics. The growing environmental concerns, public policies, and scientific communities describe the efforts that utilise ecosystem processes to boost challenge-based research in engineering and technology to address societal challenges. The challenge-based research outputs have significantly contributed to the development of tourism sector economy.

The technological revolution has driven the digital transformation as firms are engaged in co-creating value to enhance the markets in tourism and hospitality sector by adding the power of AI to acquire new customers. Among the many forms of technology development, digital technologies have encouraged AI which has the strongest pervasive impact. By mobilising resources and capitalising on the growing AI revolution, firms in tourism and hospitality industry can converge this sector with the mainstream technology revolution at Industry 4.0. However, knowledge and skills, service design process, and co-creation of business models in tourism and hospitality industry must be congruent with the embedded PNS factors (problems, needs and solutions) in the society (Leone et al., 2021). Social relations widely rely on information technology infrastructure irrespective of its sophistication. The major concern in digitalising emotions and social relationships is to ensure effective knowledge management through diffusion of dialogues across the social genre. Social empowerment depends on the active digital connectivity in which people exchange their perceptions and values on brands, benefits and benevolence (3Bs) to express their compassion to the companies within the existing social ecology. Convergence of business and social ecology drives expectations of consumers and stakeholders to strengthen their association and social fit with both insiders and outsiders of their social regime. Such sociological bonding with business allows sharing and mobilising of knowledge to identify the opportunities of social wellbeing and reconstructing effective and efficient relationship channels to integrate changing business philosophies (Gupta and Govindarajan, 2000).

This issue of the journal includes four papers that broadly address AI, urban recreation, adventure tourism, and quality tourism and customer experiences. The research papers with the above focus represent the study areas of Malaysia, South Africa, China, Hong Kong and the UK. These papers discuss contemporary research propositions

and attempt to establish convergence between the role of technology, consumer, and companies in managing brand awareness, brand knowledge, and brand affinity among competitive leisure and tourism brands in the competitive technology-led marketplace. I hope this collection of research papers appearing in this issue will enrich the existing literature and stimulate future research.

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