

## Digital Marketing and the Metaverse: insights from a tourism perspective

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**Objectives** | The metaverse emerges as a platform that allows its users to live experiences that transcend the physical world's limits and that will be integrated into daily life and applied to various areas (Ning et al., 2023). This platform brings about significant changes in fundamental aspects of consumer interaction and communication (Mystakidis, 2022) and their perception of products and services (Gursoy et al., 2022). In addition, it also provides marketers and brands with new possibilities to interact with their target audience. Given these changes, which can be directly attributed to the platform's three-dimensional environment and the principles and philosophies that govern it, digital marketers must be proactive in understanding and adopting the metaverse (Gursoy et al., 2022).

In an unprecedented phase of rapid development, the metaverse applies technologies such as the 5G network, cloud computing, computer vision, blockchain and artificial intelligence, which constitute its technological base, to several areas (Ning et al., 2023). Described as the next version of the internet, Web 3.0, it presents great opportunities for marketers (Dwivedi et al., 2022). The metaverse can be applied to areas such as health and education to solve difficulties and problems (Dwivedi et al., 2022), and culture, travel, and tourism, allowing infinite and unlimited new experiences (Ning et al., 2023).

The development of digital marketing is inseparable from technological development (Desai, 2019). For this reason, marketers must be proactive in identifying, understanding, and adopting new technologies that can be used as tools for communication and advertising, branding, engagement, and customer service (Gursoy et al., 2022).

Much has been researched regarding the metaverse and its application in the tourism and hospitality industry, centered on enhancing customer engagement, expanding reach, and creating unique experiences (Buhalis et al., 2023b). Thus, this work unveils the major research areas and those that need to be fostered within the tourism and hospitality field.

**Methodology** | Bibliometric analysis was considered the most appropriate methodology for this study since it allows the scientific mapping of the work developed around the theme to be studied

(Donthu et al., 2021). Citation analysis, bibliographic coupling analysis, and joint word analysis techniques were applied to obtain a comprehensive view of the evolution of the intellectual state and themes related to digital marketing in the metaverse. The Web of Science platform was used, and the search keywords were “metaverse” and “marketing”. The extraction of bibliometric data occurred in June and August 2023, and 168 documents with 496 authors and 9616 associated references were found. Of the 168 documents extracted, it was found that 126 correspond to publication articles, of which 31 are in early access, 19 to conference articles, 18 to review articles, of which 4 are in early access and 5 to editorial articles. The publications within the field of study of marketing in the metaverse began in 2009, with a total of 3 articles published that year. In subsequent years, a low volume of publications was observed, with no publications in the years 2011 to 2014 and 2017 to 2020. In 2022, there was an exponential increase in the number of articles published within the field of study, compared to previous years, accounting for a total of 59 publications. By the time data was extracted in August 2023, there were a total of 103 publications. In addition, the VOSviewer software was used, allowing the graphical analysis of the links between the different publication articles of the field of study and their clusters (Van Eck & Waltman, 2023). Afterwards, a field classification and a deep review of the papers linked to tourism and hospitality was conducted, to unveil the paths of research already explored and those needing further attention.

**Main Results and Contributions** | From the analysis of bibliographic coupling and joint words, “experience”, “context”, “engagement”, and “satisfaction” are the keywords that stand out; and from the analysis of all keywords, it is possible to infer that the publications address concepts related to services, extended reality technologies and marketing.

From the articles analyzed, it can be seen that the authors seek to understand the different opportunities and challenges that the metaverse entails for the management and marketing of the hospitality and tourism sector (Buhalis et al., 2023a; Buhalis et al., 2023b). The metaverse ecosystem for the travel and tourism sectors (Buhalis et al., 2023a) and smart hospitality are also conceptualized, and the notion of metaverse tourism is introduced (Koo et al., 2023). There are also studies to assess the impacts of virtual reality tourism content on consumer perceptions of the destination to visit (Lee, 2022), as well as the usefulness of metaverse marketing for the travel and tourism sector, explaining an effective way that leads to a positive impact of metaverse travel on the marketing of the travel and tourism sector (Tsai, 2022).

It is possible to conclude that the discussion currently taking place in the field of research aims to determine the implications and opportunities that the metaverse and the technologies associated with it could bring to the marketing area and the marketing of sectors such as tourism and hospitality. This proves that the metaverse is the next frontier for digital marketing and that there is a concern to understand how marketing will work in this new space, especially for tourism and hospitality firms.

**Limitations** | The main limitation of the work is that the bibliometric data collected using the Web of Science platform only considers the articles that are indexed there. Thus, the existing bibliography on the subject that is not indexed is excluded from the analysis, and consequently, it is not possible to fully analyze the intellectual state of the field of study.

**Conclusions** | This work aimed to relate the development of the metaverse with the concept of digital marketing, seeking to demonstrate that the metaverse, as a new virtual space for interaction between consumers and companies, requires an understanding of its characteristics and inherent technologies by marketing professionals. Moreover, it can be explored in a wider manner by tourism and hospitality firms, aiming to establish a more immersive relationship with customers through even more innovative and groundbreaking applications that will transform how people travel and experience the world.

Considering that the field of marketing studies in the metaverse is recent, most existing literature seeks to define and explore the basic concepts associated with it, the technologies underlying it, and its applications. Thus, this work offers a characterization of the intellectual structure of the field of study, which can guide researchers through future research avenues. Future research on the role of the metaverse in tourism and hospitality could delve into several paths to enrich our understanding and optimize its applications. Firstly, investigating the socio-cultural implications of metaverse integration in travel experiences could offer insights into how it reshapes cultural interactions, authenticity perceptions, and community dynamics. Secondly, exploring the technological advancements necessary to enhance user immersion, such as augmented reality, virtual reality, and haptic feedback systems, could refine the metaverse's ability to simulate real-world environments and activities. Additionally, examining the economic implications, including revenue generation models, market dynamics, and the redistribution of tourism flows, can guide stakeholders in adapting their business strategies to the metaverse era. Lastly, ethical considerations regarding data privacy, inclusivity, and digital equity need to be addressed to ensure that metaverse-based tourism initiatives are accessible, equitable, and sustainable for all the stakeholders involved.

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