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The metaverse in the hospitality and tourism industry: An overview of current trends and future research directions

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ABSTRACT

Scholars have speculated that the metaverse will alter the way in which the hospitality and tourism industry operates. Efforts to understand this new phenomenon in both academia and industry are at a crossroads. In this opinion piece, we first attempt to explain the concept of the metaverse in general and in the context of the hospitality and tourism industry. Next, we propose a conceptual framework for creating metaverse experiences, identifying research gaps, and proposing agenda items with the potential to significantly benefit hospitality and tourism industry players. Finally, we classify future research agendas into three broad categories: staging experiences in the metaverse, understanding possible changes in the consumer behavior, and marketing and operations strategies in the metaverse.

学者们推测, metaverse将改变酒店业和旅游业的运作方式。学术界和工业界对这一新现象的理解正处于十字路口。在这篇评论文章中,我们首先试图在酒店业和旅游业的背景下解释metaverse的概念。接下来,我们提出了一个概念框架,用于创建metaverse体验、确定研究差距,并提出有可能使酒店业和旅游业参与者受益的议程项目。最后,我们将未来的研究议程分为三大类在metaverse中展示体验、了解消费者行为的可能变化,以及metaverse中的营销和运营策略。

KEYWORDS

Internet 3.0; metaverse;
metaverse tourism; virtual
tourism

Introduction

The world's hospitality and tourism industry is currently experiencing significant changes not only as a result of global COVID-19-related travel restrictions but also because of disruptive innovations in the digital sphere, including the evolution of the metaverse. Although conventional travel is now approaching pre-pandemic levels, virtual hospitality and tourism experiences continue to grow in popularity. The notion of the metaverse and its associated virtual experiences have radically altered people's perspective on the future of technology and its potential impact on the hospitality and tourism industry (Buhalis & Karatay, 2022). Businesses in this industry are eager to explore ways to capitalize on the metaverse and create virtual hospitality and tourism experiences, products, and services for their consumers. Enabled by Internet 3.0, the metaverse refers to a three-dimensional

virtual space that focuses on social connections. Beyond its ability to promote social connection, the metaverse creates a sense of presence and hence it is attracting attention from the hospitality and tourism industry.

Consumers are increasingly opting for metaverse hospitality and tourism experiences, products, and services. For example, Japan-based First Airlines has begun offering virtual flights from Tokyo. The company reports 100% occupancy for virtual flights to multiple locations, including Hawaii, Rome, Paris, New York, etc. Another example of the metaverse at work, the *National Geographic* VR subscription allows individuals to use Oculus VR gear to virtually kayak through icebergs in Antarctica or explore the hidden treasures of Machu Picchu. Similarly, “Wander” enables individuals to walk through any of the world’s locations that are mapped in Google Street View. The Wikipedia integration, moreover, provides location-based information while a user walks through his or her favorite place. It also allows individuals to time travel and thus witness changes that have taken place since 2005 (i.e., when Google Street View was launched). Other opportunities include participating virtually in an expedition to the Arctic Circle and enjoying a guided tour by Dallas Seavey, a veteran four-time winner of the Iditarod dog sled championship. Metaverse applications such as these are revolutionizing the hospitality and tourism industry as virtual hotels, destinations, and tours alter the ways in which people select lodging and destinations, make bookings, and even attend concerts. Although the metaverse cannot replace in-person travel, improvements in technology and sophistication in the quality of virtual reality (VR) headsets have made metaverse hospitality and tourism apps increasingly immersive. These improvements, in turn, are driving digital natives and tech-savvy consumers to engage in virtual globetrotting. The metaverse is thus certain to become an integral part of the industry and augment the overall hospitality and tourism experience in multiple ways.

As the metaverse brings fundamental changes to the hospitality and tourism industry, stakeholders in the industry are puzzled by several questions. For example, how will the metaverse influence the future dynamics of the industry? What effects will the metaverse have on hospitality and tourism customers’ decision-making behaviors and consumption patterns? What real-life experiences can be transferred to the metaverse? Should businesspeople purchase virtual land to operate virtual companies, like the web domains they have purchased in the past? In this opinion piece, we provide a brief overview of the recent evolution of the metaverse in the hospitality and tourism industry and discuss future research directions for interested scholars.

What is the metaverse

N. Stephenson coined the term “metaverse” in his 1992 science fiction novel *Snow Crash*. The novel envisioned life-like avatars meeting in realistic 3D buildings and other virtual reality environments. In fact, though, the concept of the metaverse stretches even further back – to a 1909 book titled *Machine Stops* by E. M. Foster. A short science fiction story, *Machine Stops* describes an earth made uninhabitable by an environmental disaster, which forces almost all humans to live underground in individual pods. In Foster’s fictional world, an enormously complex global machine provides all of humanity’s wants and needs – from

basic necessities (e.g., clean air, light, nutrition, and shelter) to higher desires (e.g., entertainment, literature, music, and social interaction). More than a century after *Machine Stop*'s publication, the metaverse recently garnered renewed interest when Facebook rebranded itself as "Meta," a metaverse company (Kim, 2021). While the metaverse concept described in Foster's book refers to a society wherein survival depends on a global machine, the metaverse concept we discuss – i.e., a parallel digital world where life-like avatars meet in 3D virtual reality environments – aligns more closely with that in Stephenson's novel (Ball, 2021; Caulfield, 2021).

Simply put, the metaverse is a collective, persistent, and interactive parallel reality created by synthesizing all virtual worlds to form a universe that individuals can seamlessly traverse. People can inhabit the metaverse using their digital avatars and experience the virtual world in multiple forms, including augmented reality (AR), VR, and mixed reality (XR; Ball, 2021). In essence, the metaverse is a parallel reality where humans can work, play, and communicate. To be clear, however, the metaverse is not merely a virtual version of today's Internet; rather, the metaverse supersedes the present-day Internet entirely and allows its users to inhabit the Internet (Herrman & Browning, 2021).

While the concept of a parallel virtual world has been seriously discussed for more than two decades, humanity's collective experiences with COVID-19-related lockdowns and social distancing requirements and the resulting feelings of disconnection and isolation have accelerated the collective imagination around the creation of an alternate reality. In this reality, individuals can, indeed, interact with and have shared experiences with others – potentially thousands or millions of others – in real-time and at any time. The metaverse is a world where individuals can travel without restrictions whenever and wherever they wish. It is a world where any experience becomes possible and accessible.

The metaverse and the hospitality and tourism industry

The COVID-19 pandemic and the war in Ukraine have once again demonstrated the hospitality and tourism industry's vulnerability to both external and internal shocks. Increasing awareness of climate change is also likely to influence individuals' decision-making regarding hotels and destinations. Increasing climate change awareness, changes in customers' needs and wants, generational shifts, and other external factors are likely to incline individuals to patronize hospitality businesses that practice sustainability and to visit domestic rather than international destinations. These changes in customers attitudes can even motivate them to experience some of the hospitality and tourism experiences such as attending meetings, concerts, visiting museums, etc., which can be delivered in metaverse without sacrificing any of the expected benefits to decrease their carbon footprint while saving, time and money. These possible changes in customer behaviors highlight the importance of industry efforts to develop and offer realistic hospitality and tourism experiences in the metaverse, especially as the necessary technology emerges and user adoption increases. As customers and technologies evolve, metaverse applications are likely to play a more significant role in the industry, enhancing marketing, customer relationships, communication, customer decision-making processes, and guest experiences. Thus, hospitality and tourism metaverse experiences may even become the next disruptor of the industry.

Dimensions of metaverse experiences

Before monetizing the metaverse, hospitality and tourism companies must design immersive experiences that people perceive to be valuable and for which they are willing to pay. Players in the hospitality and tourism industry must exhibit ingenuity and innovation to create distinct and immersive experiences capable of engaging customers’ multiple senses. We conceptualize metaverse travel and tourism experiences using a two-dimensional framework and four quadrants (Figure 1). The first dimension represents the degree of interactivity, which can range from low to high. In low interactive experiences, customers passively engage with virtual products and services. For example, customers might conduct activities that do not require their active participation or seek information passively. Highly interactive experiences require customers to actively participate in a live virtual environment – for example, by kayaking, playing first-person shooter games, etc.

The second dimension of metaverse experiences represents the type of motive (hedonic vs. utilitarian) the experience fulfills for the consumers. Individuals operating on hedonic motives undertake virtual experiences for enjoyment and pleasure, whereas individuals with utilitarian motives seek to satisfy their functional or utilitarian needs in the virtual world. Customers can seek hedonic pleasures in the metaverse by escaping into the wilderness of the Amazon rainforest or virtually scuba diving in the Pacific Ocean. At the other end of the spectrum, the metaverse can satisfy customers’ utilitarian needs to try before buying or booking.

Through the metaverse, people can experience flights, hotel rooms, cooking and food preparation at restaurants, tours, conferences, meetings, and conventions in an entirely virtual manner. In fact, several air travel companies, such as Boeing, are working with

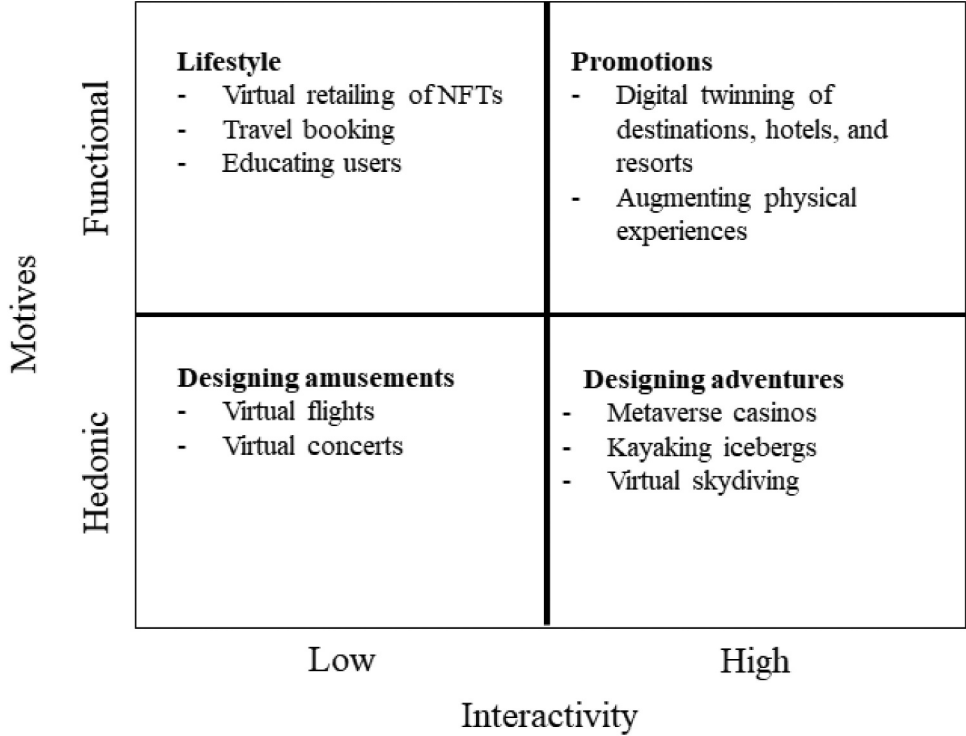


Figure 1. Creating metaverse experiences.

immersive 3D engineering designs to construct and produce airline services on a single digital ecosystem in the metaverse. These efforts will offer customers a “try before you buy” feature, enabling them to explore hotel and restaurant interiors, tourist attractions, flights, and other services in which they are interested, all from the comfort of their homes. Because customers will thus be able to virtually experience the services in which they are interested before making their decisions, metaverse experiences can make the difference between customers completing a booking or backing out. Metaverse experiences can also provide extra encouragement to customers who may have second thoughts about making a reservation.

In these ways and more, the metaverse offers significant opportunities to both service providers and customers. While the metaverse presents businesses with important marketing and customer relationship opportunities, it can also save customers time and money when they are planning trips. In addition, opportunities to transform traditional hospitality and tourism experiences into virtual experiences are nearly limitless. Individuals will be able to shop, visit museums, enjoy concerts, or stroll through art galleries in the digital world. Although virtual experiences are unlikely to completely replace real-world hospitality and tourism experiences, the predictions are optimistic. Thus, many industry leaders have begun investing in these digital landscapes, and 2022 may well be the year in which the metaverse trend accelerates.

Research agenda

We analyzed the metaverse phenomenon, which is currently in its initial phase. The majority of practitioner articles and blogs we reviewed have utilized a speculative approach to predict the metaverse’s possible impact on hospitality and tourism experiences. Many unanswered questions remain. For example, how can the hospitality and tourism industries leverage the metaverse? What changes can the metaverse bring to the hospitality and tourism industry? What problems can it solve, and how will it disrupt the future of the hospitality and tourism industry? Furthermore, while visual and auditory stimuli are relatively easy to recreate in the metaverse, and to a certain extent, personal interactions can be simulated, some suggest that gustatory and olfactory stimuli cannot. If the metaverse cannot replace customers’ actual hospitality and tourism experiences, therefore, scholars must systematically investigate the metaverse’s potential roles in the industry.

We classified the potential questions into three areas: staging experiences in the metaverse, understanding possible changes in consumer behavior, and developing business strategies. This classification can help scholars to undertake the necessary systematic research.

Development of metaverse experiences and the metaverse consumer experience journey

By transferring control of consumer-experience co-creation from service providers to consumers and thereby democratizing the service co-creation process, the metaverse will disrupt hospitality and tourism experiences and the service experience co-creation process. Therefore, the five-stage consumer journey, which begin with awareness and ends in purchase and loyalty, may not work in the metaverse. Rather, the *metaverse experience*

journey must be a “stream of engagement” in which individuals can interact with the metaverse-scape and have immersive experiences. Although the *metaverse experience journey* can result in purchases, it cannot be merely a “path to purchase.” Scholars must undertake research projects to help hospitality and tourism professionals understand the underlying dimensions involved in constructing interactive and immersive experiences for their consumers in 3D virtual worlds. Researchers should also investigate the potential of the metaverse to modify various stages of the customer experience journey. Additionally, researchers must examine the impact of the *metaverse experience journey* on consumer outcomes, such as overall customer engagement and customer satisfaction, and/or include the metaverse as an additional touchpoint in the customer experience journey within the hospitality and tourism industry.

Addressing specific research questions – such as whether interactive VR/XR experiences can recreate real-world environments and whether the metaverse can increase booking volume and consumers’ willingness to pay higher prices by reducing service ambiguity and setting clear service expectations – will have a critical and immediate effect on the hospitality and tourism industry. Similarly, scholars should answer research questions that aim to assess the effectiveness of VR/XR in helping customers to preempt the experience and avoid uncertainty, thereby increasing booking behavior or purchase completion. In doing so, scholars can measure the value that is created through metaverse for hotels, restaurants, museums, transportation, and other hospitality and tourism stakeholders.

Possible changes in consumer attitudes and behaviors

The metaverse is likely to significantly alter the behavior and attitudes of both customers and businesses. These changes may affect customers’ attention toward products and services, buying behavior, perceived value and value propositions, choice preferences, consumption patterns, and decision-making processes. These possible attitudinal and behavioral changes may be attributed directly to the 3D virtual world, or they may indirectly be influenced by the broad principles or philosophies of the metaverse. The hospitality and tourism industry will derive significant benefits from research that tracks and investigate these attitudinal and behavioral changes based on the time customers spend in the metaverse, their value perceptions, their preferences and choices for avatars, and the activities in which they engage in virtual worlds. Conducting studies to understand avatar behaviors and the ways in which avatar preferences modify customers’ attitudes and behavior in the real world hold value for both academia and the industry.

In the specific context of the hospitality and tourism industry, future scholars can explore ways to promote user purchasing decisions in the metaverse. To this end, they can work to conceptualize the following: the *metaverse consumer experience journey*, value perceptions in the metaverse, the hospitality and tourism experience in the metaverse, and the customer decision-making journey and processes in the hospitality and tourism metaverse context. This type of conceptualization research will significantly benefit academia as well as the industry.

Another research gap that must be addressed involves proposing methodological frameworks that include measures to assess and evaluate consumer attitudes and behaviors in the metaverse. Scholars can also adopt the functionalist approach to identify customers’

consumption values and motives using the metaverse for hospitality and tourism purposes. Finally, although the metaverse offers a boundless virtual world accessible to all people from all corners of the world, scholars should explore metaverse customers' cultural values and cross-cultural aspects as well as the ways in which these factors influence customer decision-making.

Marketing and operational perspectives for businesses

The evolution of technology and the Internet has continuously transformed the ways in which marketing activities are carried out, and it will continue to do so long into the future. Thus, marketers must be proactive in understanding and adopting new technologies for advertising, branding, customer engagement, and customer service. As the world enters the metaverse era (i.e., Internet 3.0) and marketers are struggling to adapt their marketing activities. Many questions remain unanswered in this context. First, marketers must identify segmentation strategies that can create value both for themselves and for their customers. To help industry players effectively segment and target customers, hospitality and tourism scholars should provide a roadmap and strategic frameworks.

Another important line of research should answer the following question: What will marketing promotions look like in the metaverse? A conceptual framework that can delineate the marketing ecosystem and its effectiveness in a decentralized world that runs on blockchain-based systems will make a significant contribution. Unlike in digital marketing, where customers visit booking websites, hotel websites, or other hospitality and tourism-related digital platforms, marketers in the metaverse will need to visit the metaverse of the user. Hence, marketers must design innovative ways of engaging with their customers in the metaverse. Research focusing on metaverse-specific marketing strategies, such as content creation, influencer engagement, search optimization, etc., is thus urgently required.

The metaverse is an interactive and immersive 3D virtual world. Hence, scholars can build on interactive advertising models, such as the one proposed by Rodgers and Thorson (2000). Utilizing these interactive models, researchers can identify the characteristics of messages and avatars as well as the interaction between avatars and messages (Taylor, 2022). Similarly, scholars can determine the different formats and types of interactive marketing communications that can be used in the metaverse, specifically in the context of the hospitality and tourism industry. These efforts will contribute to the hospitality and tourism literature and to practice. Experimental studies can also evaluate the effectiveness of various advertising strategies and propose new measures of performance for metaverse marketing campaigns.

Finally, technology enthusiasts can propose both conceptual and methodological frameworks for the use of computational advertising to create marketing content in the metaverse – again, in the context of the hospitality and tourism industry.

In addition to the above broad categories, we also identify the following as important research questions of interest to stakeholders in the hospitality and tourism industry:

- How do customers perceive and value virtual events, e.g., concerts, experiences, tours, etc., in the metaverse?
- How can scholars use artificial intelligence, data science, and machine learning to analyze customer behavior?

- What factors influence the acceptance of NFTs and virtual goods as collectibles and memorabilia among customers in the hospitality and tourism industry?
- How effective are virtual hotels, restaurants, and event venues in promoting property, generating leads, increasing conversion rates, etc.?
- How can the hospitality and tourism industry utilize different models for monetization in the metaverse?

Conclusion

The metaverse is increasingly attracting the interest of industry practitioners, and the number of consumers inhabiting the metaverse is also growing exponentially. Hence, it is critical for hospitality and tourism industry players not only to recognize this new phenomenon but also to develop strategies to actively participate in this new world and leverage this opportunity to build a sustainable competitive advantage. Although the metaverse will not replace real-life hospitality and tourism experiences, it will certainly modify the ways in which consumers consume hospitality and tourism products and services. This opinion piece has discussed three broad areas of metaverse research relevant to the domain of hospitality and tourism marketing. Research around these three domains will serve as cornerstones of hospitality and tourism marketing research. *The Journal of Hospitality Marketing and Management* will undoubtedly become a vehicle to promote metaverse research in hospitality and tourism marketing. The journal looks forward to receiving original research as well as proposals for special issue calls on metaverse research in the domain of hospitality and tourism marketing.

Disclosure statement

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