Virtual spaces as the future of consumption in tourism, hospitality and events

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Abstract

Purpose – *Virtual spaces, commonly referred to as the Metaverse, are predicted to disrupt consumption patterns in tourism, hospitality and events (THE) by shifting some user experiences to a virtual world. Scholarly investigations are necessitated to aid in an understanding of virtual spaces and the implications of their consumption for THE industries. This viewpoint outlines a provisional research agenda on virtual spaces.*

Design/methodology/approach – *To inform its arguments, this viewpoint draws upon academic and grey literature surrounding the emerging topic of the Metaverse in THE industries.*

Findings – *The research agenda should consider four perspectives representing different actors of THE value chain, i.e. developers/suppliers, THE business professionals, customers and policymakers. The research agenda should also incorporate the wider spillover effects of consumption of virtual spaces which may stretch well beyond THE industries.*

Originality/value – *This viewpoint outlines some research directions which may aid different actors of THE value chain alongside academics in better understanding the emerging phenomenon of virtual spaces and comprehend the opportunities and challenges associated with their uptake by THE industries.*

Keywords Metaverse, Virtual spaces, Virtual reality, Consumer behaviour, Consumer experience
Paper type Viewpoint

1. Introduction

Digital technology has long been reshaping the scape of consumption in many industries, including tourism, hospitality and events (THE) (Buhalis *et al.,* 2022). COVID-19 has accelerated the uptake of digitisation by THE industries (Fontanari and Traskevich, 2022). This is demonstrated, for example, by the emergence of such novel product/service offerings as ghost kitchens (Cai *et al.,* 2022), virtual museums (Gutowski and Kłos-Adamkiewicz, 2020), virtual reality churches (Jun 2020) and virtual wine tasting tours (Wen and Leung, 2021).

The largest potential for THE industries to digitise may rest in virtual spaces (VSs). VSs are a network of virtual worlds based on social connection and facilitated by digital technology and smart devices (Zaman *et al.,* 2022). VSs enable users to immerse in alternative consumption environments which can be modified in line with users' needs and expectations. The idea of VSs was outlined in the 1992 science fiction novel Snow Crash (Kim, 2021). VSs have since become collectively known as the Metaverse (Mystakidis, 2022) although there may be multiple, coexisting, virtual environments. For instance, Qatar Airways have designed the QVerse (Qatar Airways, 2022) while other airlines are building their own VSs (Saunders, 2022). Today, VSs have become a buzzword in the global business world, including THE industries, whereby the Metaverse is considered a novel way to offer more rewarding consumer experiences and penetrate new markets (JPMorgan Chase Bank, 2022).

Examples of how THE organisations engage with VSs are growing. Chipotle collaborates with Roblox, an online game platform, to enable customers to make virtual burritos (Schmidt, 2021).

These burritos are assigned in-experience currency to be exchanged for real-world items in Chipotle restaurants. Wendy's have opened a virtual reality Wendy-verse restaurant, which allows customers to explore, play and connect, but also earn incentives redeemable at real-life Wendy's restaurants (Ruggless, 2022). Mootup have developed a virtual events platform offering a three-dimensional collaborative environment for event planners (Mootup, 2022). VSs may have disruptive potential for THE industries, with early adopters likely to take prime benefits (FutureIoT, 2022).
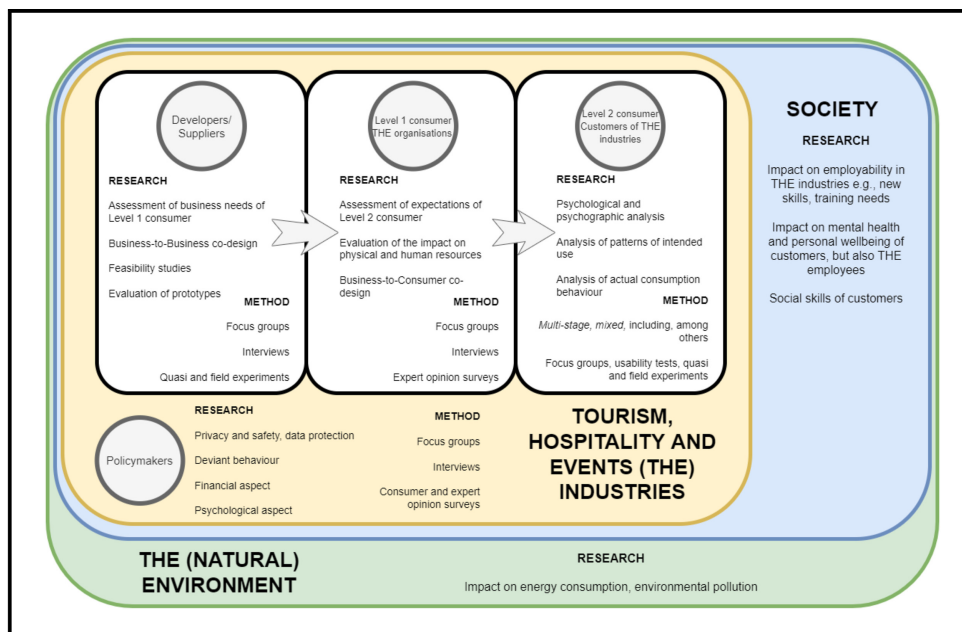
Academic research is required to support THE industries in their uptake of VSs. This research should not only consider business opportunities, but also challenges. Gursoy *et al.* (2022) outline some research directions on the Metaverse in hospitality and tourism. However, Gursoy *et al.* (2022) focus on the prospects of VSs and only discuss their effect on managers and tourists. In this viewpoint we argue that research on VSs in THE industries should take a broader perspective and consider wider implications. We summarise our vision below.

2. Research needs

VSs in THE industries should be studied from four main perspectives (Figure 1). Perspective 1 relates to *developers/suppliers of VSs* who ought to understand the needs of THE organisations and design tailored solutions, either in the form of a large, single, inter-connected immersive VS or smaller, multiple VSs dedicated to various THE sectors. These VSs can in turn be integrated in other, related virtual environments, such as virtual cities.

When understanding the industry needs, developers/suppliers should differentiate between large, chain affiliated, THE organisations and micro/small/medium sized THE enterprises. Smaller organisations represent the backbone of global THE market but have limited resources, including technical expertise. VSs should be tailored to meet resources of smaller organisations to ensure these are not disadvantaged. There is scope for business-to-business co-creation in designing VSs for THE organisations. Research should aim to understand and communicate expectations of THE industries to developers/suppliers. Research should also evaluate prototypes of VSs in terms of appropriateness of their functionality and cost-effectiveness for different THE organisations.

| Figure 1 | Proposed framework for research of VSs in THE industries |

Perspective 2 relates to *THE industry professionals* who can be classed as Level 1 consumers of VSs. As evidenced by the example of Qatar Airways, large THE organisations can design their own VSs. However, due to limited technical expertise, THE industries will most likely outsource development of VSs. Research should study expectations of THE industry professionals regarding functionality of VSs to be adopted as these expectations will vary depending on sectoral specialisation. For example, events may need more productive and collaborative VSs while hospitality providers are likely to focus on entertainment and experiences.

Research is also necessitated on resources which THE organisations are prepared to deploy for VSs. This includes evaluation of physical resources, such as availability of high-speed broadband, and human resources, such as new jobs required to support customers in VSs. Studies should be concerned with integration of virtual and physical consumption environments whereby VSs may become ancillary services and vice versa. For example, specific events, such as horse racing, are offered to customers in a physical environment; these events can also be provided virtually to consumers based overseas. Customers can bet on either physical or virtual events, thus generating extra profits. Another example is virtual dating which can be sold as a package combining virtual and physical services, such as hospitality/foodservice. Cost benefit analysis of various VSs, accounting for the varied needs of THE customers, defined as Level 2 consumers of VSs, is also necessitated.

Perspective 3 relates to these Level 2 consumers. Supporting the propositions by Gursoy *et al.* (2022), we argue that research should understand the needs and expectations of *THE customers*. However, we advocate that research should focus not on the stage of prospective use of VSs, but the design stage. Due to the novelty of VSs, THE customers may find it difficult to articulate what they expect. Hence, we call for a multi-stage and multi-method research design to shape these expectations. For example, in Stage 1, THE customers share (for example, in focus groups or interviews) their anticipation of VSs. In Stage 2 this anticipation is communicated to Level 1 consumers and developers/suppliers of VSs for feasibility assessment. If deemed feasible, developers/suppliers design a prototype to be tested empirically with Level 1 and then Level 2 consumers in Stage 3. Stage 4 involves validation via, for instance, a large-scale survey of Level 2 consumers based in different consumption markets. This is to account for potential cross-cultural differences in perceived functionality and usability of VSs.

Furthermore, we argue for the need to understand the potential to design a mixed reality approach whereby some THE experiences are shifted to a virtual world while some are retained in a physical one. Which experiences go where and how these can be operationalised from the viewpoint of resource availability of THE organisations calls for a careful examination. This mixed reality should ideally be co-designed by THE organisations and customers.

Contrasting the propositions by Gursoy *et al.* (2022), we argue for the need to move from "passive" research of customer attitudes and behavioural intentions to more "active" research of actual behaviour. Customer attitudes and behavioural intentions towards VSs will likely be positive; however, "design controversies" (Klein *et al.,* 2020) attributed, for example, to the issues of unanticipated functionality and usability may hamper customer acceptance of novel digital technologies, as demonstrated by Google Glass. We call for more participatory, immersive not only for THE customers but also for academics, field research whereby experiments are undertaken when designing and testing VSs with consumer behaviour being observed in prototypes.

We also argue that nuanced research is necessitated for different socio-demographic groups of Level 2 consumers. There is little doubt that technology-savvy Generations Y and Z will be attracted to VSs in THE industries (Buhalis and Karatay, 2022); hence, studies of these customer groups should primarily be concerned with identifying relevant content and features of VSs. In contrast, research of Generation X (and earlier generations of) customers should recognise the limitations these generations face in adoption of digital technologies. Studies should focus on the determinants of (dis)engagement of these customer groups instead.

We call for a dedicated stream of research on antecedents of potential obsessive-compulsive behaviour of Level 2 consumers in VSs. This is because video games are linked to mental health disorders and virtual financial transactions can lead to overspend (Ferguson and Colwell, 2020). Studies should be concerned with designing "mindful" experiences (Stankov and Filimonau, 2022) of VSs in THE industries to ensure these do not get over-used, thus leading to obsession.

Perspective 4 relates to *policymakers*. Research should inform policies on consumption of VSs. Studies are necessitated on privacy and user safety concerns in VSs, data protection and storage. Studies are also warranted on procedures and protocols for managing deviant behaviour, such as cyberbullying and harassment and financial transactions, especially if "virtual" currency becomes redeemable in real world. Evidence of another novel digital solution, blockchain, pinpoints numerous regulatory and legal issues emerging from increased digitisation (Treiblmaier, 2021). Research should also aid in shaping policies on protecting Level 2 consumers from potential addiction to VSs, as discussed earlier.

Lastly, we argue for a dedicated stream of research on wider societal and environmental spillover effects of VSs uptake in THE industries. From the societal perspective, studies should consider the positive and negative implications of VSs for THE organisations and customers. VSs will require THE industries to reconsider their current approaches to operations, including marketing as highlighted by Gursoy *et al.* (2022), but also supply chain and human resources management. VSs may generate new employment opportunities but the question will remain how these opportunities will be staffed. Novel skills will be necessitated for employees serving THE customers in VSs. These skills may include technical expertise, but also knowledge of online consumer psychology. Studies should be concerned with identifying new skill gaps among THE staff and looking into how these gaps can be fulfilled.

Virtual environments may offer the opportunity for Level 2 consumers to escape from the troubles of day-to-day life, thus reducing stress and improving personal well-being. However, the popular novel Ready Player One by Cline (2011) was first to warn that consumption of VSs could prompt people to spend more time in a virtual, rather than physical, environment. Besides such direct issues as obesity and obsession, over-consumption of VSs can have indirect effects. VSs can detriment social skills, thus contributing to loneliness and inequality. Level 2 consumers may prefer living a virtual life which they consider a better or more rewarding experience. This may lead to such mental health disorders as split personality. The need to study the wider societal, direct and indirect, spillover effects of VSs is justified by existence of liminoid experiences in THE industries (Taheri *et al.,* 2017). Participation in THE activities can drive unusual, reversed patterns of behaviour and VSs may accelerate and intensify these patterns. We argue that the wider societal implications of consumption of VSs should be tackled by interdisciplinary research teams composed of THE, social science and psychology scholars.

The wider environmental implications of VSs should also be examined. Evidence points at considerable amounts of energy required to support digital technology infrastructure with subsequent build-up of carbon footprint (Lange *et al.,* 2020). As the industry adoption of VSs grows, data processing and storage requirements will increase. This may intensify competition for already scarce natural resources (Itten *et al.,* 2020). Furthermore, as showcased by the Ready Player One novel (Cline, 2011), excessive consumption of VSs may prompt negligence of the physical environment with people producing more waste by, for instance, excessive ordering of convenience food when engaging in virtual experiences. Hence, we advocate a dedicated, interdisciplinary research agenda on VSs involving social and environmental scientists.

3. Conclusions

VSs may soon disrupt the global THE market. It is therefore important to examine the phenomenon of VSs from the viewpoint of developers/suppliers, THE business professionals, customers and policymakers. This viewpoint outlines some research directions, highlighting the need to understand the implications of VSs for THE industries, but also wider society and the environment.

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