

This is an Open Access document downloaded from ORCA, Cardiff University's institutional repository: <https://orca.cardiff.ac.uk/id/eprint/167762/>

This is the author's version of a work that was submitted to / accepted for publication.

Citation for final published version:

Marder, Ben, Yau, Amy , Yule, Jennifer, Osadchaya, Elena, Angell, Rob , Zhang, Will, Oliver, Sebastian, Lavertu, Laura, Stylos, Nikolaos, Qi, Kang, Gao, Liyu, AlRabiah, Sara, Regt, Anouk de, Zhang, Yiwei and Li, Jiayuan 2024. What drives advertisers toward or away from immersive virtual spaces? *Journal of Advertising Research* 64 (2) 10.2501/JAR-2024-020

Publishers page: <http://dx.doi.org/10.2501/JAR-2024-020>

Please note:

Changes made as a result of publishing processes such as copy-editing, formatting and page numbers may not be reflected in this version. For the definitive version of this publication, please refer to the published source. You are advised to consult the publisher's version if you wish to cite this paper.

This version is being made available in accordance with publisher policies. See <http://orca.cf.ac.uk/policies.html> for usage policies. Copyright and moral rights for publications made available in ORCA are retained by the copyright holders.



What Drives Advertisers toward Or Away from Immersive Virtual Spaces?

The Metaverse Conundrum: Affordances and “Disaffordances” Through the Eyes of Advertisers

Ben Mader^a (Corresponding), Amy Yau^b, Jen Yule^a, Elena Osadchaya^c Rob Angell^d Will Zhang^a Seb Oliver^a Laura Lavertu^a Nikolaos Stylos^g Kang Qi^c , Liyu Gao^a Sara AlRabiah^f Anouk de Regt^h, , Yiwei Zhang^a, Jiayuan Li^a

^a The University of Edinburgh, Business School, Edinburgh, UK

^b Cardiff University, Cardiff Business School, UK

^c School of Business and Administration, Zhongnan University of Economics and Law, China

^dUniversity of Southampton, Southampton Business School, Southampton, UK

^eUniversity of Leicester, School of Management, Leicester, UK

^fInstitute of Public Administration, Riyadh, KSA

^gUniversity of Bristol, School of Management, Bristol, UK

^hUtrecht University, The Netherlands

What Drives Advertisers toward Or Away from Immersive Virtual Spaces?

The Metaverse Conundrum: Affordances and “Disaffordances” Through the Eyes of Advertisers

Abstract

The metaverse is hyped as revolutionizing advertising, but practitioners remain cautious. Knowledge of “why” advertisers are or are not adopting the metaverse is limited because they have not been asked. Through 48 interviews with advertising executives, this research elucidates a complex ecosystem with four affordances (novel advertising space, immersive experiences, specific audience targeting, and communicating brand innovativeness) and four disaffordances (limited reach, lack of ROI, requisite expertise, poor interoperability) that underpin adoption. These are shaped by consumers’ and decision makers’ (dis)affordances, as well as contextual factors such as industry norms. The authors offer an advertising context-specific definition of the metaverse, and questions to guide practitioners’ adoption.

Management Slant

- Advertisers recognize the metaverse’s potential as a novel space offering opportunities to engage hard-to-reach audiences with immersive advertising, which may also boost first movers reputationally.
- Opportunities must be weighed against drawbacks, such as current limits in reach and uncertainties around ROI, exacerbated by the resources needed to engage in immersive advertising.
- Uptake will be tempered by perceptions of the metaverse’s value among target consumers and decision makers (*e.g.*, Chief Marketing Officers, clients).
- It is crucial for advertisers considering the metaverse to educate themselves, carefully monitor trends, make balanced decisions, influence, and innovate to best harness the technology.

Keywords

Metaverse, immersive environments, advertising, definition, strategy, affordances.

INTRODUCTION

Mark Zuckerberg claims that the metaverse will be “the next chapter of the internet” (Yao, 2022). Similarly, academics suggest that it has the potential to elicit a complete paradigm shift in how consumers interact with digital technologies (Dwivedi *et al.*, 2023; Ahn, Kim, and Kim, 2023). As a concept, the metaverse has been hyped much more than previous technologies (Staikos, 2022). Despite being expected to “revolutionize advertising” (JWI Global, 2022), it has received a lukewarm reception (*e.g.*, Zitron, 2023); yet the reasons “why” advertisers choose to adopt (or not) remain understudied.

The metaverse represents immersive virtual spaces where access is generally considered (although not exclusively) to be mediated by reality altering technology such as augmented (AR), virtual (VR), and mixed reality (MR) (Hadi, Melumad, and Park, 2023). Collectively, technology that alters reality in some way is known as XR (xReality), where the X denotes all new or unknown reality formats (Rauschnabel *et al.*, 2022). Although the term “metaverse” has been popularized by Facebook’s (now Meta’s) platforms, we adopt the amorphous term at a conceptual level, representing immersive virtual environments generally (see Ahn, Kim, and Kim, 2022). Power brands have already invested significantly in developing immersive experiences in the metaverse, including Nike’s ‘Nikeland’ and Gucci’s ‘Gucci Vault’ (Mileva, 2022). However, significant uncertainty remains about how immersive virtual spaces will evolve, and what this will mean for both consumers and advertisers (Dwivedi *et al.*, 2022). This is particularly true since recent discussions (see Naughton, 2023; Zitron, 2023) have tended to take a pessimistic view, partly driven by lower-than-expected consumer adoption (Korolov, 2023). This issue has been linked with Meta’s reduced valuation in 2022, given its huge investment in immersive virtual spaces (Hern, 2022).

The multi-billion-dollar question remains: will immersive virtual environments (*i.e.*, the metaverse) ever be a commercial success? The answer depends largely on advertisers, as advertising is hailed as the dominant monetizer of these spaces (Plomion, 2022). This raises a further question: will marketers adopt the metaverse as a medium for advertising? For scholars, even though metaverse-related adoption issues have risen rapidly up the list of critical topics (Campbell, 2023), empirical attention in marketing has so far centered on the perspectives of consumers (see, *e.g.*, Sung, Kwon, and Sohn, 2023; Ahn *et al.*, 2022), expert media commentators (Dolata and Schwabe, 2023), academic experts (Dwivedi *et al.*, 2023; Loureiro *et al.*, 2019), or has adopted a conceptual approach (*e.g.*, Lu and Mintz, 2023; Yoo *et al.*, 2023). Although valuable, previous studies do not take account of advertisers’ perspectives. However, this knowledge is imperative, as perceptions of the enablers and inhibitors associated with the

metaverse (like any other space or object) that drive or hinder adoption are shaped by the perceivers' backgrounds, agendas, and cultural norms (see Davis and Chouinard, 2017; Dwivedi *et al.*, 2022). Recognizing this gap and realizing that the advertising potential of immersive virtual spaces depends on those responsible for driving change, we shift the perspective to focus on the perceptions of advertisers.

We have two fundamental objectives. The first is to examine “what is” the metaverse in the eyes of advertisers themselves. This acknowledges that definitions differ based on perceivers' agendas (Dolata and Schwabe, 2023), and that divergence between academia and practice may create barriers to adoption (Laurie and Mortimer, 2011). The second is to examine the opportunities, constraints, and contextual factors associated with advertising in the metaverse. For this, we adopt an affordance lens (Gibson, 1977). Affordances have long been used to study the enablers and inhibitors of objects and spaces for achieving goals, as perceived by individuals or groups. Theorists assert that for an object to be used, it must first be assumed to afford actions that support goals, and these affordances will differ based on the perceiver's background and associated contextual factors (Davis and Chouinard, 2017; Evans *et al.*, 2017). An affordances lens enables us to examine “if,” “how,” “when,” and “why” advertisers may or may not engage with the metaverse to achieve advertising goals.¹ In-depth qualitative interviews with advertising executives inform these insights. We consider advertisers as individuals whose professional role is to communicate brand-related phenomena to consumers with the intention of creating an impact on them (see Dahlen and Rosengren, 2016).

Our research makes two contributions to theory, with related implications for practice. First, we extend knowledge in the domain of adoption of marketing technologies, and specifically enablers and inhibitors of immersive virtual spaces, by shifting the spotlight to advertisers themselves (*e.g.*, Lu and Mintz, 2023; Reibstein and Iyengar, 2023). We revise existing understanding by identifying the affordances and disaffordances perceived by advertisers, and positioning these within the larger ecosystem of affordances of marketing stakeholders (decision makers and consumers) and contextual factors (*e.g.*, industry norms). We offer a new model illustrating the complexity of practitioners' decisions on whether or not to engage in advertising in the metaverse. This model provides a foundation for future research aimed at unravelling tensions around advertising in the metaverse. Our conceptualization also

¹ We acknowledge that individual advertisers' goals will generally be aligned with broader advertising goals, as employees are largely motivated by extrinsic rewards accrued by performing well in their jobs (see Levin, Hansen, and Laverie, 2012). However, advertisers may have other goals that may also shape the affordances they perceive from the metaverse (*e.g.*, based on a hedonic intrinsic motivation to engage in enjoyable, self-determined, and competency-enhancing actions; see Gottschalg and Zollo, 2007).

has implications for practice, which we present through five core actions: educate, monitor, decide, influence, innovate.

Second, we contribute to valuable existing work that has grappled with defining “the metaverse” by providing an advertiser perspective (*e.g.*, Yoo *et al.*, 2023; Kim, 2021). More concretely, we reveal that for advertisers, the metaverse is primarily perceived as an immersive virtual space for advertising. This advertising application, which is critical in shaping their perceptions, has not previously been explicitly acknowledged in marketing definitions. Consequently, we contribute a definition specific to advertising based on a synthesis of contemporary literature and the words of advertisers. Taken together, our contributions respond to Campbell’s (2023) call for a better understanding of advertising in the metaverse from the perspective of industry practitioners.

THE METAVERSE THROUGH THE LENS OF ADVERTISERS

The term “metaverse” was first coined in Neal Stephenson’s (1992) science fiction novel, *Snow Crash*. It has since been popularized across a range of disciplines, where significant debate has ensued over its meaning and composition. Rather than resulting in consensus, this has ultimately led to confusion around its definition (Ravenscraft, 2022; Anderson and Rainie, 2022). Whilst some experts believe that an all-encompassing definition of the metaverse is implausible at this stage of its development (Ritterbusch and Teichmann, 2023), others have attempted to define and conceptualize it. For instance, a popular definition in the advertising domain positions the metaverse as “an interoperated [and] persistent network of shared virtual environments where people can interact synchronously through their avatars with other agents and objects” (Kim, 2021, p. 2). Some consider it directly in terms of XR technologies, as it is generally perceived to be supported by these (*e.g.*, Barrera and Shah 2023). However, such definitions are somewhat myopic as certain platforms can be accessed without these specific reality altering technologies (*e.g.*, simply a computer screen). Dolata and Schwabe (2023) argue that more attention should be given to social forces at play rather than associated technologies, as it is these forces that will ultimately shape the meaning of the metaverse. Thus, much debate still exists.

Yoo *et al.* (2023) analyze metaverse definitions from both academic and industry sources (*e.g.*, *The Economist*, *New York Times*) to arrive at four overarching dimensions that help conceptualize the key topics underpinning the metaverse: online collaboration, high consumer immersion, unique digital assets, and digital personas. In a similar vein, Hadi *et al.* (2023) identify five characteristics that define the metaverse: digitally mediated, spatial, immersive,

shared, and operating in real time. Barrera and Shah (2023) suggest that the concept has evolved from being a single virtual world with avatars, to interoperable virtual worlds, through to a convergence of physical and virtual worlds in an extended reality. The evolving nature of the technology and its sheer novelty have given rise to an array of definitions, which are helpfully summarized by Lu and Mintz (2023).

From an advertising perspective, practitioners are likely to view the metaverse through their applied industry lens, resulting in different priorities and understandings. This definitional asymmetry and ambiguity between academics and practitioners in conceptualizing new ideas is seen in other areas. For instance, Laurie and Mortimer (2011) highlight that despite the current maturity of integrated marketing communications, a disconnect remains in how the two groups conceptualize and define these tools. In a similar vein, Melewar (2003; Melewar and Karaosmanoglu, 2006) discusses how the definition of corporate identity has lacked consensus amongst academics, with executives also struggling to explicitly define the concept. Consequently, there is a divergence between academics and practitioners on what is perceived to be important for maintaining corporate identity.

Concerning the metaverse more specifically, Schöbel *et al.* (2023) emphasize that characteristics deemed important and relevant by academics are not necessarily congruent with practitioners. Specifically, IT professionals are less concerned with issues like interoperability and user autonomy, viewing these more as characteristics that make the metaverse special, despite academic insights to the contrary. Similarly, in their analysis of media discourses in international press articles and magazines, Dolata and Schwabe (2023) find that the metaverse is viewed differently by related social groups. For example, users in retail and entertainment consider trade and commerce to be a central feature, whereas “big tech,” non-commercial entities, and developers do not view this aspect as fundamental. They conclude that perceptions of the metaverse are shaped primarily by the particular interests and agendas of perceivers (see also Humphreys, 2005).

Following the above logic, what constitutes the metaverse for academics and industry commentators with specific expertise in technology is likely to differ from the understanding of general advertisers. Given that no studies to date have asked advertisers themselves “what is” the metaverse, our first aim is to answer this question by offering a clear understanding consistent with an academic definition. The rationale for this pursuit is two-fold. First, media discourses in the advertising domain echo the “complicated” and “confusing” nature of the metaverse for practitioners (*e.g.*, Jones, 2022; Lynch, 2022). This confusion creates a perceptual obstacle, as immersive spaces are presented in a muddled way. Second, it is

recognized more generally that reducing discrepancies in definitions between stakeholders can reduce barriers to adoption (Holm, 2006).

Aim 1: To understand what the metaverse is and represents to advertising practitioners to develop a convergent definition for advertising.

AFFORDANCES AND DISAFFORDANCES OF THE METAVERSE FOR ADVERTISERS

Affordance theory, or the affordance lens, was first introduced by James Gibson (1977), an ecological psychologist. Affordances can be thought of as opportunities “afforded” to individuals or groups by specific objects to achieve a goal (Volkoff and Strong, 2013). In practical terms, researchers tend to study “objects,” such as new technologies (technological objects) or spaces (spatial objects), where the critical component is understanding “if,” “why,” “when,” and “how” new objects become integrated into the practices of an individual or group (Faraj and Azad, 2012). Davis and Chouinard (2017) note that the literature often mistakenly blurs the notion of “features” with affordances, asserting the importance of distinguishing between these two concepts (see Evans *et al.*, 2017). The former are physical or “real” attributes of an object (*e.g.*, a screen on a smartphone), whereas the latter refers to opportunities afforded by an object’s features perceived by a subject (*e.g.*, to see pictures). In other words, an affordance is a “dynamic link” between objects and subjects (Davis and Chouinard, 2017, p. 241). The affordances of particular objects or spaces are not necessarily mutually exclusive, but often intersect with one another (Kitzie, 2019).

Another integral aspect of affordance research is the assumption that prior to engaging with an object, users reflect on and evaluate the affordances (or opportunities) associated with it (Leonardi and Vaast, 2017). Thus, if advertisers are to engage with marketing technology, they need to perceive that it will help them to achieve their goal(s). In other words, affordances are antecedents to behavior. In affordance language, the resulting engagement with the object is known as *actualization*. Shin (2022) defines actualization as “action taken by users, as they take advantage of one or more affordances” of an object to attain a direct concrete outcome (p. 2). Evans *et al.* (2017) position affordances as mediators between features and actualization.

The affordances of a particular object and the ability to actualize them will differ based on contextual factors associated with the perceiver. In other words, although an object’s features are fixed, people are likely to perceive different affordances based on their biography and environment (Chan *et al.*, 2019). In essence, affordances are sustained by intersections of objects, actors, and situations (Chemero, 2003). Davis and Chouinard (2017) identify three

types of contextual factors that shape affordances. First, *perception* reflects awareness of the features of an object that might be afforded. For example, people may or may not be aware that a smartphone can be used as a flashlight. Second, *dexterity* refers to people's capability to deploy a feature, which may relate to their physical (*e.g.*, can they physically use a touchpad?) or cognitive ability (*e.g.*, do they know how to work a touchpad?). Third, *cultural and institutional legitimacy* denotes the social structures that support an affordance and its actualization, which are inherent in a system that is "propertied by other people" (Schmidt, 2007, p. 137). Fundamentally, affordances and actualization emerge if the use of an object is culturally valid (*e.g.*, in line with social norms) and institutionally supported (*e.g.*, in line with rules and protocol). Although these three factors are conceptually distinct, they are "inextricable in practice" (Davis and Chouinard, 2017, p. 248). Cultural norms will guide a person's awareness and ability towards an object. For example, young adults generally have greater perceptions of smartphone features and the dexterity to use them than their grandparents (Smith, 2014).

The affordance lens has been widely adopted across disciplines, and particularly in information systems research, to examine technology (Evans *et al.*, 2017). In recent years, it has gained particular momentum in the field of advertising, being used to frame studies of the adoption of paid-for digital advertising (Kruschinski *et al.*, 2022) and deployment of big data at work (De Luca *et al.*, 2021). Regarding the metaverse, although the affordance lens has rarely been used explicitly, recent work from different perspectives highlights how enablers and inhibitors of virtual immersive spaces and technologies are important for advertisers. A review of key contemporary literature is presented in Table 1. The metaverse is known to add a third space (in addition to traditional and online environments) for marketers to create retail and brand experiences rather than product-oriented experiences (Bourlakis, Papagiannidis, and Li, 2009; Dwivedi *et al.*, 2022). This opportunity for immersive experiences is supposed to set the metaverse apart and is where its marketing potential is rooted (Dwivedi *et al.*, 2023). XR technologies, often used to access the metaverse, offer affordances such as enhancing and augmenting positive aspects of the real world. These include IKEA's Place app for viewing furniture as it would look at home, and L'Oréal's Make Up Genius app for applying make-up virtually (Hoyer *et al.*, 2020; Javornik *et al.*, 2022). Further affordances can be found in creatively immersing oneself in rich VR experiences (Steffen *et al.*, 2019; Hennig-Thurau *et al.*, 2023; Wedel *et al.*, 2020), which can also aid with product launch forecasting (Harz *et al.*, 2022). In their consumer-focused framework, Hadi *et al.* (2023) posit that the metaverse may change consumer behavior by offering opportunities across three domains: identity, social

influence, and ownership. For instance, consumers perceive that they can adopt avatars with desirable attributes that differ from themselves in real life (Bessière, Seay, and Kiesler, 2007; Zimmermann, Wehler, and Kaspar, 2022), leverage virtual spaces to influence/interact with others (Miao *et al.*, 2022), and use blockchain technologies to assure their ownership of virtual goods (Belk, 2013). Leung *et al.* (2022) evidence consumers' preference for physical over digital products, but future attitudinal change and increasing normalization of purchasing the "intangible" may result in further opportunities for digital products.

From an industry expert/media perspective, Dolata and Schwabe's (2023) review of popular press articles reveals four key "catalyzers of the metaverse" that underpin the opportunities afforded to different industry stakeholders: actions and events, technological developments, socioeconomic trends, and arts, culture, and entertainment. Similarly, Lu and Mintz's (2023) conceptual work provides guidance on metaverse marketing from a firm perspective looking at operationalizing the 4Ps and 5Cs. In addition, Reibstein and Iyengar's (2023) case study of Chipotle illustrates how the metaverse (here, Roblox) affords the ability to create brand experiences (*e.g.*, building a burrito on Roblox) and build brand communities. In a similar vein, Keegan *et al.* (2024) argue that consumers will form groups in the metaverse affording advertisers enhanced means of targeting content.

The extant literature advances the understanding and application of metaverse affordances. However, as identified in Table 1, no previous research has empirically examined affordances from the perspective of advertisers. The metaverse is thought to provide potential opportunities (affordances) such as new and immersive spaces for advertising (Dwivedi *et al.*, 2023), enhanced brand exposure through virtual items such as NFT technology (Gautam, 2022; Belleghem, 2022), improved advertising synergies across both real and virtual worlds (Ahn *et al.*, 2022), and amplified sensory engagement with adverts supported by extended reality technologies (Breneman, Willems, and De Gauquier, 2022); yet a comprehensive, holistic understanding of affordances and the interplay between them as perceived by advertisers themselves remains absent.

Aim 2: To explore, uncover, and develop a comprehensive framework of affordances relating to the metaverse as perceived by advertisers.

Industry commentators note that advertisers, and marketers more generally, are cautious about making the shift to the metaverse (Samuels, 2022). Some even describe it as "potentially risky" (Swant, 2023, p. 1), while others highlight data privacy and accessibility issues as potential barriers (Larsson, 2023). This suggests that disaffordances must be considered

alongside affordances. Zammuto *et al.*'s (2007, p. 752) explanation that “an object favors, shapes, or invites, and at the same time constrains, a set of specific uses” encapsulates this need for simultaneity. Disaffordances, or constraints, relate to perceived obstacles that limit users' ability to achieve their goals, in this case advertising objectives (see Nambisan, Wright, and Feldman, 2019). For instance, Lin, Shao, and Wang's (2022) recent marketing study of chatbots reveals that lack of independent decision-making capability alongside emotional intelligence and expression are primary disaffordances that cause discomfort to marketers considering investment. Generally, constraints or disaffordances are most commonly linked with shortcomings in technological design (Wittkower, 2016).

A broader perspective is required when dealing with technological spaces like the metaverse, not least because they incorporate different social actors and have their own corresponding rules and regulations that may potentially make a difference to users (see Nambisan *et al.*, 2019). Numerous scholars conceptualize the potential disaffordances or challenges for advertisers of participating in the metaverse (see Lu and Mintz, 2023; Barrera and Shah, 2023). These include regulatory issues around data security and governance (Jamison and Glavish, 2022; Merre, 2022), up-front costs required (Harz *et al.*, 2022; Song *et al.*, 2020), designing new or migrating existing content for virtual spaces, targeting older demographics (Dwivedi *et al.*, 2023), difficulty measuring the effectiveness of advertising campaigns (Lu and Mintz, 2023), and virtual misconduct such as harassment (Barrera and Shah, 2023). However, disaffordances, like affordances, can only truly be understood from the perspective of the perceiver (Volkoff and Strong, 2013). Following this logic, as empirical understanding of disaffordances for advertisers themselves is lacking, our final aim is:

Aim 3: To explore, uncover, and develop a comprehensive framework of disaffordances relating to the metaverse as perceived by advertisers.

[Insert Table 1 here]

METHODS

The research aims are exploratory and inductive therefore a qualitative methodology, conducting semi-structured interviews with advertising professionals was adopted. For inclusion in the study, participants had to be engaged in roles relating to communicating brand-related messages to customers, following conventional definitions of advertising (e.g. Dahlen and Rosengren, 2016). Recognizing that an affordance lens encapsulates the potential rather than actual use of an object, we invited executives with varying levels of experience and

knowledge of the metaverse (see Leonardi and Vaast, 2017). There was no participant preparation for the interviews.

Purposeful sampling was employed drawing on university alumni and industry connections with professional networks (Archer-Brown *et al.*, 2017; Prendergast, Paliwal, and Chan, 2018). A small donation to one of three charities was made as a gesture of appreciation. The final sample comprised 48 advertisers (54% male) from 13 countries, (aged 24 – 57) with a range of industry experience (2 – 30 years). Table 2 provides a list of participant characteristics, using pseudonyms to preserve anonymity. The data collection team consisted of 13 researchers (PhD or post-PhD). Such collaborative efforts produce significant time and resource efficiencies and are therefore common practice in studies requiring large amounts of data quickly (*e.g.*, Beresford *et al.*, 2022). This approach also enhances the internal and external validity of qualitative data because interpretation, triangulation, and consensus are achieved with a larger number of engaged researchers (see Giesen and Roeser, 2020; Bates *et al.*, 2023). For these reasons, team-based interviewing and coding have become relatively common in disciplines such as medicine (*e.g.*, Yang *et al.*, 2022), although this group research approach has limitations. Web Appendix 1 provides further methodological details, including our strategies to redress these inherent limitations, which may usefully guide future research following this method (Sattin-Bajaj, 2018; Rolf *et al.*, 2021). The project underwent an ethical review process and was granted approval, this included protocols on data management that were upheld by all team members.

Interviews were conducted and (auto)transcribed using online meeting software (Microsoft Teams). They ranged in length from 32 to 76 minutes, with an average of 52 minutes.² All were conducted in English, apart from four which were conducted in the participants' native language and translated by the interviewer into English for analysis. The full interview guide is presented in Web Appendix 2. The interviews began by eliciting basic information, such as job title and years of experience, and asking several closed questions concerning attitudes to and adoption of the metaverse (*e.g.*, “What is the probability that your firm will adopt metaverse technologies in the future?”) were posed with answers summarized in Web Appendix 3. This was followed by a discussion of “what is” the metaverse, and of affordances, guided by questions inspired by broader qualitative affordance studies beyond the advertising or immersive environment research domains (*e.g.*, Thomas, 2023). Complimenting

² It should be noted that ChatGPT was also discussed, meaning that conversation about the metaverse accounted for only part of each interview. Discussion of ChatGPT occurred only after the main discussion of the metaverse.

the affordance lens, our aim was to ensure that affordances emerged inductively from interviewees' perceptions, rather than being guided by prior knowledge. Therefore, all open ended questions were kept purposefully broad to ensure findings were emergent from the participants (e.g., how they believed the metaverse might support advertisers in achieving their goals, and the challenges of adopting the technology).

Lastly, visual stimuli, comprising examples of general visuals and various advertising materials found on metaverse platforms, were shown to provoke further discussion (see Yau, Marder, and O'Donohoe, 2019). The interviewers were trained to allow the conversation to develop naturally, although they adhered to the same core interview guide.

Using an inductive approach, we undertook thematic analysis, focusing primarily on uncovering semantic themes or explicit patterns in what participants said (Patton, 2002). Latent themes underlying or shaping the semantic content were also identified following Braun and Clarke's (2006) six-step guide. We adapted the operationalization of each stage to complement our team-based data collection, and to ensure the validity of the results through critical discussion and alignment of themes between the research team. Figure 1 summarizes our data collection and analysis approach.

Our analysis began with a quality assurance exercise where one interview was conducted by a senior qualitative researcher. All researchers watched a recording of the interview and coded an extract of the transcript. The senior researcher then gave feedback to the researchers to ensure consistent quality. Following this, each researcher conducted and coded their own interview transcripts and created themes based on these codes. Two team leaders were assigned to manage data collection and analysis. Each team independently analyzed the data producing themes and codes, these were discussed by each team internally to ensure consensus and collaboration. Finally, the team leaders and project lead combined the team-level thematic code sets into an overarching set of themes, which was communicated back to all interviewers for comment, revision, and coding. Four further interviews were conducted at this stage to ensure that theoretical saturation had been reached.

The use of a large research team and multiple rounds of analysis and coding strengthened this study (as in Giesen and Roeser, 2020). We established a supportive management team with regular check-in meetings, enhanced the researchers' skills through interview training, and developed reference materials such as video recordings of interviews, an interview guide, and a coding reference guide. This assisted the researchers, guided systematized coding and analysis, resulting in structure and rigor during the research process. We acknowledge the drawbacks of our approach in the limitations section.

[Insert Figure 1 and Table 2 here]

ANALYSIS

Our analysis produced four conceptually meaningful themes reflecting affordances—novel advertising space, immersive advertising experiences, specific audience targeting, and communicating brand innovativeness - and four disaffordances—limited reach, anticipated lack of ROI, requisite technological expertise, and poor interoperability. Table 3 provides an overview of the key themes. First, we discuss practitioners’ understanding of the metaverse. All quotes below are provided under pseudonyms to maintain participant anonymity.

[Insert Table 3 here]

The Metaverse in the Eyes of Advertisers

Participant responses to the question “What is the metaverse?” revealed clear confusion. Many said they were unsure of its specific meaning and scope. For example, Maya stated: “I think no one really understands this space yet or what to use it for.” Similarly, William referred to it as a “vague term” with little understanding of “what it actually means and will entail.” This lack of specificity aligns with trade press commentary, suggesting that the metaverse is both confusing and complicated (*e.g.*, Jones, 2022; Lynch, 2022). Interestingly, whilst Ahn *et al.* (2022) present a divide between people defining the metaverse as a concept or as a structure, most of our participants perceived it as a concept, not in terms of specific virtual environments or sites.

Overall, the metaverse was viewed by advertising practitioners in three key ways: (1) as a provider of immersive brand experiences, (2) as a channel for communicating brand messages to potential consumers, and (3) as a medium for delivering personalized brand experiences. Based on these insights, the following discussion critically positions the emergent advertisers’ perspectives within the broader definitional debate. Age of participants is presented in brackets.

Affordance 1: Novel Advertising Space

There was a strong consensus that the metaverse enables a new and novel space for marketing to take place. For instance, Clement (27), a marketing executive in the UK, saw huge potential: “The metaverse will be a whole new way of connecting with your clients” (see Dwivedi *et al.*, 2023; Mileva, 2022). An interesting and recurring sentiment was that the metaverse will breathe new life into both traditional offline (*e.g.*, billboards) and online channels (*e.g.*, pop-ups, influencers), synthesizing media into a single new world. Darius (31), a US-based advertising account executive, illustrated this sentiment:

At the Super Bowl, or any kind of live sport event, you see ads everywhere around the field on the big screen, like everywhere there are brands. That would apply to a virtual field as well [in the metaverse].

As well as offering potential new outlets for advertising methods, participants also acknowledged its potential to give more freedom in designing advertising campaigns, as Ivy (26), a junior advertising specialist from the Netherlands, noted:

There are no limits. In virtual worlds you can do as you like; you can make as big as you want, or you can go crazy and integrate whatever audio as well ... I think it's like an advertising paradise for brands.

This affordance of the metaverse and its corresponding capability is due predominantly to physical gating features of the offline world (see, e.g., Zhao, Grasmuck, and Martin, 2008), such as the size of billboard ads, which will be less important in the metaverse world. Victor (31), a marketing director of a pharmaceutical company in Canada, stated:

The metaverse opens up an entirely new channel of advertising, similar to what social media advertising did for brands over the last like decade ... it'll take some trial and error before companies get on board in a sophisticated manner.

Participants could see the potential for the metaverse to gain traction and impact. However, despite the excitement about its limitless creative capabilities, it will take time for advertisers to understand and optimize their practices, highlighting a technology learning and adoption curve. It was also apparent from participants, as highlighted by Ivy and Victor above, that more junior, generally younger advertisers are more excited about the space than those in more senior positions, who are generally older, and adopt a more cautious attitude toward entering these novel spaces.

Affordance 2: Immersive Advertising Experience

A large majority of participants noted that the metaverse provides opportunities to engage in more immersive brand communications, especially compared with other technologies (e.g., two-dimensional ads and websites). For example, Alan (52), a co-founder of a small UK-based virtual brand experience agency, had already embraced the Metaverse:

Getting people to understand your brand, your vision, your values: rather than putting that in a kind of rather fixed 2D website, you can get people to properly explore them and interact as and when they walk around the sort of three-dimensional space. And

we all know that creates better memorability for people, which is obviously core in brand communications.

Similarly, Wensley (33), a communications manager in China, and Levi (26), working in the technology and education sector in Israel, discussed opportunities for much richer sensory experiences, especially via VR headsets:

...and when you surf the internet with your VR headset, you will use your Oculus on your head, and when you take a look on Amazon products you will see them better. I think that it has potential, because when you add another dimension, you can enhance the buying experience of potential customers. They can get a better grasp of how your product looks; it's almost as if they can already feel the coat on their skin. I think it might increase the chances of you buying products, which are better represented in your VR headset. (Levi)

I think that the experience in the metaverse will be more immersive and will stimulate people's imagination more. In the metaverse, maybe everyone will wear a headset, which can directly form corresponding images and sensory experiences in your brain, and this may all be achievable. It brings a kind of impact, a completely different impact [compared with regular 2D advertising]. If brand promotion activities are carried out in the metaverse, it will directly produce a strong sensory stimulation, which will definitely lead to a deeper impression on consumers. If we can provide sensory stimulation in the metaverse, it could have a powerful advertising effect. (Wensley)

This immersive metaverse environment was often talked about in conjunction with VR headsets, a narrative resonating with previous research (*e.g.*, Dwivedi *et al.*, 2022), particularly concerning sensory immersion and engagement (*e.g.*, Lee and Chung, 2008). It is noteworthy that the above quotes convey not only the advertisers' affordances, but also their perceptions of consumers' affordances through engaging in these spaces using technologies such as VR. Overall, this theme was the most prevalent in the data, suggesting a distinct affordance of immersive virtual spaces compared with other advertising media.

Affordance 3: Specific Audience Targeting

The metaverse offers new opportunities to target specific audiences, especially those who might traditionally be harder to engage through alternative advertising channels. For instance, Helena (31), a US-based marketing and branding consultant, said:

Sometimes your ideal customer is not on Google searching for what you want. So, how are you going to reach them? And the way to do that is to target them based on demographics or lists or re-targeting through Facebook or LinkedIn. So, for us, it's like what if they're not on Facebook or LinkedIn? What if they're not on Google? They're just metaverse people, and that's just another way to target them.

Others explicitly expressed the view that the metaverse is a medium for reaching younger audiences. For instance, Alice (28), a marketing assistant manager in a large Chinese service firm, stated that “younger generations like Gen Z are more interested in and open to the metaverse, with a higher level of acceptance for metaverse advertising.” To put this in context, Kate (57), a UK-based advertising director with 30 years’ experience, observed real potential and provided an example from her current role:

I hear very often from clients: “We’re really struggling to reach and influence the 16- to 24-year-old market.” So, if that’s anything that you need those people to be aware of, to act on, to engage with, then the metaverse could be appropriate, because we know that those people, that segment gravitate towards those platforms.

Market research confirms that Generation Z represents the bulk of current metaverse users (Zhou, 2023). However, younger people are not the only potential targets. Participants mentioned the opportunity to specifically target those who are “affluent” and able to afford the technology (Darius), and to target based on psychographics, such as those who are “early adopters or innovators” (Laylah). Thus, it will be helpful to segment the market differently based on additional demographic and psychographic characteristics.

Affordance 4: Communicating Innovativeness

Given the metaverse is an underleveraged but emerging technology, it makes sense that organizations use it both functionally *and* strategically, as a positioning tool. For instance, Sarah (31), a communications account supervisor in an American communications and PR firm, discussed the reputational advantages that come with being a first mover, and particularly the ability to influence one’s perception as being a “risk taker, innovative, and nimble.” Similarly, Riley (39), an advertising account executive in a large Chinese real-estate tech company, stated:

The mission of our company is to be the best tech company in the industry, so when we adopt the metaverse technology quickly, our brand vision [will] be better perceived by the market.

The ambition to symbolize innovativeness by being in the metaverse aligns well with Riley's firm identity of being associated with technology. However, this sentiment was also expressed by those working more broadly as advertisers, not necessarily related to technology, as illustrated by Frank (36), a UK-based advertising consultant:

I actually don't think advertising is advantageous in the metaverse [...] The real benefit is the cachet that you gain from PR outside of the metaverse, saying to people, "Well, we're a metaverse brand. How great are we?" You know, "Look at how cool we are. Look at how innovative and futuristic we are."

Frank's statement strongly supports the affordance of communicating innovativeness to position the brand positively, suggesting that this may even be more valuable than actually advertising in metaverse spaces. He referred to the symbolic benefit of being seen in the metaverse in the eyes of consumers. This corresponds with Caviggioli *et al.*'s (2020) finding that adopting new technology may help to forge and communicate appropriate positioning statements. In their research, firms announcing their adoption of blockchain technologies were rated higher for corporate reputation.

Disaffordance 1: Limited Reach and Adoption

The vast majority of participants remarked that a key obstacle associated with the metaverse is its (perceived) limited reach, marked by purportedly low adoption rates. In the pursuit of key advertising goals, this is a significant inhibitor. Apart from early adopters and specific segments, the metaverse is not seen as sufficiently "widespread yet" (Alex). This sentiment was captured by Maja (24), a young account executive working in an international creative experience agency:

I think no one is really in those things [metaverse environments]. I saw one; it was a Saint Patrick's campaign, and it was like an online pub, and it was something really sad to see because it was empty. I think the reality is that people are not there. People don't see a benefit of being there yet ... If you just put up an advertisement in the metaverse out of nowhere, I don't think that the consumer would even see it.

Whilst many participants talked about why consumers are perhaps not engaging yet, their insights focused on the need for new VR headsets and associated hardware/software, which "many people do not have access to at the moment" (Jonathan), as well as enhancements to the user experience and a move away from "cartoonish" graphics (Lea). Thus, some advertisers are cautious, needing to "allow clients the time to also get on board with the metaverse. It's not

just us implementing it; it's also them having the ability to engage in it first" (Clement). In Ron's words, to move forward, the metaverse needs to hit a "critical mass". This is interesting because it suggests that the perceived (dis)affordances for advertisers are very much contingent on the behavior of consumers and their affordances. These findings confirm that a larger ecosystem of affordances is at play.

Disaffordance 2: Lack of Return on Investment (ROI)

Disaffordances 1 and 2 are closely related. Many participants struggled to see potential ROI at this time, due to tools such as VR and AR being expensive and unpredictable. As Ivy astutely said, "I think it's way too expensive to even try." Tina, vice president and marketing manager of a large US-based public relations firm, and Damien (28), a marketing manager in a cyber-security firm in the US, captured this sentiment:

Entering the metaverse is just strictly budget-related: does your marketing department have sufficient budget for metaverse execution at an event? It is a very expensive execution to put together. So, the two clients that I've seen engaged in it are very large pharmaceutical companies that have the financial backing of their marketing departments. (Tina)

If I was told the metaverse has a good return on investment—as good as Google Adwords or whatever—I would go all in. I would make a business case, and I would absolutely get approvals to do something like that. I cannot make a business case of why the metaverse makes sense now. When you have a company with really deep pockets from a marketing standpoint...very different ball game. There you can do metaverse stuff because there's just so much money going around. Spending \$50,000 minimum [to develop a VR experience in the metaverse], I think we'd rather spend that \$50,000 in different ways. (Damien)

As these quotes illustrate, the business case for adopting the metaverse is difficult when ROI is questionable and competing with known, more obvious indicators like Google Adwords. Senior advertisers, like Tina, are motivated by the financial returns of the metaverse, rather than the creative immersive opportunities it presents. Advertisers in management positions make decisions on junior advertisers' proposals, and thus the juniors' ability to actualize their affordances is gated by the (dis)affordances of senior decision-makers. Senior advertisers' actions are also shaped by other decision-makers, such as CEOs and clients.

The view that the metaverse has low potential ROI is compounded by a lack of measurement tools and techniques: “no measurement framework available to measure the effect or the impact of ads” (Laurence). That said, very large organizations have more financial security to enable them to experiment. A few participants asserted that the metaverse’s advertising potential currently lies in being an “upper funnel” activity (*e.g.*, brand awareness), which is a lower priority for them in times of economic hardship. Anne stated that her firm would try to convince clients to engage in new technologies for upper funnel activities, but that this is “very difficult” because brands “are more low funnel, revenue and profit-driven.” Overall, this finding supports the contextual factors associated with institutional norms (*e.g.*, propensity to take risks) and legitimacy due to financial constraints.

Disaffordance 3: Requisite Technological Expertise

As evidenced in relation to other emerging technologies (see Royle and Laing, 2014), the majority of participants said that they or their company lacked the expertise needed to integrate advertising with the technology and engage with the metaverse. Ron’s and Frank’s comments illustrate this:

At [a global marketing agency], it would have been very difficult to understand which one of us would have built our metaverse proposition. Who do we go to do that? I mean, we have a social, we have a social content department, we have a creative department.
(Frank)

Getting the right people that would have that knowledge is always a challenge ... getting that talent would be quite hard for us in terms of our sort of capability of paying salaries. ... I think that is somewhat a business challenge for us in terms of our size, but also a geographic challenge in terms of access to sort of global players and global knowledge. (Ron)

Both early adopters of technology themselves, these participants saw the potential of the metaverse, but also identified implementation issues for advertising. These relate to lack of clarity on which department would be able and responsible for operationalising metaverse advertising and more broadly a deficit of in-house skills. It was further acknowledged that acquiring the requisite knowledge might be both difficult due to high demand, and costly. Overall, few participants perceived that they had the necessary skills to really engage with the metaverse, and even knowing which skillsets or people to contact was confusing for many. This reinforces that contextual factors associated with dexterity (based on advertisers’ abilities

and backgrounds) and legitimacy relate to firms' in-house skills resources and the potential to buy in expertise.

Disaffordance 4: Poor Interoperability

Poor interoperability was noted as a further obstacle by just under a third of participants. In other words, they perceived that different metaverse environments owned by different providers are currently poorly integrated. This leads to, for instance, the inability to move consumer avatars, seamlessly deploy different hardware/software, and launch multi-metaverse advertising campaigns. Max (30), a founder of a digital media marketing company based in the Netherlands, and James (42), a founder and creative director of a UK-based creative agency stated:

Over the last years we've seen a lot of different ecosystems, Decentraland and Meta Horizon... Facebook calling themselves a metaverse... all of these platforms do not run on just any hardware. They are not interoperable with external ecosystems. So, that is the issue we're encountering. (Max)

I think the main thing that's lacking is the integrations. So, for example, let's say we build a metaverse environment for our clients. They say: "Oh, can we connect it to our Google Analytics account so that we can see how many people are using it and how long they're spending on it?" – No, not really [laughing]. So, being able to connect to a lot of other different services that you, as a business, might use, the Metaverse is not there yet. (James)

This lack of ability to move seamlessly and/or integrate from one space to another is a drawback that causes both consumers and marketers to see limits to the metaverse as an experiential and marketing space. Nevertheless, with reference to the seamless movement of avatars across metaverses, Alan believed that if interoperability were to be achieved, it would be a "massive moment" for advertisers. Interoperability was discussed most by earlier adopters and those in tech-related industries (such as Max, quoted above), indicating that those with a greater interest in tech are aware of this supposed feature. This supports the notion of contextual factors affecting perceptions, which are subsequently shaped by cultural and/or industry norms (see Davis and Chouinard, 2017).

Other (Dis)affordances

Finally, in line with broader affordance research (Thomas, 2023), our data reveal other, less overt potential affordances and disaffordances, mentioned by one or two participants. Not all

of the data we collected could, or needed to, fit under the umbrella of an overarching theme. Other affordances mentioned by participants included the metaverse's potential to provide granular data about consumers' behavior and interactions, and thereby improve cost-effectiveness from gaining additional insights into consumers. Participants also identified disaffordances relating to privacy/security and the quality of graphics.

DISCUSSION

A Model of the Metaverse Affordance Ecosystem for Advertisers

Our findings support the development of a model of affordances and disaffordances of immersive virtual spaces for advertisers in line with Figure 2. The practitioners interviewed clearly perceived the metaverse as comprising distinctive features (*e.g.*, 3D graphical representations of people and buildings, ability to interact with other entities, etc.), which underpin four key, sometimes intersecting affordances. These affordances provide the impetus for actualization (engagement with the metaverse).

The metaverse was most commonly said to afford a *novel advertising space*, and an opportunity for *immersive brand experiences*. There was buzz that it could be the next big evolution in online marketing channels. The novelty of the metaverse lies in it being not simply a new space for old tricks, but rather an arena for enhanced highly immersive, more sensory experiences for consumers (*e.g.*, walking around and interacting directly with ads). This affordance aligns with the dominant opportunity identified in the literature, immersive capabilities (*e.g.*, Dwivedi *et al.*, 2023; Hadi *et al.*, 2023). However, such immersive experiences were perceived at present as more of a fantasy than a reality, with there being little understanding of “how” such experiences might be operationalized. This supports the importance of consumer-focused studies that examine how best to deploy immersive advertising formats (Cowan *et al.*, 2023; Javornik *et al.*, 2022).

The metaverse was also perceived to afford *specific audience targeting*. At least for now, it is thought to be populated by consumers who are young, innovators, and early adopters, thus providing a means to target advertising for these segments. This perception is shared by academics, but they remain somewhat quiet about the specific targeting potential (*e.g.*, Dwivedi *et al.*, 2023). Finally, our findings confirm that the metaverse is viewed as affording the ability to *communicate innovativeness*. Advertisers across a breadth of industries perceive that simply engaging in the metaverse conveys brands' innovativeness to consumers. Caviggioli *et*

al. (2020) note similar effects when earlier technologies have been launched. Unlike previous affordances, which are associated with features of the technological space, this affordance is founded on the symbolic value of the metaverse as a new technology, and thus can be viewed as a symbolic affordance (see El Amri and Akrouf, 2020).

While advertisers saw a number of affordances in the metaverse, they also highlighted constraints and obstacles (*i.e.*, disaffordances) that limit their ability to achieve their goals through this space, resonating with the industry's cautious uptake of this technology (Samuels, 2022). The two core disaffordances mentioned were *limited reach and adoption* and *lack of ROI*. It is perceived to be limited in reach beyond young or tech-savvy audiences with fear that it may not grow beyond this (see also Dwivedi *et al.*, 2023). The metaverse is viewed as a “risky” option compared with established technologies for which ROI is more predictable (*e.g.*, Google Adwords, and Facebook ads). The risk is compounded by two factors: first is skepticism about how ad effectiveness/ROI can be accurately measured, a challenge noted by expert academics (Lu and Mintz, 2023). Second is that, for now, the metaverse is most suited to “upper funnel” activities (*e.g.*, brand awareness) rather than directly driving sales.

A further prominent disaffordance is the *requisite technological expertise* needed to advertise in the metaverse. Our participants articulated that they lacked expertise to operationalize immersive experiences, and that outsourcing would be expensive or difficult, owing to high demand for such skillsets, thus feeding back into discussions of ROI and upfront costs (Harz *et al.*, 2022; Song *et al.*, 2020). This obstacle helps explain why only “power brands” with deep pockets, such as Gucci and Nike are seen in the metaverse at present (Mileva, 2022). Finally, *poor interoperability* is viewed as a constraint. A modest proportion of our participants perceived that avatars and advertising created for the metaverse would not be easily transferrable across different immersive environments, and identified potential issues in integrating with established technologies (*e.g.*, Google analytics).

Overall, the emergent affordances and disaffordances highlight the currently double-edged nature of the metaverse for advertisers. According to Zammuto *et al.* (2007, p. 752), it is a space that “invites, and at the same time constrains, a set of specific users.” For example, while it provides opportunities for specific audience targeting, ability to communicate and appeal en masse is constrained.

Our model illustrates that the balance between opportunities and constraints of the metaverse for advertisers depends on the presence of consumers in the space, and thus their affordances. At present, the consensus suggests insufficient consumer numbers to warrant entering the metaverse. As one participant said, it is yet to reach a “critical mass”. Scholars and

commentators also conclude that “time will tell”, contingent on consumer adoption (*e.g.*, Yoo *et al.*, 2023). The (dis)affordances perceived by decision-makers (*e.g.*, senior leadership) are depicted as gating advertisers’ ability to actualize affordances. More concretely, even if advertisers were motivated to shift their practices to involve the metaverse, this might be thwarted by other decision-makers who are more pessimistic about its value. Clients and their (dis)affordances are similarly found to act as a barrier to actualization. However, our study reveals that clients may foster actualization if they are strongly motivated to engage with the technology, even if advertisers do not share this feeling causing tension. As illustrated in our model, the (dis)affordances perceived by decision-makers are similarly shaped by consumers’ adoption, and thus their affordances. Overall, in line with prior research into spatial phenomena, we show that (dis)affordances that shape actions for advertisers exist and are contingent within a more complex affordance eco-system (see Autio *et al.*, 2018; Chan *et al.*, 2019).

Lastly, our data reveal contextual factors that shape advertisers’ (dis)affordances, which we organize around Davis and Chouinard’s (2017) categories of perception, dexterity, and legitimacy. Regarding perception, the majority of our participants were aware of the more general features of the metaverse. However, this was not the case for all participants, especially with less overt features such as interoperability. Participants also differed in their dexterity, and particularly in the cognitive ability and skills needed to engage with the metaverse. Resonating with broader studies, here younger and/or tech-savvy advertisers were more confident in their ability to embark on metaverse advertising (Smith, 2014). The factor of legitimacy emerged in relation to perceived organizational culture (*e.g.*, being risk-averse) and industry norms, with some advertisers stating that the metaverse is less suitable for their product (*e.g.*, B2B medical services). These contextual factors also shape decision-makers’ affordances, as illustrated in the model.

[Insert Figure 2 here]

A Convergent Definition of the Metaverse in Advertising

With definitions known to be guided by the interests and agendas of the perceiver (see also Humphreys, 2005; Dolata and Schwabe, 2023), we find a core difference between advertising practitioners, and advertising commentators (scholars and media experts). The latter define the metaverse largely as a multifaceted technology supporting a variety of social phenomena, whereas practitioners’ view is narrower, focusing on it as a means for brand communications. In other words, for advertisers, the metaverse is an advertising technology.

This advertising agenda is yet to be acknowledged in marketing scholars' definitions, although it is apparent in their broader texts (e.g., Yoo *et al.*, 2023; Hadi *et al.*, 2023). This is true even of definitions in industry publications written by expert practitioner commentators (e.g., The Economist, 2021) and academic reviews of the practitioner perspective in the popular press and company reports (e.g., Barrera and Shah, 2023). However, we note two exceptions that explicitly state that the technology provides a new domain for "economic" activities broadly (Bourlakis *et al.*, 2009; Park and Kim, 2022).

Reaching a consensus between academics and advertisers requires an intelligible, easily accessible definition that presents the overlapping core components and acknowledges the technology's advertising potential. In recent reviews of marketing definitions of the metaverse, spanning journals and popular industry publications, the metaverse is most commonly defined as 3D, immersive, and a technology for collaboration and interaction (Yoo *et al.*, 2023; Lu and Mintz, 2023). This broadly concurs with the critical facets identified by the advertisers in our study, although here they were positioned in terms of advertising practices, such as immersive space for interaction/collaborating with consumers. Thus, to bridge academia and practice, we suggest the following definition of the metaverse:

3D virtual spaces where advertisers can engage and interact with consumers synchronously through immersive brand encounters.

We acknowledge the importance of other facets of the metaverse in scholarly definitions, such as interoperability and decentralization (see Yoo *et al.*, 2023). However, these are secondary to the core features agreed by both academics and practitioners. Therefore, to avoid a complex definition and language that may be a barrier to shared understanding, we propose that these additional features are "special" but not "defining" aspects of the metaverse in the field of advertising. IT professionals make a similar argument for simple definitions and emphasize that characteristics deemed important and relevant by academics are not necessarily congruent with practitioners (Schöbel *et al.*, 2023).

IMPLICATIONS

Theoretical Implications

As the longevity of the metaverse will be largely dependent on the actions of advertisers, it is crucial to understand the issues and complexities relating to their adoption of these spaces (Goldman, 2022). However, extant work on the adoption of immersive virtual advertising

spaces, though valuable, has not drawn understanding directly from advertisers themselves. Following the logic that the beauty (and blemishes) of the metaverse are in the eyes of the beholder (see Volkoff and Strong, 2013), we address this gap by making two theoretical contributions.

First, in the domain of marketing technology adoption, and specifically the enablers and inhibitors shaping the adoption of immersive virtual environments, we extend existing work by shifting the perspective and empirical enquiry to advertisers. In doing so, we contribute by identifying four key affordances and four key disaffordances that drive or hinder actualization (*i.e.*, adoption). We also present a model illustrating how advertisers' affordances are often interrelated existing within the broader, complex, and contingent ecosystem of the affordances of other key marketing stakeholders, including decision-makers and consumers. These, along with contextual factors (*e.g.*, industry norms), shape advertisers' perceptions and actions. This extends understanding of the opportunities and constraints for advertisers identified by expert academics and industry commentators (*e.g.*, Dwivedi *et al.*, 2023; Lu and Mintz, 2023), and complements work on consumer affordances/adoption (*e.g.*, Hadi *et al.*, 2023). Our model, which can be used as a basis for further research aimed at aiding the industry to overcome barriers to adopting the metaverse, promotes the importance of multi-stakeholder approaches (advertisers, decision-makers, and consumers) considering the complex and contingent nature of affordances within the ecosystem.

Second, we contribute a revised definition of the metaverse that synthesizes understanding across academia and practice for use in publications with a practitioner readership and in other communications with advertisers. This relatively simple, audience-specific definition is intended to increase alignment between scholars and advertisers, and ultimately reduce barriers to adopting the metaverse (Laurie and Mortimer, 2011; Holm, 2006). Together, our contributions respond to Campbell's (2023) call to improve practitioners' understanding of advertising in the metaverse. Overall, we contribute more broadly to the advertising literature in identifying that in order to truly understand the role of phenomena for advertisers, it is critical to ask advertisers themselves.

Limitations and Future Research

Like all research, this work has limitations. For instance, to gain a broad understanding, we sampled advertisers working internationally in a wide range of brand communication roles. However, this limits the depth of knowledge of affordances for practitioners working in specific areas of advertising, such as creatives or media buyers, and in particular regions. Future

research should aim to provide a nuanced understanding involving sub-disciplines of advertising in specific geographical areas. Second, our findings suggest that contextual factors underpinned by firm and industry cultural norms shape affordances (*e.g.*, B2B versus B2C, fashion versus pharmaceuticals, small versus large firms). Further studies of affordances are needed across different domains to develop a deeper understanding. Third, we identify (dis)affordances, which are theorized as precursors to (non-)actualization but did not aim to rank the most important drivers and inhibitors. Further quantitative work might weight these affordances in shaping behavior. Fourth, we show that advertisers' affordances and their actualization are contingent on the affordances of decision-makers and consumers; however, we do not probe potential dynamic dyadic/triadic relationships between these. Additional studies are needed to add further nuance to the interplay between stakeholder affordances in our ecosystem. Fifth, our work is limited by our assumption that advertisers' core objectives align with advertising objectives. Future research is needed to understand complexity in the affordance ecosystem stemming from conflicts and complements of affordances associated with other advertiser motivations, including intrinsic motivations such as enjoyment from engaging with new technology.

Lastly, we adopted a multi-researcher approach, reflecting the increasing need for larger and quicker data collections commonly used in other disciplines such as medicine (Yang *et al.*, 2022). This was important here because we sought to obtain the views of a large body of advertisers, as well as time-efficient data collection, given the novelty of the technology and the urgent need to help practitioners understand the metaverse conundrum. Methodologically, this might introduce inconsistency in coding and interpretation, which we acknowledge as a limitation. However, these issues were minimized by adopting a rigorous approach to thematic analysis involving cross-checking and consensus building (see Giesen and Roeser, 2020). Nevertheless, our results would benefit from validation by further research and should consider the use of inter-coder reliability measures. Additional studies might also broaden the scope of understanding of the perceptions of advertisers from less affluent backgrounds and/or operating in developing-economy contexts.

Managerial Implications

In an advertising landscape, in which the metaverse has been hyped for the opportunities it can provide, practitioners remain cautious. Our findings have implications for advertisers navigating adoption in a complex ecosystem of stakeholder affordances. We break this down

into five components: educate, monitor, decide, influence, and innovate. We also raise questions to aid critical thinking by advertisers and suggest action points (see Table 4).

In relation to the *educate* component, advertisers have varying levels of knowledge of features of the metaverse and the opportunities they afford. Based on our identified (dis)affordances, practitioners should make active efforts to understand the importance of particular opportunities and obstacles for them, bearing in mind contextual factors associated with their brand, firm, industry, and practices, as well as what the metaverse affords their consumers. The *monitor* component addresses the rapidly developing technological and social environment of the metaverse, which requires advertisers to closely monitor trends in technological advancements (*e.g.*, advertising APIs, measuring ROIs), uptake by their target consumers, and reports on competitor adoptions and ROIs. Following decisions on whether or not to engage with the metaverse, advertisers themselves must *decide* whether or not they wish to champion advertising in the space. If the decision is not to engage, advertisers should still continue to monitor; if they support their brands entering the metaverse, they must *influence* decision-makers and other stakeholders responsible for the resources and approval needed to actualize their ambitions. Finally, advertisers must *innovate* by developing plans to best harness the opportunities and overcome the constraints of this novel advertising space. These five actions may or may not occur as a linear process. For instance, advertisers might choose to propose innovations as a means to influence decision-makers.

[Insert Table 4 here]

REFERENCES

- AHN, S. J., J. KIM, and J. KIM. "The Bifold Triadic Relationships Framework: A Theoretical Primer for Advertising Research in the Metaverse." *Journal of Advertising* 51, 5 (2022): 592–607. <https://doi.org/10.1080/00913367.2022.2111729>
- AHN, S. J., J. KIM, and J. KIM. "The Future of Advertising Research in Virtual, Augmented, and Extended Realities." *International Journal of Advertising* 42, 1 (2023): 162–170. <https://doi.org/10.1080/02650487.2022.2137316>
- ANDERSON, J., and L. RAINIE. "The Metaverse in 2040." *Pew Research Center*, June 30 (2022). <https://www.pewresearch.org/internet/2022/06/30/the-metaverse-in-2040/>
- ARCHER-BROWN, C., J. KAMPANI, B. MARDER, A. S. BAL, and J. KIETZMANN. "Conditions in Prerelease Movie Trailers for Stimulating Positive Word of Mouth: A Conceptual Model Demonstrates the Importance of Understanding as a Factor for Engagement." *Journal of Advertising Research* 57, 2 (2017): 159–172. <https://doi.org/10.2501/JAR-2017-023>
- AUTIO, E., S. NAMBIAN, L. D. W. THOMAS, and M. WRIGHT. "Digital Affordances, Spatial Affordances, and the Genesis of Entrepreneurial Ecosystems." *Strategic Entrepreneurship Journal* 12, 1 (2018): 72–95. <https://doi.org/10.1002/sej.1266>
- BAEK, T. H., C. Y. YOO, and S. YOON. (2018). "Augment yourself through virtual mirror: the impact of self-viewing and narcissism on consumer responses." *International Journal of Advertising*, 37, 3 (2018): 421-439. <https://doi.org/10.1080/02650487.2016.1244887>
- BARRERA, K. G., and D. SHAH. "Marketing in the Metaverse: Conceptual Understanding, Framework, and Research Agenda." *Journal of Business Research* 155, A (2023). <https://doi.org/10.1016/j.jbusres.2022.113420>
- BATES, G., A. LE GOUAIS, A. BARNFIELD, R. CALLWAY, M. N. HASAN, C. KOKSAL, H. R. KWON, L. MONTEL, S. PEAKE-JONES, I. WHITE, K. BONDY, and S. AYRES. "Balancing Autonomy and Collaboration in Large-Scale and Disciplinary Diverse Teams for Successful Qualitative Research." *International Journal of Qualitative Methods* 22 (2023). <https://doi.org/10.1177/16094069221144594>
- BELK, R. W. "Extended Self in a Digital World." *Journal of Consumer Research* 40, 3 (2013): 477–500. <https://doi.org/10.1086/671052>
- BELK, R. W. "Money, possessions, and ownership in the Metaverse: NFTs, cryptocurrencies, Web3 and Wild Markets." *Journal of Business Research* 153 (2022): 198–205. <https://doi.org/10.1016/j.jbusres.2022.08.031>

- BELLEGGHEM, S. V. “10 Brands That Have Built Awesome Experiences in the Metaverse.” *Steven Van Belleghem* [website], February 17 (2022). <https://www.stevenvanbelleghem.com/blog/10-brands-that-have-built-awesome-experiences-in-the-metaverse/>
- BERESFORD, M., A. WUTICH, M. V. DU BRAY, A. RUTH, R. STOTTS, C. STURTZSREETHARAN, and A. BREWIS. “Coding Qualitative Data at Scale: Guidance for Large Coder Teams Based on 18 Studies.” *International Journal of Qualitative Methods* 21 (2022). <https://doi.org/10.1177/16094069221075860>
- BESSIÈRE, K., A. F. SEAY, and S. KIESLER. “The Ideal Elf: Identity Exploration in World of Warcraft.” *Cyberpsychology & Behavior* 10, 4 (2007): 530–535. <https://doi.org/10.1089/CPB.2007.9994>
- BOURLAKIS, M., S. PAPAGIANNIDIS, and F. LI. “Retail Spatial Evolution: Paving the Way from Traditional to Metaverse Retailing.” *Electronic Commerce Research* 9, 1 (2009): 135–148. <https://doi.org/10.1007/s10660-009-9030-8>
- BRAUN, V., and V. CLARKE. “Using Thematic Analysis in Psychology.” *Qualitative Research in Psychology* 3, 2 (2006): 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- BRENGMAN, M., K. WILLEMS, and L. DE GAUQUIER. “Customer Engagement in Multi-Sensory Virtual Reality Advertising: The Effect of Sound and Scent Congruence.” *Frontiers in Psychology* 13 (2022). <https://doi.org/10.3389/fpsyg.2022.747456>
- CAMPBELL, N. “Call for Papers. Insights for Advertisers on Immersive Technologies: The Future of Advertising using VR, AR and the Metaverse.” *Journal of Advertising Research* (2023). <https://www.journalofadvertisingresearch.com/content/calls-papers-0>
- CAVIGGIOLI, F., L. LAMBERTI, P. LANDONI, and P. MEOLA. “Technology Adoption News and Corporate Reputation: Sentiment Analysis about the Introduction of Bitcoin.” *Journal of Product & Brand Management* 29, 7 (2020): 877–897. <https://doi.org/10.1108/JPBM-03-2018-1774>
- CHAN, Y., A. AHUJA, F. BOROOMAND, and A. SADREDDIN. “Technology Affordances in Digital Innovation Research: Quo Vadis?” In *AMCIS 2019 Proceedings*, Vol. 15. Atlanta, GA: AIS, 2019. https://aisel.aisnet.org/amcis2019/strategic_uses_it/strategic_uses_it/15
- CHEMERO, A. “An Outline of a Theory of Affordances.” *Ecological Psychology* 15, 2 (2003): 181–195. https://doi.org/10.1207/S15326969ECO1502_5
- COWAN, K., S. KETRON, A. KOSTYK, and K. KRISTOFFERSON. “Can You Smell the (Virtual) Roses? The Influence of Olfactory Cues in Virtual Reality on Immersion and Positive Brand Responses.” *Journal of Retailing* 99, 3 (2023): 385–399. <https://doi.org/10.1016/j.jretai.2023.07.004>

- DAHLEN, M., and S. ROSENGREN. "If Advertising Won't Die, What Will It Be? Toward a Working Definition of Advertising." *Journal of Advertising* 45, 3 (2016): 334–345. <https://doi.org/10.1080/00913367.2016.1172387>
- DAVIS, J., and J. CHOUINARD. "Theorizing Affordances: From Request to Refuse." *Bulletin of Science, Technology & Society* 36, 4 (2017): 241–248. <https://doi.org/10.1177/0270467617714944>
- DE LUCA, L. M., D. HERHAUSEN, G. TROILO, and A. ROSSI. "How and When do Big Data Investments Pay Off? The Role of Marketing Affordances and Service Innovation." *Journal of the Academy of Marketing Science* 49, 4 (2021): 790–810. <https://doi.org/10.1007/s11747-020-00739-x>
- DE RUYTER, K., J. HELLER, T. HILKEN, M. CHYLINSKI, D. I. KEELING, and D. MAHR. "Seeing with the Customer's Eye: Exploring the Challenges and Opportunities of AR Advertising." *Journal of Advertising* 49, 2 (2020): 109–124. <https://doi.org/10.1080/00913367.2020.1740123>
- DOLATA, M., and G. SCHWABE. "What is the Metaverse and Who Seeks to Define It? Mapping the Site of Social Construction." *Journal of Information Technology* 38, 3 (2023): 239–266. <https://doi.org/10.1177/02683962231159927>
- DWIVEDI, Y. K., L. HUGHES, A. M. BAABDULLAH, S. RIBEIRO-NAVARRETE, M. GIANNAKIS, M. M. AL-DEBEI, D. DENNEHY, B. METRI, D. BUHALIS, C. M. K. CHEUNG, K. CONBOY, R. DOYLE, R. DUBEY, V. DUTOT, R. FELIX, D. P. GOYAL, A. GUSTAFSSON, C. HINSCH, I. JEBABLI, M. JANSSEN, and S. F. WAMBA. "Metaverse Beyond the Hype: Multidisciplinary Perspectives on Emerging Challenges, Opportunities, and Agenda for Research, Practice and Policy." *International Journal of Information Management* 66 (2022). <https://doi.org/10.1016/j.ijinfomgt.2022.102542>
- DWIVEDI, Y. K., L. HUGHES, Y. WANG, A. A. ALALWAN, S. J. AHN, J. BALAKRISHNAN, S. BARTA, R. BELK, D. BUHALIS, V. DUTOT, R. FELIX, R. FILIERI, C. FLAVIÁN, A. GUSTAFSSON, C. HINSCH, S. HOLLENSSEN, V. JAIN, J. KIM, A. S. KRISHEN, J. O. LARTEY, N. PANDEY, S. RIBEIRO-NAVARRETE, R. RAMAN, P. A. RAUSCHNABEL, A. SHARMA, M. SIGALA, C. VELOUTSOU, and J. WIRTZ. "Metaverse Marketing: How the Metaverse Will Shape the Future of Consumer Research and Practice." *Psychology & Marketing* 40 (2023): 750–776. <https://doi.org/10.1002/mar.21767>
- EL AMRI, D., and H. AKROUT. "Perceived Design Affordance of New Products: Scale Development and Validation." *Journal of Business Research* 121 (2020): 127–141. <https://doi.org/10.1016/j.jbusres.2020.08.010>

- EVANS, S. K., K. E. PEARCE, J. VITAK, and J. TREEM. “Explicating Affordances: A Conceptual Framework for Understanding Affordances in Communication Research.” *Journal of Computer-Mediated Communication* 22, 1 (2017): 35–52. <https://doi.org/10.1111/jcc4.12180>
- FARAJ, S., and B. AZAD. “The Materiality of Technology: An Affordance Perspective.” In *Materiality and Organizing* (1st edn), P. M. LEONARDI, B. A. NARDI, and J. KALLINIKOS, eds. Oxford: Oxford University Press, 2012, pp. 237–258.
- GAUTAM, V. “10 Big Brands that have Dipped Their Toes into the NFT World.” *IndiaTimes*, February 2 (2022). <https://www.indiatimes.com/worth/investment/brands-that-have-entered-nft-world-560907.html>
- GIBSON, J. J. “The Theory of Affordances.” In *Perceiving, Acting, and Knowing*, R. SHAW and J. BRANSFORD, eds. Hillsdale, NJ: Lawrence Erlbaum, 1977, pp. 67–82.
- GIESEN, L., and A. ROESER. “Structuring a Team-Based Approach to Coding Qualitative Data.” *International Journal of Qualitative Methods* 19 (2020). <https://doi.org/10.1177/1609406920968700>
- GOLDMAN, J. “Meta Moves to Monetize its Metaverse via Creator-Sold Virtual Goods, Taking a New Stance.” *Insider Intelligence*, April 13 (2022). <https://www.insiderintelligence.com/content/meta-takes-another-step-monetizing-its-metaverse-via-creator-sold-virtual-goods>
- GOTTSCHALG, O., and M. ZOLLO. “Interest Alignment and Competitive Advantage.” *Academy of Management Review* 32, 2 (2007): 418–437. <https://doi.org/10.5465/amr.2007.24351356>
- HADI, R., S. MELUMAD, and E. PARK. “The Metaverse: A New Digital Frontier for Consumer Behavior.” *Journal of Consumer Psychology* (2023). <https://doi.org/10.1002/jcpy.1356>
- HARZ, N., S. HOHENBERG, and C. HOMBURG. “Virtual Reality in New Product Development: Insights from Prelaunch Sales Forecasting for Durables.” *Journal of Marketing* 86, 3 (2022): 157–179. <https://doi.org/10.1177/00222429211014902>
- HENNIG-THURAU, T., D. N. ALIMAN, A. M. HERTING, G. P. CZIEHSO, M. LINDER, and R. V. KÜBLER. “Social Interactions in the Metaverse: Framework, Initial Evidence, and Research Roadmap.” *Journal of the Academy of Marketing Science* 51, 4 (2023): 889–913. <https://doi.org/10.1007/s11747-022-00908-0>
- HERN, A. “Meta Shares Dip is Proof Metaverse Plan Never Really Had Legs.” *The Guardian*, October 27 (2022). <https://www.theguardian.com/technology/2022/oct/27/metaspares-dip-is-proof-metaverse-plan-never-really-had-legs-facebook>

- HOLM, O. “Integrated Marketing Communication: From Tactics to Strategy.” *Corporate Communications: An International Journal* 11, 1 (2006): 23–33. <https://doi.org/10.1108/13563280610643525>
- HOYER, W. D., M. KROSCHKE, B. SCHMITT, K. KRAUME, and V. SHANKAR. “Transforming the Customer Experience through New Technologies.” *Journal of Interactive Marketing* 51, 1 (2020): 57–71. <https://doi.org/10.1016/j.intmar.2020.04.001>
- HUMPHREYS, L. “Reframing Social Groups, Closure, and Stabilization in the Social Construction of Technology.” *Social Epistemology* 19, 2–3 (2005): 231–253. <https://doi.org/10.1080/02691720500145449>
- JAMISON, M., and M. GLAVISH. “The Dark Side of the Metaverse, Part 1.” *AEIdeas*, March 17 (2022). <https://www.aei.org/technology-and-innovation/the-dark-side-of-the-metaverse-part-i/>
- JAVORNIK, A., B. MARDER, J. B. BARHORST, G. MCLEAN, Y. ROGERS, P. MARSHALL, and L. WARLOP. “‘What Lies Behind The Filter?’: Uncovering the Motivations for Using Augmented Reality (AR) Face Filters on Social Media and their Effect on Well-Being.” *Computers in Human Behavior* 128 (2022). <https://doi.org/10.1016/j.chb.2021.107126>
- JONES, C. “Advertise in the Metaverse? It’s Complicated.” *LinkedIn*, September 23 (2022). <https://www.linkedin.com/pulse/advertise-metaverse-its-complicated-christian-jones/>
- JWI GLOBAL. “How the Metaverse Will Revolutionise Advertising.” *JWI Global*, July 4 (2022). <https://jwi-global.com/jwi-insight/how-the-metaverse-will-revolutionise-advertising/>
- KEEGAN, B. J., I. P. MCCARTHY, J. KIETZMANN, and A. I. CANHOTO. “On your marks, headset, go! Understanding the building blocks of metaverse realms.” *Business Horizons* 67, 1 (2024): 107–119. <https://doi.org/10.1016/j.bushor.2023.09.002>.
- KIM, J. “Advertising in the Metaverse: Research Agenda.” *Journal of Interactive Advertising* 21, 3 (2021): 141–144. <https://doi.org/10.1080/15252019.2021.2001273>
- KITZIE, V. “‘That Looks Like Me or Something I Can Do’: Affordances and Constraints in the Online Identity Work of US LGBTQ+ Millennials.” *Journal of the Association for Information Science and Technology* 70, 12 (2019): 1340–1351. <https://doi.org/10.1002/asi.24217>
- KOROLOV, M. “Teens Slow to Adopt VR and More Bad News for the Metaverse.” *Hypergrid Business*, April 5 (2023), <https://www.hypergridbusiness.com/2023/04/teens-slow-to-adopt-vr-and-more-bad-news-for-the-metaverse/>

- KRUSCHINSKI, S., J. HABLER, P. JOST, and M. SÜLFLOW. “Posting or Advertising? How Political Parties Adapt Their Messaging Strategies to Facebook’s Organic and Paid Media Affordances.” *Journal of Political Marketing* (2022). <https://doi.org/10.1080/15377857.2022.2110352>
- LARSSON, R. “Our Metaverse Marketing Future: Cautious Enthusiasm Mixed with a Dose of Skepticism.” *Advertising Week* (2023). <https://advertisingweek.com/our-metaverse-marketing-future-cautious-enthusiasm-mixed-with-a-dose-of-skepticism>
- LUANGRATH, A. W., J. PECK, W. HEDGCOCK, and Y. XU. “Observing Product Touch: The Vicarious Haptic Effect in Digital Marketing and Virtual Reality.” *Journal of Marketing Research* 59, 2 (2022): 306–326. <https://doi.org/10.1177/00222437211059540>
- LAURIE, S., and K. MORTIMER. “‘IMC is Dead. Long Live IMC’: Academics’ versus Practitioners’ Views.” *Journal of Marketing Management* 27, 13–14 (2011): 1464–1478. <https://doi.org/10.1080/0267257X.2011.627367>
- LEE, K. C., and N. CHUNG. “Empirical Analysis of Consumer Reaction to the Virtual Reality Shopping Mall.” *Computers in Human Behavior* 24, 1 (2008): 88–104. <https://doi.org/10.1016/j.chb.2007.01.018>
- LEONARDI, P. M., and E. VAAST. “Social Media and their Affordances for Organizing: A Review and Agenda for Research.” *Academy of Management Annals* 11, 1 (2017): 150–188. <https://doi.org/10.5465/annals.2015.0144>
- LEUNG, E., M. C. CITO, G. PAOLACCI, and S. PUNTONI. “Preference for Material Products in Identity-Based Consumption.” *Journal of Consumer Psychology* 32, 4 (2022): 672–679. <https://doi.org/10.1002/jcpy.1272>
- LEVIN, M. A., J. M. HANSEN, and D. A. LAVERIE. “Toward Understanding New Sales Employees’ Participation in Marketing-Related Technology: Motivation, Voluntariness, and Past Performance.” *Journal of Personal Selling & Sales Management* 32, 3 (2012): 379–393. <https://doi.org/10.2753/PSS0885-3134320307>
- LIN, X., B. SHAO, and X. WANG. “Employees’ Perceptions of Chatbots in B2B Marketing: Affordances vs. Disaffordances.” *Industrial Marketing Management* 101 (2022): 45–56. <https://doi.org/10.1016/j.indmarman.2021.11.016>
- LOUREIRO, S. M. C., J. GUERREIRO, S. ELOY, D. LANGARO, and P. PANCHAPAKESAN. “Understanding the Use of Virtual Reality in Marketing: A Text Mining-Based Review.” *Journal of Business Research* 100 (2019): 514–530. <https://doi.org/10.1016/j.jbusres.2018.10.055>

- LU, S., and O. MINTZ. (2023). "Marketing on the Metaverse: Research Opportunities and Challenges." *AMS Review* 13 (2019): 151–166. <https://doi.org/10.1007/s13162-023-00255-5>
- LYNCH, O. "Is the Metaverse the Future of Advertising?" *ClickCease Blog*, May 5 (2022). <https://www.clickcease.com/blog/is-the-metaverse-the-future-of-advertising/>
- MELEWAR, T. C. "Determinants of the Corporate Identity Construct: A Review of the Literature." *Journal of Marketing Communications* 9, 4 (2003): 195–220. <https://doi.org/10.1080/1352726032000119161>
- MELEWAR, T. C., and E. KARAOSMANOGLU. "Seven Dimensions of Corporate Identity: A Categorisation from the Practitioners' Perspectives." *European Journal of Marketing* 40, 7/8 (2006): 846–869. <https://doi.org/10.1108/03090560610670025>
- MERRE, R. "Security Will Make or Break the Metaverse." *Nasdaq*, March 24 (2022). <https://www.nasdaq.com/articles/security-will-make-or-break-the-metaverse>
- MIAO, F., I. V. KOZLENKOVA, H. WANG, T. XIE, and R. W. PALMATIER. "An Emerging Theory of Avatar Marketing." *Journal of Marketing* 86, 1 (2022): 67–90. <https://doi.org/10.1177/0022242921996646>
- MILEVA, G. "20 Brands Leaping into the Metaverse." *Influencer Marketing Hub*, April 25 (2022). <https://influencermarketinghub.com/metaverse-brands>
- NAMBISAN, S., M. WRIGHT, and M. FELDMAN. "The Digital Transformation of Innovation and Entrepreneurship: Progress, Challenges and Key Themes." *Research Policy* 48, 8 (2019). <https://doi.org/10.1016/j.respol.2019.03.018>
- NAUGHTON, J. "A Moment's Silence, Please, for the Death of Mark Zuckerberg's Metaverse." *The Observer*, May 13 (2023). <https://www.theguardian.com/technology/commentisfree/2023/may/13/death-of-mark-zuckerberg-metaverse-meta-facebook-virtual-reality-ai>
- OH, J. KIM, J. J. C. CHANG, N. PARK, and S. LEE. "Social benefits of living in the metaverse: The relationships among social presence, supportive interaction, social self-efficacy, and feelings of loneliness." *Computers in Human Behavior*, 139, 2023. <https://doi.org/10.1016/j.chb.2022.107498>
- PARK, S.-M., and Y.-G. KIM. "A Metaverse: Taxonomy, Components, Applications, and Open Challenges." *IEEE Access* 10 (2022): 4209–4251. <https://doi.org/10.1109/ACCESS.2021.3140175>
- PATTON, M. Q. *Qualitative Evaluation and Research Methods* (3rd edn). Thousand Oaks, CA: Sage Publications, 2002.

- PLOMION, B. “A Giant Leap For Advertising Kind: How The Metaverse Could Lead To A Next-Gen Brand Experience.” *Forbes*, May 16 (2022). <https://www.forbes.com/sites/forbescommunicationscouncil/2022/05/16/a-giant-leap-for-advertising-kind-how-the-metaverse-could-lead-to-a-next-gen-brand-experience/>
- PRENDERGAST, G., A. PALIWAL, and K. K. F. CHAN. “Trust in Online Recommendations: An Evolutionary Psychology Perspective.” *International Journal of Advertising* 37, 2 (2018): 199–216. <https://doi.org/10.1080/02650487.2016.1239879>
- RAUSCHNABEL, P. A., R. FELIX, C. HINSCH, H. SHAHAB, and F. ALT. “What is XR? Towards a Framework for Augmented and Virtual Reality.” *Computers in Human Behavior* 133 (2022). <https://doi.org/10.1016/j.chb.2022.107289>
- RAVENS CRAFT, E. “What is the Metaverse, Exactly?” *Wired*, June 15 (2022). <https://www.wired.com/story/what-is-the-metaverse/>
- REIBSTEIN, D., and R. IYENGAR. “Metaverse: Will It Change the World or Be a Whole New World In and Of Itself?” *AMS Review* 13 (2023): 144–150. <https://doi.org/10.1007/s13162-023-00258-2>
- RITTERBUSCH, G. D., and M. R. TEICHMANN. “Defining the Metaverse: A Systematic Literature Review.” *IEEE Access* 11 (2023): 12368–12377. <https://doi.org/10.1109/ACCESS.2023.3241809>
- ROLF, F., N. CAMPBELL, S. THOMPSON, and G. ARGUS. “Australians’ Experience of the COVID-19 Pandemic: Advantages and Challenges of Scaling Up Qualitative Research Using Large-Scale Rapid Analysis and Building Research Capacity Across Rural Australia.” *International Journal of Qualitative Methods* 20 (2021). <https://doi.org/10.1177/16094069211051937>
- ROYLE, J., and A. LAING. “The Digital Marketing Skills Gap: Developing a Digital Marketer Model for the Communication Industries.” *International Journal of Information Management* 34, 2 (2014): 65–73. <https://doi.org/10.1016/j.ijinfomgt.2013.11.008>
- SAMUELS, M. “Metaverse: Momentum is Building, but Companies Are Still Staying Cautious.” *ZDNET*, June 20 (2022). <https://www.zdnet.com/article/metaverse-momentum-is-building-but-companies-are-still-staying-cautious/>
- SATTIN-BAJAJ, C. “On the Same Page: A Formal Process for Training Multiple Interviewers.” *The Qualitative Report* 23, 7 (2018): 1688–1701. <https://doi.org/10.46743/2160-3715/2018.3462>
- SCHMIDT, R. C. “Scaffolds for Social Meaning.” *Ecological Psychology* 19, 2 (2007): 137–151. <https://doi.org/10.1080/10407410701332064>

- SCHÖBEL, S., J. KARATAS, F. TINGELHOFF, and J. M. LEIMEISTER. “Not Everything Is a Metaverse?! A Practitioners Perspective on Characterizing Metaverse Platforms.” In *Proceedings of the Hawaii International Conference on System Sciences*. Honolulu, HI: HICSS, 2023, pp. 544–553.
- SHIN, D. “The Actualization of Meta Affordances: Conceptualizing Affordance Actualization in the Metaverse Games.” *Computers in Human Behavior* 133 (2022). <https://doi.org/10.1016/j.chb.2022.107292>
- SMINK, A. R., E. A. VAN REIJMERSDAL, and G. VAN NOORT. “Consumers’ Use of Augmented Reality Apps: Prevalence, User Characteristics, and Gratifications.” *Journal of Advertising* 51, 1 (2022): 85–94, <https://doi.org/10.1080/00913367.2021.1973622>
- SMITH, A. “Older Adults and Technology Use.” *Pew Research Center*, April 3 (2014). <http://www.pewinternet.org/2014/04/03/older-adults-and-technology-use/>
- SONG, H., J. KIM, T.P. NGUYEN, K.M. LEE, and N. PARK. Virtual reality advertising with brand experiences: the effects of media devices, virtual representation of the self, and self-presence. *International Journal of Advertising*, 40, 7 (2021): 1096-1114. <https://doi.org/10.1080/02650487.2020.1834210>
- STAIKOS, B. “How the Metaverse Will Change the Way We Interact with Brands.” *Fast Company*, March 21 (2022). <https://www.fastcompany.com/90732841/how-the-metaverse-will-change-the-way-we-interact-with-brands>
- STEFFEN, J. H., J. E. GASKIN, T. O. MESERVY, J. L. JENKINS, and I. WOLMAN. “Framework of Affordances for Virtual Reality and Augmented Reality.” *Journal of Management Information Systems* 36, 3 (2019): 683–729. <https://doi.org/10.1080/07421222.2019.1628877>
- STEPHENSON, N. *Snow Crash*. New York, NY: Bantam Spectra, 1992.
- SUNG, E., O. KWON, and K. SOHN. “NFT Luxury Brand Marketing in the Metaverse: Leveraging Blockchain-Certified NFTs to Drive Consumer Behavior.” *Psychology & Marketing* 40, 11 (2023): 2306–2325. <https://doi.org/10.1002/mar.21854>
- SWANT, M. “Marketers Forge Ahead with Metaverse Experiments Despite Murky Economy.” *Digiday*, January 6 (2023). <https://digiday.com/marketing/marketers-forge-ahead-with-metaverse-experiments-despite-murky-economy/>
- THE ECONOMIST. “What is the Metaverse?” *The Economist*, May 11 (2021). <https://www.economist.com/the-economist-explains/2021/05/11/what-is-the-metaverse>

- THOMAS, V. “The Psychological Affordances of Solitude in Emerging Adulthood.” *Emerging Adulthood* 11, 3 (2023): 611–625. <https://doi.org/10.1177/21676968231151982>
- URIBE, R., R. LABRA, and E. MANZUR. (2022) “Modeling and Evaluating the Effectiveness of AR Advertising and the Moderating Role of Personality Traits.” *International Journal of Advertising* 41, 4: 703–730. <https://doi.org/10.1080/02650487.2021.1908784>
- VOLKOFF, O., and D. M. STRONG. “Critical Realism and Affordances: Theorizing It-Associated Organizational Change Processes.” *MIS Quarterly* 37, 3 (2013): 819–834. <https://doi.org/10.25300/MISQ/2013/37.3.07>
- WEDEL, M., E. BIGNÉ, and J. ZHANG. “Virtual and augmented reality: Advancing research in consumer marketing.” *International Journal of Research in Marketing* 37, 3 (2020): 443–465. <https://doi.org/10.1016/j.ijresmar.2020.04.004>
- WITTKOWER, D. E. “Principles of Anti-Discriminatory Design.” In *2016 IEEE International Symposium on Ethics in Engineering, Science and Technology (ETHICS), Vancouver, BC*. Piscataway, NJ: IEEE, 2016, pp. 1–7. <https://doi.org/10.1109/ETHICS.2016.7560055>
- YANG, M. M., B. P. GOLDEN, K. A. CAMERON, L. GARD, J. A. BIERMAN, D. B. EVANS, and B. L. HENSCHEN. “Learning Through Teaching: Peer Teaching and Mentoring Experiences among Third-Year Medical Students.” *Teaching and Learning in Medicine* 34, 4 (2022): 360–367. <https://doi.org/10.1080/10401334.2021.1899930>
- YAO, D. “SXSW 2022: Meta CEO Mark Zuckerberg says Metaverse is the Internet’s Next Chapter.” *AI Business*, March 15 (2022). <https://aibusiness.com/verticals/sxsw-2022-meta-ceo-mark-zuckerberg-says-metaverse-is-the-internet-s-next-chapter>
- YAU, A., B. MARDER, and S. O’DONOHOE. “The Role of Social Media in Negotiating Identity during the Process of Acculturation.” *Information Technology & People* 33, 2 (2020): 554–575. <https://doi.org/10.1108/ITP-09-2017-0305>
- YOO, K., R. WELDEN, K. HEWETT, and M. HAENLEIN. “The Merchants of Meta: A Research Agenda to Understand the Future of Retailing in the Metaverse.” *Journal of Retailing* 99 (2023): 173–192. <https://doi.org/10.1016/j.jretai.2023.02.002>
- YUAN, C., S. WANG, X. YU, K. H. KIM, and H. MOON. “The influence of flow experience in the augmented reality context on psychological ownership.” *International Journal of Advertising*, 40, 6 (2021): 922-944. <https://doi.org/10.1080/02650487.2020.1869387>

- ZAMMUTO, R. F., T. L. GRIFFITH, A. MAJCHRZAK, D. J. DOUGHERTY, and S. FARAJ. "Information Technology and the Changing Fabric of Organization." *Organization Science* 18, 5 (2007): 749–762. <https://doi.org/10.1287/orsc.1070.0307>
- ZHAO, S., S. GRASMUCK, and J. MARTIN. "Identity Construction on Facebook: Digital Empowerment in Anchored Relationships." *Computers in Human Behavior* 24, 5 (2008): 1816–1836. <https://doi.org/10.1016/j.chb.2008.02.012>
- ZHOU, L. "Top Business Trends: The Ultimate Guide in 2023." *Luisa Zhou* [website], May 26 (2023). <https://www.luisazhou.com/blog/business-trends/>
- ZIMMERMANN, D., A. WEHLER, and K. KASPAR. "Self-Representation through Avatars in Digital Environments." *Current Psychology* 42 (2022): 21775–21789. <https://doi.org/10.1007/s12144-022-03232-6>
- ZITRON, E. "RIP Metaverse, We Hardly Knew Ye." *Business Insider*, May 8 (2023). <https://www.businessinsider.com/metaverse-dead-obituary-facebook-mark-zuckerberg-tech-fad-ai-chatgpt-2023-5>

Table 1 Studies Highlighting Inhibitors and Enablers for Adoption of Immersive Virtual Spaces Relevant for Advertising

Author(s)	Paper type	Technology	Perspectives				Adoption Findings		Contributions
			Academic	Industry Expert	Consumer	Practitioner	Enablers	Inhibitors	
Ahn et al. (2022)	Conceptual	Metaverse	√	--	--	--	Interoperability allows uninterrupted concurrent social interactions. The metaverse can elicit embodiment and high interaction presence. Opportunity for immersive, persuasive advertising experiences using avatars.	Engagement metrics can be difficult to determine. Challenging to impose ad message repetition in the metaverse. Lack of interoperability, hence reduced continuity.	Multi-disciplinary insights through the lens of advertising theory and practice to recommend new research directions.
Barrera and Shah (2023)	Review	Metaverse	√	√	--	--	Large real-time data environment. New channel for marketing communications, user collaboration, and content creation. Avatar embodiment and virtual goods consumption.	Potential for user addiction. Concerns about intellectual property and ownership of digital assets. Data management and security are unclear.	An organizing framework for possible consumer experiences in the metaverse.
Belk et al. (2022)	Conceptual	Metaverse	√	--	--	--	New form of ownership based on virtual properties.	Limited acceptance for cryptocurrencies. Cryptocurrencies are volatile. Unclear ownership rights for NFTs. Potential fraud and theft behavior.	An assessment of changes in forms of ownership and property rights with the development of the metaverse, with practical implications for artists, art institutions, buyers, and investors.
Luangrath et al. (2022)	Empirical	VR	--	--	√	--	VR allows a vicarious touch for sensory stimulation.	Digital environments lack lived experience, physical touch, and body ownership.	An empirical investigation of vicarious touch in a digital context. Expands the theoretical domain of consumer haptics.
Yuan et al. (2021)	Empirical	AR	--	--	√	--	AR can improve consumer flow experience and provide direct product experience/information. Potential for parasocial relationships with users.	--	An investigation on the formation of psychological ownership in the AR marketing environment from the perspective of consumer flow experience.
De Ruyter et al. (2020)	Conceptual	AR	√	--	--	--	Increased decision comfort and purchase intentions. Higher degree of engagement/experiential interactions. Personalization of brand engagement.	Limited consumer adoption. The technology is not sufficiently developed. The value of AR is not fully understood and leveraged, leading to limited use by brands. Privacy concerns.	A framework of theoretical building blocks based on extant research, illustrating a staged process of AR advertising.
Dolata and Schwabe (2023)	Empirical	Metaverse	--	√	√	--	Provide opportunities that cannot be exploited in the real world, including an alternative virtual self and socializing. Attractive to young users. Novel platform for entertainment.	Security and privacy concerns. Limited consumer adoption. Lack of a clear usage case. Concerns about the potential impact on society. Competing interests across stakeholders.	Mapping of social discourse on the metaverse and examination of meaning in the discourse.
Dwivedi et al. (2023)	Conceptual	Metaverse	√	--	--	--	Immersive interactive brand experience. Potential personalized advertising via avatars. A new paradigm of engagement.	Governance. Regulation. Limited consumer adoption.	Expert contributor perspectives on the key marketing implications of the metaverse.
Hadi et al. (2023)	Conceptual	Metaverse	--	--	√	--	Real-time multisensory interaction. Enhanced customer service potential. New environment for brand experiences.	Financial risk. Low consumer adoption. Need for consumer hardware.	A conceptual framework for how different defining features of the metaverse may affect current understandings of consumer behavior.

Baek et al. (2016)	Empirical	AR	--	--	√	--	Rich personal brand experience and interactivity. Self-viewing via AR improves purchase intentions.	More relevant for narcissistic consumers.	Contributes to the literature on AR self-viewing effect highlighting narcissism as a mediator.
Hennig-Thurau et al. (2022)	Empirical	Metaverse	--	--	√	--	VR increases social presence and physical mobility, offering consumer interactions. Potential for sales and personalized service encounters. Opportunity for societal changes in openness and tolerance.	VR increases consumer exhaustion. Separation of users from the physical world. Need for consumer hardware. Security and privacy threats. Added value versus cost challenge. Limited consumer adoption.	A theoretical framework of the effects of real-time multisensory interactions in the metaverse using VR headsets.
Harz et al. (2022)	Empirical	VR	--	--	√	--	Provides high immersion, presence, and vividness creating realistic experiences. VR behaviours can reflect offline behaviors, and thus are effective for product development and sales forecasting.	Upfront costs and potential haptics constraints.	Evaluation of the usefulness of VR for new product development and guidance for practitioners.
Song et al. (2020)	Empirical	VR	--	--	√	--	VR can be effective across many devices. Personalized virtual selves create more favorable experiences and responses. Standard VR without self-representation can be a cost-effective way to reach a wider audience. In-store VR ad campaigns offer greater involvement and engagement.	VR experiences featuring impersonalized virtual self result in negative experiences for consumers, however creating personalized virtual selves is resource-intensive.	Evaluation of the effects of VR advertising using different media devices and levels of self-representation.
Loureiro et al. (2019)	Text Mining Review	VR	√	--	--	--	More immersive and interactive experiences for consumers, offering greater authentic realism; VR can bring traditionally physical consumer experiences to online contexts. VR has widespread potential for research, planning, training, improving efficiency, and more.	Greater uncertainty in consumers surrounding product quality. Financial barriers associated with VR have not allowed for mass adoption yet.	A structured morphology of existing literature on VR applications in marketing, identifying relevant topics around VR and marketing.
Lu and Mintz (2023)	Conceptual	Metaverse	√	--	--	--	Unique engagement and awareness benefits across a multitude of industries/sectors. Realtime immersive social interactions. Marketing interactions and product developments absent of physical world limitations.	Adoption and use is hindered by the uncertainty of what the metaverse is and its scope of use by users and brands. Technological innovation and resource requirement creates significant barriers to entry. Metaverse's evolution and adoption is still not guaranteed.	An overview of how to conduct metaverse marketing through the 4Ps, the 5Cs, and seven metaverse marketing roles to inform marketers on its opportunities and challenges.
Wedel et al. (2020)	Conceptual	VR/AR	√	--	√	--	Rising adoption levels across multiple sectors. High levels of immersion and realism, leading to more engaging and positive consumer experiences. Possible benefits to multiple stages (i.e. pre-purchase, purchase, and post-purchase) of the customer journey.	Consumer data sharing privacy concerns. Consumer unfamiliarity. Motion sickness. Failure to see the benefits of the technology.	Develops a consumer-experience-centric framework for VR/AR research and synthesizes key knowledge surrounding VR/AR to develop an agenda for future research.
Smink et al. (2022)	Empirical	AR	--	--	√	--	AR is quickly moving towards large-scale adoption, justifying its use. For consumers, AR offers four gratifications: entertainment, information, innovation, and social empowerment.	Privacy concerns for AR. Preferences for AR are currently limited to young, affluent, and less privacy-concerned users.	Evaluation of consumer AR adoption, characteristics of AR users, gratifications of AR, and consumer preferences.
Uribe et al. (2022)	Empirical	AR	--	--	√	--	AR advertising has better ad reception in terms of both value perception (entertainment and informativeness) and ad attitude than traditional ads.	--	Evaluation of the effectiveness of AR advertising compared with traditional forms.

Yoo et al. (2023)	Conceptual	Metaverse	√	--	--	--	Highly immersive and engaging retail experiences with design and space flexibility. Opportunity for virtual product testing prior to physical launch. Potential co-creation and collaboration. Appeal of avatars as extensions of the self. Digital personas offer a projection of self-identity. Unique digital assets that are transferrable between consumers.	Technologies (e.g., AR/VR/metaverse/blockchain) not fully developed/commercialized. Lack of standardized hardware means varied VR experience. Concerns for mental and physical health as well as data security. Volatility of cryptocurrencies value and adoption. Metaverse is not universally applicable to all firms. Metaverse selection is complex (>50 with varying features).	A new conceptualization of the metaverse, including online collaboration, high consumer immersion, unique digital assets, and digital personas.
Keegan et al. (2024)	Conceptual	Metaverse	√	--	--	--	Consumers' metaverse identity is more personalized, immersive, and emotive. User presence is interactive, immersive, and multiplex. Opportunity for users to form groups (valuable for brand communities and segmentation purposes).	Unstructured approach to adopting the metaverse for a brand. Volatility of cryptocurrencies and challenges in digital property rights and ownership. The future of the metaverse is uncertain, making it a risky investment. Dark side of the metaverse (health and societal concerns).	The paper presents the metaverse honeycomb model to explain the functionalities and affordances for different metaverse realms.
Oh et al. (2023)	Empirical	Metaverse	--	--	√	--	Offers increased social presence facilitating interactions among young users. Benefits lead to reduced feelings of loneliness through enhanced social self-efficacy.	--	The study investigated the social benefits of utilizing the two popular metaverse platforms, Roblox, and Zepeto.

Table 2 Summary of Participants in Qualitative Interviews

Pseudonym	Sex	Age	Country	Department and Role	Experience (years)	Industry Sector	Company Size	Company Use of Metaverse	Adopter Type
Maja	F	24	UK	Advertising Account Executive	2	International creative experience agency	Small	No	Early Adopter
Kate	F	57	UK	Advertising Client Director	30	Marketing communications consultancy	Micro	No	Later Adopter
James	M	42	UK	Founder and Creative Director	12	Creative agency	Small	Yes	Innovator
Jonathan	M	30	UK	Digital Marketing Manager	11	Full-service marketing agency	Small	No	Later Adopter
Alan	M	52	UK	Co-Founder	25	Virtual brand experience agency	Small	Yes	Innovator
John	M	31	USA	Advertising Account Executive	8	Search engine technology	Small	No	Early Adopter
Ron	M	43	UK	Head of Marketing	20	Display equipment	Medium	No	Early Adopter
Damien	M	28	USA	Marketing Manager	5	Cyber security	Large	Yes	Early Adopter
Sarah	F	31	USA	Account Supervisor for Communications	5	Communications/PR	Large	No	Later Adopter
Owen	M	29	China	Marketing Manager	5	Education	Medium	No	Early Adopter
Philippa	F	29	China	Brand Manager	5	Publishing	Large	No	Early Adopter
Ingrid	F	26	China	Marketing and Advertising Executive	3	Internet industry	Large	Yes	Later Adopter
Riley	F	39	China	Advertising Account and Development Executive	15	Real estate consulting	Large	Yes	Innovator
Darius	M	31	USA	Advertising Account Executive	6	Marketing communications agency	Micro	No	Later Adopter
Evelyn	F	25	USA	Advertising Account Executive	5	Technology B2B	Large	No	Early Adopter

Helena	F	31	USA	Marketing and Branding Consultant	7	Marketing communications agency	Micro	No	Early Adopter
Camile	F	30	USA	Marketing Manager	8	High technology	Small	No	Early Adopter
Alex	M	27	China	Head of Marketing	4	Gaming/tech	Medium	No	Early Adopter
Kristina	F	25	USA	Product Marketing Manager	4	3D printing	Large	No	Early adopter
Tina	F	/	USA	VP & Marketing Manager	7	Public relations	Large	Yes	Later Adopter
Christina	F	33	Malta	Marketing Consultant	12	Manufacturing	Small	No	Early Adopter
Karina	F	27	USA	Associate Director	7	Agency	Large	No	Later Adopter
Frank	M	36	UK	Advertising Consultant	15	Advertising agency	Micro	No	Early Adopter
Clement	M	27	UK	Marketing Executive	2	Asset management	Large	No	Early Adopter
Miles	M	35	UK	Brand Promoter	7	Technology & education	Micro	No	Early Adopter
Levi	M	26	Israel	Chief Operating Officer	1	Technology & education	Micro	No	Innovator
Viktor	M	31	Canada	Director of Marketing & Business Operations	8	Pharma	Small	No	Innovator
Ewan	M	28	Singapore	Marketing and Communications Analyst	3	Service sector	Large	No	Later Adopter
Alice	F	28	China	Marketing Assistant Manager	3	Service sector	Large	No	Early Adopter
Ann	F	34	Hong Kong	Marketing Communications and Sales Manager	5	Service sector	Large	Yes	Early Adopter
Lucy	F	32	China	Brand and Communications Manager	2	Government sector	Large	No	Early Adopter
Zack	M	27	China	Communications and Product Manager	5	Internet industry	Large	Yes	Innovator
Faye	F	30	China	Project Manager	9	Branding	Micro	No	Early Adopter
Wensley	M	33	China	Communications Manager	5	FMCG	Medium	No	Early Adopter
Liam	M	35	China	Marketing Director	9	Medical	Small	No	Later Adopter
Laurence	M	27	UK	Advertising Account Manager	4	Media agency	Large	No	Innovator
Rufus	M	33	Italy	Marketing Manager	8	Marketing/advertising	Small	No	Early Adopter
Henri	M	37	UK	Marketing/Digital Strategy Director	16	Marketing agency	Medium	No	Innovator
Gary	M	47	Netherlands	Global Marketing Director	20	Medical	Medium	No	Early Adopter
Ashley	M	40	UK	Founder/CEO and Marketing	8	Online communications	Small	No	Innovator
Zoe	F	34	Germany	Field Marketing Manager	13	Software and services	Large	Yes	Later Adopter
Max	M	30	Netherlands	Founder/Digital Media Marketing Manager	4	IT software and marketing services	Small	Yes	Early Adopter
Ivy	F	26	Netherlands	Junior Advertising Specialist	10	Online marketing services	Micro	Yes	Early Adopter
Lea	F	35	Netherlands	Advertising Marketeer	11	Consumer services	Micro	No	Later Adopter
Anne	F	26	UK	Advertising Associate	3	Consulting/technology	Large	Yes	Early Adopter
Laylah	F	27	Netherlands	Founder/Marketing Manager	8	Event planning	Small	Yes	Early Adopter
William	M	29	Columbia	Founder of Advertising Firm	5	Advertising	Small	No	Early Adopter
Dennis	M	26	Bulgaria	Marketing Account Executive	4	Outsourcing and technology	Small	No	Early Adopter

Table 3 Summary of Affordances and Disaffordances

Themes	Data Freq	(Dis)affordance Qualities	Illustrative Quotes
Metaverse Affordances			
Novel advertising space	28	New places in which to communicate the brand, <i>e.g.</i> , virtual items, billboards	“There are no limits. In virtual worlds you can do as you like, you can make as big as you want or you can go crazy and integrate whatever audio as well ... I think it’s like an advertising paradise for brands.” (Ivy)
Immersive advertising experience	37	Immersive spaces for interactivity, and experiential engagement	“Getting people to understand your brand, your vision, your values. Rather than putting that in a kind of rather fixed 2D website, you can get people to properly explore them and interact as and when they walk around the sort of three-dimensional space. And we all know that creates better memorability for people, which is obviously core in brand comms.” (Alan)
Specific audience targeting	25	Ability to target a specific segment—psychographic/age/tech-savvy	“I hear very often from clients ‘we’re really struggling to reach and influence the 16- to 24-year-old market. So, if that’s anything that you need those people to be aware of, to act on, to engage with, then the metaverse could be appropriate because we know that those people, that segment, gravitate towards those platforms.” (Kate)
Communicating brand innovativeness	27	Enabling communication of brand innovativeness, first mover advantage	“The mission of our company is to be the best tech company in the [X] industry, so when we adopt the metaverse technology quickly, our brand vision [will] be better perceived by the market.” (Riley)
Metaverse Disaffordances			
Limited reach and adoption	38	Limited current reach to consumers and low rate of future adoption	[On consumer adoption] “I guess worldwide, I’d say low. I think it feels very early days. You know, there’s so many industries and companies and people that could adopt it and are yet to do that. Or they might still be working on it. So, I think I would say [adoption is] low at this moment.” (Levi)
Anticipated lack of ROI	28	Financial risk/opportunity cost associated with investing in advertising within the metaverse	“Entering the metaverse is just strictly budget-related; does your... marketing department have sufficient budget for metaverse execution at an event? It’s a no for my understanding. It is a very expensive execution to put together.” (Tina)
Requisite technological expertise	31	Lack of skills and capabilities required to engage in advertising in virtual environments	“It is hard to develop things in AR/VR ... It’s hard to find developers with experience in the field because it’s so new. That’s the first barrier, I think. And even if you find such developers, it will require quite a lot of workforce working on it with expensive hardware to calculate all of the graphical equations and all of that.” (Levi)
Poor interoperability	17	Inability to transfer digital items to various platforms/integrate marketing campaigns	“all of these platforms ... they do not run on just any hardware. They are not interoperable with external ecosystems. So that is the issue we’re encountering.” (Max)

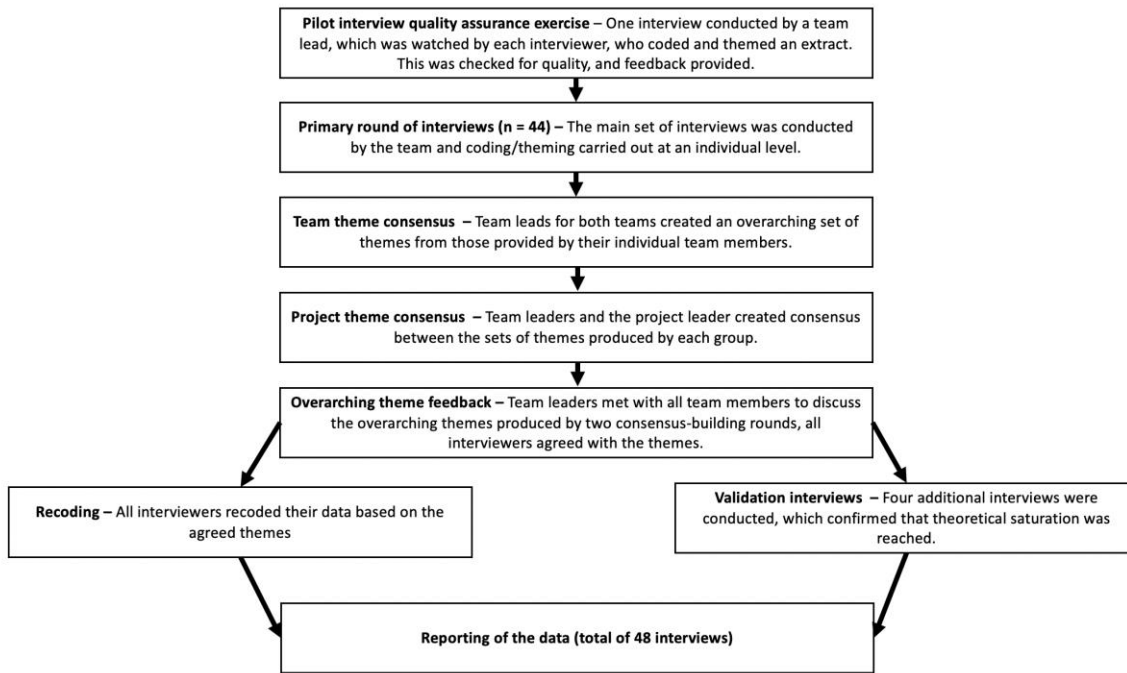


Figure 1 Summary of Data Collection and Analysis Phases

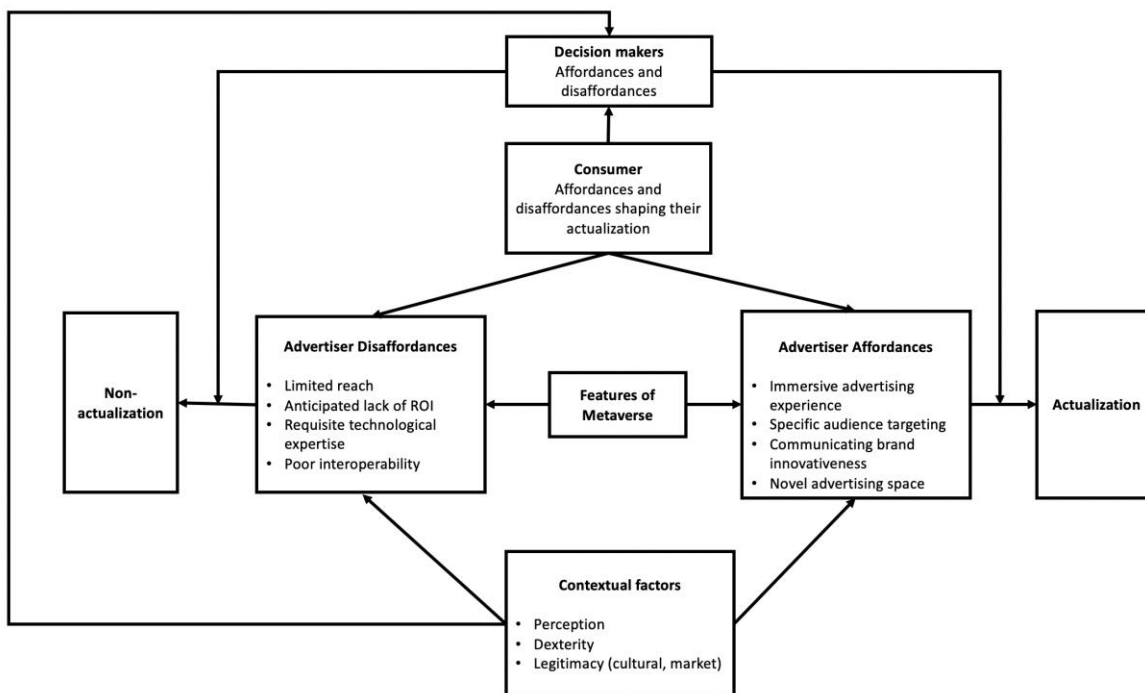


Figure 2 Model of the Affordances and Disaffordances of the Ecosystem of Metaverse Adoption for Advertisers

Table 4 Questions to Guide Advertisers and Researchers



	Educate	Monitor	Decide	Influence	Innovate
Practitioners	<ul style="list-style-type: none"> ➤ What features of the metaverse can provide opportunities/obstacles for advertising your brand/product/service in this space? ➤ What firm/industry norms exist that shape the potential to gain from advertising in the metaverse? ➤ Why (or why not) are your target consumers in the metaverse? ❖ Get insights from academic / industry articles and other information media. ❖ Consider conducting market research. 	<ul style="list-style-type: none"> ➤ Have there been any technological advancements that change the appeal of advertising in the metaverse? ➤ What are the relevant trends in consumer adoption and metaverse advertising ROI? ➤ Are your competitors advertising in the metaverse? ❖ Sign up to alerts for up-to-date industry news on the metaverse. 	<ul style="list-style-type: none"> ➤ All considered, is advertising in the metaverse predicted to be beneficial for your firm? ➤ On balance, will advertising in the metaverse bring greater value to consumers than other platforms? ➤ Is the potential ROI worth the inherent risk? ❖ Systematically collate and analyze the opportunities and costs of advertising in the metaverse. 	<ul style="list-style-type: none"> ➤ Who makes the decision whether your firm should engage in the metaverse? ➤ What is the stance of decision makers on advertising in the metaverse? ➤ How can you best communicate the value of entering the metaverse to decision makers? ❖ Understand opportunities and barriers from the perspective of decision makers to help develop/communicate a value proposition. 	<ul style="list-style-type: none"> ➤ In which metaverse environment is your brand best placed? ➤ How can your brand most effectively and efficiently utilize immersive forms of advertising? ➤ How can the metaverse be leveraged as part of integrated brand communications? ❖ Be creative and inspired by examples of other brands. However, keep in mind the marketing fundamentals for your brand (e.g. is an action congruent with your brand image).
Researchers	<ul style="list-style-type: none"> ➤ How does awareness of and expertise in features of the metaverse differ across advertisers' background and industry? ➤ What tensions exist between the (dis)affordances of the metaverse for advertisers and consumers? ➤ What facets of institutional and marketplace norms shape (dis)affordances for advertisers? 	<ul style="list-style-type: none"> ➤ How can ROI be best measured for different immersive advertising activities? ➤ What variables moderate differences in ROI from traditional vs. immersive advertising? ➤ What factors antecede trends in consumer and firm attitudes/adoption of the metaverse (and broader immersive technologies)? 	<ul style="list-style-type: none"> ➤ What can be drawn from (un)successful case studies of firms advertising in the metaverse? ➤ What are the personal benefits and risks for advertisers advocating early adoption of the metaverse? 	<ul style="list-style-type: none"> ➤ How do complex networks of decision makers function (e.g., clients, CMOs, CEOs) in determining adoption of metaverse technologies? ➤ Which persuasion techniques have most efficacy when barriers exist to adoption of metaverse technologies related to cultural norms inherent in firms or industries? 	<ul style="list-style-type: none"> ➤ What conditions bind consumer responses to innovative forms of immersive advertising? ➤ Do synergies exist in integrated metaverse advertising with existing practices? ➤ Is there a dark side for consumers of immersive advertising practices in the metaverse?