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Ethics of Experience Design and Management in the Context of Digital Transformations

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ABSTRACT:

We focus on the ethical questions associated with the digitization of our experiences. We postulate that we are in an unprecedented time for "*experience programming*" considering that the temporal and spatial distance between stimuli, customer or consumer action, data footprint and tracking, and contingency (touchpoint) mapping, is narrowing. This and the attention economy pose important reflections and dilemmas for both customers and brands. What experiences should we design for? What are their implications in the long run? We postulate that firms must involve customers when assessing the implications of experience design and management to guide their actions. We present some reflections as to how to be consider the ethical implications of experience design and management in the context of digitalization.

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1. INTRODUCTION

Over 20 years ago, Pine and Gilmore (1998) suggested that as we moved toward the commoditization of goods and services, we would welcome the experience economy. In other words, goods and services would start differentiating and competing in terms of the experiences that they delivered to their customers. Since this observation was first described, there has been an explosion of research and practice on customer experience design and management (e.g., Pine & Gilmore, 2013; Becker & Jaakkola, 2020). Importantly, as with many other contexts, the experience economy has increasingly found itself in the context of the rapid digitization of many aspects of our lives. In this article, we argue that we are in an unprecedented time for "*experience programming*", and as such, we believe that it is key to discuss some of the key ethical considerations associated with the current context of experience design and management.

Here, in particular, we describe how the customer experience, as understood throughout the customer journey, can be seen through the lenses of the theory of predictive coding of perception. This theory postulates that our experience of the world is associated with our brain's guesses of the sources of sensory information in ourselves and our environments, based on our previous experiences (Friston & Kiebel, 2009; Mendonça, Curado, & Gouveia, 2020). Given this, our previous experiences influence our subsequent experiences. Considering that many customer experiences now occur in mixed reality, where online and offline elements merge in some cases seamlessly, there is tighter control from brands over what people are exposed to throughout the customer journey, repeatedly.

We indicate how the touchpoints that are part of the interaction journey that make up our experiences are increasingly digital but also increasingly influenced by key ongoing digital transformations, such as immersive technologies (virtual and augmented reality), the internet of things (IoTs), artificial intelligence (AI)-powered technologies, and Web 3.0 (a decentralised internet powered by blockchain technology). As such, the information delivery is not only more precisely controlled and mapped to people's actions, but it is also more immersive, and the computing systems that are used to gather this information can also register and record behaviour, such that customers are segmented and appropriate touchpoint contingencies are mapped in the right moment of the customer journey.

Considering the aforesaid ideas, as well as the fact that many for-profit and not-for-profit organisations are competing for customers' attention, which is a scarce resource (the so-called "*attention economy*"; e.g., Castro & Pham, 2020; Bhargava & Velasquez, 2020), we believe that the current context of experience design presents two fundamental challenges.

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First, many entities are competing for customers' attention in a manner that is systematic and therefore may influence the attention that customers may be able to place on their own life's journey[1]. Second, considering that our experience journeys are increasingly digitised, that is, they involve multiple digital touchpoints and digital transformations (e.g., Hoyer at el., 2020; Petit et al., 2019), we are witnessing what we have coined the "*experience programming loop*" (see **Figure 1**). Through this concept, we suggest that the temporal and spatial distance between customer action, data footprint and tracking, and contingency (touchpoint) mapping, is narrowing. In one way or another, this means that our experiences can, at least in part, be digitally programmed, potentially, with increasing precision over time.

Figure 1. The "*experience programming* loop", whereby the temporal and spatial distance between customer action, data footprint and tracking, contingency mapping, and learning is narrowing, given the mainstream digital touchpoints of the customer journey, and the ongoing digital transformations, such as those in mixed reality, IoTs, AI-power technologies, and Web 3.0.

Take, for instance, programmatic advertising (e.g., Samuel et al., 2021). Through this type of advertising, it is, for instance, possible to use browsing behaviour (customer action) to gather information about customers and segment them (data footprint and tracking), and to map specific, targeted ads (contingency mapping). Based on the responses a given target market has to the targeted ads, the firm may be able to refine in a short time their strategy. Whilst this type of advertising is not perfect (see Shehu, Nabout, & Clement, 2021, for some of the pitfalls of programmatic advertising), it is providing a new way to design experiences whereby there is increasing control over customer data-based ad delivery throughout the customer journey in digital environments.

It is important to clarify that we do not imply that customers do not have agency (i.e., the ability to act independently and produce specific effects), they do (e.g., Bandura, 2018). However, the increasingly tightly planned digital contexts that many customers (though, by no means the totality of the population, see Velasco & Obrist, 2020) are exposed to and the multiple experience programming loops delivered by a variety of entities, can influence the way in which their experiences form and develop, as well as what they attend to in their everyday lives.

Whilst previous research has focused on some of the key ethical challenges associated with digital marketing and digital transformations (e.g., Friedenberg, 2020; Hanlon, 2020), the present article focuses specifically on the ethical questions that arise from the digitization of our experiences. In order to do this, we divide our manuscript into several sections. First, we begin by defining and describing customer experience management and why we should care about ethics. Second, we move on to discuss how current digital transformations are impacting our conception of, and means to, managing customer experiences. In the section that follows, we spell out some of the key ethical challenges posed by "traditional" digital touchpoints and novel digital transformations. Last but not least, we present some key takeaways, we discuss how we may address some of the ethical challenges associated with the new context of customer experience management, and some standing issues that future research may address.

1 Is our attention for sale?: Why the 'attention economy' demands active resistance https://www.youtube.com/watch?v=djdfcD4XsBw&t=26s

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2. WHAT IS CUSTOMER EXPERIENCE MANAGEMENT AND DESIGN AND WHY SHOULD WE CARE ABOUT ETHICS

In the past decade, the interest in, and importance of, customer experience management has proliferated. It is considered one of the top research challenges in marketing (Homburg et al., 2017; Lemon & Verhoef, 2016; "Research priorities 2016-2018", 2022), and it has become one of the highest priorities for marketers (Accenture, 2015; Dias et al., 2016). Some of the main reasons driving the interest in the customer experience relate to the increasing complexity of experiences, the explosion in the number and pervasiveness of touchpoints, and the increasing influence of peer customers. These factors have made it increasingly difficult for firms to manage the customer experience (Lemon & Verhoef, 2016). Despite the prominence of customer experience for academics and practitioners, there is no agreement on its definition. Nevertheless, Becker and Jaakkola (2020) recently conducted a systematic review of the customer experience literature and suggested a unified definition building on the most prominent research traditions (i.e., customer experience as responses to managerial stimuli vs. as responses to consumption processes). Becker and Jaakkola (2020) proposed that customer experience should be defined as non-deliberate, spontaneous responses and reactions to the stimuli related to firms' offerings along the customer journey. These customer experience stimuli can lie in (e.g., their website), and outside touchpoints (e.g., news coverage), controlled by any firm.

Examining the customer experience throughout the customer journey lens makes it possible to analyse and manage the customer experience (Jaakkola et al., 2022; Palmer, 2010) and uncover why it is imperative to think about ethics. Customer experience management can be defined as "*cultural mindsets toward customer experiences, strategic directions for designing customer experiences, and firm capabilities for continually renewing customer experiences, with the goals of achieving and sustaining long-term customer loyalty*" (Homburg et al., 2017, p. 377). Based on this definition, the touchpoints across the customer journey are at the core of firms' strategic decision-making to design and manage experiences that ultimately capture customers' loyalty. While firms cannot create the customer experience per se, they can monitor, design, and dynamically manage different stimuli that affect the experience (Jaakkola et al., 2022). As the latter authors suggest, customer experience management focuses on understanding the broader customer experience throughout the customer journey, designing, monitoring, and influencing the array of touchpoints and growing a corporate culture (see **Figure 2**, for a summary of major touchpoints). Furthermore, the customer experience involves the subjective experiences that the different touchpoints in the customer journey trigger to generate brand-related experiences (Hoyer et al., 2020), which can encompass multiple dimensions, such as sensorial, emotional, cognitive, behavioural, and relational (Gentile et al., 2007; Hoyer et al., 2020).

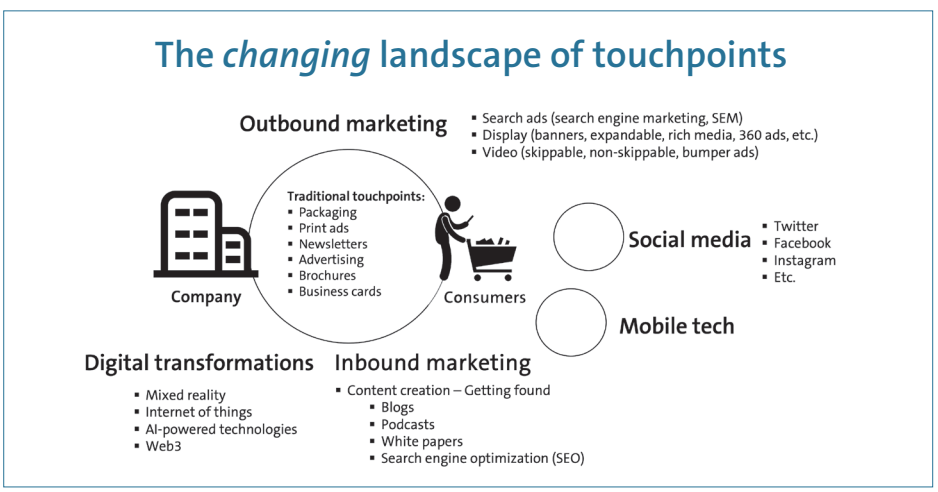

Figure 2. The changing landscape of touchpoints. Adapted and extended from Gupta & Davin (2019).

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In order to manage the customer experience, firms need to evaluate and understand the customer journey and the stimuli embedded in each touchpoint. Firms have a myriad of tools available to do this. Most of these tools focus on visualisation, prototyping, and measurement tools to generate insights into the customer experience (De Keyser et al., 2015). Visualisation techniques aim at examining customers' interaction process with the firm. Some of the most widely used visualisation tools include customer journey mapping, service blueprinting, and customer experience mapping. Prototyping tools are used for testing products and improving them before being launched based on customers' experience with them. Measurement tools are used to evaluate the current situation at the different touchpoints. Some common measurement tools include sentiment analysis, customer effort score, and net promoter score. Moreover, other techniques, such as biometrics, eye tracking, and neuroscientific tools, have gained much traction in both academic research and practice in the last two decades (De Keyser et al., 2015; Verhulst et al., 2019).

The insights derived from examining the customer journey can guide the design of firms' intended experiences. These experiences are based on the factors that firms want to emphasise, which can become differentiating factors and hence provide competitive advantages (Gentile et al., 2007; Prahalad & Ramaswamy, 2004) that improve firm performance (Grønholdt et al., 2015). Companies can design and manage firm-controlled stimuli to directly impact the customer experience (Brakus et al., 2009; Grace & O'Cass, 2004). On the other hand, elements outside the company control can be monitored (Becker & Jaakkola, 2020). In addition, as per the non-firm-controlled elements, as Jaakkola et al. (2022) suggested, firms can identify opportunities to extend their influence on the customer journey by partnering with other firms in the network (Tax et al., 2013), as well as with customer communities. Indeed, previous studies have shown that the total customer experience is co-created by multiple stakeholders (de Goey et al., 2017; Lim & Kim, 2018).

In recent years, technology has allowed companies to extend their influence on the customer journey through data. The development of new technologies has allowed companies to collect more and new types of data (Bradlow et al., 2017). This proliferation of data has given rise to customer surveillance practices. These practices encompass the acquisition, storage, or usage of personal data (Plangger & Watson, 2015). For instance, the massive use of social media gives unprecedented amounts of user-generated data, which gives company insights into customer experiences, not only of products and services but (personal) life in general (Hodgkinson et al., 2022). Companies can extract multiple types of behavioural data from people's everyday online and physical life, such as scrolling behaviour and geolocation (Holmlund et al., 2020). Moreover, companies can now extract personal health data (e.g., heart rate, menstruation cycle data) from customers via smartwatches. In today's digital world, individuals generate vast amounts of data that firms can acquire and exploit through big data analytics (Bradlow et al., 2017), for example, to obtain market intelligence, which has become a core marketing practice (Moe & Ratchford, 2018). All this data can help firms obtain competitive advantages by designing and managing the customer experience (Holmlund et al., 2020). However, firms' ownership and use of all this data pose risks and challenges, including privacy concerns (Martin & Murphy, 2017), customer data abuse (McNamee, 2019; Walter, 2019), and unwanted personalisation of products and services offerings (Hayes et al., 2021).

While customer experience management can help firms develop better customer experiences in line with customers' needs, it can also give companies a great deal of influence over how customers experience multiple products and services. The explosion in the number of touchpoints, together with recent technological developments, gives companies large amounts and types of data, which represents an important ethical challenge for companies, policymakers, and society. Customers have already experienced more than one notable case of customer experience management abuse. For example, in 2013, Goldenshores Technologies, LLC (the developer of one of the most popular flashlight apps for Android phones at the time) deceivingly shared users' precise geolocation data and unique device ID with third parties, including advertising networks (Federal Trade Commission, 2013). More recently, in 2018, the Cambridge Analytica scandal made headlines. Facebook (called Meta Platforms, Inc. since 2021) allowed

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the consulting firm, Cambridge Analytica, to access Facebook data to create psychological profiles of American voters to determine their voting inclinations. These insights were later used to try to influence citizens' voting behaviours (Confessore, 2018). This case evidences both the violation of customers' privacy and the abuse of their data. While these two cases made news, they are not the only ones. Mathur and colleagues (2019) analysed approximately eleven thousand shopping websites and identified 1,818 instances of design choices that benefited the company by coercing, steering, or deceiving customers into making unintended decisions that could negatively affect them, a practice called dark patterns. As Keiningham et al. (2020) argued, newer technologies that may tap into customers' subconscious will likely make manipulation easier. Furthermore, customer experience management tactics that consciously leverage people's emotions to manipulate their experiences require ethical assessment (Sykora et al., 2022).

Even if one is sceptical of the concept of experience programming, it appears to us undeniable that the increasing involvement of digital technologies in the context of customer experience design and management poses important reflections. For example, if attention is a scarce resource, what is the responsibility of firms when it comes to driving people's attention away from their personal journeys to a brand's experience journey? What are the long-term effects of targeted experience management and design? Hence, it is necessary to critically examine what the digitisation of the customer journey means for the customer experience. This becomes even more important in the context of the new, ongoing, digital transformations whereby experiences appear to be more immersive and transformative.

3. THE NEW CONTEXT FOR CX MANAGEMENT AND DESIGN: DIGITAL TRANSFORMATIONS

New digital technologies, including (but not limited to) Augmented Reality (AR)/ Virtual reality (VR), Internet of Things (IoTs) technology, Artificial Intelligence (AI), Web 3.0, are radically transforming customer experiences (e.g., Hoyer at el., 2019; Tan & Salo, 2021). For example, Amazon developed a store equipped with sensors and cameras, allowing customers to simply take products from the shelves and leave without stopping at a cash register point, removing the negative experience of the checkout line (Wingfield, 2018). H&M recently announced that, to improve shopping experience, the stores would feature smart mirrors in fitting rooms and sales floors, to provide virtual-try-on and personalised styling recommendations (H&M Group, 2022). These new technologies not only transform the physical in-store experience but can also create entirely new online shopping experiences. For example, Gucci recently joined the metaverse with a town of its own. Inside the virtual city, visitors can purchase digital Gucci items for their avatars (Vault Gucci group, 2022). These digital transformations affect not only the shopping experience, but also all the other stages of the customer journey (from pre-transaction to post-transaction), along with the creation of new touchpoints (Hoyer et al., 2020).

But how exactly do these technologies influence the development of customer experiences? We present the context of how digital transformations are influencing customer experiences, as well as implications for the different stages of the customer journey (Hoyer et al., 2020; Lemon & Verhoef, 2016).

Pre-purchase. "*The first stage—pre-purchase—encompasses all aspects of the customer's interaction with the brand, category, and environment before a purchase transaction*" (Lemon & Verhoef, 2016, p. 76). New digital technologies play an important role here in the decision-making process. IoTs are used to combine physical products with digital services and connect them to the Internet (Ng & Wakenshaw, 2017). In the pre-transaction phase, they can provide additional information (price, origin, promotion) about products, thanks to RFID (radio-frequency identification) tags, barcodes, or identification via AI-guided technologies. In this stage, AI-assistance services can also be used to advise customers through virtual agents, robots, or chatbots (Xiao & Benbasat, 2007). AI refers to "*computational agents that act intelligently*" (Poole & Mackworth, 2010, p. 3). They are designed to simulate human conversations and can thus answer some user queries. By analysing customers'

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prior purchases (e.g. via biometric data, such as facial and eye sginatures), they can provide personalised services and product recommendations (Ameen et al., 2021).

During the pre-purchase stage, AR, VR and other sensory-enhancing technologies allow users to interact with objects virtually and better imagine the experience with the product (Petit, Javornik, & Velasco, 2022a; Petit, Velasco, & Spence, 2019b; Petit et al., 2022b). These technologies are considered as highly immersive (Scholz & Smith, 2016), interactive (Yim, Shu-Chuan, & Sauer, 2017), and capable of providing multi-sensory stimulations (Flavián et al., 2021; Petit et al., 2019). AR/VR experiences improve customer's knowledge about products (Yim et al., 2017). They also help them be more explorative and creative, by providing visualisation of potential contexts of consumption (Heller et al., 2019; Jessen et al., 2020; Zarantonello & Schmitt, 2022). The stimulation of different senses, thanks to these new technologies, also appears to spark the customers' imagination (Flavián et al., 2021).

New digital technologies also seem to play an important role during the pre-purchase stage, by helping customers to project in the consumption experience. However, there are also some critical aspects related to the use of these technologies in this phase, in particular with regard to the protection of private data. Customers may have personal concerns about data collection through connected objects or AI services (e.g., localization, tracking, and profiling) – (Ziegeldorf et al. 2014). By using virtual try-ons (e.g., for make-up or sunglasses), customers can also have some concerns regarding the sharing of their biometric data, like facial and eye signatures (Cowan, et al., 2021).

Purchase. "*The second stage – purchase – covers all customer interactions with the brand and its environment during the purchase event itself.*" (Lemon & Verhoef, 2016, p. 76). At this stage, new digital technologies play an important role in simplifying and securing the transaction. For example, IOTs, as in the Amazon store, make it possible to automate payment and save time for customers. Such technologies can serve to automatically scan the items in their basket, and debit their personal account directly. Virtual cash registers can also be used to order and initialise the payment (Hoyer et al. 2020). In the transaction phase, AI-based services can also provide personalised experiences, by individualised offers and promotions (Hoyer et al., 2020). However, such automatization of the purchase stage can be perceived as a loss of privacy and control and missing human interaction, which can negatively affect the customer experience (Ameen et al., 2021).

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By providing virtual tests of the products, AR and VR devices can reduce choice confusion, as well as increase choice confidence during the purchase stage (Garaus & Wagner, 2016). They can also make the purchase act more enjoyable and playful for customers thanks to multisensory stimulations (Heller et al., 2019; Flavián et al., 2021; Zarantonello & Schmitt, 2022). Combining different sensory modalities has been shown to positively affect customer value judgements and willingness to pay (Heller et al., 2019). However, such enriching experiences can also be sometimes disappointing for customers. For example, AR filters often provide enhanced images of customers and/or of a related experiential context, which does not correspond to the reality of the consumption experience, creating a sort of dissonance between reality and virtuality. They can affect the well-being of customers when they receive their products (Batat, 2021; Javornik et al., 2022).

Post-purchase. The post-purchase stage "*…encompasses customer interactions with the brand and its environment following the actual purchase*" (Lemon & Verhoef, 2016, p. 76). At this stage, new digital technologies play an important role in enriching the costumer experience and after-sale services. For example, IoTs and AI-based services can be used at home, to optimise customers' uses and needs (e.g. to reduce energy consumption, alert users when products are expired or missing from the refrigerator; Hoyer et al., 2020). AR and VR are considered, at this stage, as relevant tools to reinforce loyalty and brand attachment. As customers keep on using the devices even after their purchases, they are more likely to maintain the relationship with the brand (Farah et al., 2019). However, at this stage, AR and VR can result in greater cognitive dissonance (Romano et al., 2021). As noted, products purchased through the idealised self, created through filters, do not always match their real self-image. To limit cognitive dissonance, customers can limit the consumption of products to virtual environments where they can control their image; or even resorting to cosmetic surgery to fit their virtual self (Belk et al., 2022; Dwivedi et al., 2022; Petit et al., 2022b).

Metaverse and Web 3.0. Whilst the "Metaverse" is considered as an evolution of the Internet, whereby immersive technologies add a new layer of realism to the experience, Web 3.0 is considered as the actual implementation of the initial promise of the Internet, that is, the decentralization of information, in this case based on blockchain technology (Belk et al., 2022). By providing new integrations of the physical and virtual worlds (Dwivedi et al., 2022), the metaverse is likely to affect all the stages of the customer journey. The metaverse and Web 3.0 are creating new types of digital property, and new ways of owning this property through cryptocurrencies and non-fungible tokens (NFTs; Belk, et al., 2022). In the field of art, for example, NFTs simplify the pre-purchase stage, by eliminating the need for galleries and experts to validate authenticity. They secure and facilitate the purchasing phase by eliminating the need for banks and insurance companies, and by guaranteeing authenticity by a blockchain (Belk et al., 2022; Gleim & Stevens, 2021). The post-purchase is also transformed, as customers can only admire the work of art through digital interfaces. The metaverse also has consequences on customer-self. Avatars can provide a full-body illusion to customers (Gonzalez-Franco & Lanier, 2017). Customers can create an avatar very far from themselves, or in an enhanced version, which can affect their online behavioural traits (Messinger et al., 2019). They can collect information, buy products and consume them through these avatars. Thus, these avatars can be considered as potential new buyer personas dissociated from the customers, with completely new motives and needs.

The aforesaid important digital transformations raise questions about the future of the customer journey. Can all products potentially be digitalized and sold as NFTs in the metaverse? Do they all generate the same sense of ownership? (Belk et al., 2022). Questions also arise about how customers' spending behaviour changes with new currencies, such as cryptocurrencies. Are customers more spendthrift or more impulsive in using these currencies? Can representing themselves through an avatar potentially change their preference and choice? (cf. Drummond et al., 2020). To what extent do the decisions made in the metaverse affect their behaviour in the physical world and their well-being? (Belk et al., 2022; Petit et al., 2022b). There are also important concerns relating to human rights, legal and ethical issues, particularly with regard to security and mental health (Dwivedi et al., 2022) that are important to discuss in more detail.

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4. ETHICS AND CUSTOMER EXPERIENCE MANAGEMENT AND DESIGN

Whereas there are multiple ethical angles from which to see the implications of digital transformations in the context of customer experience design and management, here we focus on what it concerns to our experiences. Experiences, according to the Oxford English Dictionary are "an event or occurrence which leaves an impression on someone". As such, it is possible to argue that, through experience design and management, one aims to design and manage impressions throughout specific events (in the customer journey) on specific target markets (someone). In this sense, the customer journey, as conceptualized by Lemon & Verhoef (2016), can be seen through the lenses of the theory of predictive coding of perception. This theory postulates that perception refers to our brain's guess of the sources of sensory information in ourselves and our environments, based on our previous experience (e.g., Millidge et al., 2022). As such, we do not perceive the world around us as it is but as a combination of how it is and how we have experienced it, that is, as we are.

The customer experience is, in a way, formed by the repeated exposure to a given customer journey such that our previous experiences influence the subsequent experience. Going through the pre-purchase, purchase, and post-purchase stages of a brand's journey will determine the way in which we experience and interact with said brand the next time we go through that journey. If the predictive coding theory of perception is right, what this means is that any previous journey that we go through, becomes the lens through which we process subsequent journeys. What is more, any touchpoints that are part of this journey, as well as their sensory characteristics, become that "previous experience", that later guides the way in which we perceive and experience the touchpoints and their sensory characteristics, associated with subsequent journeys.

Think, for instance, of the first time you experience the YouTube video of a new product. Perhaps the firm designed this video to capture your attention during the pre-purchase stage of the customer journey. The first time you experience it, you might learn about its colours, characters, music, and so on. Later on, when you are exposed to other touchpoints of the brand that resemble the contents of this video, you will have already experience that helps you interpret said contents.

One point to consider here is that, whilst not so long ago we experienced the aforesaid repeated journeys in a rather analogue manner, many of us are currently experiencing them in mixed reality with unprecedented digital layers. These digital layers, such as mainstream digital marketing touchpoints (e.g., inbound and outbound marketing, social media) and the ongoing digital transformations, set our customer journeys in mixed reality where offline and online elements merge. This context creates what we earlier presented as the "*experience programming loop*", where the temporal and spatial distance between customer action, data footprint and tracking, contingency mapping, and learning is narrowing, and where the touchpoints are more immersive and realistic.

In order to understand this loop, let us look at how the traditional product and touchpoint experience development cycle (see **Figure 3**). Here, we built on the cycle proposal by Ariely and Berns (2010) but locate this process in the context of experience design. This development cycle typically starts with a concept, which may or may not be evaluated (through either traditional research methods or neuroscience-based ones, such as functional magnetic resonance imagine or fMRI). The concept is then designed and tested again to assess its efficacy in creating a given experience outcome. Once the firm is confident about this result, the experience is delivered and sometimes tested again to narrow the gap between intended and actual experience outcome.

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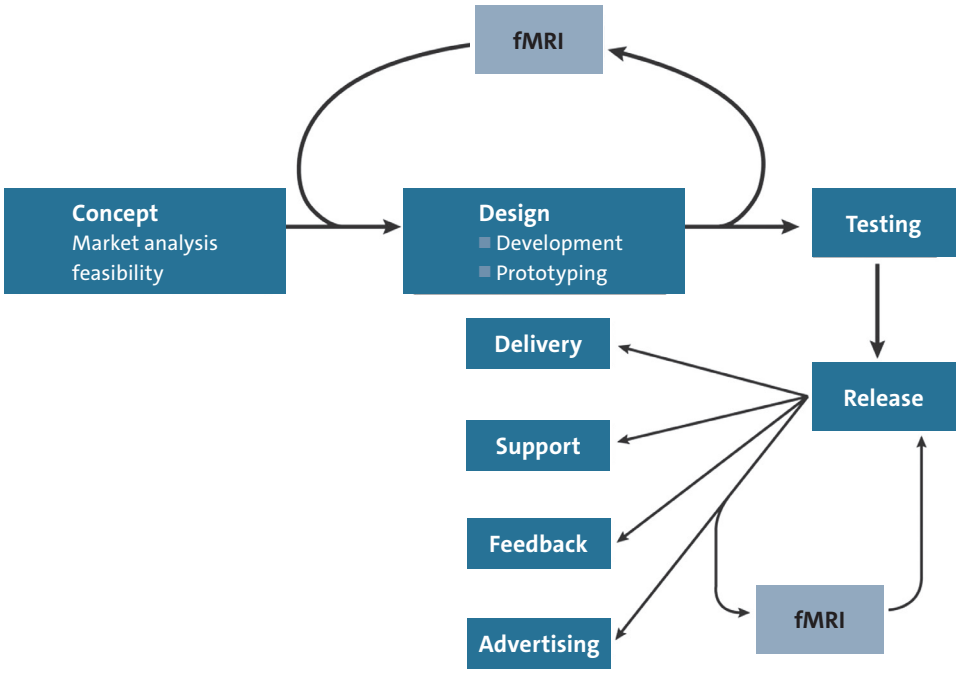

Figure 3. Product and touchpoint experience development cycle. Reprinted from the author manuscript associated with Ariely & Berns (2010). Note that, while in this case functional magnetic resonance imaging (fMRI) is used as a way to testing concepts, products, brands, and experiences, other consumer neuroscience, digital, and non-digital traditional methods can also be used.

As it is possible to see, this traditional process is not only sometimes slow, in the sense that it requires different testing stages, with participants brought into, say, the research facilities of the firm, but it can also be costly (e.g., Alvino et al., 2020). For example, a company may decide to create a specific experience in the point of purchase, say, a promotions event, where samples of the product are given while a music band plays congruent music. In order to assess the effectiveness of this experience when it comes to facilitating purchase intention, may be evaluated at the concept, design, or post implementation stages. Throughout this iterative process, the firm may decide to fine tune the strategy.

Now, think of this same process in the context of mixed reality, where products, services, touchpoints, and related experiences are offline too but increasingly digital. The process presented in Figure 3 not only becomes faster, but it now also involves much more data associated with the different events associated with a given experience journey. Importantly, touchpoint delivery and control, by considering the ongoing digital transformations, can be highly immersive and hyperreal (Slater et al., 2020; Slater, 2021; Velasco et al., 2021). Now think of the same promotions event mentioned above, but this time, it happens in a digital point of purchase. The ongoing interaction with said experience, which may come in the form of a live streaming or a pre-recorded communication, can be tracked, sometimes in real time, to adjust the experience.

However, it is worth mentioning that research and design on experiences needs not to follow the traditional approach or the one that capitalizes on the digital elements of the customer journey. Indeed, firms may actually capitalize on both, and thus, increase the predictive power of, and influence on, customer experiences. For example, a firm may follow the offline path to characterize, through consumer neuroscience, possible responses to specific digital touchpoints, such that this provides insight into the design of digital interactions. At the same time, the firm may refine and adapt in real time that touchpoint by considering the real-time interactions with it in the mixed reality customer journey.

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5. CONCLUSIONS

If our experiences are our brain's best guesses of the sources of sensory information in ourselves and our environments, based on our previous experiences, our customer experiences are our brain's best guesses of the offers of value in the marketplace, based on our previous experiences with said offers. As digital technologies and transformations become more ubiquitous in our customer journey's, firms will have more control over the experiences that we go through, such that they influence our subsequent experiences with their offers of value. Whilst, again, this does not rule out the agency that we have when it comes to our presence and choices in the marketplace, we postulate that it, at least increases the likelihood of a firm attaining a given experience in their target market. This creates a context of tight competition for people's attention, and given that attention is a scarce resource, this can, at the personal level, deviate people from attending to their own life's journey. What is more, this can, at the social level, guide our collective experiences toward in specific directions.

Experience design and management is not good or bad per se. It is just a body of knowledge, tools, and procedures that can be used for either good or bad. Both the attention economy and the "*experience programming loop*" raise questions about ethical implications of how we use the current means for experience design and management.

We believe that firms, but any other entities dealing with experience design and management should, at the very least, consider the implications of their actions for their target markets as a group, the individuals that are part of them, and society at large. These considerations should be thought of, not only in terms of short- but also long-term implications.

We also believe that, given the orientation of many firms toward experience at present, they should implement an ethics committee that includes their customers, and perhaps other actors (e.g., philosophers), such that any experiences designed follow considerations beyond short-term goals and consider the wellbeing of the different stakeholders (e.g., Kuokkanen & Catrett, 2022).

To conclude, we think that the aforesaid ethics committee may deliberate on the components of the definition of experience. If an experience is an impression formed by a specific event or occurrent, they should consider explicitly: The background (why) of the impression, what impression they want to design, in what event (when), how (with what specific means), for who (what the target market is and its characteristics), and by whom it is designed (Velasco & Obrist, 2020). Whilst considering these questions, the firm and the customers may shape the direction that they give to experience design and management initiatives.

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Das Erstellen und Weitergeben von Kopien dieses PDFs ist nicht zulässig.

REFERENCES

Accenture. (2015). Improving customer experience is top business priority for companies pursuing digital transformation, according to Accenture study. *Newsroom Accenture*. https://newsroom.accenture.com/news/improving-customer-experience-is-top-business-priority-for-companies-pursuing-digital-transformation-according-to-accenture-study.htm

Alvino, L., Pavone, L., Abhishta, A., & Robben, H. (2020). Picking your brains: Where and how neuroscience tools can enhance marketing research. *Frontiers in Neuroscience, 14*, 577666.

Ameen, N., Tarhini, A., Reppel, A., & Anand, A. (2021). Customer experiences in the age of artificial intelligence. *Computers in Human Behavior*, *114*, 106548.

Bandura, A. (2018). Toward a psychology of human agency: Pathways and reflections. *Perspectives on Psychological Science, 13*(2), 130–136.

Batat, W. (2021). How augmented reality (AR) is transforming the restaurant sector: Investigating the impact of "Le Petit Chef" on customers' dining experiences. *Technological Forecasting and Social Change*, *172*, 121013.

Becker, L., & Jaakkola, E. (2020). Customer experience: Fundamental premises and implications for research. *Journal of the Academy of Marketing Science, 48*(4), 630–648.

Belk, R., Humayun, M., & Brouard, M. (2022). Money, possessions, and ownership in the Metaverse: NFTs, cryptocurrencies, Web3 and Wild Markets. *Journal of Business Research*, *153*, 198–205.

Bhargava, V. R., & Velasquez, M. (2021). Ethics of the attention economy: The problem of social media addiction. *Business Ethics Quarterly, 31*(3), 321–359

Bradlow, E. T., Gangwar, M., Kopalle, P., & Voleti, S. (2017). The role of big data and predictive analytics in retailing. *Journal of Retailing, 93*(1), 79–95.

Brakus, J. J., Schmitt, B. H., & Zarantonello, L. (2009). Brand experience: What is it? How is it measured? Does it affect loyalty? *Journal of Marketing, 73*(3), 52–68.

Castro, C., & Pham, A. (2020). Is the attention economy noxious?. *Philosophers, 20*(17), 1–13.

Confessore, N. (2018, April 4). Should be sentence case. *The New York Times*. https://www.nytimes.com/2018/04/04/us/politics/cambridge-analytica-scandal-fallout.html%0Ahttps://www.nytimes.com/2018/04/04/us/politics/cambridge-analytica-scandal-fallout.html

Cowan, K., Javornik, A., & Jiang, P. (2021). Privacy concerns when using augmented reality face filters? Explaining why and when use avoidance occurs. *Psychology & Marketing*, *38*(10), 1799–1813.

de Goey, H., Hilletofth, P., & Eriksson, L. (2017). Design-driven innovation: Making meaning for whom? *The Design Journal, 20*, S479–S491.

De Keyser, A., Lemon, K. N., Klaus, P., & Keiningham, T. L. (2015). A framework for understanding and managing the customer experience. In *Marketing Science Institute Working Paper Series 2015, Report No. 15–121* (Issue Report No. 15–121).

Dias, J., Ionutiu, O., Lhuer, X., & van Ouwerkerk, J. (2016). The four pillars of distinctive customer journeys. In *Digital McKinsey*. https://www.mckinsey.com/capabilities/mckinsey-digital/our-insights/the-four-pillars-of-distinctive-customer-journeys#:~:text=New research reveals that focus,%2C" and perceptions matter most.

Drummond, A., Sauer, J. D., Hall, L. C., Zendle, D., & Loudon, M. R. (2020). Why loot boxes could be regulated as gambling. *Nature Human Behaviour, 4*(10), 986-988.

Dwivedi, Y. K., Hughes, L., Baabdullah, A. M., Ribeiro-Navarrete, S., Giannakis, M., Al-Debei, M. M., ... & Wamba, S. F. (2022). Metaverse beyond the hype: Multidisciplinary perspectives on emerging challenges, opportunities, and agenda for research, practice and policy. *International Journal of Information Management*, *66*, 102542.

Farah, M. F., Ramadan, Z. B., & Harb, D. H. (2019). The examination of virtual reality at the intersection of consumer experience, shopping journey and physical retailing. *Journal of Retailing and Consumer Services*, *48*, 136–143.

Federal Trade Commission (2013, December 5). *Android flashlight app developer settles FTC charges it deceived consumers [Press release].* https://www.ftc.gov/news-events/news/press-releases/2013/12/android-flashlight-app-developer-settles-ftc-charges-it-deceived-consumers

Flavián, C., Ibáñez-Sánchez, S., & Orús, C. (2021). The influence of scent on virtual reality experiences: The role of aroma-content congruence. *Journal of Business Research*, *123*, 289–301.

Friedenberg, J. (2020). Sentence case. Univ of California Press.

Friston, K., & Kiebel, S. (2009). Predictive coding under the free-energy principle. *Philosophical transactions of the Royal Society B: Biological sciences*, *364*(1521), 1211–1221.

Garaus, M., & Wagner, U. (2016). Retail shopper confusion: Conceptualization, scale development, and consequences. *Journal of Business Research*, *69*(9), 3459–3467.

Gentile, C., Spiller, N., & Noci, G. (2007). How to sustain the customer experience: An overview of experience components that co-create value with the customer. *European Management Journal, 25*(5), 395–410.

Gleim, M. R., & Stevens, J. L. (2021). Blockchain: a game changer for marketers?. *Marketing Letters*, *32*(1), 123–128.

Gonzalez-Franco, M., & Lanier, J. (2017). Model of illusions and virtual reality. *Frontiers in psychology*, *8*, 1125.

Grace, D., & O'Cass, A. (2004). Examining service experiences and post-consumption evaluations. *Journal of Services Marketing, 18*(6), 450–461.

Gupta, S., & Davin, J. (2019). Sentence case. Core Curriculum Reading Series. Harvard Business Publishing.

Grønholdt, L., Martensen, A., Jørgensen, S., & Jensen, P. (2015). Customer experience management and business performance. *International Journal of Quality and Service Sciences, 7*(1), 90–106.

Hanlon, A. (2020) Chapter 31: Sentence case (pp. 424-443). In: L. Eagle, S. Dahl, F. Harris, P. Murphy (Eds.), *The SAGE Handbook of Marketing Ethics:* SAGE.

H&M Group (2022). H&M Group explores tech-enabled shopping experiences in US stores. https://hmgroup.com/news/hm-group-explores-tech-enabled-shopping-experiences-in-us-stores/

Hayes, J. L., Brinson, N. H., Bott, G. J., & Moeller, C. M. (2021). Sentence case. *Journal of Interactive Marketing, 55*, 16–30.

Heller, J., Chylinski, M., de Ruyter, K., Mahr, D., & Keeling, D. I. (2019). Touching the untouchable: exploring multi-sensory augmented reality in the context of online retailing. *Journal of Retailing*, *95*(4), 219–234.

Hodgkinson, I. R., Jackson, T. W., & West, A. A. (2022). Customer experience management: Asking the right questions. *Journal of Business Strategy, 43*(2), 105–114.

Holmlund, M., Van Vaerenbergh, Y., Ciuchita, R., Ravald, A., Sarantopoulos, P., Ordenes, F. V., & Zaki, M. (2020). Customer experience management in the age of big data analytics: A strategic framework. *Journal of Business Research, 116*, 356–365.

Homburg, C., Jozić, D., & Kuehnl, C. (2017). Customer experience management: Toward implementing an evolving marketing concept. *Journal of the Academy of Marketing Science, 45*(3), 377–401.

Hoyer, W. D., Kroschke, M., Schmitt, B., Kraume, K., & Shankar, V. (2020). Transforming the customer experience through new technologies. *Journal of Interactive Marketing, 51*(1), 57–71.

Jaakkola, E., Becker, L., & Panina, E. (2022). Understanding and managing customer experiences. In B. Edvardsson & B. Tronvoll (Eds.), *The Palgrave Handbook of Service Management* (pp. 655–676). Palgrave Macmillan.

Javornik, A., Marder, B., Barhorst, J. B., McLean, G., Rogers, Y., Marshall, P., & Warlop, L. (2022). '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*, 107126.

https://doi.org/10.5771/2747-5174-2022-2-8
Generiert durch IP '18.226.87.163', am 12.10.2024, 08:24:16.
Das Erstellen und Weitergeben von Kopien dieses PDFs ist nicht zulässig.

Jessen, A., Hilken, T., Chylinski, M., Mahr, D., Heller, J., Keeling, D. I., & de Ruyter, K. (2020). The playground effect: How augmented reality drives creative customer engagement. *Journal of Business Research*, *116*, 85–98.

Keiningham, T., Aksoy, L., Bruce, H. L., Cadet, F., Clennell, N., Hodgkinson, I. R., & Kearney, T. (2020). Customer experience driven business model innovation. *Journal of Business Research, 116,* 431–440.

Kuokkanen, H., & Catrett, J. (2022). Ethically meaningful customer experiences: satisfying an evolving desire for purpose through CSR. *Journal of Sustainable Tourism*.

Lemon, K. N., & Verhoef, P. C. (2016). Understanding customer experience throughout the customer journey. *Journal of Marketing, 80*(6), 69–96.

Lim, C., & Kim, K. J. (2018). Experience design board: A tool for visualizing and designing experience-centric service delivery processes. *Journal of Retailing and Consumer Services, 45*, 142–151.

Martin, K. D., & Murphy, P. E. (2017). The role of data privacy in marketing. *Journal of the Academy of Marketing Science, 45*(2), 135–155.

Mathur, A., Acar, G., Friedman, M. J., Lucherini, E., Mayer, J., Chetty, M., & Narayanan, A. (2019). Dark patterns at scale: Findings from a crawl of 11K shopping websites. *Proceedings of the ACM on Human-Computer Interaction, 3*(CSCW), 81.

McNamee, R. (2019). Ever get the feeling you're being watched? *Financial Times*. https://www.ft.com/content/9906af10-2946-11e9-88a4-c32129756dd8

Mendonça, D., Curado, M., & Gouveia, S. S. (Eds.). (2020). *The philosophy and science of predictive processing*. Bloomsbury Publishing.

Messinger, P. R., Ge, X., Smirnov, K., Stroulia, E., & Lyons, K. (2019). Reflections of the extended self: Visual self-representation in avatar-mediated environments. *Journal of Business Research*, *100*, 531-546.

Millidge, B., Seth, A., & Buckley, C. L. (2021). Predictive coding: a theoretical and experimental review. *arXiv preprint arXiv:2107.12979*.

Moe, W. W., & Ratchford, B. T. (2018). Sentence case. *Journal of Interactive Marketing, 42*, A1–A2.

Ng, I. C., & Wakenshaw, S. Y. (2017). The Internet-of-Things: Review and research directions. *International Journal of Research in Marketing*, *34*(1), 3–21.

Palmer, A. (2010). Customer experience management: a critical review of an emerging idea. *Journal of Services marketing, 24*(3), 196–208.

Petit, O., Javornik, A., & Velasco, C. (2022a). We eat first with our (digital) eyes: Enhancing mental simulation of eating experiences via visual-enabling technologies. *Journal of Retailing*, *98*(2), 277–293.

Petit, O., Velasco, C., & Spence, C. (2019). Digital sensory marketing: Integrating new technologies into multisensory online experience. *Journal of Interactive Marketing*, *45*, 42–61.

Petit, O., Velasco, C., Wang, Q. J., & Spence, C. (2022). Consumer consciousness in multisensory extended reality. *Frontiers in Psychology*, *13:*851753.

Pine, B. J., & Gilmore, J. H. (1998). Welcome to the experience economy. *Harvard Business Review, July-August*, 97–105.

Pine, B. J., & Gilmore, J. H. (2013). The experience economy: past, present and future. In *Handbook on the experience economy (pp. 21-44). Edward Elgar Publishing*.

Plangger, K., & Watson, R. T. (2015). Balancing customer privacy, secrets, and surveillance: Insights and management. *Business Horizons, 58*(6), 625–633.

Poole, D. L., & Mackworth, A. K. (2010). *Artificial Intelligence: Foundations of computational agents*. Cambridge University Press.

Prahalad, C. K., & Ramaswamy, V. (2004). Co-creation experiences: The next practice in value creation. *Journal of Interactive Marketing, 18*(3), 5–14.

Research priorities 2016-2018. (2022). *Marketing Science Institute (MSI)*, 707–708.

Romano, B., Sands, S., & Pallant, J. I. (2021). Augmented reality and the customer journey: an exploratory study. *Australasian Marketing Journal*, *29*(4), 354–363.

Samuel, A., White, G. R., Thomas, R., & Jones, P. (2021). Programmatic advertising: An exegesis of consumer concerns. *Computers in Human Behavior, 116*, 106657.

Shehu, E., Abou Nabout, N., & Clement, M. (2021). The risk of programmatic advertising: Effects of website quality on advertising effectiveness. *International Journal of Research in Marketing, 38*(3), 663–677.

Slater, M., Gonzalez-Liencres, C., Haggard, P., Vinkers, C., Gregory-Clarke, R., Jelley, S., Watson, Z., Breen, G., Schwarz, R., Steptoe, W., Szostak, D., Halan, S., Fox, D., & Silver, J. (2020). The ethics of realism in virtual and augmented reality. *Frontiers in Virtual Reality, 1*:1.

Slater, M. (2021). Beyond speculation about the ethics of virtual reality: The need for empirical results. *Frontiers in Virtual Reality*, 2:687609.

Scholz, J., & Smith, A. N. (2016). Augmented reality: Designing immersive experiences that maximize consumer engagement. *Business Horizons*, *59*(2), 149–161.

Sykora, M., Elayan, S., Hodgkinson, I. R., Jackson, T. W., & West, A. (2022). The power of emotions: Leveraging user generated content for customer experience management. *Journal of Business Research, 144*, 997–1006.

Xiao, B., & Benbasat, I. (2007). E-commerce product recommendation agents: Use, characteristics, and impact. *MIS quarterly*, 137–209.

Tan, T. M., & Salo, J. (in press). Ethical marketing in the blockchain-based sharing economy: Theoretical integration and guiding insights. *Journal of Business Ethics*.

Tax, S. S., McCutcheon, D., & Wilkinson, I. F. (2013). The service delivery network (SDN): A customer-centric perspective of the customer journey. *Journal of Service Research, 16*(4), 454–470.

Vault Gucci Group (2022). *Metaverse*. https://vault.gucci.com/en-US/story/metaverse

Velasco, C., Barbosa Escobar, F., Petit, O., & Wang, Q. J. (2021). Impossible (food) experiences in extended reality. *Frontiers in Computer Science, 3*:716846.

Velasco, C. & Obrist, M. (2020). *Multisensory experiences: Where the senses meet technology*. Oxford: Oxford University Press.

Verhulst, N., De Keyser, A., Gustafsson, A., Shams, P., & Van Vaerenbergh, Y. (2019). Neuroscience in service research: an overview and discussion of its possibilities. *Journal of Service Management, 30*(5), 621–649.

Walter, G. (2019). Unexpected allies in the world of consumer data: Brands And shoppers. *Forbes*. https://www.forbes.com/sites/forbestechcouncil/2019/07/11/unexpected-allies-in-the-world-of-consumer-data-brands-and-shoppers/?sh=44821c851b55

Wingfield, N. (2018). Inside Amazon Go, a store of the future. *New York Times*. https://www.nytimes.com/2018/01/21/technology/inside-amazon-go-a-store-of-the-future.html

Yim, M. Y. C., Chu, S. C., & Sauer, P. L. (2017). Is augmented reality technology an effective tool for e-commerce? An interactivity and vividness perspective. *Journal of Interactive Marketing*, *39*(1), 89–103.

Zarantonello, L., & Schmitt, B. H. (2022). Experiential AR/VR: a consumer and service framework and research agenda. Journal of Service Management.

Ziegeldorf, J. H., Morchon, O. G., & Wehrle, K. (2014). Privacy in the Internet of Things: threats and challenges. *Security and Communication Networks*, *7*(12), 2728–2742.

https://doi.org/10.5771/2747-5174-2022-2-8
Generiert durch IP '18.226.87.163', am 12.10.2024, 08:24:16.
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