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Exploring Consumer Detriment in Immersive Gaming Technologies

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Abstract
Recent technological advances have led to immersive consumer experiences becoming increasingly common. However, there has been relatively little discussion of the consumer detriment that results from the exploitation of immersion. In this article, we argue that a consumer who is immersed is particularly susceptible to detriment because of their immersion and that the law on unfair commercial practices can, and should, play a central role in addressing this. The focus is upon immersion in videogames, but the lessons drawn extend to other areas.

Keywords Immersion · Technology · Gaming · Consumer Protection · Vulnerability

The concept of immersion is discussed in some detail below, but, in brief, a person is immersed when they are submerged in, or surrounded by, an experience. Attempts to immerse individuals have a long history. Allen regards immersion as "the key to storytelling, in literature, film, videogames, even in the spoken stories told by our ancestors around the campfire" (Allen, 2018). Hitchcock stated that his goal with the film *Sabotage* was to immerse the audience: "to draw the audience right inside the situation instead of leaving them to watch it from outside, from a distance" (Hitchcock, 1937). Individuals can be immersed in a wide range of contemporary physical environments such as escape rooms and can experience immersion through theatre, film, gaming, and television.

Recent technological advances have led to immersive consumer experiences becoming increasingly common. The academic literature has paid some attention to immersion arising from these experiences, particularly where they relate to safety (Tseng et al., 2022). However, there has been little analysis of the economic consumer detriment that may result from immersive environments and of the role of the law in addressing this. This is regrettable, as both the detriment and the potential for the law to alleviate that detriment are considerable.

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In this article, we will argue that a consumer who is immersed is particularly susceptible to detriment because of their immersion and that the law on unfair commercial practices should play a central role in addressing this. The risk of detriment is particularly apparent in the context of videogames for a number of reasons. First, the scale and spread of the videogame industry reveal its economic significance. Revenue from the videogame segment has been predicted to reach US$365.60 bn in 2023, with the number of users reaching 3041.3 m by 2027 (Statista, 2023). Second, as will be seen in more detail below, the very essence of videogaming is immersive interactivity. Players' decisions influence the way that games function, in contrast to other forms of entertainment where the person consuming the entertainment does not affect its content. Further, this interactivity sits within a narrative context, with stories and characters drawing players into the game's environment. Third, gaming is an area where there is significant potential to alter the digital experience by obtaining data from consumers. At a macro level, it is possible to use information obtained about consumer preferences to change the design and functioning of the game. Importantly, on a micro level, information obtained from one consumer may also influence what that consumer experiences. Information gathered may be about socio-demographic, personal, or psychological characteristics (European Commission, 2021, para 4.2.7). Using this information is not inevitably harmful, but on appropriate facts may constitute, or lead to, unfair practices. It is these practices which should concern consumer law. While we focus primarily on videogames, we will refer to other contexts where appropriate. The purchasers and players of such games can be appropriately referred to as "consumers" and that term will be used throughout this article to describe them.

Part one of the article explains the different categories of immersion. Part two then briefly outlines the scope of the Directive on unfair commercial practices. In part three, the article examines in detail the exploitation of immersion as an unfair commercial practice. Finally, conclusions are drawn.

Part One: Categorizing Immersion

Although it is possible to convey the essence of immersion (in the sense of submerging the consumer in an experience) relatively easily, the lack of a clear definition of the concept is liable to create conceptual confusion (Nilsson et al., 2016)). This is particularly problematic for those examining the role of law in addressing harms that immersion may create. Drawing on work in human–computer interaction (HCI), this article suggests that there are three principal types of immersion: Perceptual, narrative, and challenge-based (Nilsson et al., 2016). Technologies commonly immerse consumers in a combination of these ways. For example, *Astro Bot Rescue Mission* (2018), a well-received virtual reality (VR) platform game released in 2018, immerses users in two ways: Allowing them to perceive the worlds where levels take place and immersing them in the challenge of completing those levels.

While immersion may be a product of the technology adopted, for example, by the use of VR headsets, the typology we adopt focuses on the cognitive effects of immersion. Perceptual, narrative and challenge-based immersion are best regarded as cognitive states which result from users' reactions to the system. When immersive technologies are used, cognitive changes frequently follow. This article will assume that someone other than the user designs and controls the technologically immersive environment.

Perceptual Immersion

Witmer and Singer describe perceptual (sometimes called perception-based) immersion as a "psychological state characterized by perceiving oneself to be enveloped by, included in, and interacting with an environment that provides a continuous stream of stimuli and experiences" (Witmer & Singer, 1998, p. 227). In the context of videogames, Murray argues that immersion is the submergence into a world different from the one the person inhabits (Murray, 2017). Perceptual immersion will occur when a person ceases to perceive their "real" environment and perceives the new, immersive, environment. The starkest examples of perceptual immersion involve the individual experiencing "presence." The International Society for Presence Research (ISPR) (2000) defines presence as:

> a psychological state or subjective perception in which even though part or all of an individual's current experience is generated by and/or filtered through human-made technology, part or all of the individual's perception fails to accurately acknowledge the role of the technology in the experience.

Presence therefore arises in circumstances where an experience places a person in an environment that leads them to feel, or even to believe, that they are "in" that environment. It may result from high fidelity to a real environment or the emotional or social realism of an environment making it feel like the user is "there" (Flintham et al., 2020). Some definitions of immersion are so close to those of presence that they sometimes appear synonymous (Ermi & Mayra, 2005).

Virtual reality (VR), augmented reality (AR), and mixed reality (MR) experiences may all perceptually immerse the user (Milgram & Kishino, 1994; Rauschnabel et al., 2002). The environment they create can be completely new, or they can add features to the user's existing environment.

Perhaps the paradigm example of perceptual immersion is that generated by VR, although it is important to note that this technology can produce other forms of immersion. VR typically alters the consumer's perception so that they are taken to, and become immersed in, the virtual environment. This is commonly achieved through using a headset and headphones. The degree of interaction that the consumer has with the environment will vary depending on the software and hardware underpinning the experience. Such experiences vary from a 360° video to a fully interactive simulation or game. VR is increasingly affordable and accessible, and its impact is consequently significant. For example, the Google Cardboard device allows a person to view virtual reality environments using a mobile phone and can be made at home (although users have limited capability to interact with the environments in which they are immersed). When using more expensive VR hardware, such as the Occulus or Vive, consumers may use handheld controllers to allow users to interact with elements in the virtual environment. While commonly used for games, VR may also be used for social interactions (exemplified by the "metaverse" proposed by Facebook parent company Meta), for simulations, which may be used for training or entertainment, for works of art, or for a combination of these purposes (e.g., *NeosVR* and *VR Chat* combine social interactions with playful, game-like, mechanics).

The power of VR is not in doubt and its potential led Steven Spielberg to say, "in the future, VR is going to be the super drug" (Warner Brothers, 2018). However, other technologies may also perceptually immerse the consumer. For example, AR can significantly alter users' perceptions by adding a layer of digital content to the real-world environment and altering the perception of that environment. The information added is often visual,

but could also be auditory, haptic, or olfactory. For consumers, AR is commonly achieved using smartphones. *Pokemon Go* which layers digital content onto the player's physical location using the phone's geolocation functionality, is a well-known example of an AR videogame (Li, 2016). Players can see and capture wild Pokemon (collectable monsters with their own unique powers and appearance) in a real-world location using their smartphone camera. They can fight other players' Pokemon in "gyms" which are layered over real-world locations, some of which pay in order to become gyms.

Beyond VR and AR technologies, conventional videogames (including games played on consoles, PCs, tablets, and mobile phones) and other digital technologies may also perceptually immerse consumers. The combination of hardware and software which enables consumers to play on a screen has the potential to draw them in by creating imaginary worlds, stories and challenges. Examples might be a role-playing game that takes place in a fantasy kingdom or an action-adventure game that takes place in a post-apocalyptic landscape. Users might also be able to take part in activities that would not otherwise be open to them, for example, driving a Formula One car around the streets of Monaco or managing their favourite football team.

Narrative-Based Immersion

Narrative (based) immersion occurs when a person becomes engrossed in a story and, typically, wishes to experience that story to its endpoint. Ryan (2001) identifies three dimensions to this; all three involve an intense pre-occupation with narrative but have distinct elements. First is spatial immersion. Here, the pre-occupation with the narrative accompanies a strong sense of place and the pleasure of exploring the environment, with the world of the story holding a particular fascination for the user. It focuses on the environment created by the story, rather than being dependant on the story itself. Second is temporal immersion, where the pre-occupation results from a strong desire to know what will happen next and, ultimately, how the story will end. Third is emotional immersion. In this case, the pre-occupation results from a strong emotional investment in the fate of the protagonists or antagonists of the narrative. All three may be experienced across all types of media and may exist concurrently in the same piece of media.

The temporal and emotional forms of narrative immersion are commonly found in books, plays, and films in addition to videogames. Consumers typically experience spatial immersion in media with a visual element, with videogames perhaps the clearest illustration. Games such as *What Remains of Edith Finch* (2017) and *Red Dead Redemption 2* (2018) all spatially immerse users (Lund, 2019).

Challenge-Based Immersion

Challenge-based immersion arises when players are so pre-occupied by a task or challenge that they become immersed in it and feel compelled to complete it. In videogames, the challenges may be mental (such as classic point-and-click puzzle games like *Indiana Jones and the Fade of Atlantis* (1992)), sensory motor, usually involving the need for hand-eye co-ordination, (such as *Space Invaders* (1978) or hectic action games), or a combination of the two. According to Ermi and Mayra, this is at its most powerful "when one is able to achieve a satisfactory balance of challenges and abilities" (Ermi & Mayra, 2005).

Gamification of relatively mundane tasks may also be a way of leveraging challenge-based immersion, with consumers more likely to undertake tasks if they can compete to win while doing so. An example might be a language-learning app which ranks a consumer's progress against other users of the app, encouraging that consumer to improve and overtake other users. Similarly, a fitness app which contains a steps leader board has the effect of immersing the user in the challenge of doing more steps in order to climb the board.

Immersion and Detriment

It is important to emphasize that immersion can be positive. Many consumers value the extent to which it adds to the enjoyment of the videogame. The authors of a major study which draws on the largest survey of gamers note that "video games may help players relax and recharge and even serve as psychological treatment" (Vuore et al., 2022). During the COVID-19 lockdown, a large number of videogamers reported improvements to their mental health as a result of their hobby (Barr & Copeland-Stewart, 2022). While benefits were not universal (Ballou et al., 2022) and not necessarily a consequence of immersion (as opposed to gaming more generally), the extent to which immersion forms part of much gaming suggests that it will have made some contribution towards this benefit. Ballou et al. (2022) note that games provide a "space of one's own" where gamers could explore an environment away from their own (COVID-restricted) environment (Ballou et al., 2022 p. 12). Each of the modes of immersion discussed above provides the potential of different types of exploration for gamers. As well as being enjoyable, games may nudge consumers to undertake beneficial actions, such as exercise or learning. Such nudging may not only benefit the individual consumer, but also society at large, for example, by encouraging healthy behaviour (Sunstein, 2014; Thaler & Sunstein, 2009). The more "immersed" the consumer is, the more they are likely to commit to the task.

This demonstrates that immersing a consumer is not a wrong in itself. Immersion becomes problematic when it is utilised in ways which cause consumer detriment. The term "consumer detriment" is not always used consistently. Distinctions have been made between "structural detriment" and "personal detriment." Structural detriment arises from market conditions which limit choice or result in inflated prices. Personal detriment relates to detriment that arises from negative outcomes for individual consumers once a decision has been made compared to a benchmark such as reasonable expectations (OECD, 2010 discussing Europe Economics, 2007). Siciliani, Riefa, and Gamper identify "Archetypal Consumer Theories of Harm" which they categorize as the scam, the lemon, the shock, and the subsidy and consider these through the lens of consumer detriment (Siciliano et al., 2019). They argue that these cover the majority of cases for intervention to protect the consumer and provide "a blueprint that enforcers and policy makers can use to guide their intervention" (Siciliano et al., 2019, p. 109). Their analysis is helpful, and while it is not possible to do justice to it here, it does provide an intuitive analytical framework "to think about the ways in which consumers can suffer in terms of financial detriment from the adoption of unfair practices" (Siciliano et al., 2019, pp. 135–136).

Recently, the OECD has described consumer detriment simply as "the loss or damage experienced by a consumer when she encounters a problem relating to the purchase of a good or service" (OECD, 2020, p. 4). This definition is helpful as a result of being expansive and simple to follow and is used in this article.

We will shortly examine the ways in which immersion may be harmful, especially to specific groups of consumers. Before doing that, it is helpful to outline how consumer law seeks to protect consumers and, in particular, the benchmarks by which to judge practices that may be unfair to consumers. The benchmarks found in the Unfair Commercial Practices Directive (UCPD) are particularly relevant here, and the article focuses on that instrument, although it is important to appreciate that other tools including data protection obligations, disclosure requirements, prohibitions on unfair terms in consumer contracts, and cancellation rights may also be relevant to protecting consumers in this context.

Part Two: Unfair Commercial Practices and the (Average) Immersed Consumer

The Unfair Commercial Practices Directive (UCPD) is the principal piece of legislation that aims to protect consumers from commercial practices that are misleading, aggressive, and otherwise unfair. To determine whether practices associated with immersion are unfair, it is important first to set out the structure of the Directive.

Categories of Unfair Commercial Practice

The UCPD deems some commercial practices always to be unfair and specifically prohibits them. Annex I sets these out, and we consider some of these below in the context of immersion through videogames. Where the Annex does not specifically prohibit a practice it may still be unfair because it is misleading, because it is aggressive, or because it is contrary to the general prohibition. Under article 6, a commercial practice is misleading:

> if it contains false information and is therefore untruthful or in any way, including overall presentation, deceives or is likely to deceive the average consumer, even if the information is factually correct, in relation to one of more of the following elements, and it either causes or is likely to cause him to take to take a transactional decision that he would not have taken otherwise.

Those "following elements" include most circumstances which might lead a consumer to make a transactional decision, for example, misleading information about the main characteristics of the product or the consumer's rights. Ramsay suggests that the existence of false and misleading claims is perhaps the best-known, most obvious, and oldest reason for intervening in markets to protect the consumer (Ramsay, 1984).

Article 7 deals with misleading omissions, stating that, a commercial practice will be misleading if inter alia, it "omits material information that the average consumer needs, according to the context, to take an informed transactional decision and thereby causes or is likely to cause the average consumer to take a transactional decision that he would not have taken otherwise." The purpose of this provision is to ensure that traders do not leave out the information that consumers typically need to make informed decisions.

Article 9 deals with aggressive practices, stating that a commercial practice will be aggressive if:

> in its factual context, taking account all its features and circumstances, by harassment, coercion or undue influence, it significantly impairs or is likely to significantly impair the average consumer's freedom of choice or conduct with regard to the prod-

> uct and thereby causes him or is likely to cause him to take a transactional decision that he would not have taken otherwise.

The purpose of article 9 is to prohibit practices which significantly impair consumers' freedom of choice. Just as the provisions on misleading practices require consumers' decisions to be appropriately informed, those on aggressive practices require them to be voluntary, at least in the sense of not having been achieved through harassment, coercion, or undue influence.

Most commercial practices that appear to be unfair will be so because they are misleading or aggressive and so the provisions above will be relevant. However, it is possible to find a commercial practice to be unfair, even if it does not contravene one of those articles, by virtue of it breaching the "general prohibition." Article 5(2) states that a commercial practice is unfair if:

> (a) it is contrary to the requirements of professional diligence, and (b) it materially distorts or is likely to materially distort the economic behaviour with regard to the product of the average consumer whom it reaches or to whom it is addressed, or of the average member of the group when a commercial practice is directed.

This general prohibition is designed to ensure that if practices emerge which are patently unfair to consumers but do not meet the definitions in the other provisions, they are, nevertheless, prohibited. Micklitz describes it as the "big" general clause, as opposed to the "small" general clauses which prohibit misleading and aggressive practices as well as the practices in Annex I which are specifically prohibited (Howells et al., pp 84–85). The general prohibition aims to future-proof the Directive, thereby operating as a safety net for consumers (Abbamonte, 2007). As will be seen below, given the propensity for unfair practices that exploit immersion to be misleading or aggressive, it is not clear that the general prohibition will be required in this context.

With the exception of those practices that are specifically prohibited, enforcement may only be taken under the UCPD for practices that cause or are likely to cause "the average consumer" to take a transactional decision that they would not otherwise have taken. It is therefore not enough for a practice to be misleading or aggressive; it must be misleading or aggressive in a way that is likely to change consumer behaviour. The most obvious transactional decision is the making of a purchase on particular terms. However, article 2(k) makes clear that the concept also includes other actions such as exercising a contractual right in relation to a product.

The Consumer Benchmarks

The UCPD uses the "average consumer" as a benchmark to assess potentially unfair practices. The average consumer standard is in fact comprised of three benchmarks: The standard average consumer; the average targeted consumer, and the average vulnerable consumer. The benchmarks have been discussed extensively in the literature (Cartwright, 2016; Duivenvoorde, 2015; Leczykiewicz & Weatherill, 2016; Mak, 2012; Weatherill, 2007).

The standard average consumer test (which operates as the default) was originally drawn from intellectual property case law. The standard average consumer is reasonably well-informed and reasonably observant and circumspect, taking into account social, cultural, and linguistic factors. This benchmark aimed to bring objectivity to the UCPD. According to *Office of Fair Trading v Purely Creative Ltd*, the UCPD protects from being misled

"consumers who take reasonable care of themselves, rather than the ignorant, the careless or the over-hasty consumer" ([2011] EWHC 106 (Ch) para [62]). As noted above, misleading and aggressive practices will only be caught if they cause or are likely to cause "the average consumer" to take a transactional decision that they would not otherwise have taken. The UCPD is therefore concerned with unfair practices that are, at least, likely to alter consumer behaviour.

The second benchmark is that of the average targeted consumer. Recital 18 of the UCPD provides that "Where a commercial practice is specifically aimed at a particular group of consumers, such as children, it is desirable that the impact of the commercial practice be assessed from the perspective of the average member of that group." Article 5(2)(b) also makes reference to practices being unfair where they are likely to materially distort the economic behaviour of the average member of a group "when a commercial practice is directed to a particular group of consumers." In such cases, the average member of the targeted group provides the benchmark. There is no restriction on the group to which the consumer belongs. Whether the practice is aimed at teenagers, consumers in financial difficulty, or consumers with gaming disorder, the average member of that group will provide the benchmark against which the practice is assessed.

The third benchmark is that of the average vulnerable consumer. Where a practice is likely to materially distort the economic behaviour only of a clearly identifiable vulnerable group in a way which the trader could reasonably be expected to foresee, the benchmark applied will be that of the average member of that group. This average vulnerable consumer will thus be as circumspect, informed, and observant as an average member of the vulnerable group. The causes of vulnerability that the UCPD specifies are mental or physical infirmity, age, or credulity. As Duivenvoorde observes, "from the wording of…[article 5(3)] it seems that this list is exhaustive" (Duivenvoorde, 2015, p. 24). However, he notes that the Preamble in fact makes clear that the list is non-exhaustive. Furthermore, the Commission has recently confirmed that the characteristics that define vulnerability are indicative and non-exhaustive and has explicitly recognized that vulnerability may be situational. It is therefore possible for consumers to be vulnerable in certain contexts (European Commission, 2021 para 4.2.7).

There has been significant criticism of the conception of vulnerability found in the UCPD. As Helberger et al. point out, "More recent critical advances in the vulnerability literature have criticized this approach of identifying particular groups of vulnerable users as unnecessarily stigmatizing, patronising and disconnected from social reality" (Helberger et al. p. 10, citing Malgieri & Niklas, 2020 and Cole, 2016). In particular, they point to work of Fineman, who views the human condition as involving "the ever-present possibility of harm, injury, and misfortune" (Fineman, 2008, cited in Helberger et al. p. 10). These insights are important, but are also contested. For example, focusing on the universality of vulnerability may obscure differences that amplify or exacerbate vulnerability (Cole, 2016). Cartwright argues that focusing on the factors that make consumers particularly susceptible to detriment is helpful as it helps policymakers to diagnose the sources of, and assess potential solutions to, vulnerability. He categorizes these as information vulnerability, pressure vulnerability, supply vulnerability, redress vulnerability, and impact vulnerability (Cartwright, 2015). In a similar vein, the Commission went on to define a vulnerable consumer as:

A consumer, who, as a result of socio-demographic characteristics, behavioural characteristics, personal situation, or market environment:

- Is at higher risk of experiencing negative outcomes in the market;

- Has limited ability to maximize his/her well-being;
- Has difficulty in obtaining or assimilating information;
- Is less able to buy, choose or access suitable products; or
- Is more susceptible to certain marketing practices. (European Commission, 2016)

This definition was based on that proposed by London Economics following its detailed study of the incidence of vulnerability across the EU28 Iceland and Norway and the factors that it regarded as explaining the vulnerability observed (London Economics, 2016).

It is important to appreciate the limitations of the average consumer standard as well as its conception of vulnerability. However, despite their limitations, we will argue below that both the average targeted and average vulnerable standard may be helpful in ensuring appropriate protection for consumers who are immersed.

It is not always simple to determine whether commercial practices that immerse consumers, or take advantage of immersed consumers, are likely to fall foul of the UCPD. It involves identifying not only whether the practice in question is unfair (typically on the basis of it being misleading or aggressive) but also whether it is likely to cause the average consumer to behave differently in the form of taking a transactional decision that they would not otherwise have taken. To address the latter point, it will be important to identify which average consumer standard is being applied. Application of the average targeted or average vulnerable test is likely to be more generous to consumers, and more onerous on traders, than application of the standard average consumer test. It is important now to delve a little more deeply into the relationship between the different forms of immersion, types of commercial practice, and consumer benchmarks.

Part Three: Exploiting Immersion as an Unfair Commercial Practice

The principal arguments in this article are that immersed consumers are particularly susceptible to detriment because of their immersion and that unfair commercial practices should play a central role in addressing this. To understand these arguments, it is important to appreciate some of the commercial practices that are commonly associated with videogames and which relate to immersion. However, we need to recognise that some of the categories discussed in this article are not entirely discrete. Although we can describe some practices as clearly misleading and others as clearly aggressive, many of the practices in question (particularly those that are manipulative and exploitative) contain elements that are both misleading and aggressive. For example, where a trader dishonestly states that a consumer is obliged to make a payment and that the trader is entitled to take legal action, which they are not, it would be possible to characterize the conduct as both misleading and aggressive. It will sometimes be a difficult matter of judgement for the enforcer to decide which type of unfair practice best fits the conduct in question. Furthermore, the categorization of immersion as perceptual, narrative, or challenge-based might also be subject to debate, for example, where the narrative of a story in a key element in a consumer being perceptually immersed. As can be seen in Fig. 1, the categories of immersion may overlap, with games immersing consumers in two or three ways. Multiple immersion modalities are not uncommon and may lead to deeper player engagement than games that use a single method of immersion.

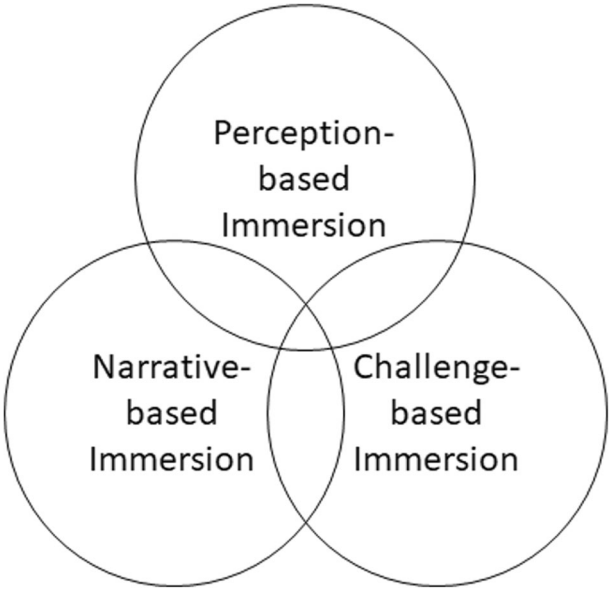

Fig. 1 Interaction of modes of immersion drawn from threefold model (Nilsson et al., 2016)

Commercial Practices

The concept of "commercial practice" is central to unfair commercial practices law and is extremely broad. Article 2(d) states that "business to consumer commercial practices means any act, omission, course of conduct or representation, commercial communication including advertising and marketing, by a trader, directly connected with the promotion, sale or supply of a product to consumers." It therefore encompasses a wide range of conduct from the initial advertising of a game to the marketing of further facilities. Among the commercial practices that are most significant in the context of videogames are offers of "microtransactions."

Microtransactions

Microtransactions are purchases commonly offered for a small payment within the virtual environment. They take different forms such as allowing consumers to succeed in a task, continue with the game, or enhance the attributes of their characters. The offer of a microtransaction to a consumer is clearly a commercial practice. It will potentially fall foul of the UCPD's provisions on misleading and aggressive commercial practices where it causes or is likely to cause the average consumer to take a transactional they would not otherwise have taken. The videogame industry has seen a significant shift from a "premium model" where consumers purchase a copy (hard or soft) of a game to a "games as a service" model where monetization is primarily through microtransactions (DCMS, 2017–19)). This move from games as tangible consumer goods to games as services is striking and has created a financial imperative for traders to persuade consumers to enter these transactions. Microtransactions frequently appear in free to play games including major offerings such as League of Legends and Fortnite. They can be defended as reducing upfront costs,

increasing flexibility for consumers and allowing the upkeep of the servers which enable multiplayer games. However, their potential for causing detriment, as will be seen, is considerable. Of particular concern is where the offer of a microtransaction involves "dark patterns."

Dark Patterns

To understand the ways in which traders may manipulate or exploit consumers in the context of videogames, it is important to appreciate the ways in which technology can be used unfairly. Designers frequently write programs and algorithms that dictate game play so that when certain events occur (e.g., the player makes certain decisions about their play in game), particular consequences follow. We can draw a simple example from early text-based adventure games: If the player types "open door," the door will remain shut; if the player types "open door with key," the door will open. This is essential for games to operate and not inherently problematic. However, games may contain "dark patterns." Although some commentators prefer to use the term "deceptive practices," we will use the expression "dark patterns" in this article as it is well-understood and commonly found in the literature.

Dark patterns are not mentioned in the UCPD, but have been characterized by the Commission as "malicious nudging" (European Commission, 2021 para 4.2.7). They can be described as interfaces where designers "knowingly confuse users, make it difficult for users to express their actual preferences, or manipulate users into taking certain actions" (Luguri & Strahilevitz, 2021, p. 44). The OECD, adopting the language of "dark commercial patterns," states the following:

> Dark commercial patterns are business practices employing elements of digital choice architecture, in particular on online interfaces, that subvert or impair consumer autonomy, decision-making or choice. They often deceive, coerce or manipulate consumers and are likely to cause direct or indirect consumer detriment in various ways… (OECD, 2022)

The essence of a dark pattern is that it is designed to confuse or manipulate the consumer. Zagal et al. (2013) view dark patterns in gaming as negative experiences where the creators of the game intend to use that experience against consumers' best interests and without their consent. They use the adjective "dark" to refer both to the intentionally unethical behaviour of the designers and to the concealment of the patterns from consumers. More recently, the OECD has argued that intention should not form part of the definition of a dark pattern and that commercial practices can be dark regardless of the trader's intent (OECD, 2022). While much of the work on dark patterns has focused on user interface design (particularly looking at web-based platforms), other aspects of design should be included, in particular those relating to user experience and gameplay. Within the literature on game design, there has been a debate about which design artefacts are properly classified as dark patterns. While dark patterns should properly be distinguished from poor game design, as made clear by Zagal et al. (2013), the types of negative experiences that should be placed in each category are less clear. In the field of videogames, Zagal et al. (2013) create a threefold typology of temporal dark patterns, monetary dark patterns, and social capital-based dark patterns. Temporal dark patterns are those design artefacts that "cheat" a player of their time, monetary dark patterns deceive a player into spending more money than they expected or anticipated, and social dark patterns prey on a player's social capital, either putting it at risk or using it to create a sense of obligation. Mathur et al. (2021) argue

that the literature on dark patterns generally lacks a conceptual foundation and provides an account of higher level attributes that define dark patterns. Building on the framework of Mathur et al. (2019), dark patterns are classified as asymmetric, covert, deceptive, information hiding, restrictive, and disparate treatment. According to Mathur et al. (2021), the first four types of dark pattern modify the decision space, and the latter two types manipulate the information flow. The last category was added to take into account the types of dark patterns, such as play-to-skip, that appear in the gaming space. Petrovskaya and Zendle (2022) examined a narrower domain than Zagal et al. (2013), examining only those design artefacts that are aimed at monetization, and found eight "predatory monetization techniques" as follows: Game dynamics designed to drive spending; product not meeting expectations; monetization of basic quality of life; predatory advertising; in-game currency; pay to win; general presence of microtransactions; and other. While some of these techniques, such as a product not meeting expectations, are familiar to those responsible for the design of consumer policy, and do not appear to necessarily result from dark patterns, other areas of predatory monetization clearly involve the presence of dark patterns. For example, pay-to-win mirrors one of Zagal et al.'s dark patterns. What is clear is that dark patterns are relevant when considering both misleading and aggressive practices.

Misleading Commercial Practices and Immersion

Some misleading commercial practices that could be associated with videogames will be unfair by virtue of the Annex. For example, paragraph 16 prohibits "claiming that products are able to increase winning in games of chance," while paragraph 17 prohibits "claiming in a commercial practice to offer a competition or prize promotion without awarding the prizes described or a reasonable equivalent." In such cases, there is no need to apply the transactional decision test nor to consider whether the consumer might be immersed, or even which consumer benchmark should apply. These are likely to be the simplest practices for enforcers to tackle.

Under article 6, a commercial practice is misleading:

> if it contains false information and is therefore untruthful or in any way, including overall presentation, deceives or is likely to deceive the average consumer, even if the information is factually correct, in relation to one of more of the following elements, and it either causes or is likely to cause him to take to take a transactional decision that he would not have taken otherwise.

Those "following elements" include most circumstances which might lead a consumer to make a transactional decision, for example, providing misleading information about the main characteristics of the product or the consumer's rights.

Consumers will not always be immersed when playing a videogame and presented with a misleading commercial practice. Common practices which might mislead consumers include obscuring important information or organising it in a way which promotes a particular option. Similarly, a consumer might be faced with ambiguous language or misleading questions such as those involving double negatives (European Commission, 19 para 4.2.7). Such conduct, which will frequently be characterized as involving a dark pattern, may mislead even relatively attentive consumers, who may not meet the standards of a reasonably observant consumer when immersed in a game. However, immersion adds an additional dimension to the practice.

The different forms of immersion identified above will all potentially be relevant when determining if a commercial practice is misleading. However, where consumers experience perceptual immersion, they are particularly susceptible to being misled. By definition, perceptually immersed consumers have their perception altered and are therefore prone to misinterpreting their reality. Their "new" environment envelops them, and particularly in the case of presence, they feel that they are "in" that environment. This perception is liable to influence their decision-making, particularly while they focus upon the game. Where, for example, they are presented with the offer of a microtransaction within the game, they are vulnerable to making a transactional decision based on a misunderstanding.

A perceptually immersed consumer is less able to form rational judgments than a consumer who is not immersed. For example, Cummings and Shore (2022, p. 2) note that:

> being perceptually immersed within a message may implicitly impair users' ability to discern authenticity, credibility, and authorial intent. This presents new levels of concern with respect to harmful messaging, such as disinformation or predatory content.

A perceptually immersed consumer may therefore find it relatively difficult to identify whether a product is genuine, whether the product attributes match the consumer's preferences, whether a message is accurate, or what a trader's motivations are. These are all matters about which a practice may be misleading in article 6. Explicitly mentioned, for example, are the commercial origin of the product and the motives for the commercial practice. Furthermore, misleading consumers by altering their perception of the environment (or of other users) might influence them to make particular microtransactions. For example, in a multiplayer game, users may purchase "skins" (costumes or similar adornments that can be applied to a player's character to change their appearance). By altering the perception of a user who has not previously purchased a skin to make it appear that all other users have made such a purchase (when they have not), the game may artificially create peer pressure to purchase a skin, influencing the transactional decision to do so. The UK's Office of Fair Trading expressed concern about games implying that a consumer is in some way inferior if he/she does not do something that necessitates a purchase (OFT undated). Similarly, altering apparent performance of other players to make it appear that the consumer is doing worse compared with them may induce transactions aimed at improving performance.

A further example of consumers being misled during an immersive experience is within in-game stores which offer products which may be purchased through microtransactions. While immersed, it may be difficult for consumers to understand the attributes of a virtual product and the terms on which they are offered. In particular, if the terms and conditions of microtransactions are lengthy, immersive environments are often not well-suited to the transmission of such information in traditional written form. The user experience of immersive environments is better suited to the transmission of information in more broadly visual formats.

In exceptional cases, perceptually immersed consumers may be unaware of real-world contexts that contradict their perception. This is particularly the case in VR experiences where the head-mounted display blocks the ability to visually perceive the real world. Tseng et al. (2022) highlight the safety risks that may emerge if VR is used, in their words, to "alter the human multi-sensory perception of our physical actions and reactions to nudge the user's physical movements" (p. 1). The two main types of manipulation they identify that have the potential to cause physical harm to users of VR experiences are puppetry and mismatching. Puppetry uses perceptual manipulation to "control physical actions of different body parts of an immersed user" (Tseng et al., 2022, p. 5), manipulating the user to go to a harmful location, to interact with harmful real-world property or break real-world

items. Mismatching "exploits a difference of information between a virtual object and its physical counterpart to elicit misinterpretation for the VR user" (Tseng et al, 2022, p. 5). Mismatching includes false positives, where an item in the virtual world is not present in the real world; false negatives, where an item that is present in the real-world is not present in the virtual world; and swapping, where the position of objects in the real-world is switched in the virtual world. An example of false-negative mismatching would include a table that is present in the real world not being shown in the virtual world, so that a consumer using VR may fall over it, causing physical injury. Similarly, manipulating a consumer's perception of reality could be used to encourage expenditure (usually through microtransactions). Calo (2014) discusses concerns regarding subliminal advertising as a means to manipulate consumer perceptions. Immersive environments provide more fertile ground for such manipulations when compared with a television advertisement. For example, swapping attributes of real world items may encourage choices that overvalue items due to the attributes that the immersive experience embeds.

While Tsang et al. consider puppetry and mismatching in the context of the risk of physical harm, these forms of manipulation could lead to other forms of consumer detriment. One example is that mismatching could present a virtual object as valuable in circumstances where a real-world object is valueless or vice-versa. This may be a particular risk in AR, where a digital layer may enhance a physical item, presenting it as a product of greater value than inheres in the solely physical good. Embedding value through digital augmentation is a legitimate use of immersive technologies, but presents particularly fertile ground for misleading practices. Similarly, puppetry could be used to manipulate a consumer to choose a particular trader or product. For example, a VR experience may manipulate a consumer to gesture in a particular manner which is taken as an intention to bid on or purchase an item when divorced from the immersive context.

It is not necessary for the trader to mislead the consumer deliberately for their conduct to constitute a misleading commercial practice for the purposes of the UCPD (Howells et al., 2006). Even in the UK (where the UCPD is enforced largely via criminal offences), there is no requirement of intent, dishonesty, or other form of fault. The focus is on the likely effect of the practice. In the language of the UCPD, a practice is a misleading action if it contains information that is false and is therefore untruthful. While the word "untruthful" might appear to imply some form of bad faith, it does not; the focus is on whether the information is accurate. Furthermore, even if it could be argued in appropriate cases that information provided is factually correct, it will be a misleading action provided its overall presentation is likely to deceive the average consumer. This is important where language is used which is literally true, but which, in context, creates a misleading impression. Nevertheless, it will frequently be possible to identify a degree of fault in the commercial practice. The clearest example of this is where the game utilizes dark patterns.

As noted above, dark patterns typically arise where traders (such as game designers) "knowingly confuse users, make it difficult for users to express their actual preferences, or manipulate users into taking certain actions" (Luguri & Strahilevitz, 2021, p. 44). Although some commentators doubt whether intention should be required before a practice is labelled, as a dark pattern, it will commonly be present (OECD, 2022). Immersion provides particularly fertile ground for dark patterns to be used to manipulate consumer behaviour. As Zagal et al. (2013) observe, some patterns that are intended to manipulate consumers do not succeed, as consumers are sufficiently literate in dark patterns to detect them and avoid manipulation. This is more difficult when immersed, as the consumer will be focused on the immersive elements of the game, reducing their circumspection, and therefore their ability to identify the manipulative patterns. This may be amplified in the

case of new technologies, where consumers have not yet gained literacy in the types of patterns that are used in those technologies.

Misleading Practices, Immersion, and the Consumer Benchmarks

As noted above, the probability of consumers' being immersed is relevant to the probability of their being misled, and of their taking a transactional decision that they would not otherwise have taken. To identify how the practice will be judged, it will be important to ascertain which "average consumer" will provide the benchmark. We argue that it is unlikely to be the standard average consumer for two reasons.

First, in many cases, game designers will be aiming the practice at a particular group of consumers. For example, they may be aware that consumers who purchase a particular type of game are likely to have certain characteristics and have put in place features (e.g., the offering of microtransactions) that they believe are particularly likely to resonate with such consumers. The game itself, and any offer of microtransactions it contains, will be targeted at a particular group. The average member of the group in question will provide the benchmark against which the relevant practice is assessed.

Second, it has been shown above that it is not necessary for the practice to be aimed at a particular group for the standard average consumer benchmark to be replaced by a standard more generous to the consumer. Under the average vulnerable standard, where certain characteristics such as age, physical, or mental infirmity or credulity:

> make consumers particularly susceptible to a commercial practice or to the underlying product and the economic behaviour only of such consumers is likely to be distorted by the practice in a way that the trader can reasonably foresee, it is appropriate to ensure that they are adequately protected by assessing the practice from the perspective of the average member of that group.

This means that whether the practice is aimed at a particular group, or likely to affect only a particular group, it will be assessed from the perspective of the average member of that group. In the case that the practice targets, there appears to be no reason why the group cannot comprise "immersed consumers" on appropriate facts. For example, if the offer of a microtransaction is aimed at consumers who are immersed within a game, and the nature of the transaction offered is likely to mislead such immersed consumers, the average immersed consumer provides the benchmark. If the practice is likely to mislead the average immersed consumer, and the average immersed consumer is likely to take a transactional decision they would not otherwise have taken, then it will fall foul of the provisions on misleading commercial practices. Intentionally targeting a group in this way with offers that are liable to mislead them and thus persuade them to make a purchase is a paradigmatic illustration of a dark practice that it likely to be misleading for the purposes of the UCPD.

Where the commercial practice is not targeted at a particular group but is foreseeably likely to impact only members of that group, it will be judged by the benchmark of the average member of that group. The Commission has recently made clear that the categories listed in recital 19 are indicative and non-exhaustive and that consumers may be regarded as vulnerable where the vulnerability results from factors other than mental or physical infirmity, age, and credulity. (European Commission, 2021 para 2.6). Whether "immersed" consumers, might be a group that is particularly credulous, or whether gamers who are immersed are particularly likely to suffer from conditions that might constitute mental

infirmity is an interesting point. However, given that these causes of vulnerability are not exhaustive, there is clearly potential for the UCPD to protect consumers whose vulnerability results primarily from their immersion. Consumers who are immersed by a videogame are the very group of consumers who are particularly likely to be vulnerable to the practice and/or the underlying product in a way that the trader should foresee.

To appreciate the extent to which consumers who game, and in particular those who are immersed within videogames, are likely to be vulnerable, it is important to consider the biases that gamers are liable to display. Our discussion above emphasized that we should view immersion as a cognitive state and perceptual immersion is the clearest illustration of this. It is well-established that all consumers are potentially subject to certain cognitive biases (Kahneman, 2011). However, there is compelling evidence that gamers may be particularly susceptible to specific biases (DCMS, 2017–19). It is not possible fully to do justice to the research here, but one bias which is particularly worthy of comment is overoptimism. It may be that if a microtransaction were offered which appeared to be a particularly good deal, an immersed consumer might be more likely to accept it than a consumer who is not immersed. That overoptimism goes hand in hand with a high level of credulity. The Commission has accepted that vulnerability is particularly acute in the digital environment (European Commission, 2021 para 2.6). A key point to emphasize is that the characteristics of the group targeted or foreseen may mean that they are less able to display the characteristics of the standard average consumer when making transactional decisions in the context of a game. For example, a perceptually immersed consumer may not have the same information at their disposal as the consumer who is not immersed, and not be as reasonably well-informed. Similarly, if the microtransaction is offered at a time when the consumer is likely to be especially distracted or engaged in a particularly difficult challenge or engrossing narrative moment, they might not be so observant as would otherwise be expected. Where the immersed consumer is overoptimistic, they are less likely to be circumspect as a consumer in different circumstances. The consumer benchmarks recognize this, and adjustments take place on the basis of what can reasonably be expected.

The focus so far has been on the design of games where the designer anticipates that consumers in particular circumstances are liable to act in certain ways and the game's architecture allows advantage to be taken of this. Where a consumer is using VR hardware (such as headset), there is a significant possibility that this will lead to perceptual immersion. Of even greater concern is where the hardware necessary to immerse consumers in VR collects large amount of data, enabling precisely targeted advertising or other practices embedded within the experience. As will be seen below, this is a concern for all forms of immersion. Heller and Bar-Zeev (2021 pp. 10) identify the harm of advertising embedded in immersive experiences as "the leveraging of personal or sensitive information about a user's body, mind, preferences, and behavior, in ways that are difficult for users to consent to — or even understand — and defend against." This clearly raises a variety of concerns, including some around data protection. It is important to remember that in addition to the UCPD, there are instruments such as the GDPR and the e-Privacy Directive that provide protection in this space. As Hacker argues, "the case of mind-reading technologies underscores the need for an integrated market order for the digital economy in which unfair commercial practice, data protection and privacy law complement and mutually support each other" (Hacker, 2021 pp. 2–3). In this article, our principal concern is how the information gathered about immersed consumers may be unfair for the purposes of the UCPD. Leveraging personal information is perhaps the starkest example of using problematic design artefacts to target consumers, as the price, attributes, and terms of a microtransaction offered may be determined by the contemporaneous gathering of information about

the individual consumer's behaviour. The Commission has recognized the extent to which dark patterns may be designed to gather information from consumers and manipulate them based on the data obtained. In its words, the digital environment is "increasingly characterised by data collection on socio-demographic characteristics, but also personal or psychological characteristics such as interests, preferences, psychological profile and mood" (European Commission, 2021 para 2.6). Where the commercial practice is personalized based on information gathered about an individual consumer, the average targeted standard becomes, in essence, that individual. In the words of the Commission: "the benchmark of an average or vulnerable consumer can be modulated to the target group and, if the practice is highly personalized, even formulated from the perspective of a single person who was the subject of the specific personalization" (European Commission,). While the language of the Directive might hint otherwise, this interpretation follows that which has previously been proposed and surely meets the objectives of the UCPD (Cartwright, 2016). Where a trader obtains information that identifies the potential for a consumer to be misled (e.g., because they fall into a particular category) and then presents information or makes an offer in a way that takes advantage of that susceptibility, that will surely be a misleading practice. As Hacker points out "offers can be targeted i.e. made exclusively to specific subgroups of consumers which the trader believes will be particularly receptive because they share certain characteristics" (Hacker, 2021 p. 2). The more sophisticated the algorithm, the better it will be at matching the characteristics of consumers to traits that allow them to be exploited through being misled.

Misleading Practices and Post-Immersion Transactional Decisions

While the transactional decision (and in particular any microtransaction) will commonly take place while the consumer is immersed, it is also possible that it will occur when the consumer has ceased to be immersed. The possibility of the manipulation of perceptual immersion that influences consumers to purchase products outside the immersive experience has been identified as a potential source of consumer detriment (Heller & Bar-Zeev, 2021). Bonnail et al. (2022) provide an example of improper VR advertising where a trader alters the virtual reality reconstruction of a wedding by changing the brand of wine served to make the users associate a positive experience with a brand that was not present in the original event. This has the potential to cause consumers to make transactional decisions that they would not otherwise make without the manipulated immersive experience, purchasing the altered brand outside of the experience because of the implanted positive emotional connection between the brand and an important life event. This demonstrates the importance of appreciating the impact of immersion even when the consumer is no longer immersed.

Narrative and Challenge-Based Immersion and Aggressive Practices

Narrative and Challenge Based Immersion in Gaming

Narrative immersion occurs where a person becomes engrossed (e.g., in a story) and feels compelled to experience it to its endpoint. This may be spatial (e.g., because of a fascination with the environment); temporal (resulting from a pre-occupation with the story), or emotional (resulting from a strong emotional attachment to the characters and concern about their fate). Challenge-based immersion results from a consumer being so

pre-occupied with a particular task (such as beating or attaining a level in a game) that they feel compelled to complete it.

Both forms of immersion have the potential to lead to significant detriment, particularly where consumers feel compelled to engage in microtransactions while immersed. In relation to narrative immersion, a person who is spatially immersed in the world of a videogame may want to purchase extra content which allows them to spend more time in the virtual world. An emotionally immersed person may be keen to spend more time with the characters and persuadable to pay to facilitate that. In addition, a temporally person may be willing to pay to advance the story, perhaps leading to spending less time in the world.

Examples of the exploitation of narrative immersion exist outside gaming and have a long history. Dickens, for example, initially publishing his novels in monthly or weekly serialized form, often with cliff-hangers calculated to entice the consumer to purchase the next instalment (Tomalin, 2012). Where storytelling forms a key part of a game, and access to the next part is offered as a microtransaction, there is obvious scope for consumer detriment. The consumer may lack the time to make a circumspect decision whether or not to purchase the content, instead rushing to access the next narrative chunk, in order to continue the experience. In some cases, the game design will present offers as "limited time." This further increases the pressure and reduces the opportunity for the consumer to be circumspect. Of course, such practices may fall foul of the prohibition of practices that involve "[f]alsely stating that a product will only be available for a very limited time, or that it will only be available on particular terms for a very limited time, in order to elicit an immediate decision and deprive consumers of sufficient opportunity or time to make an informed choice." However, not all game mechanics that restrict the temporal decision space will fall within this particular banned practice. A particularly invidious exploitation of narrative immersion would increase the price as the narrative reaches its conclusion. This would particularly target those who are temporally immersed, and therefore wish to know how the story ends. Similarly, where a consumer is spatially narratively immersed, and therefore interested in the "world" of the game, they are more likely to be susceptible to an offer to purchase downloadable content ("DLC") expanding that world. DLC is a common feature of modern videogames. Zagal et al (2013) identify pre-delivered content (content which is included in a game but can only be unlocked through payment rather than in-game success) as particularly problematic. DLC is similar, with extra narrative (and challenges for those immersed in that way) available for payment. The more immersed the consumer, the more they may feel under pressure to purchase.

Challenge-based immersion is also liable to be exploited. Here, practices may take advantage of the consumer's desire (and in some cases compulsion) to progress in, or complete, a particular experience. One example relates to collecting items. A game may require the consumer to build a collection of creatures, weapons, or skills over the course of the game, the price of which increases as the game goes on. Where the game collects data from the consumer, there is a particular likelihood that the offering of the microtransaction will be problematic. For example, the virtual items may initially be distributed randomly, but (as the game data demonstrates that a player has not be able to obtain something desirable) then made obtainable only by purchase (perhaps through a loot box mechanic) or at an increased price. As with narrative immersion, a combination of challenge-based immersion with dark patterns is a design artefact that is more likely to lead to consumer detriment than a dark pattern on its own (Zagal et al., 2013).

A further example of a commercial practice that exploits challenge-based immersion is exploitation of the increasing difficulty of challenges in which the consumer is immersed. An illustration offered by Zagal et al. (2013) is found in SimCity Social, where a consumer

is required to pay in order to escape a vicious cycle that increases the time that it takes to complete challenges. The increasing difficulty of challenges is legitimate and may be an important part of the gaming experience. However, it could be used to exploit consumers who feel compelled to beat a challenge to take a transactional decision they would not otherwise have taken.

"Pay-to-win" microtransactions may be extremely enticing to consumers who experience challenge-based or narrative immersion and find it difficult to progress. This will commonly take the form of a power-up that allows the player to defeat a particularly challenging level and move on to the next stage. Again, dark patterns may be found in game design, notably in the form of "grinding." Grinding is an acknowledged dark pattern in videogames (Zagal et al., 2013). It occurs where consumers engage in repetitive gameplay in order to enhance their characters' abilities or to obtain particular items necessary for progression (such as narrative progression). The microtransaction that allows the consumer to "pay-to-skip" the grinding may guarantee progression, for example, providing new weaponry or armour. In other cases, consumers may be offered loot boxes. Loot boxes are purchasable videogame content with randomized rewards (Close & Lloyd, 2021). They provide a chance to obtain a particular advantage. In large part because of their similarity to gambling, loot boxes pose a significant risk of detriment (Cartwright & Hyde, 2022). It has been estimated that the average player of *Star Wars: Battlefront II* would have to spend around 4,500-h grinding to be able to unlock all available content without paying. The pressure on someone immersed in the game to pay is therefore obvious.

A particularly invidious design would make valuable content available in response to the user failing a number of times, but before the immersion wains due to consistent losing. An example of such mechanics is so-called "pity timers." A pity timer favourably alters the odds of winning moderately valuable prizes from loot boxes when a consumer may be close to walking away from a game. It makes the gamblers' fallacy (discussed below) real, by making the odds of winning dependant on previous behaviours, meaning that consumers are more likely to continue spending money. Similarly, the price of particular power-ups could also be altered depending on the time that a consumer has spent trying to complete a challenge, with prices being raised or lowered dependant on data on in-game progression and styles of play.

Immersion, Aggression, and Pressure

The essence of the wrong discussed here is the pressure that is generated through immersion in the game coupled with the specific practice in question (typically the offer of a microtransaction). We will now examine whether the conduct in question is an aggressive commercial practice.

The first point to note is that some of the conduct discussed may constitute an aggressive practice under the Annex. Paragraph 28 prohibits making direct exhortations to children to buy products or to persuade other adults to buy products for them. Targeting children in this way is always unfair, and as the Commission has pointed out, studies have shown that children are less likely to appreciate the commercial intent of advertisements in games than in some other media (European Commission, 2021, para 4.2.9). In addition, paragraph 26 prohibits "making persistent and unwanted solicitations by telephone, fax, email or other remote media except in circumstances and to the extent justified under

national law to enforce a contractual obligation." Such "nagging" would be relevant where an advertisement repeatedly pops up in the course of a game.

In other cases, article 8 may apply. As noted above, a commercial practice is aggressive under that provision where:

> in its factual context, taking account all its features and circumstances, by harassment, coercion or undue influence, it significantly impairs or is likely to significantly impair the average consumer's freedom of choice or conduct with regard to the product and thereby causes him or is likely to cause him to take a transactional decision that he would not have taken otherwise.

The consumers in the examples above have probably not been harassed. However, we could describe them as having been coerced into a transactional decision or been subject to undue influence in making that decision. In some cases, there may also be a misleading action, but where the consumer is exploited by the application of pressure, the conduct appears to be better classified as aggressive.

The pressure that consumers feel when immersed in the narrative or challenge of a game is considerable, and the Directive sets out a number of factors to be taken into account when determining whether that pressure might constitute a practice that is aggressive. One factor mentioned is timing. As noted, game design will commonly mean that offers are made to the consumer at a particular point in the game, and this is likely to be when the consumer is most susceptible to making a transactional decision. Also mentioned is "the exploitation by the trader of any specific misfortune or circumstance of such gravity as to impair the consumer's judgement, of which the trader is aware, to influence the consumer's decision with regard to the product." This provision targets those such as funeral directors who place inappropriate pressure on the bereaved. However, it is worth pondering whether it might apply here. There is frequently a deep connection between gamers and their characters, something that gameplay may reveal. Where game data suggests that a consumer is determined to do all they can to protect their characters, the offer of a microtransaction which will save a character in peril might on appropriate facts be found to be aggressive. This could be labelled as coercive or, given the knowledge held by the trader which is exploited, as involving undue influence. The connection that narrative immersion creates between the consumer and the character should not be underestimated. In some cases, the characters become extensions of the consumers themselves. Videogames are a particularly striking example of what have been labelled "self-involving interactive fictions" where consumers occupy the characters they control (Robson & Meskin, 2016). This deep connection between consumer and character which results from narrative immersion can be leveraged in ways that are properly described as aggressive. Although the UCPD does not state it explicitly, it is clear that emotional manipulation may amount to coercion and thus constitute an aggressive practice.

Where challenge-based immersion is in issue, timing is likely also to be highly relevant. The examples above demonstrate how consumers may feel particularly pressured in order to advance, exacerbated by the use of tools such as pity timers and grinding. Again, where in-game data about the consumer is gathered, it will be easier to identify specific examples where that individual consumer is desperate to progress. King et al. have noted the ability of some games to track player metrics and automatically adjust their design to encourage purchasing. They conclude that such systems may have the potential to exploit particular types of vulnerable player (King et al, 2019). For example, the virtual items that help consumers to progress may become increasingly valuable to them, and it is possible for the algorithm to vary the price of the item for a player based on their playing and spending

behaviour in the game. Such practices, which King and Delfabbro label "predatory monetization," are among the clearest examples of practices that are aggressive and worthy of challenge under the UCPD (King & Delfabbro, 2018). They label these practices as predatory because they "exploit inequalities in information between purchaser and provider… to present offers predetermined to maximize the likelihood of eliciting player spending" (King & Delfabbro, 2018 p. 1967). Preventing such exploitation of informational and power inequalities presents a clear case for consumer law to play a role in this area.

Consumer Benchmarks, Cognitive Bias, and Gaming Disorder

It is important to remember that the judgement about whether a practice is aggressive is made based on the same average consumer benchmarks that apply in the case of misleading practices. Where a particular group of consumers (or in the case of data gathered about an individual, that consumer) is targeted, the benchmark is the average member of the group (or the individual consumer). Where a clearly identifiable group of consumers is foreseeably vulnerable, the average member of the group provides the benchmark. We consider the principal issues above, and we will not repeat them here. However, it is important to appreciate that consumers may be especially susceptible to detriment by virtue of their experiencing narrative or challenge-based immersion. There will be many circumstances where, because of either form of immersion, the consumer is unable to display the observance and circumspection of a consumer who is not immersed. Again, the factors specified in the Directive will be relevant here with the age of the consumer frequently paramount. The discussion above considered how consumers might be particularly susceptible to being misled (and so vulnerable) on the basis of age, but age is arguably even more relevant when it comes to assessing whether a practice is aggressive. To take one example, some games will be targeted at or likely to be played by teenagers. It is well-established that adolescents are particularly liable to be troubled by low self-esteem (Wright et al., 2011), and impulsivity, self-doubt, and self-consciousness have been identified as key adolescent vulnerabilities (Pechmann et al, 2005). Such consumers are especially liable to feel social and/or parasocial pressure to succeed in a co-operative game, for example, for fear of letting down teammates. This age-related vulnerability is foreseeable, and even if the practice is not targeted at adolescents, the average adolescent can provide the benchmark.

A further point to emphasize is that a very strong element of the pressure described involves the manipulation of cognitive biases. It was explained above how the cognitive bias of overoptimism may be manipulated by game designers to mislead consumers who are perceptually immersed. An even stronger illustration of the manipulation of cognitive bias is found in relation to narrative and challenge-based immersion.

One such bias is known as the "gambler's fallacy." There, a person believes that they are more likely to win following a long period of losses (Nielsen & Grabarczyk, 2019). Where a consumer experiences challenge-based immersion, they may be particularly inclined to continue playing because they believe that they are more likely to win next time, perhaps assuming that a bad run of luck is likely to even itself out. This is likely to occur in many gaming environments and is particularly concerning when a consumer is offered a microtransaction that involves an element of chance, for example, a loot box. A second cognitive bias that may be relevant in this context is the "Near Miss Effect" (Reid, 1986). Where a person narrowly fails to succeed in a task, the closeness to success incentivizes the person to continue, even though the game design may ensure that it does not reflect the probability of success. It is very easy for game design to take advantage of this by creating

the impression that an individual is very close to completing a task and simply needs to take some action (such as purchasing a virtual item) to succeed. A third cognitive bias that is well-known and relevant here is the "sunk cost fallacy," which is also referred to as "cognitive entrapment" (Brockner & Rubin, 2012). This occurs where consumers feel compelled to continue spending having already incurred expenditure because of the investment already undertaken (in terms of time, effort, and money). Exploiting this can be particularly objectionable as consumers in this position may already be overextended financially.

These cognitive biases exist in many situations. However, it is easy to see how consumers who face narrative or challenge-based immersion are likely to be particularly prone to them. Many of the studies of these biases have taken place in the context and gambling, and while gaming and gambling do not always correlate, the synergies between them are strong in some cases. Furthermore, it is important to recognize the existence of gaming disorder. Since 2018, the World Health Organization (WHO) has included gaming disorder in its International Classification of Diseases. Gaming disorder involves a "pattern of persistent or recurrent gaming behaviour" (which can be either online or offline) that is manifested by:

(1) impaired control over gaming (e.g., onset, frequency, intensity, duration, termination, context); (2) increasing priority given to gaming to the extent that gaming takes precedence over other life interests and daily activities; and

(3) continuation or escalation of gaming despite the occurrence of negative consequences.

For a person to receive a diagnosis of gaming disorder, their behaviour must be sufficiently serious to result in "significant impairment in personal, family, social, educational, occupational or other important areas of functioning" and have been evident for at least 12 months (WHO). The WHO's decision to recognize gaming disorder was controversial (Wang et al, 2019). However, while we would benefit from further epidemiological survey data on the subject, most commentators appear to accept that gaming disorder is appropriately classified as an addiction-based mental disorder (Wang et al, 2019). The evidence that does exist shines a light on the harm that videogaming can cause and should accordingly remind game designers of their moral, as well as legal, obligations.

Disclosure, Immersion, and Misleading Omissions

Like any product, a game may be marketed and advertised in a way that is misleading. False claims about a product in advertising or marketing will fall firmly within the ambit of the UCPD. Consumers are unlikely to be immersed when first purchasing a videogame. However, the possibility of their becoming immersed and the features that will be offered to them when they are immersed within the game could be important factors in deciding to purchase. A key objective of the UCPD is to ensure that consumers have the information that they need to make an informed choice. Both the UCPD and the Consumer Rights Directive (CRD) place obligations on traders to provide key information to consumers to facilitate this. While the CRD harmonizes rules on the information traders need to provide to consumers before they purchase goods, services, or digital content, the UCPD prohibits misleading omissions. Practices will be misleading omissions where inter alia, they omit "material information." Material information includes matters such as "the main characteristics of the product." If a consumer is likely to be presented with microtransactions having purchased a game, it could be argued to be material information that should have been disclosed. Similarly, if information about consumers will be gathered,

for example, with a view to targeting them with microtransactions based on an analysis of that information, there is an argument that consumers should be made aware of that. This will be important for many consumers, but particularly for those who may be aware that they might be tempted into transactional decisions when they are later immersed. Where games contain features that are akin to gambling (e.g., loot boxes), timely disclosure is particularly important (Cartwright & Hyde, 2022; European Commission, 2021). However, there will be limits to what is required of traders, and the extent of those limits remains a matter for debate. It is one thing to require information about the features of a game to be provided, but another to require traders to disclose details of targeted marketing and how it is operated. In the view of Helberger et al.:

> [i]n the light of the rather restrictive approach the CJEU has taken so far, it seems highly unlikely that the Court would be ready to deduce from Article 7 an obligation on the part of the trader to disclose the degree to which marketing is personalised, let alone the type of personal information it has collected. (Helberger et al p. 143)

The timing of information disclosure is extremely important to whether it achieves its objectives. Consumers need access to information at a point where they are able to take it into account in their decision-making. A final point to consider, albeit briefly, is the extent to which in-game disclosures are an appropriate tool for tackling consumer detriment. Article 7(1) of the UCPD states that material information includes information "that the average consumer needs, according to the context, to take an informed transactional decision." Where a commercial practice constitutes an invitation to purchase then certain information will be material. For example, the trader must describe the main characteristics of the product, and the prices of any virtual items must be displayed clearly and prominently (European Commission, 2021). Similarly, the commercial nature of a communication must be made clear and distinguishable from gameplay (European Commission, 2021). A major difficulty, however, is relying on disclosure when the consumer is likely to be immersed at the time that the information is provided. A consumer who is immersed, whether perceptually or by means of narrative or challenge, will have their ability to perceive, analyse, and act on information significantly compromised. Of course, the consumer benchmarks will determine how any disclosure (or lack thereof) is assessed for the purposes of the UCPD. In theory, it should be possible for a trader to identify the information that an average targeted, or even average vulnerable, consumer would need, according to the context, to take an informed transactional decision. In practice, however, that is likely to be difficult. Moreover, the limitations of information as a consumer protection tool are well-known, even for relatively well-informed and sophisticated consumers. Those limitations are even more apparent where consumers are less privileged. While the disclosure of information may have a role in protecting consumers in the context of gaming, that role is likely to be limited.

Conclusions

The increase in immersive consumer experiences as a result of technological advances has the potential significantly to enhance consumers' enjoyment of activities such as gaming. However, those advances also provide the potential for significant consumer detriment when they are utilized in ways that are unfair. The principal forms of unfair commercial practices are those that are misleading or aggressive, and as this article has

demonstrated, there are many ways in which immersion is liable to lead to consumer detriment. The law assesses the fairness of commercial practices by the benchmark of the average consumer who is reasonably well-informed, reasonably observant, and circumspect. However, this benchmark is varied where a particular group of consumers (such as those who are immersed) is targeted and where a clearly identifiable group is foreseeably vulnerable. Being circumspect means being prudent, being careful to consider circumstances and consequences. When a consumer is immersed in the ways described above, they are unlikely to display the prudence and care that might otherwise be expected of a consumer in other circumstances. Being observant means being watchful, paying close attention to something. While immersed consumers may be highly observant in certain respects, for example, in their concentration on the mechanics or narrative of a game, they are unlikely to be watchful in ways that might protect their interests as consumers. Consumers may be viewed as well-informed when they possess the information necessary to enable them to make decisions in accordance with their preferences. A consumer who is immersed is likely to lack that.

Many commentators have identified ways in which traders can exploit and manipulate consumers through technology, in particular (although not exclusively) by using dark patterns. Gaming is an area where consumers are at a high risk of detriment from such practices and that detriment is especially pronounced where consumers are immersed. By appreciating the extent to which consumers become immersed through gaming, and the effect of immersion on their behaviour, the law is better able to identify the unfairness of a range of, sadly common, commercial practices.

Data Availability Data sharing is not applicable to this article as no datasets were generated or analysed during the current study.

Declarations

Conflict of Interest The authors declare no competing interests.

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