

AUGMENTED REALITY, ADVERTISING AND CONSUMER
PROTECTION IN THE LIGHT OF EUROPEAN UNION LAW

*REALTÀ AUMENTATA, PUBBLICITÀ E TUTELA DEI
CONSUMATORI ALLA LUCE DEL DIRITTO DELL'UNIONE EUROPEA*

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ABSTRACT: Augmented reality (AR) is a technology that has been actively integrated into marketing strategies in recent years. This technology allows to overlay the physical environment with virtual elements, which can interact with the real surroundings in real time, holds the potential to affect a wide range of consumer activities, including information searches and product testing. This article focuses on the key features of AR advertising, which may raise fairness concerns from the perspective of EU Consumer Law, investigating whether the current EU legal framework on unfair commercial practices meets the challenges of new technologies.

KEY WORDS: Augmented reality; consumer protection; unfair commercial practices; advertising; Directive 2005/29/EC.

RESUMEN: *La realtà aumentata (AR) è una tecnologia immersiva che, negli ultimi anni, è stata attivamente integrata nelle pratiche commerciali tra imprese e consumatori. Questa tecnologia permette di sovrapporre, in tempo reale, l'ambiente fisico con elementi virtuali ed è in grado di influenzare un'ampia gamma di attività dei consumatori, tra cui la ricerca di informazioni e la possibilità di testare prodotti da casa senza recarsi in negozio o acquistarli. Questo articolo si concentra sulle caratteristiche della pubblicità AR e sui i potenziali rischi per la salute, sicurezza ed interessi economici dei consumatori, indagando se l'attuale quadro giuridico europeo in materia di pratiche commerciali sleali è in grado di affrontare le sfide derivanti dallo sviluppo delle nuove tecnologie.*

PALABRAS CLAVES: *Realtà aumentata; protezione consumatori; pratiche commerciali scorrette; pubblicità; Direttiva 2005/29/CE.*

SUMMARY.- I. INTRODUCTION. – II. VIRTUAL REALITY, AUGMENTED REALITY AND METAVERSE. – III. AUGMENTED REALITY AND COMMERCIAL PRACTICES. – IV. LEGAL FRAMEWORK: DIRECTIVE 2005/29/EC. – V. UNFAIR AR ADVERTISING UNDER THE UCPD: AN EXERCISE IN LEGAL FUTUROLOGY. – VI. CONCLUSIONS.

I. INTRODUCTION.

Augmented reality is one of the main technologies of Extended Reality, namely a catch-all term encompassing technologies that in some way 'extend' reality and capable of concretely changing the way human beings perceive reality, taking their experience of their surroundings to a new level (predominantly Augmented Reality (AR), Virtual Reality and Mixed Reality (MR)). The global market of Augmented Reality and Virtual Reality reached 28 billion U.S. dollars in 2021, rising to over 250 billion U.S. dollars by 2028¹, where VR gaming, VR video viewing and AR gaming make up the three largest consumer use cases². In recent years, AR has started to emerge as a relevant interactive technology in the marketing environment and is being actively integrated into marketing strategies in retail contexts and often developed in formats of smart device applications. AR technology-enhanced marketing campaign, in which AR advertising plays a key role, is becoming more popular and it promises to usher in a new era of business-consumer interaction, where the consumer is gradually moving from being a passive consumer to being a real actor in the business-to-consumer interaction. Its ability to overlay the physical environment with virtual elements such as information or images, which can interact with the physical environment in real time, provides new possibilities for content delivery to consumers. It consequently holds the potential to alter a large number of consumer activities, among which information search and product trials. In this regard, AR advertising can be an added value for market efficiency, giving consumers the opportunity to receive, perceive and process information about products, services and rights in a more realistic and detailed way but, on the other hand, there is a wide range of threats for consumers' health and safety, such as physical harms, like nausea or motion sickness caused by headsets or epileptic seizures due to AR/VR contents, or psychological harms such as induced vulnerabilities on consumers or state of cognitive absorption, which can constitute fertile ground for manipulative commercial practices more dangerous than the traditional forms that are currently used. In this regard, it is worth stressing that one of the primary goals of the European Union is to safeguard the interests of

1 ALSOP, T.: "AR/VR Market Size Worldwide 2021-2028 | Statista", *Statista*, 2022.

2 ALSOP, T.: "AR/VR Investment Worldwide by Use Case 2024 | Statista", *Statista*, 2022.

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consumers and to ensure a high level of consumer protection. Within that scope, the EU legislator must contribute to protecting the health, safety and economic interests of consumers, also promoting the consumers' right to 'information' and 'education'. This calls for an investigation of the existing consumer protection policies and a profound reflection on whether the EU Consumer Law continues to safeguard consumer's interests in light of developments in AR advertising.

This article aims to contribute to the better understanding of AR advertising as a new form of business-to-consumer commercial practice that may raise fairness concerns from the perspective of EU Consumer Law. First, the Author will offer a conceptual analysis of Virtual and Augmented Reality and Metaverse. Second, by drawing on the key insights from current economic theory, this article will explore the different functions through which advertising conveys information to consumers and persuade them to buy products and services. Then, it will investigate the peculiarities of AR-based advertising, exploring the technical aspects, the representational elements and potential impacts of this new commercial practice on consumers. Third, the article discusses the current EU legal framework applied to commercial practices, with a particular focus on the Directive 2005/29/CE (UCPD) concerning unfair business-to-consumer commercial practices in the internal market. Finally, expounding on the conceptual and meta-jurisprudential analysis, this article will consider the interpretive issue of how the Directive 2005/29/CE can address unfair AR advertising. It builds on existing provisions in EU Consumer Law and argues that the Directive 2005/29/CE can play a key role in tackling unlawful AR advertising.

The article will unfold as follows. Section II provides an exhaustive characterization of Augmented Reality, Virtual Reality and Metaverse. Section III explores the key features of AR advertising, investigating its impact on traditional advertising functions and potential risks for consumers. Section IV analyses the Directive 2005/29/CE, the key EU regulation for safeguarding informed and rational consumer decisions, focusing on the different benchmarks for assessing the impact of a commercial practice, namely the average consumer, the target group and the vulnerable benchmark. Finally, Section V integrates the partial findings of the previous sections – as well as the different methods of analysis – into an evolutionary interpretation of AR advertising under the Directive 2005/29/CE. Section VI draws two main conclusions: first, it suggests that the Directive 2005/29/CE is relatively future-proof, adapting well to the rise of the digital sector and developments of technology-based commercial practices. Secondly, it paves the way for a new field of research, leaving open the question of whether a stricter consumer benchmark should be required for protecting consumers targeted by commercial practices based on XR technologies.

II. VIRTUAL REALITY, AUGMENTED REALITY AND METAVERSE.

I. Virtual Reality.

When approaching “Virtual Reality” (VR), people may refer to something that has to do with an artificial world, usually generated by a computer software, where various sensory and imaginary experiences are fused and where the users can explore a reality not necessarily related to the physical world. Actually, “virtual reality” is a context-dependent term: its semantic meaning varies drastically across contexts of communications and often depends on the perspective through which it is analysed.

Depending on the technical and cultural background of the speaker, VR can be qualified both as a technology and as an experience. From a strictly technical perspective, typically favoured by engineers, VR is a software which recreates a computer rendered 3D environment that, through a synergistic combination of software and hardware devices, is intended to be immersive, interactive and simulate a user’s physical presence in that environment³. Basically, a VR specialized software creates a virtual environment (VE)⁴, which can be either a virtually recreated real environment or a non-existent environment (e.g., a virtual animated world in a video game)⁵. The user can connect to the VR platform and interact with the VE by providing input data through traditional input tools like keyboard or mouse, or cutting-edge tools such as wired gloves, VR keyboards, or bodysuits. In this vein, VR technology acts as an intermediary between the real environment and a VE, through which the users experience their presence in the VE and have the perception of being somewhere other than where they are (i.e. telepresence)⁶.

The two main technological properties of telepresence are vividness and interactivity⁷. Vividness refers to the ability of a technology to produce a sensorial rich mediated environment. Note that it does not refer to the ability to perfectly replicate real objects, such as the ability to reproduce a virtual car exactly like a real car; it refers to the ‘sensory richness’; namely the intensity with which a mediated environment is able to present information to the senses⁸. Consequently,

3 Steve Bryson, a pioneer of VR, defined it as ‘the use of computer technology to create the effect of an interactive three-dimensional world in which the objects have a sense of spatial presence’. BRYSON, S.: “Virtual Reality: A Definition History-A Personal Essay”, 2013.

4 RAUSCHNABEL, P.A., FELIX, R., HINSCH, C., SHAHAB, H., ALT, F.: “What is XR? Towards a framework for augmented and virtual reality”, *Computers in Human Behavior*, vol. 133, p.107289 ss.

5 STEUER, J.: “Defining Virtual Reality: Dimensions Determining Telepresence”, *Journal of Communication*, 1992, vol. 42, pp. 73-93.

6 RIVA, G., MORGANTI, F.: *Conoscenza, Comunicazione E Tecnologia: Aspetti Cognitivi Della Realtà Virtuale*, Led Edizioni Universitarie, Milano, 2006, p. 23.

7 STEUER, J.: “Defining Virtual Reality: Dimensions Determining Telepresence”, cit., p. 10.

8 FORTIN, D.R., DHOLAKIA, R.R.: “Interactivity and Vividness Effects on Social Presence and Involvement with a Web-Based Advertisement”, *Journal of Business Research*, 2005, vol. 58, pp. 387-396.

since VR is able to address multiple senses (i.e., being able to look around and having the sensation of moving and being able to fall), it offers a greater sensory richness to the users⁹ compared to simple digital environments represented in 2D resolution. Interactivity refers to the degree to which users can influence the form or content of the mediated environment (mouse versus a touch-screen as input device). The ability to produce scenarios, experiences and processes that closely resemble real life are what confers authenticity to a virtual experience: the more the VE is perceived as real, the more the user will feel 'immersed' in the VE. Vividness is often mistaken for interactivity. Actually, it differs on the capacity for two-way communication; in fact, certain pieces of communication can be highly vivid but non-interactive (e.g., television, magazine). Similarly, certain forms of communication can be highly interactive but also be low in vividness. Using the case of e-mail, the level of interactivity can fluctuate whether it is part of a one-on-one or newsgroup communication (i.e. a continuous public discussion about a particular topic).

Over the years, scholarship debated the distinction between immersion and presence¹⁰. Immersion refers to what is, in principle, a quantifiable description of a technology: it describes the extent to which the computer displays are capable of delivering an inclusive, extensive, surrounding and vivid illusion of reality to the senses of a human participant¹¹. In other words, immersion is an objective assessment related to what a certain technology "delivers" from an objective point of view: the more a system preserves fidelity in relation to their equivalent real-world sensory modalities, the more it will be "immersive".

On the contrary, presence refers to the human response to experiencing environments that such technology delivers. It is a state of consciousness, the (psychological) sense of being in the VE and behaviours therein should be consistent with behaviours that would have occurred in everyday reality in similar circumstances¹². To summarize, immersion is an objective assessment, based on technical parameters whereas presence is a psychological state. According to this meaning of presence, techno-philosophers argue¹³ that the key factor of VR lies right on the user's perception of the presence in the VE: when the perception of the VE comes close to the perception of the real world, the virtual experience

9 RIVA, G., MORGANTI, F.: *Conoscenza, Comunicazione E Tecnologia*, cit., p. 23.

10 Ibid 38.

11 SLATER M., WILBUR, S.: "A Framework for Immersive Virtual Environments (FIVE): Speculations on the Role of Presence in Virtual Environments", *Presence: Teleoperators and Virtual Environments*, 1997, vol. 6, pp. 603-616.

12 SLATER, M., LINAKIS, V., USOH, M., KOOPER, R.: "Immersion, Presence, and Performance in Virtual Environments: an Experiment with Tri-dimensional Chess", in *VRST '96: Proceedings of the ACM Symposium on Virtual Reality Software and Technology*, 1996, pp. 163-172.

13 Technophilosophy is the two-way interaction between technology and philosophy, where philosophy helps to come to grips with new questions about technology, and technology helps to shed light on ancient questions in philosophy.

inevitably creates an illusion in the eyes of the user and, at the same time, it provides something that appears vivid and convincing from a sensorial point of view. Even though the virtual experience is artificial, the feelings and emotions that it generates in users are real: users consider the environment specified by the displays as places visited rather than as images seen. This paradigm is what philosophers call 'the realism of simulation'¹⁴, whereby the simulation is so close to reality that there is no perceived difference between what is real and what is not.

VR can be either immersive or non-immersive. Immersive VR offers realistic simulation experience, with 3D vision and immersive sound. It is usually achieved through head-mounted displays (HMDs), which provide high resolution content with a wide field of view. The display typically splits between the user's eyes, creating a stereoscopic 3D effect, and relies on input tracking systems to establish a truly immersive experience: for example, when tilting the head, the virtual perspective adapts to this new position. Alternatively, a recorded or simulated VR scene can also be played on a standard display (desktop or laptop screens). Here, the viewing direction is changed manually via a mouse or keyboard or by rotating and tilting on smartphones or tablets and the user has not the perception of being in the VE. It is worth stressing that a given level of immersion of the VR cannot be taken as a useful benchmark for assessing the human reaction to a certain VE of the whole category of VR users. Stimuli achieved through VR systems (but even with other technologies that we will further explore in the following) have similar – but not identical – ramifications across an undefined range of perceivers. Therefore, given the same immersive system, different people may exhibit different levels of presence, and different immersive VRs may give rise to the same level of presence in different people. Thus, even in the same VE, its perception will vary across individuals¹⁵.

2. Augmented Reality.

One of the earliest definitions of augmented reality was formulated in 1962 by the engineer Ronald Azuma, credited with defining augmented reality and guiding its early developments. His conception of AR can be resumed as the technology, which "allows the user to see the real world, with virtual objects superimposed upon or composited with the real world"¹⁶. More specifically, a specialized AR software adds/ erases¹⁷ in real time digital objects to a real environment or any

14 See generally CHALMERS, D.J.: *Reality+: Virtual worlds and the problems of philosophy*, Penguin Books Ltd, 2022, pp. 1-544.

15 STEUER, J.: "Defining Virtual Reality: Dimensions Determining Telepresence", cit., p. 6.

16 AZUMA, R.T.: "A Survey of Augmented Reality", *Presence: Teleoperators and Virtual Environments (MIT press)*, 1997, vol. 6, num. 4, pp. 355-385.

17 Even if AR technology is being known as a technology that 'augments' reality, it also includes 'diminished reality', where contents, instead of being added to the real environment, are erased.

other indirect view of the real-world surroundings, such as live-video stream. Using smartphones (which are much more common today) or cutting-edge devices as special glasses¹⁸ the users can see the real world as it actually exists, but with digital images superimposed on the world, so that they seem to exist as part of the world.

Sometimes, the improper use of VR and AR terms creates confusion amongst the distinction of both of them. The key aspect of VR is presence: VR provides a simulated experience that is similar to (or completely different from) the real world, in which both the objects and the environment are virtualized. During this experience, the user has dabbled in an artificial environment and, while immersed, it is difficult for him or her to perceive the actual world how it really is.

At contrary, AR does not rely on the perception of 'being there': the user is not virtually bounced somewhere and does not feel his presence in the virtual surroundings. His perception of the real environment is simply modified: either augmented or diminished. In other words, AR systems supplement reality rather than completely replacing it, allowing users to sense a hybrid experience, which consists in seeing virtual objects superimposed on (or deleted from) the real world¹⁹.

3. Metaverse.

The term Metaverse was coined in 1992 by Neal Stephenson, author of the science fiction novel "Snow Crash", to describe a three-dimensional virtual world inhabited by avatars of real people. In October 2021, when Mark Zuckerberg, founder and CEO of Facebook Inc., announced his decision to rebrand the company with the name "Meta Platforms, Inc.", the concept of Metaverse has gradually become mainstream in the debate on the future evolution of technology²⁰.

Metaverse is an advanced technology that allows digital representations of people giving them the possibility to interact with each other, even with the medium of virtual and augmented reality systems, in a variety of settings: at work, in the office, while going to concerts or sports events, or even trying on clothes. Very often Metaverse is referred to as a unique three-dimensional space, but it is possible to create an indefinite number of digital spaces and, consequently, metaverses. For this reason, Metaverse, rather than a parallel world, should be labelled as a mere three-dimensional space, usually networked, that enhances the perceived immersion with character realness of the avatars, where its users can

¹⁸ For example, Google Glass by Google LLC or Microsoft HoloLens 2 by Microsoft Corporation.

¹⁹ AZUMA, R.T.: "A Survey of Augmented Reality", cit., p. 2.

²⁰ See the official announcement in <<https://about.fb.com/news/2021/10/facebook-company-is-now-meta/>> Accessed 30 November 2022.

freely interact with each other²¹. Indeed, metaverses or virtual spaces goes beyond sheer entertainment: they aim at the transposition of physical perception of people and objects into a virtual dimension and the creation of digital communities where users can interact and bargain with real money and real (virtual) counterparts²².

Actually, Metaverse is not entirely new: pioneering forms of deeply social digital spaces already existed in the 2000s, such as the popular game “Habbo Hotel”, an online community marked by pixelated avatars and items existing within an arcade-evoking isometric landscape. The platform supporting Habbo Hotel enables users to socialise in virtual hotels, with public rooms accessible to all and private rooms that can be tricked out with customised digital furniture. The interesting fact is that avatars can buy furniture items such as tables, paintings, chairs, and other objects paying through real money, and sell them to other avatars; so, transactions in metaverses already existed well before Zuckerberg’s Metaverse. Early social games such as Habbo Hotel paved the way to Metaverse for years but, as history teaches us, the advancement of technology relies heavily on the process of social acceptance through which a new technology is accepted by a community. Advanced forms of metaverses differ from their predecessors because most of them work through blockchain technology, making virtual spaces more functional and interactive due to the possibility for users to handle transactions more quickly and in complete autonomy, without going through any intermediary (e.g., bank circuits)²³.

Over the past year, big tech companies have started to invest in the Metaverse by implementing their own metaverses and developing AR/VR-based commercial practices²⁴. However, these three-dimensional virtual spaces are still in their infancy compared to traditional digital marketplaces and platforms, while XR marketing campaigns and, in particular, advertising, are achieving success in the digital market. For example, VR technology can be used to insert virtual content into a live or pre-recorded television show or to appeal more senses and sensory cues of consumers. Common VR ad formats are virtual billboards in sports

21 SHEN, B., TAN, W., GUO, J., ZHAO, L., QIN, P.: “How to Promote User Purchase in Metaverse? A Systematic Literature Review on Consumer Behavior Research and Virtual Commerce Application Design”, *Applied Sciences*, 2021, vol. 11, pp. 11087 ss.

22 US analyst Matthew Ball tried to identify the main characteristics of a metaverse to be functional : i) persistent, i.e. continuing indefinitely and without any pause; (ii) running in real time; (iii) no connection limitation; (iv) autonomous and independent economy where users can trade or buy goods and services v) an experience that unites the physical and virtual worlds with no distinction in terms of access or use; vi) total interoperability in terms of data and information entered and exchanged between users; vii) a space with infinite possibilities in terms of experiences to be had and content to be exploited. See BALL, M.: *The Metaverse: And How It Will Revolutionize Everything*, Liveright Publishing Corporation, 2022, pp. 1-352.

23 For a general overview, see PATE, R.L.: “Legal Issues Inside the Unnatural World of Metaverse”, *Business Law Review*, 2022, vol. 43, pp. 188-193.

24 IVERSEN, B., NADELLA, S., HOOD, A.: “Microsoft Fiscal Year 2021 Fourth Quarter Earnings Conference Call”, 21 July 2021; GIANG BARRERA, K.P., SHAH, D.: “Marketing in the Metaverse: Conceptual understanding, framework, and research agenda”, *Journal of Business Research*, vol. 155, 2023.

events: for example, if a user is watching a football game in Rome he will see an Italian sponsor, while another user watching the same match in the UK will see a local sponsor. AR technology can be used to enhance static advertising in newspapers and magazines or to make product packaging more interactive, allowing consumers to manipulate and play with the virtual objects around them. Common AR ad formats include apps that allow users to preview and try the products online (e.g., projecting furniture onto consumers' living room²⁵) and AR product packaging (e.g., QR codes printed on products that can be scanned to see digital augmentations appearing around the package²⁶).

III. AUGMENTED REALITY AND COMMERCIAL PRACTICES.

I. AR advertising.

Advertising at its core is primarily economic phenomenon, which has a significant impact on the market players and economic agents, affecting both traders and consumers. Traditionally, economists attribute to advertising three central and correlative functions: an informative function, a persuasive function and a complementary function²⁷. Advertising provides information to consumers about products, services and prices, allowing consumers to make reasoned choices about their purchases. At the same time, advertising is designed to induce consumers to buy products and services or, at least, to consider a product or service. Economists also attribute a complementary function to advertising, according to which instead of altering consumers' preferences or primarily conveying information, advertising is 'complementary' to the promoted product, namely it increases the value of the product or service perceived by consumers (e.g., consumers prefer to buy products that are well known for social prestige purposes²⁸).

Advertising has also been a key driver for the digital economy, since it has promoted many organisational and technological innovations, and it has permeated the digital environment, contributing to expanding access to information. In recent years, firms are developing new forms of advertising based on XR technologies and, in particular, AR technology, in order to optimize and maximize sales. The revenue in the European AR advertising B2C industry is estimated to increase to

25 For example, the Swedish company IKEA developed the "Ikea Place" app, through which the users can experience AR using the camera to place digital furniture around their places.

26 In 2019, The Jack Daniel's company launched a mobile app that use AR to turns the labels of the bottles into pop-up book style dioramas depicting the story of Jack Daniel and the process of making whiskey.

27 For an excellent discussion, see BAGWELL, K.: "The Economic Analysis of Advertising", in A.A. VV.: *Handbook of Industrial Organization* (M. ARMSTRONG and R.H. PORTER eds.), III, North-Holland, New York, 2007, pp. 1701–1844. From a philosophical perspective, see also SANTILLI, P.C.: "The Informative and Persuasive Functions of Advertising: A Moral Appraisal", *Journal of Business Ethics*, 1983, vol. 2, pp. 27-33.

28 BECKER, G.S., MURPHY, K.M.: "A Simple Theory of Advertising as a Good or Bad", *The Quarterly Journal of Economics*, 1993, vol. 108, pp. 941–964.

1.43 billion euros by 2027²⁹ and to 6.72 billion U.S. in the global market³⁰. Based on the current capabilities of AR technology and the existing cases of AR advertising, scholars have shown that it can have a significant impact on the traditional functions of advertising.

As hinted above, the informative function consists in providing information to consumers about products, services and prices, allowing consumers to make reasoned choices about their purchases. In this regard, we must introduce a central issue in market economy: the asymmetry information between traders and consumers. Most of the economic models used by economic theorists assumed that individuals, in their choices and actions, maximize their own preferences through utility functions and, conversely, firms maximize profits by selecting best or optimal strategies and actions³¹. To put it differently, economists assume that both individuals and companies are rational; rationality, in turn, is defined in terms of the rational choice theory. The availability of information is essential for evaluating individuals' decisions, given that it shapes the agents' decisions and defines the possibilities they must reach optimal outcomes given their preferences³². This leads to what legal scholars call 'information paradigm'³³, which suggests that when the trader fulfils his obligation to provide information to the consumer, the latter is sufficiently informed and therefore can make rational choices. In turn, the consumer's ability to rationally locate products gives firms an incentive to compete to improve their offerings, including prices. In order to prevent market failures, different jurisdictions turn to legal and regulatory interventions, one of which is the requirement to disclose information. Without such information, the incentive to compete on price and quality would be weakened, reducing consumer welfare³⁴ and, consequently, market efficiency would be affected as well. In contrast, some scholars argue that the availability of information is a necessary but not a sufficient condition to ensure that individuals act properly on it when making decisions, since individuals do not equally understand and evaluate the information available to them, due to the various circumstances in which the information may come or be accessible to them³⁵. Recent behavioural analyses when evaluating individuals' decisions have shown evidence of cognitive limitations and biases

29 ALSOP, T.: "Augmented reality (AR) advertising B2C market revenue in Europe from 2017 to 2027(in billion euros)", *Statista*, 2022.

30 ALSOP, T.: "Augmented reality (AR) advertising B2C market revenue worldwide from 2017 to 2027(in billion U.S. dollars)", *Statista*, 2022.

31 POSNER, R.: *Economic Analysis of Law*, Wolters Kluwer Law & Business, New York, 2014.

32 POMAR, G.F., ARTIGOT G., M.: "Rational choice and behavioural approaches to consumer issues" in AA. VV.: *Research Methods in Consumer Law* (H-W. MICKLITZ, A-L. SIBONY and F. ESPOSITO eds.), Edward Elgar Publishing, 2018, pp. 119-164.

33 REICH, N., MICKLITZ, H-W., ROTT, P., TONNER K.: *European Consumer Law*, Intersentia, 2014, pp. 21 ss.

34 BEALES, H., CRASWELL, R., SALOP, S.C.: "The Efficient Regulation of Consumer Information", *The Journal of Law and Economics*, 1981, vol. 24, pp. 491-539.

35 TRZASKOWSKI, J.: "Behavioural Innovations in Marketing Law", in AA. VV.: *Research Methods in Consumer Law a Handbook* (H-W. MICKLITZ, A-L. SIBONY and F. ESPOSITO eds.), Edward Elgar, 2018, pp. 296-333; INCARDONA,

revealed by humans when making decisions³⁶. Such limitations and biases may result in different evaluations of the information available by different agents, but also incorrect or harmful – for the agents themselves – assessments, which do not seem to correspond to the predictions of rational choice. Information asymmetry constitutes an obstacle in the correct functioning of the market, since incorrectly exchanged and perceived information distorts the consumer's ability to make efficient choices, laying the basis for the market decline or failure.

AR advertising can work as a source of information and amplify advertising's informative effect, making it more effective than traditional advertising. The increased vividness and interactivity of AR advertising allows consumers to more effectively gather information of products, since it can expand the amount of information available, make it clearer and, in a way, 'fun'. Indeed, an AR advert can give consumers the chance to show and experience the goods they want to buy before a purchase, enabling them to preview more complete and higher quality representations of items (e.g., 3D-digital recreation instead of a 2D picture) and interact with the item by picking it up, rotating it and exploring it in detail, rather than just seeing it on a screen³⁷. In this regard, recent research has demonstrated that consumers feel it is easier to understand and predict the performance of a product when they have an AR experience while shopping³⁸. Accordingly, AR advertising can increase the likelihood that a consumer will pay attention not only to the information provided by traders concerning a certain product or service, but also to the contractual rights and obligations between consumer and trader, thus having all the necessary information to be able to make efficient choices.

The persuasive function of advertising consists in inducing consumers to buy products and services. In this vein, advertising is designed to influence consumer purchasing practices, and influential persuasion is often necessary for firms that act under profit-maximization objective³⁹. Such commercial practice encourages consumers to, at the very least, consider a particular product or service. In philosophy, it is a habit to distinguish between the concepts of persuasion and manipulation. Without going into details about the current debates in literature, for the purposes of this contribution, we just need to outline that – conceptually – persuasion is a form of influence that, as for manipulation, is aimed to alter beliefs, values, attitudes and actions of others but, unlike manipulation, a certain degree of

R., PONCIBO, C.: "The Average Consumer, the Unfair Commercial Practices Directive, and the Cognitive Revolution", *Journal of Consumer Policy Issue*, 2007, vol. 30, pp. 21-38.

36 TRZASKOWSKI, J.: "Behavioural Innovations in Marketing Law", cit., p. 309.

37 Ibid 6.

38 HILKEN, T., HELLER, J., CHYLINSKI, M., et al.: "Making omnichannel an augmented reality: the current and future state of the art", *Journal of Research in Interactive Marketing*, 2018, vol. 12, pp. 509-523; YIM, M.Y.-C., CHU, S.C., SAUER, P.L.: "Is augmented reality technology an effective tool for e-commerce? An interactivity and vividness perspective", *Journal of Interactive Marketing*, 2017, vol. 39, pp. 89-103.

39 O'SHAUGHNESSY, J., O'SHAUGHNESSY, N.: *Persuasion in Advertising*, Routledge, London, 2003, pp. 1-232.

autonomy is maintained by readers or listeners, that is, a sufficiently independent formation of preferences, and the possibility to critically and rationally review these preferences. When the autonomy in the choice is interfered and it becomes, at least, sufficient impaired, the influence shall be regarded as manipulative⁴⁰. Manipulation is regarded to 'bypass' the target's rational deliberation⁴¹, where 'bypass' means exploiting psychological mechanisms or techniques that can generate behaviour without any input from rational deliberation. From this perspective, manipulation differs from rational persuasion since it influences behaviour by means that do not engage the target's rational capacities⁴². For our purpose, we then consider persuasion as a form of influence, which the target is still rationale and manipulation as a form of influence that significantly impairs rational consumer decision making.

AR technology, due to its inherent properties such as vividness and interactivity, has the potential to affect consumers' internal states by generating changes in the means and processes through which a consumer understands and acquires knowledge about a product or service⁴³, and this can have a positive impact on the persuasive function of advertising. Several studies have shown that consumers react positively to AR-based content⁴⁴: for instance, interactive high-quality graphics of products helps consumers to mentally envision anticipatory experiences with products, reducing uncertainty or negative impressions about them and enhancing consumer confidence in the decision-making process, thereby increasing consumer purchase intention⁴⁵.

2. Risks of AR advertising worthy of legal intervention.

The increasing availability of data and technological advances have enabled online traders to refine a wide variety of practices that rely on the possibility of tracking and profiling consumer activities, obtaining valuable insights on which websites consumers like to visit, which products they look for online and with what frequency or means, and insights in relation to socio-demographic data (such as age, gender, financial situation) as well as personal or psychological characteristics (personal interests, preferences, psychological profile, mood). Although AR

40 WOOD, A.W.: "Coercion, Manipulation, Exploitation", in AA. Vv.: *Manipulation: Theory and Practice* (C. COONS, M. WEBER eds.), Oxford University Press, Oxford, 2014, pp. 17-50.

41 See generally NOGGLE, R.: "The Ethics of Manipulation", *Stanford Encyclopaedia of Philosophy*, 2018.

42 WOOD, A.W.: "Coercion, Manipulation, Exploitation", cit., 35.

43 KIM, J.-H., KIM, M., PARK, M., YOO, J.: "How interactivity and vividness influence consumer virtual reality shopping experience: the mediating role of telepresence", *Journal of Research in Interactive Marketing*, 2021, vol. 15, pp. 502-525.

44 JAVORNIK, A.: "Augmented reality: Research agenda for studying the impact of its media characteristics on consumer behaviour", *Journal of Retailing and Consumer Services*, 2016, vol. 30, 252-261; JUNG, T., CHUNG, N., LEUE, M.C.: "The determinants of recommendations to use augmented reality technologies: The case of a Korean theme park", *Tourism Management*, 2015, vol. 49, pp. 75-86.

45 M.Y.-C., CHU, S.C., SAUER, P.L.: "Is augmented reality technology an effective tool for ecommerce?", cit., pp. 91 ss.

technology applied to digital advertising can, on the one hand, contribute to market efficiency by enhancing the traditional roles of advertising, it can also distort consumers' economic choices and thus lead to market failure for two reasons. First, AR technology applied to advertising can induce vulnerability on consumers. To illustrate, giving consumers a certain extent of immersion and interactivity, such as the freedom to walk around in an environment or the opportunity to try a garment without physically going to the shop instead of seeing experiences on a screen, may make consumer emotions more powerful or induce emotions on users that there no existed before, which may make vulnerable a consumer who wasn't or exacerbate vulnerability in consumers who were vulnerable. Furthermore, the effects of AR technology can lead the consumer to the so-called 'cognitive absorption' status (i.e., a state of deep involvement with software that leads individuals to such intense concentration that they ignore everything else⁴⁶). Accordingly, traders can use AR technology to make dangerous products seem playful and fun or alter a consumer's perception of reality, changing what products they want to purchase.

Secondly, AR technology can be used by traders to develop hyper-personalised adverts, where ads are not targeted to groups of consumers who share a characteristic (for example, all females who live in Paris), but adverts are tailor-made and customized for individuals so that no two people see the same content⁴⁷. For example, a person who really likes dogs might be shown an advert for a product with a virtual fictional dog as a spokesperson for the product. A different person who dislikes dogs and prefers cats would be shown the same advert, but with a fictitious cat as a spokesperson for that product.

Induced vulnerability, combined to the vast data collection capabilities of XR devices and the rise of other advanced technologies such as deep fake systems⁴⁸, poses the risk that consumers may be targeted when they are emotionally vulnerable or especially susceptible to a certain product. For example, an AR advert can simulate individuals who have significant emotional sway over a consumer (such as trusted figure, or a figure the consumer has affection for). The exploitation of such emotions may override a consumer's ability to rationally evaluate the ad and bias consumer's evaluation of the product, interfering with their buying intention when making an economic choice, beside involving new privacy risks for consumers, which may be leveraged for advertising, through which firms could

46 AGARWAL, R., KARAHANNA, E.: "Time Flies When You're Having Fun: Cognitive Absorption and Beliefs About Information Technology Usage" *MIS Quarterly*, 2000, vol. 24, pp. 673 ss.

47 MHAIDLI, A.H., FLORIAN, S.: "Identifying Manipulative Advertising Techniques in XR Through Scenario Construction" in *Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems*, pp. 1–18.

48 Deepfake systems are broadly regarded as technologies used to superimpose face images of a target person onto a video of a source person to make a video of the target person doing or saying things the source person does. For example, they can simulate and make realistic something which is unreal, such as celebrities making statements they haven't made.

know sensitive information about consumers that renders them susceptible to certain advertisements, such as inferring consumer's emotional state to evaluate when they are emotionally vulnerable⁴⁹.

Under the EU legal framework, advertising and any other commercial practice designed to impair consumers' ability to make rational choices is prohibited. In traditional digital markets there are several forms of unfair commercial practices that exploit technology to impair consumers' rational choice, as, for example, Dark Patterns, namely online user interfaces or a part thereof designed in such a way that subvert or impair the autonomy of recipients' decision-making⁵⁰; Nudges, that are aspects of platform architecture specifically designed to encourage recipients to take economic choices without constraining them; Sludges, a means to steer the recipients away from certain choices⁵¹. A key issue that emerged in literature is the identification of their manipulative nature, since such practices often operate in a blurred area between legitimate persuasion attempts, which are supposed to inform the consumer and induce them to take a certain decision without radically changing their preferences, and illegitimate manipulation techniques, that leverage biases and personal data to influence consumer behaviour.

As announced in the New Consumer Agenda⁵², in December 2021 the European Commission (EC) published a Commission Notice on the interpretation and application of the Directive 2005/29/CE (UCPD Guidance) providing legal interpretation on, for instance, obligations of online platforms and marketplaces, influencer marketing, consumer reviews, data-driven personalisation and dark patterns⁵³. Curiously, the UCPD Guidance did not make any reference to XR technologies, virtual environments or these technologies applied to commercial practices. Despite several EU legislative acts address traditional forms of digital unfair practices⁵⁴, the EU legal framework does not provide for a proper regulation

49 HELBERGER, N., SAX, M., STRYCHARZ, J., MICKLITZ, H-W: "Choice Architectures in the Digital Economy: Towards a New Understanding of Digital Vulnerability" *Journal of Consumer Policy*, 2022, vol. 45, pp. 197 ss.

50 See generally LEISER, M.R., CARUANA, M.: "Dark Patterns: Light to be found in Europe's Consumer Protection Regime" *Journal of European Consumer and Market Law*, 2021, vol. 10, pp. 237-251.

51 See generally MILLS, S.: "Nudge/sludge symmetry: On the relationship between nudge and sludge and the resulting ontological, normative and transparency implications", *Behavioural Public Policy*, 2020, pp. 1-24.

52 On 13 November 2020 the EC adopted the New Consumer Agenda, an overall strategic framework of the EU consumer policy, which aims to face the new challenges to consumer rights brought about by the green and digital transitions, the COVID pandemic and the plans for post-COVID recovery. It also focuses on the effective enforcement in ensuring consumer rights in the globalisation era and international cooperation.

53 Guidance on the interpretation and application of Directive 2005/29/EC of the European Parliament and of the Council concerning unfair business-to-consumer commercial practices in the internal market

54 Directive 2005/29/EC of the European Parliament and of the Council of 11 May 2005 concerning unfair business-to-consumer commercial practices in the internal market and amending Council Directive 84/450/EEC, Directives 97/7/EC, 98/27/EC and 2002/65/EC of the European Parliament and of the Council and Regulation (EC) No 2006/2004 of the European Parliament and of the Council (Unfair Commercial Practices Directive); Directive 2011/83/EU of the European Parliament and of the Council of 25 October 2011 on consumer rights, amending Council Directive 93/13/EEC and Directive 1999/44/EC of the European Parliament and of the Council and repealing Council Directive 85/577/EEC and Directive 97/7/EC of the European Parliament and of the Council (Consumer Rights Directive); Council Directive 93/13/EEC of 5

for unfair AR advertising. This lack of regulation calls for an investigation of the existing consumer protection policies and a profound reflection on whether the EU Consumer Law continues to safeguard consumer's interests.

IV. LEGAL FRAMEWORK: DIRECTIVE 2005/29/CE.

I. Directive 2005/29/CE .

Traders can use AR technology to develop misleading or aggressive commercial practices, resulting in information asymmetries or unequal bargaining power. In the EU legislative framework, unfair commercial practices that occur before, during and after a business-to-consumer transaction are mainly addressed by the Directive 2005/29/EC of the European Parliament of the Council of 11 May 2005⁵⁵, also called Unfair Commercial Practices Directive (UCPD), recently amended by Directive (EU) 2019/2161⁵⁶. The Directive provides for a maximum level of harmonisation of the rules contained therein establishing a regulatory framework where Member States may not adopt stricter rules than those provided for in the Directive, in order to achieve a higher level of consumer protection⁵⁷. The rationale under the full harmonisation lies in the fact that differentiated regulations among Member States can generate appreciable distortions of competition and obstacles to the smooth functioning of the internal market for two reasons. On the one hand, these disparities cause consumer's uncertainty about their rights, undermining their confidence in the internal market and harming consumers' economic interests. On the other hand, such barriers cause uncertainty about which national rules apply to unfair commercial, which increases the cost for businesses to exercise the freedoms of the internal market, creating many barriers that affect consumers and businesses; in particular, when the latter wish to engage in cross-border marketing, advertising campaigns and sales promotions. Hence, full-harmonisation of legislations on unfair commercial practices is essential to prevent market failures.

In order to include the widest number of practices potentially harmful to consumers, the EU legislator adopted a broad definition of 'commercial

April 1993 on unfair terms in consumer contract (Unfair Commercial Terms Directive); Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation).

55 Directive 2005/29/EC.

56 Directive (EU) 2019/2161 of the European Parliament and of the Council of 27 November 2019 amending Council Directive 93/13/EEC and Directives 98/6/EC, 2005/29/EC and 2011/83/EU of the European Parliament and of the Council as regards the better enforcement and modernisation of Union consumer protection rules.

57 WEATHERILL, S., BERNITZ, U.: *The Regulation of Unfair Commercial Practices under EC Directive 2005/29*, Hart Publishing, 2007, pp. 13 ss.

practice' i.e., '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'⁵⁸. The Directive does not address commercial practices carried out primarily for other purposes, including commercial communication aimed to investors (such as annual reports or corporate promotional literature) and business-to-business commercial practices, the latter regulated by the Directive 2006/114/EC concerning misleading and comparative advertising⁵⁹, which seeks to protect traders from other firms.

Article 5 (2) and Articles 6-9 UCPD set out the specific criteria for the assessment of the unfairness of a commercial practice. The UCPD presents a pyramid structure (or, according to another widespread figure, concentric circles structure⁶⁰), which includes a general clause of prohibition of unfair practices⁶¹ (Article 5 (2) UCPD), two main categories of unfair practices (respectively, misleading – Articles 6 and 7, and aggressive – Articles 8 and 9) and a list of practices that are considered unfair in all circumstances (Annex I, also called blacklist)⁶². The UCPD does not specify the logic proceeding that national courts should follow to assess the unfairness of a commercial practice. Despite the debates among legal scholars⁶³, the Court of Justice of the European Union (CJEU) clarified that the standard of professional diligence set out in Article 5 (2) UCPD must be considered as a fundamental rule, whereas the specific categories of misleading and aggressive commercial practices are specific applications of the general principle⁶⁴. When a commercial practice satisfies the criteria of the UCPD for being categorised as misleading or aggressive, there is no need to examine whether such practice is also contrary to the requirements of professional diligence. Therefore, in line with the CJEU's interpretation, the general clause of Article 5 (2) represents a residual criterion applicable only when there is no codified practice.

58 Art. 2(d) UCPD.

59 Directive 2006/114/EC of the European Parliament and of the Council of 12 December 2006 concerning misleading and comparative advertising.

60 LIBERTINI, M.: "Clausola generale e disposizioni particolari nella disciplina delle pratiche commerciali scorrette", *Contratto e Impresa*, 2009, I, p. 94.

61 Art. 5 UCPD, para 1.

62 Annex I UCPD.

63 MICKLITZ, H-W.: "The General Clause of Unfair Practices" in AA. Vv.: *European Fair Trading Law: The Unfair Commercial Practices Directive* (G. HOWELLS, H-W. MICKLITZ and T. WILHELMSSON eds.), Routledge, London & New York, 2016, pp. 119 ss.; SICILIANI, P., GAMPER, H.: "Should a Finding of 'Material Distortion' under Art 6 Para 1 UCPD Raise an Unrebuttable Presumption of Breach of the Duty of Professional Diligence?" *Journal of European Consumer and Market Law*, 2013, vol. 4, 225-229; DE CRISTOFARO, G.: "Il divieto di pratiche commerciali sleali. La nozione generale di pratica commerciale 'sleale' e i parametri di valutazione della 'slealtà'" in AA. Vv.: *Le Pratiche Commerciali Sleali tra Imprese e Consumatori: la Direttiva 2005/29/CE e il Diritto Italiano* (E. BARGELLI and G. DE CRISTOFARO eds.), Giappichelli, Torino, 2007, pp. 109 ss.

64 Case C-435/11, *CHS Tour Services GmbH v Team4 Travel GmbH*, 19 September 2013, ECLI:EU:C:2013:574, para 42.

According to Article 5 (2) UCPD, a commercial practice is unfair a) when it is contrary to the requirements of professional diligence and b) when it distorts or it is likely to materially distort the economic behaviour 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 to a particular group of consumers. Article 2 (h) UCPD states that 'professional diligence' is 'the standard of special skill and care which a trader may reasonably be expected to exercise towards consumers, commensurate with honest market practice and/or the general principle of good faith in the trader's field of activity'. Since Article 5 (2) refers to a standard of special skill and care which a trader 'may reasonably be expected to exercise towards consumers', the adherence of trader's conduct to the standard of professional diligence must be assessed on a case-by-case basis, taking into account the peculiarities of the concrete case. The parameters that must be used to evaluate whether these reasonable expectations are being met are the 'honest market practices' in use in the trader's sector of operations and the 'general principle of good faith'. Accordingly, the requirements of professional diligence do not end with 'the honest market practices' or 'the general principle of good faith', which represent instead the parameters to be used to evaluate the level of special skill and care that may be legitimately expected of the trader in his business practices⁶⁵. When this level is not reached, the practice shall be qualified as contrary to the requirements of professional diligence.

In order to be regarded as unfair, a commercial practice must also cause the material distortion of the economic behaviour of the average consumer or of the average member of the group when the default setting is directed to a particular group of consumers. According to Article 2(e) UCPD, a practice materially distorts the economic behaviour of consumers when it is used to significantly impair the consumer's ability to make an informed decision, thus causing the consumer to take a transactional decision that he/she would not have made otherwise.

Article 5 (4) states that commercial practices shall be unfair which are misleading (by action or by omission) as set out in Articles 6 and 7, or aggressive as set out in Articles 8-9. Actions are the activities traders carry out in the promotion and sales of their products. A commercial practice by action is misleading when contains false information or gives an overall impression that deceives, or is likely to deceive, the average consumer (even if the information is factually correct) and causes or is likely to cause him to take a transactional decision that he would have otherwise not taken. False information must relate to certain matters set out in Art. 6(2) UCPD which includes product's essential element such as the price and quality of goods or services. According to Article 7, a practice is also misleading if the material information needed to take an informed purchasing decision is omitted or

⁶⁵ DE CRISTOFARO, G.: "Il divieto di pratiche commerciali sleali", cit., p. 119.

provided in an unclear, unintelligible, ambiguous or untimely manner. The rationale under article 7 is based on the aforementioned information paradigm, according to which the increasing amount of information and establishing full transparency help consumers to make rational choices. As a result, UCPD provides a general list of information that should be regarded as material, such as the price and main characteristics of the product, - also complemented by other Directives such as Consumer Rights Directive, which imposes further information requirements (for example, for distance and off-premises contracts).

According to Article 8(1) a practice is aggressive if, as a result of harassment, coercion or undue influence occurred at the marketing stage - but also during or after a transaction has taken place - it significantly impairs the average consumer's freedom of choice and causes them to take a purchasing decision they would not have taken otherwise. As clarified by the Court of Justice (CJEU)⁶⁶, Article 8 must be interpreted taking into account certain factors (specifically listed in Article 9) when determining whether an unfair aggressive practice has occurred. Finally, the commercial practices included in Annex I of UCPD are those that shall be – in any case – regarded as unfair and shall be punished without having to apply a case-by-case test. This list has been drawn up to enable enforcers, traders and consumers to identify certain practices and give them a more immediate enforcement response, leading to greater legal certainty.

A) The average consumer benchmark

UCPD leaves Member States the right to choose the appropriate authorities (courts or administrative authorities) to whom enforcement powers are granted (ordering the cessation of unfair commercial practices, taking appropriate legal proceedings against them, etc.). For example, in Italy, the Italian Competition Authority (AGCM) has wide latitude to take action against practices that it deems misleading or deceptive. When a court or an administrative authority is required to assess the fairness of a commercial practice, it needs to determine which benchmark for consumers should be applied. According to Article 5(2) UCPD, commercial practices must be assessed from the perspective of the 'average consumer', who is a person 'reasonably well informed and reasonably observant and circumspect'⁶⁷. This notion was developed by the CJEU prior to the UCPD, and its origins can be traced in the free movements of goods case law. The notion of the average consumer has been used by the CJEU to tackle over-protective national laws related to unfair commercial practices and, in particular, against Germany, where it was common practice to assess commercial practices from the

⁶⁶ Case C-628/17, *Prezes Urzedu Ochrony Konkurencji i Konsumentów v. Orange Polska S.A.*, 12 June 2019, EU:C:2019:480.

⁶⁷ Recital 18 of the Preamble to the Directive.

point of view of a superficially observing and generally uncritical consumer⁶⁸. In *Gut Springenheide*⁶⁹, the CJEU ruled that when assessing the legality of a commercial practice, national court must consider the presumed expectations of a consumer which is assumed to be 'reasonably well informed and reasonably observant and circumspect. However, the CJEU also stressed that the average consumer test is not a statistical test: this means that national authorities and courts should be able to use, if necessary, empirical evidence to determine whether a practice is liable to mislead the average consumer. In later cases, the CJEU emphasised that social, cultural and linguistic factors can be taken into account in the application of the average consumer benchmark⁷⁰.

B) The target group and the vulnerable consumer benchmarks

Besides the 'average consumer' test, the UCPD provides for two further benchmarks: the 'target group' and the 'vulnerable consumer', respectively. As follow from the text of Art. 5(2) UCPD, when commercial practices are aimed at certain groups of consumers (who, for example, are less than averagely informed, observant or circumspect), the average member of that group is the benchmark. Legal scholars argue that the demarcation between the average consumer benchmark and the target group benchmark is not clear, since even the average consumer is determined on the basis of who is reached by the practice or to whom the practice is directed⁷¹. In this regard, the EC Guidance for the interpretation of UCPD clarified that in order to isolate a 'particular group of consumers', the group should be sufficiently identifiable, limited in scope and homogeneous. For instance, this could be the case when a commercial practice concerns the promotion of a specific product, through marketing channels specifically addressed to a limited group of recipients, such as a particular profession. In this case, the average member of that particular group may have more specific knowledge or characteristics that an average consumer would not necessarily have. If a particular group cannot be identified, then the assessment should focus on the general average consumer benchmark.

Art. 5(3) UCPD provides for the notion of the vulnerable group of consumers, i.e. 'a clearly identifiable group of consumers who are particularly vulnerable to the practice or the underlying product because of their mental or physical infirmity, age or credulity'. The recognition of such vulnerable consumers is based on the

⁶⁸ See generally DUIVENVOORDE, B.B.: *The Consumer Benchmarks in the Unfair Commercial Practices Directive*, Springer, 2015; MAK, V.: "Standards of Protection: In Search of the 'Average Consumer' of EU Law in the Proposal for a Consumer Rights Directive", *European Review of Private Law*, 2011, vol. 19, pp. 25- 42.

⁶⁹ Case C-210/96, *Gut Springheide GmbH v. Oberkreisdirektor des Kreises Steinfurt*. ECLI:EU:C: 1998:369.

⁷⁰ Case C-220/98, *Estee Lauder Cosmetics GmbH & Co. OHG v. Lancaster Group GmbH*, ECLI:EU:C:2000:8, para 28.

⁷¹ DUIVENVOORDE, B.B.: *The Consumer Benchmarks in the Unfair Commercial Practices Directive*, cit., p. 23.

idea that they should be ensured a higher level of protection than 'the average consumer' referred to in Article 5(2), by virtue of their particular conditions which make them most in need of protection. Consequently, when commercial practices are addressed to a vulnerable group, the unfairness of the practice shall be assessed from the perspective of the average member of that group, provided that this vulnerability is foreseeable by the trader.

Part of consumer law literature strongly criticizes this approach of identifying particular groups of vulnerable users as unnecessarily stigmatizing and far away from social reality. They argue that vulnerability should not be considered as a distinctive character of particular weaker individuals and groups, based on specific situations or socio-economic contexts⁷², but rather suggest a reformulation of the understanding of vulnerability as a universal human condition to which anyone may be exposed at any given moment and subject to changes due to different periods and also in spaces⁷³. According to this universal understanding of vulnerability, vulnerable consumers would not be the exception but the rule and this is essentially the opposite approach adopted by the UCPD.

V. UNFAIR AR ADVERTISING UNDER UCPD: AN EXERCISE IN LEGAL FUTUROLOGY⁷⁴.

I. AR advertising as unfair commercial practice.

As explored in the previous sections, AR advertising is not simply a more appealing form of digital advertising, but instead a complex technological evolution that is at the same time opaque for consumers. This requires a thorough investigation on whether the existing EU legislative framework continues to meet these challenges or these risks may prompt future legislative and regulatory action. In this section, I will make a 'futures exercise', trying to investigate how UCPD can address unfair AR advertising. Before presenting the further discussion, it should be stressed that the application of the UCPD rules to AR advertising remains mostly untested by national courts and the CJEU. Thus, further argumentation as to how the UCPD's rules apply to this relatively new practice are purely speculative.

In line with the interpretative logic of the UCPD proposed by the CJEU⁷⁵, as first step, national courts are asked to verify whether the AR advert in question

72 MALGIERI, G., NIKLAS, J.: "Vulnerable Data Subjects", *Computer Law and Security Review*, 2020, vol. 37, p. 3.

73 FINEMAN, M.A.: "Equality, Autonomy and the Vulnerable Subject in Law and Politics," in A.A. Vv.: *Vulnerability. Reflections on a New Ethical Foundation for Law and Politics*, Farnham: Ashgate (M.A. FINEMAN and A. GREAR eds.), 2013, pp. 17 ss.

74 GIANNINI, M.S.: "Futurologia e diritto" in *Scritti. 1970-1976*, Giuffrè, Milano, 1996, pp. 295 ss.

75 See Section IV.I.

falls within one of the unfair practices listed in Annex I. If the test is successful, the practice is unfair without the possibility of a different or contrary assessment, regardless of the concrete impact of the practice on consumer economic behaviour or the trader's compliance with the professional diligence requirements of Article 5(2) UCPD.

Secondly, if the practice does not meet the requirements to be listed in Annex I, national courts should examine whether it constitutes a form of deceptive or aggressive practice. Similarly, even in that case the practice shall be qualified as unfair, regardless of whether the practice lends itself to being regarded as 'unfair' within the meaning of the general test of Article 5 (2) UCPD, and also regardless of whether the trader contravenes or complies with the requirements of professional diligence. AR advertising may constitute a misleading practice when the trader fails to disclose mandatory information or does so in an unclear, unintelligible, ambiguous or untimely way. This could happen if the trader fails to provide information on the use of AR technology to improve product qualities or characteristics. Although current AR and VR graphics are not so much photorealistic, it's most likely that over time the sophistication of software and devices will lead to more photorealistic graphics, and this may lead consumers to have difficulty discerning if something they see is an ad or if it is part of reality. For instance, if an AR application overlays a digital object such as a sandwich or a beer can on a user's field of vision and the ad the graphics is realistic enough, the consumer may not know if that sandwich or can are real or not.

AR advertising may also constitute an aggressive practice by 'undue influence' under Article 8 UCPD when it exploits the vulnerabilities of consumers. According to Article 8, a commercial practice is aggressive when it significantly impairs or it is likely to significantly impair the average consumer's freedom of choice or conduct 'by harassment, coercion, including the use of physical force, or undue influence'. Article 2 (J) further clarifies the interpretation of 'undue influence', which must be regarded as the exploitation of a 'position of power in relation to the consumer so as to apply pressure, even without using or threatening to use physical force, in a way which significantly limits the consumer's ability to make an informed decision'. In *Orange Polska* judgment⁷⁶ the CJEU had the opportunity to concretise the requirements to qualify commercial practices as aggressive through the exercise of undue influence⁷⁷ and this case is certainly relevant for the purpose of the recognition of illicit nature of AR advertising which exploits consumer vulnerabilities. On the facts, the CJEU held that an 'undue influence' 'undue influence' requires a form of influence that 'put pressure on the consumer such that his freedom of

⁷⁶ C-628/17, *Orange Polska*.

⁷⁷ On the CJEU's interpretation on meaning of aggressive practices and undue influence under UCPD see Case C-54/17, *Autorità Garante della Concorrenza e del Mercato v. Wind Tre SpA*, 13 September 2018, ECLI:EU:C:2018:710.

choice is significantly impaired, such as conduct that makes that consumer feel uncomfortable or confuses his thinking concerning the transactional decision to be taken⁷⁸. Therefore, an 'undue influence' is not necessarily 'impermissible influence' but influence which, without prejudice to its lawfulness, actively entails, through the application of a certain degree of pressure, the forced conditioning of the consumer's will⁷⁹. Accordingly, an AR advert constitutes an aggressive commercial practice when the consumer feel uncomfortable and confuse his thinking in relation to the transactional decision at hand⁸⁰. Thus, the use of AR technology that lead to the targeting of cognitive bias or emotional weakness may constitute an undue influence when the effect is so significant as to confuse the consumer.

Finally, only when the practice does not fall under the above hypotheses, will it be possible (and necessary) to resort to the general clause of Article 5 (2) UCPD, which allows the prohibition of unfair practices that would otherwise not be prohibited.

According to Article 5 (2) UCPD, a commercial practice is unfair only when it meets the following two cumulative criteria: a) it is contrary to the requirement of professional diligence and b) it distorts or is likely to materially distort the economic behaviour of the average consumer or of the average member of the group when the default setting is directed to a particular group of consumers. Legal doctrine argued that the twofold test provided in Article 5(2) may seem, at first glance, an extremely broad test⁸¹. As hinted in Section III, one of the main functions of commercial practices (and, in particular, advertising) is to influence consumer choice, since it would be against the widely shared normative intuition to even consider prohibiting many practices that are known to influence choice (such as cleverly designing the way in which options are displayed in a store or on a menu⁸²). In this regard, it is worth stressing that not every commercial practice deliberately aimed to influence and persuade consumer behaviour is illegal per se, since not every form of influence is forbidden. Furthermore, not every exploitation of consumers' irrationality violates the UCPD (for instance, the exaggeration of the quality of a product is mostly considered fair play in advertising). Thus, proving that an AR advert materially (or is likely to) distorts the average consumer economic behaviour is no simple matter and needs to be sought in the effects

78 C-628/17, *Orange Polska*, para 47.

79 *Ibid* para 33.

80 However, such interpretation of the decision faces certain objections in case the traders are not deliberative trying to manipulate the consumer, but they are just trying to persuade him/her. Indeed, according to Article 9(c) UCPD, a situation-specific impairment of the consumer's decision-making capacities must be taken into account if the trader is 'aware', and not 'should have been aware'. See HACKER, P.: "Manipulation by algorithms. Exploring the triangle of unfair commercial practice, data protection, and privacy law", *European Law Journal*, 2021, pp. 1-34.

81 SIBONY, A-L.: "Can EU Consumer Law Benefit from Behavioural Insights? An Analysis of the Unfair Practices Directive", *European Journal of Private Law*, 2014, vol. 6, pp. 901-941.

82 *Ibid* 909.

of AR technology on consumers. As explored in Section III.I., AR advertising can expand the amount of information available, make it clearer and increase the likelihood that a consumer will pay attention to the information provided by traders, making consumers more aware about of the products' characteristics and their contractual rights. However, AR technology has the potential to affect consumer behaviour such as the searching for, purchasing, using and disposing of products and services in several ways and, in particular, it has the potential to amplify or generate previously absent feelings and emotions in consumers, making them subject to some kind of manipulation by traders. Proving that an AR advert is likely to materially distort the economic behaviour of the average consumer whom it reaches or to whom it is addressed is not easy, since the same AR advert may simultaneously show different content to an indefinite range of consumers who may evaluate the same product or service differently⁸³.

Since its adoption, the average consumer benchmark has raised criticism in academic literature. The prevailing assumption in Consumer Law is that consumers act rationally when they have the necessary information. The importance of information for the functioning of efficient markets has been broadly discussed in the previous sections. Information about price, quality and other product's attributes allows buyers to make the most of their budget by finding the product whose mix of price and quality they prefer. However, as it has been observed by the critical doctrine⁸⁴, empirical evidence has shown that individual consumers may not always be at all observant and circumspect or may not be so in a particular situation⁸⁵. They argue that the purely normative approach adopted at EU level seems to fail to consider behavioural insights of the consumer-decision making process, which is mistakenly considered to be always reasonably aware and circumspect⁸⁶. According to this standpoint, the expected awareness of the average consumer is unrealistically high because consumers do not always have the time and resources at their disposal to acquire and process sufficient information for rational decision-making. Even well-informed consumers of a high intellectual and educational level, who would be – at least in theory – ideally suited for rational market behaviour, may often base their decisions on custom and feelings rather than on an analytical process⁸⁷. In this context, since AR advertising is specifically targeted to individual consumers and not to groups of consumers, the average

83 See Section III.

84 SIBONY, A.-L.: "Can EU Consumer Law Benefit from Behavioural Insights? An Analysis of the Unfair Practices Directive", cit.; INCARDONA, R., PONCIBÒ, C.: "The Average Consumer, the Unfair Commercial Practices Directive, and the Cognitive Revolution", cit.

85 Case C-470/93, *Verein gegen Unwesen in Handel und Gewerbe Köln e.V. v Mars GmbH*, 6 July 1995, ECLI:EU:C:1995:224.

86 INCARDONA, R., PONCIBÒ, C.: "The Average Consumer, the Unfair Commercial Practices Directive, and the Cognitive Revolution", cit., p. 23.

87 Ibid 35.

consumer benchmark seems inadequate to evaluate the fairness of AR advertising, which hints at the need of replacing or complementing it with a more suiting one.

The CJEU has so far only opened itself to behaviourally informed assumptions to a limited extent. While not deviating from its rationalistic standard, in its more recent case law the CJEU has shown an increasing openness to receive behavioural insights on the interpretation of the average consumer. In *Teekanne* judgement⁸⁸, the Court was asked to rule on whether a consumer could be misled by the labelling about the ingredients in a product, even though the list of ingredients was accurate (the case concerned the interpretation of the Directive 2000/13 on labelling, presentation and advertising of foodstuffs). The CJEU ruled that 'the list of ingredients, even though correct and comprehensive, may in some situations not be capable of correcting sufficiently the consumer's erroneous or misleading impression concerning the characteristics of a foodstuff that stems from the other items comprising its labelling'⁸⁹, acknowledging that the average consumer may be prone to ignore, or misunderstand, important product information; thus providing a necessary (feeble) 'update' to the concept of average consumer in older jurisprudence.

VI. CONCLUSIONS.

Despite AR advertising provides fertile ground for undermine consumer's autonomy and interfering with their freedom of consumer choice, the effective harms are currently mainly theoretical in nature and remain more related to a hypothetical future scenario than to real market contexts. This is due to the fact that XR technologies are still in their early stages: the success of many new technologies and technology-based applications strongly depends on several manufacturers and the process of social acceptance, determined by both efficiency and perceived usefulness. However, by drawing on key insights from current economic theory, this article suggests that current EU consumer law could offer a remedy for potential unfair AR advertising, offering a futuristic but effective assessment of AR advertising under the UCPD. It has shown that the UCPD is relatively future-proof in the sense that, even though it was approved almost 20 years ago, it adapts well to the rise of the digital sector and developments of technology-based commercial practices. To date, UCPD is sufficiently effective to cover misleading or deceptive AR adverts under Articles 6-7 UCPD as well as manipulative AR adverts that exploit consumers' vulnerabilities, which may constitute a form of 'undue influence' and fall within the scope of aggressive commercial practices under Articles 8-9 UCPD.

⁸⁸ Case C-195/14, *Bundesverband der Verbraucherzentralen e. a. vs. Teekanne GmbH*, 4 June 2015, ECLI:EU:C:2015:361.

⁸⁹ *Ibid* para 40.

Nonetheless, this article opens a new field of debate in the legal literature. It's most likely that future advances in AR advertising may introduce new forms of personalized persuasion strategies that discover – and build on – individual biases, weaknesses, preferences and needs of consumers, and they can be deliberately aimed at making consumers vulnerable, in the sense of affecting their ability to rationally deal with a particular commercial practice. By drawing on key insights from current theories, I conclude questioning whether such exploitation of consumer weakness and vulnerabilities is substantially changing the reference actor from the average to the vulnerable consumer⁹⁰. In that case, the recent behavioural insights by the CJEU – such as Teekanne case – could be seen as a first step to understand the 'average consumer' in a less normative way, paving the way for discussions about the likely behaviour of real consumers.

⁹⁰ CALO, R.: "Digital market manipulation", *George Washington Law Review*, 2013, vol. 82, p. 1033.

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