

ALGORITHMIC CHOICE ARCHITECTURE REINFORCED BY INFLUENCER MESSAGING (HYPERNUDGING PRACTICE) AS AN UNFAIR MARKET PRACTICE – THEORETICAL AND LEGAL REFLECTIONS

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Abstract. The dynamic development of the digital economy has led to a transformation of mechanisms of influencing consumer decisions. Online platforms, using algorithmic choice architectures and behavioural data analysis, have transformed marketing communications into a system of continuous, adaptive influencing (hypernudging), which involves ongoing adjustment of nudges to user behaviour. This mechanism is reinforced by the interplay of platform infrastructure and influencer content, which complicates the unambiguous legal classification of the message. The continuous, personalized, and often secret nature of this influence increases the risk of violating consumer autonomy and engaging in manipulative practices, raising doubts about the adequacy of regulations in place. This article analyzes whether hypernudging practices can be classified as unfair market practices.

Keywords: hypernudging; market manipulation; unfair market practices; algorithm.

INTRODUCTION

Digital platforms are increasingly using nudges, algorithmic choice architectures, and recommendation systems to guide user behaviour, optimize user engagement, and maximize the value derived from data-driven content personalization [Brenncke 2024, 130; Septiningsih and Karimullah 2024, 78]. While such manoeuvres contribute to improved user experience and market efficiency, they also raise serious legal and ethical concerns regarding the manipulation of market participants' behaviour, consumer autonomy, and market integrity. This is because the development of the digital economy has led to a fundamental transformation in the ways in which consumers influence their decisions. It is online platforms in particular, relying on advanced algorithmic technologies based on behavioural data analysis, that have transformed classic marketing communication models into systems of dynamic, personalized influence. This phenomenon is sometimes described in the

literature as a shift from a static selection architecture to its dynamic, algorithmic form, referred to as hypernudging [Yeung 2017, 122; Esposito and Ferreira 2024, 1004; Morozovaite 2023, 83; Morozovaite 2021, 115]. Given that current systems operate on constantly updated data on user behaviour, the influence on consumer decisions is no longer a one-time nudge, but takes the form of a continuous adaptive process, made possible by an algorithmically built choice architecture [Ye 2025, 8; Brenncke 2024, 132; Hacker 2023, 147]. The contemporary digital environment boosts this effect through the synergy of two components: 1) the algorithmic infrastructure of online platforms and 2) content created by influencers. While the platform is responsible for distributing and optimizing the message, the influencer provides a persuasive factor, often based on a relationship of trust with the recipient. This fact suggests that the actual impact on consumer decisions is no longer solely the result of a single entity's actions but it may be down to their functional interdependence, and the message itself influencing consumer decision-making processes is no longer as clear and obvious in its legal classification as legal or prohibited. This situation raises serious concerns about consumer protection, behavioural manipulation, and the adequacy of regulatory measures, as participants of economic operations have increasingly limited ability to recognize and counter manipulative digital practices. The rapid development of new technologies and marketing strategies outdoes the pace of regulatory adaptation, which justifies the main research question: can the influence of algorithmic choice architecture reinforced by influencer messaging (a mechanism conceptualised in this paper as a complex "hypernudging practice") be classified as an unfair market practice?

Algorithmic decision-making systems are highly adaptive and leverage behavioural and demographic data to personalize content for consumers. Algorithmic choice architecture and hypernudging strengthen the market position of digital platforms, enabling exclusionary and exploitative practices, challenging traditional enforcement of competition and consumer protection laws [Veljanovski 2022, 45; Gormsen 2022, 74; Bar-Gill, Sunstein, and Talgam-Cohen 2023, 2; Gal and Elkin-Koren 2017, 322]. The primary method employed in this article is investigation of the law in force, which involves analysing relevant regulations and their interpretation, taking into account the views of legal scholars. The analysis, within the scope justified by the subject matter, including its impact on consumer decision-making processes, is supplemented with interdisciplinary approaches.

1. CHALLENGES OF MODERN TIMES

1.1. Outlining the interdisciplinary context – delimitation of concepts

Nowadays, it is true to say that the basic assumption of market communication in the era of dynamic development of new technologies has undergone a fundamental transformation, moving from a one-way transmission-reception message to automated management of consumer attention [Yeung 2008, 80; Idem 2016, 187; Idem 2017, 121].

This effect is being maximized, to some extent, by the dynamic development of the digital economy and its potential to increase turnover in the e-commerce sector. It has been noticed that online creators (influencers) have ceased to serve merely as image-enhancing agents and have become highly effective, structured distribution channels. Their activities drastically shorten the purchasing path directly from the social media app to the online store's shopping cart [Taranta, Ławreszuk, and Tomaszewska 2024, 238; Stopczyńska 2021, 135]. However, it does not stop there, as profit optimization in the digital economy is based not only on creator economy but also on the attention economy in the era of so-called surveillance capitalism [Zuboff 2015, 77]. Zuboff's concept assumes that digital platforms are not merely neutral intermediaries, but active architects of an environment designed to extract and monetize users' behavioural surplus. Algorithms shape the consumer's choice architecture not to facilitate the making of rational decisions, but to maximize, in absolute terms, their cognitive engagement time in front of the screen. In this light, a unique system of communicating vessels emerges: platform profit optimization – based on monetization of consumer attention, precisely targeted and selected on the basis of data – drives the development of infrastructure that enhances influencers' sales effectiveness, which in turn stimulates further growth in user engagement and completes the cycle of algorithmic dependence. A trend in literature, initiated by Thaler and Sunstein [Thaler and Sunstein 2008, 6], has indicated that the process of influencing consumer behaviour can be analysed through the lens of "choice architecture," understood as the deliberate design of a decision-making environment to guide individual behaviour (so-called nudge). This concept was implemented in the digital environment by Yeung [Yeung 2017, 122], who called it "hypernudge" – a highly personalized, dynamic and algorithmic form of behaviour regulation based on the analysis of large data sets (Big Data).

Given the interconnectedness of market mechanisms with behaviourally driven consumer attention, rigorous conceptual demarcation is essential. Hypernudge is not synonymous with advertising messages or influencer activity itself. Two distinct yet closely interconnected dimensions should be distinguished. The social media platform acts as a provider of distribution

infrastructure, often holding the status of a “gatekeeper”, under EU law, shaping the choice architecture through recommendation systems and behavioural profiling (hypernudge). In turn, the online creator (influencer) delivers content based on persuasive techniques and a parasocial relationship with the recipient [Gong, Wenqing, and Shubin 2024, 3217]. From the perspective of protecting consumers, including minors, the subject of assessment cannot be solely the message itself or the practices of economic participants, but a new phenomenon, which for the purposes of the analyses conducted in the following sections can be called hypernudging. It consists in the automated infrastructure of an online platform (e.g., an e-commerce store) deliberately amplifying the impact of the creator’s message, leading to a significant distortion of the consumer’s market behaviour and his making a specific transactional decision. The inspiration for articulating this view comes from one of the explanatory proceedings initiated by the President of the Office of Competition and Consumer Protection (UOKiK) at the end of 2025, concerning the lack of clear labelling of advertising content and aggressive advertising aimed at children.¹ At the time of writing this paper, the UOKiK’s President’s activity is directed solely at advertising, although entities that may become parties to antitrust proceedings in the future accumulate the status of influencer, producer (manufacturer or distributor) of goods, and seller of those goods in e-commerce and in their physical stores, which directly aligns with the subject of this publication outlined above. The discussed problem becomes especially important when the advertising content analysed by the Office of Competition and Consumer Protection is not deemed to be inconsistent with the laws, and therefore does not constitute a violation of collective consumer interests, unfair market practice or an act of unfair competition, even though it bypasses conscious and rational volitional processes, which is particularly striking in the case of children who have not yet developed control over their impulses to desire specific goods or services.

1.2. Diagnosed challenges of the modern digital economy from the perspective of the European Commission’s analyses – a brief remark

It should be noted that the traditional model of consumer protection, which assumes that providing consumers with an adequate amount of reliable information is sufficient for them to make a rational market decision (the *homo oeconomicus* model), is undergoing a far-reaching erosion. This

¹ Communication from the President of the Office of Competition and Consumer Protection of 12 November 2025 “Advertising directed at children – the Office of Competition and Consumer Protection checks social media”, <https://uokik.gov.pl/reklama-skierowana-dzieci-uokik-sprawdza-media-spolecznosciowe> [accessed: 01.04.2026].

model proves to be far from sufficient when confronted with digital market phenomena, as the European Commission explicitly points out in the conclusions of its *Digital Fairness Fitness Check*.² Traditional legal instruments derived from the three core Directives: the Unfair Commercial Practices Directive, the Consumer Rights Directive, and the Unfair Contract Terms Directive fail when the main threat is not the lack of transparency itself, but the automated bypassing of consumer cognitive barriers.³ This phenomenon occurs through the implementation of deceptive interfaces (dark patterns) and precise, algorithmic targeting.⁴ In an environment where platforms optimize displayed content in real time to maximize engagement (engagement-driven design), based on digital psychological profiles, the linear and static model of disclosure obligations loses its rationale [Neil and Woodrow 2024, 1157]. At this juncture, a clear conceptual distinction between dark patterns and hypernudging must be established. Although both mechanisms aim to steer user behaviour and have led to the proliferation of manipulative design practices on online platforms, their mechanisms, scope, and legal implications differ fundamentally. Dark patterns manifest as static, deceptive user interface (UI) elements that mislead users at specific decision points by exploiting cognitive biases [Gray et al. 2018; Luguri and Strahilevitz 2021, 45; Calo 2014, 995]. Hypernudging, in contrast, operates on an infrastructural and algorithmic level. It continuously

² On 3 October 2024, the Commission published a Staff Working Document with the conclusions of the Digital Fairness Fitness Check. The aim of the Fitness Check is to evaluate whether the current rules are fit for purpose to ensure a high level of consumer protection in the digital environment. It covers three core Directives: the Unfair Commercial Practices Directive, the Consumer Rights Directive, and the Unfair Contract Terms Directive. The Fitness Check shows that these rules remain both relevant and necessary to ensure a high level of consumer protection and effective functioning of the Digital Single Market. At the same time, it identifies several harmful, evolving practices that consumers face online and points to areas for improvement which should be addressed in the future. To achieve digital fairness, the Fitness Check points towards the need to do more to address the identified challenges in the digital environment. This includes tackling the most harmful practices, such as dark patterns, preventing regulatory fragmentation, promoting fair growth, ensuring the coherent application of EU consumer law and the EU digital rulebook, facilitating more effective enforcement, and simplifying existing rules without compromising the level of protection. The content and format of the necessary follow-up action will be determined in the future, https://commission.europa.eu/law/law-topic/consumer-protection-law/review-eu-consumer-law_en?prefLang=de [accessed: 01.04.2026].

³ Commission Staff Working Document Fitness Check of EU consumer law on digital fairness, pp. 146-203, https://commission.europa.eu/document/download/707d7404-78e5-4aef-acfa-82b4cf639f55_en?filename=Commission%20Staff%20Working%20Document%20Fitness%20Check%20on%20EU%20consumer%20law%20on%20digital%20fairness.pdf&prefLang=de [accessed: 01.04.2026].

⁴ The UCPD's general test and provisions against undue influence are applicable, but enforcement and legal clarity remain challenging, especially as platforms innovate new manipulative techniques, see: Brenncke 2024; Esposito and Ferreira 2024.

and invisibly personalizes the entire choice architecture using real-time data and AI [Beermann, 2025, 4; Yeung 2017; Mills 2022]. Thus, while a dark pattern constitutes a localized manipulation of the interface, hypernudging represents an ongoing, dynamic curation of the user's informational environment, rendering its legal assessment under consumer protection law significantly more complex. Dark patterns may function as operational tools within hypernudging systems, but do not exhaust its scope.

The Digital Services Act (DSA),⁵ Digital Markets Act (DMA),⁶ the Data Act,⁷ the Artificial Intelligence Act (AI Act)⁸ and the upcoming Digital Fairness Act⁹ are intended to address the challenges of the modern digital economy.

Given the structural asymmetry of information and technological power, EU law has developed a modern legal framework, the foundations of which are the DSA and the DMA. Although these acts pursue complementary but slightly different goals – the DSA focuses on digital security, transparency, and the protection of fundamental rights, while the DMA strives to ensure fairness, contestability, and free competition in digital markets dominated by gatekeepers – they collectively establish transparent boundaries for entrepreneurs to operate in digital markets. It should be noted, however, that Article 25 of the DSA prohibits the use of deceptive interfaces (dark patterns). This provision clearly states that internet platform providers are strictly prohibited from designing, organizing, or operating their interfaces in a way that deceives, manipulates, or in any other material way distorts or limits

⁵ Regulation (EU) 2022/2065 of the European Parliament and of the Council of 19 October 2022 on a Single Market For Digital Services and amending Directive 2000/31/EC, in particular with regard to Article 28 (protection of minors on the Internet), the transparency requirements for recommendation systems and the prohibition of the use of deceptive interfaces (Article 25).

⁶ Regulation (EU) 2022/1925 of the European Parliament and of the Council of 14 September 2022 on contestable and fair markets in the digital sector and amending Directives (EU) 2019/1937 and (EU) 2020/1828 in relation to the structural role of the largest platforms as gatekeepers who, by monopolizing the choice architecture, dictate the terms of market relations.

⁷ Regulation (EU) 2023/2854 of the European Parliament and of the Council of 13 December 2023 on harmonised rules on fair access to and use of data and amending Regulation (EU) 2017/2394 and Directive (EU) 2020/1828, obligation to make IoT product data and related service data accessible to the user and rights and obligations regarding IoT data access and sharing.

⁸ Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 June 2024 laying down harmonised rules on artificial intelligence and amending Regulations (EC) No 300/2008, (EU) No 167/2013, (EU) No 168/2013, (EU) 2018/858, (EU) 2018/1139 and (EU) 2019/2144 and Directives 2014/90/EU, (EU) 2016/797 and (EU) 2020/1828 in close connection with the absolute prohibition expressed in Article 5(1)(a) and (b), prohibiting the placing on the market of AI systems using subliminal techniques or deliberately exploiting the vulnerabilities of specific groups (including age-groups) in order to significantly distort their behaviour.

⁹ Status: Commission preparation phase (proposal not yet tabled); Indicative proposal timing: Q4 2026 (Commission planning), <https://digitalfairnessact.com/>. The assumptions of the proposed legislative initiative intend to address the gaps in Directive 2005/29/EC, directly tackling the issue of commercial asymmetry intensified by personalisation and automated design.

users' ability to make free and informed decisions. However, the prohibition under Article 25(1) does not apply to practices covered by Directive 2005/29/EC (concerning unfair business-to-consumer commercial practices in the internal market) or Regulation (EU) 2016/679 (General Data Protection Regulation). The justification for this construction is set out in recital 67 of the DSA. However, as indicated, the provisions preventing the use of deceptive interfaces should not be understood as preventing providers from directly interacting with service recipients and offering them new or additional services. Lawful practices, such as advertising, that are in compliance with Union law should not in themselves be considered deceptive interfaces. The provisions on deceptive interfaces should be interpreted to cover prohibited practices falling within the scope of this Regulation to the extent that those practices no longer fall within the scope of Directive 2005/29/EC or Regulation (EU) 2016/679. Should a given practice qualify as a dark pattern within the meaning of the DSA, but also meet the criteria for a practice prohibited by the GDPR or the Act of 23 August 2007 on Counteracting Unfair Market Practices,¹⁰ then the DSA does not apply. One should agree with Grochowski and Mik who state that Article 25 of the DSA applies to dark patterns that are not used in relationships with consumers and that do not directly concern the collection and processing of personal data [Grochowski and Mik 2024, Nb8]. It should be noted that Articles 27, 28 and 38 DSA indicate transparency obligations, requiring platforms to clearly inform users about the main parameters used in recommendation systems, obliging them to offer users at least one recommendation system option that is not based on profiling within the meaning of the GDPR, and expressly prohibiting platforms from presenting advertisements based on profiling using special (sensitive) categories of personal data and absolutely prohibiting the profiling of minors for advertising purposes, provided the platform has reasonable certainty as to their age. In parallel, the DMA focuses on gatekeepers. The DMA includes an anti-circumvention provision (Article 13) that aims to effectively capture and eliminate dark patterns specifically used to influence user choices in a way that violates the very essence of free competition.

1.3. Hypernudging as an infrastructure that amplifies information asymmetry in influencer messaging

In the digital environment, algorithmic infrastructure does not merely serve as a neutral medium for the content of online creators, especially regarding minors who face significant difficulties in recognizing and defending

¹⁰ Journal of Laws of 2023, item 845 [hereinafter: Countering Act].

against commercial persuasion.¹¹ The analysis is therefore intended to verify the extent to which automated content distribution affects the legal assessment of the marketing message itself as an act compliant with, neutral to or contrary to the consumer protection system in the field of counteracting unfair market practices. It is assumed that in the digital environment, algorithmic infrastructure does not merely serve as a neutral medium for the content of online creators. Within the framework of the hypernudging practice outlined above, which constitutes a vaguely hybrid model of influence distribution, it serves as an active catalyst that can exacerbate the information and decision-making asymmetry between business operators and consumers. The choice architecture constructed in this way transforms the influencer's standard, persuasive message into a phenomenon that, by exploiting the technological advantage of algorithms, may constitute "exerting unfair influence" within the meaning of Article 4(1) in connection with Article 2(4) of the Countering Act, and consequently be classified as an unfair market practice. Currently, assessing influencer behaviour cannot be done in a technological vacuum; instead, it must take into account the algorithmic constraints of the online platform that positions this message. In the context of the digital revolution, the vulnerability of consumers, including children, to forms of marketing manipulation emerges as one of the fundamental challenges for contemporary consumer protection law, competition law, and market supervision authorities. Constant or long-term exposure to content created by influencers on websites such as YouTube, TikTok or Instagram inevitably, as life experience proves, leads to the formation of extremely strong, asymmetric social relations [Dabiran, Farivar, Wang, et al. 2024; Alnoor, Abbas, Khaw, et al. 2024]. This trust is then instrumentally and methodically leveraged to optimize sales processes. With today's development of new technologies based on advanced predictive analytics, Machine Learning, and Big Data, this situation is exacerbated by algorithmic mechanisms that control user behaviour, invisible to the them [Bovens 2009, 216]. As a result, the use of algorithmic selection architecture using hypernudging by professional digital creators to direct commercial messages to consumers may go far beyond the limits of legally permitted market persuasion. In conditions of individualized consumer targeting based on continuous profiling, these activities may meet the premises of qualified, aggressive market practice, and in certain configurations of facts, may even violate absolute prohibitions.

¹¹ Commission Staff Working Document – guidance on the implementation/application of Directive 2005/29/WE/EC on unfair commercial practices, 25.5.2016, SWD(2016)163 final, pp. 55-60, <https://eur-lex.europa.eu/legal-content/en/TXT/?uri=CELEX:52016SC0163> [accessed: 01.04.2026].

2. A HYBRID MODEL OF INFLUENCE DISTRIBUTION IN THE DIGITAL ECONOMY

2.1. The concept of an online platform and its importance for hypernudging practice

For the purposes of this analysis, it is crucial to define the concept of an online platform, which in the model described here does not merely function as a passive data carrier, but as an active administrator of the attention infrastructure. Pursuant to Article 3(i) of the DSA, an online platform is a hosting service that stores and disseminates information to the public at the request of a recipient of the service. In the consumer context, Very Large Online Platforms (VLOPs) play a special role. Due to the number of their recipients exceeding 45 million users in the European Union, they are subject to stringent obligations, including protecting children's rights and countering algorithmic manipulation. It is worth emphasizing that in the hybrid influence distribution model, the platform acts as a "recommender system provider." As defined in Article 3(s) of the DSA, such a system is a fully automated mechanism that determines the relative visibility of information, deciding what content – including influencer messaging – will be displayed to a specific minor user. It is this platform feature that constitutes the essence of the hypernudge phenomenon. In the digital communications ecosystem, VLOPs or gatekeepers (according to the DMA) act as architects of the decision-making environment. Their role is not limited to passively providing storage space, but involves actively shaping the choice architecture through automated recommendation systems (Article 27 of the DSA). It can therefore be argued that the platform provides the infrastructure for hypernudging. Using information and technological asymmetry, algorithms determine the visibility, order, and context of individual content. For the user, the platform acts as a determinant of their attention span. This phenomenon occurs outside the realm of conscious consumer choice, optimizing displayed content solely for engagement rates, paving the way for behavioural profiling and bypassing critical cognitive barriers. According to Yeung's concept, hypernudging enables algorithmic behaviour regulation by design [Yeung 2017, 120]. Unlike traditional nudges, the hypernudge has three key features: it is highly personalized, it is networked, and it is constantly updated in real time [ibid.]. Digital platforms, armed with vast collections of behavioural data (search history, dwell time, interactions), create dynamic user profiles. Based on this, recommendation systems continuously reconfigure the choice architecture for each individual. From a legal perspective, hypernudging is not about a one-time nudge to make a decision, but rather about continuous, automated management of user attention in an environment optimized to maximize engagement (attention economy).

2.2. The status of an influencer and his message

The phenomenon of influencer marketing fundamentally modifies the classic architecture of commercial communication, which entails implications for both public and private law. A fundamental step in the process of protecting consumer rights, especially those of minors, is to clearly establish the legal status of the influencer. There is no doubt that an influencer who derives any financial benefits from creating and publishing content on social media in an organized, continuous, and gainful manner has the full status of an entrepreneur. From an economic perspective, it is crucial to understand that this benefit does not have to involve a traditional, direct monetary transfer. The concept of benefit should be interpreted broadly. It also encompasses bartering, discounts on services, sponsorship coverage of travel, accommodation, or meals, and even free provision of products or services. However, it should be noted that if qualifying influencer status raises regulatory concerns, the concept of entrepreneur under the Countering Act is broad, as it also encompasses entities who carry out activities that are not organized and continuous, as well as individuals acting on behalf of or for the benefit of the entrepreneur. As a result, all actions of such an influencer, the intention or effect of which is to promote or purchase a product by a consumer, constitute a market practice under the Countering Act with all the legal implications arising from this fact.

2.3. Algorithmic choice architecture and influencer messaging

The psychological mechanism that determines the effectiveness of this message for consumers is the development of a so-called parasocial relationship (PSR) [Hoffner and Bond 2022]. For a young consumer, the relationship with an influencer imitates a real-life peer or authority bond (depending on the age and profile of the creator). Research clearly indicates that a high level of parasocial connection weakens a child's ability to critically evaluate commercial messages. In a situation of strong parasocial connection, even a clear labelling of the material as advertising does not activate the child's appropriate defense mechanisms (so-called advertising literacy), because the message is perceived as a personal recommendation from a "friend" rather than a calculated marketing message [Boerman and van Reijmersdal 2020]. Influencers, therefore, monetize trust, not solely the objective characteristics of the product. Therefore, consumer law assessments cannot be based on isolated actions of the platform or the influencer, but rather on their technological and psychological synergy. This model separates the roles: the influencer delivers trust-based content, while the platform – using hypernudge systems – provides the architecture to leverage this trust at the optimal moment, when the consumer's cognitive alertness is reduced. This approach

brings a shift from simple ad targeting to automated attention management. This phenomenon exacerbates doubts about whether the requirement of transparency alone is sufficient when the platform's architecture and the parasocial relationship with the creator preclude the consumer's freedom to make market decisions. In this approach, the platforms' machine learning algorithms act as a catalyst. It is easy to imagine the analytical system, through machine learning, learning in real time about a consumer's habits, unique preferences, sleep cycles, and daily moods. Recognizing, for example, a specific emotional state or a particular lack of alertness (e.g. decreased focus after returning from school or work), the system automatically directs their valuable attention towards a specific influencer promoting a specific product. The problem is all the more pressing because the minor consumer is deprived of even the slightest awareness that the ecosystem of his or her online choices has been algorithmically crafted and modified solely for the purpose of optimizing sales profits.

3. THE CONSTRUCTION OF AN UNFAIR MARKET PRACTICE AGAINST HYPERNUDGING PRACTICES

3.1. Criteria for qualifying a market practice as unfair

A dogmatic assessment of the hypernudge phenomenon distributing influencer messages requires, first of all, reference to the general clause expressed in Article 4(1) of the Countering Act. In the light of this regulation, a practice used by an entrepreneur is unfair if it is contrary to good practice and significantly distorts or is likely to distort the market behaviour of the average consumer before, during or after the conclusion of a product contract. The hypernudging practice itself will be based on technological and psychological aspects invisible to the consumer, and therefore, by definition, will go beyond the current assumptions of analogue economic transactions. The currently diagnosed problem is that the platform, by controlling the choice architecture, possesses information asymmetry (based on data about a specific consumer, their groups, and those using this data to predict further market behaviour). Meanwhile, the influencer, leveraging a parasocial relationship, psychologically influences the consumer, increasing their need to engage in specific market behaviour. Given that the qualification of market conduct as unfair requires compliance with general clauses, it is not possible to determine this issue unequivocally and for the future without an analysis of the specific factual circumstances, unless it is possible to determine a given practice as unfair in all circumstances without the need to confront it with Article 4(1) of the Countering Act, as is the case with market conduct detailed in Articles 7 and 9 of the Countering Act,

referred to as black practices. The problem that initially arises when assessing the hypernudging practice is that it is currently classified as an innominate practice, which currently determines the issue that it does not constitute a black practice, as such practices are grouped in a legally determined, closed catalogue.

First and foremost, to be considered unfair, a market practice must be contrary to good practice, which in this context should be understood as the moral and customary norms that an economic operator should follow in its business activities [Wiewiórowska-Domagalska and Kunkiel-Kryńska 2019a, Nb. 13]. The President of the UOKiK himself indicated in one of his rulings that good practice should include the principle of loyal behaviour by a contractor towards the consumer, the principle of *pacta sunt servanda*, and the principles of good faith and honesty in the performance of obligations.¹² In this context, it is crucial that an economic operator undertake not only ethical but also, above all, honest actions towards the consumer.

The second premise, arising from Article 4(1) of the Countering Act, is a significant distortion of the consumer's market behaviour. Therefore, not every business practice, even if it affects the consumer, can be deemed unfair. Only business behaviour that significantly limits the consumer's ability to make an informed decision and thus effectively influences the consumer's market behaviour will be legally relevant. It should be noted, however, that the impact of an unfair market practice on the consumer's market behaviour must result in at least a potential distortion of the latter [Wiewiórowska-Domagalska and Kunkiel-Kryńska 2019a, Nb. 25.1].

The Polish Countering Act classifies unfair market practices as misleading unfair market practices (Articles 5 and 6 of the Countering Act) and aggressive market practices (Article 8 of the Countering Act). However, with regard to automated attention management, the key issue is shifting from the misleading practices regime to the aggressive practices regime. The hypernudging practice in the scope analysed is not aimed at influencing the consumer with a false or misleading idea about the product itself or its specific features (which is possible with the dark pattern and the FOMO effect), but at applying pressure in a way that limits or may limit the freedom of choice of the average consumer or his or her behaviour towards the product. Pursuant to Article 8(1) of the Countering Act, an aggressive practice is one that significantly restricts a consumer's freedom of choice through "undue pressure." The legislator specifies in Article 8(2) that "undue pressure" means any type of exploitation an advantage over a consumer, including psychological coercion, in a manner that significantly limits their ability to make

¹² Decision of the President of the Office of Competition and Consumer Protection of 30 December 2015, DDK-30/2015, www.deczyje.uokik.gov.pl.

informed decisions [Wiewiórowska-Domagalska and Kunkiel-Kryńska 2019b, Nb. 10]. The hypernudging practice in question is intended to create a specific incentive motivating the consumer to make a specific market decision. Positioning hidden commercial messages reinforced by influencer messaging will undoubtedly exert the pressure required by Article 8 of the Countering Act. It should be noted that the Countering Act currently focuses on the lack of transparency in the message. In the hypernudge infrastructure model presented in this text, this assumption proves to be too narrow. Non-transparent actions in the ecosystem of large platforms are not limited to the concealment of information but encompass the concealment of the behavioural optimization mechanism itself. Interpreting the general clause of Article 4(1) of the Countering Act in the analysed scope leads to the conclusion that it is contrary to good practice for a business (e.g. an influencer) to exploit the choice architecture provided by the platform, provided that this architecture is designed to deliberately bypass consumer decision-making barriers. Failure to inform the consumer about the market nature of the message, when this message is algorithmically integrated with the consumer's attention at the moment of his highest emotional involvement, is no longer merely an information error, but becomes an element of aggressive interference with the consumer's autonomy of will.

3.2. Between market persuasion and unfair market practices

From the perspective of the axiological foundations of competition and consumer protection law, the boundary separating permissible persuasion consistent with the rules of the market from unfair market practices is set by respect for the consumer's decision-making autonomy, understood as their ability to make informed, free, and rational decisions in economic transactions. Consequently, persuasive actions – even intense ones – retain their legal nature as long as they do not significantly disrupt this autonomy and leave the consumer with a real opportunity to make choices based on their own assessment of the information. In the digital economy, however, this assumption undergoes a fundamental modification. Hypernudging, as a form of algorithmically designed choice architecture, is not limited to presenting information about a product or service but involves dynamic, personalized shaping of the user's decision-making environment. This mechanism is based on the analysis of behavioural data and predictive modelling of recipient responses, which leads to a shift in the focus of influence from the message level to the level of the choice structure itself. While the classical model of persuasion influences the decision-making process through argumentation or emotion, hypernudging intervenes in this process in a priori and structural manner. This is particularly evident in situations where the choice architecture is designed to maximize user engagement (so-called

attention economy), employing mechanisms known as addictive design or dynamically deploying dark patterns precisely at the moment of highest user vulnerability, turning static deceptive interfaces into an adaptive algorithmic infrastructure.

Under such conditions, the nature of market influence undergoes a qualitative shift. If the choice structure is designed to exploit the user's perceptual weaknesses, then we are no longer dealing with persuasion in the classical sense, but with interference that can lead to the substantial impairment of decision-making autonomy. This phenomenon is particularly significant in the professional-child relationship, where – due to the lack of full nudge control and limited ability to assess market messages – the risk of decision distortion is significantly increased. Against this backdrop, it should be noted that hypernudging, especially when coupled with influencer messaging, can lead to significant distortions of market behaviour within the meaning of Article 4(1) of the Countering Act, and thus constitute an unfair market practice.

At the same time, attempting to clearly define it legally reveals significant structural limitations of the current definition of “market practice” contained in Article 2(4) of the Countering Act. This provision requires that the entrepreneur's action be directly related to the promotion or sale of a product. In the traditional model, this premise is unambiguous – the entity promoting the product is also the beneficiary of its sale. However, in the realities of the digital economy, these functions are fragmented among various entities. The influencer performs a communication function, while the online platform provides and optimizes the selection architecture. Consequently, each entity can claim that their actions are not directly related to the sale of a specific product or service. When not exclusively dedicated to products or services related to the influencer's activities, the online platform primarily serves to optimize the user experience and maximize time spent on the site, rather than promoting specific products. This fragmentation of the impact process leads to a difficult issue where individual elements of the hypernudging mechanism, when analysed separately, do not fully meet the criteria for market practice, even though their combined effect leads to distortions in consumer decisions. In reality, independent and, above all, uncoordinated actions by entrepreneurs are likely to occur, constituting, at best, an unsynchronized response to market trends [see Doerr 2025, 389].

3.3. Prohibition of aggressive practices as a tool of protection

The issues presented above allow us to place hypernudging primarily in the light of regulations concerning aggressive practices under Article 8(1) of the Countering Act. The behavioural effects of hypernudging can exert undue influence, which significantly limits or may limit the average

consumer's freedom of choice. The concept of undue influence has been developed broadly and encompasses the exploitation of a trader's advantage over a consumer in order to exert pressure, including through the use of psychological coercion.¹³ In the context of the digital economy, this advantage is multifaceted and stems from access to data, the use of advanced analytical tools, and the ability to design the user's decision-making environment. In the case of hypernudging, this advantage is further enhanced by the interaction between the online platform and the influencer. The platform provides tools for precise user profiling and dynamically adapting incentives, while the influencer lends the message a veneer of authenticity and credibility. The result is an environment in which consumer influence is not incidental, but systemic and continuous. In such circumstances, creating a virtual environment that predictively selects and amplifies incentives for specific market behaviour not only can, but should, be classified as a form of undue influence. This assessment takes on particular significance with regard to children, who – as a particularly vulnerable group – are subject to a heightened standard of protection. Article 9(5) of the Countering Act prohibits direct calls to purchase products targeted at children. Electronic commerce reinforces the difficulties reported in the literature regarding the qualification of advertising phrases that create pressure, but do not necessarily involve a call [Kasprzycki 2012, 246]. However, this regulation focuses on the linguistic form of the message, leading to its limited effectiveness in the realities of the digital environment. Influencers, aware of this regulation, avoid direct calls, using narrative forms such as accounts of everyday product use. At the same time, platform interface elements, such as time limits, mechanisms that induce the fear of missing out (FOMO), or direct links to the store, take over the function of the actual call to purchase. The separation of the communication and technological layers means that each of these elements, when analysed separately, does not fully satisfy the legal norm hypothesis, even though their combined effect produces one that is consistent with the prohibited practice. An additional problem remains the evidentiary nature of the analysed phenomenon. Hypernudging, as a system based on artificial intelligence solutions, is personalized, dynamic, and adaptive. Unlike traditional advertising messages, it does not leave a uniform, permanent evidence base that can be assessed *ex post*. Individual users may be subjected to different nudges at the same time, leading to the already observed market practices related to dynamic price changes [Haessner, Haessner, and McMurtrey 2023]. Therefore, if the AI blackbox model emerges in such situations, the reconstruction of the algorithmic impact mechanism, which falls to entities lacking appropriate analytical tools, will

¹³ See judgment of the Administrative Court in Warsaw of 30 November 2012, ref. no. VI ACa 574/12, Legalis no. 739234.

significantly limit the effectiveness of legal protection. In this context, EU regulations such as the Digital Services Act, the Digital Markets Act, and the AI Act are particularly important as they are introducing obligations regarding transparency, risk management, and systemic responsibility for digital platforms and algorithmic systems. Taking these regulations into account leads to the conclusion that the legal assessment of hypernudging cannot be limited to the analysis of a single message or the actions of a single entity. It is necessary to encompass the entire impact process, in which pressure on consumers arises from the interaction of multiple infrastructural and communication elements.

CONCLUSIONS

The analysis leads to the conclusion that the current legal framework for consumer protection, based on the construction of a uniform and individually attributable market practice, does not fully address the realities of the digital economy, where the influence on consumer decisions is dispersed, automated, and multi-stage. In particular, the phenomenon of hypernudging, coupled with influencer messaging and platform infrastructure, reveals the structural insufficiency of classic consumer protection models, especially from the perspective of the diagnosed algorithmic tacit collusion. The constructions currently used in the Act on Counteracting Unfair Market Practices, which make the qualification of a practice dependent on a “significant distortion of the consumer’s market behaviour” and a direct connection between the entrepreneur’s activity and the promotion or sale of a product, show that it is based on a single-entity model, corresponding to the conditions of linear market communication. Currently, it works well in situations where an influencer runs their own online platform (e-commerce store). However, in the model being analysed, roles are functionally intertwined between various entities. Each performs a distinct function in the influence process, which, taken as a whole, leads to shaping consumer decisions. None of these elements, examined in isolation, captures the full mechanism of influence, nor does it allow for a clear legal qualification. It cannot be ruled out that only the cumulative impact of the algorithmic selection architecture and the influencer message may, under certain conditions, lead to the creation of a form of influence that meets the criteria of unfair market practice, even though none of these elements, when analysed separately, necessarily constitutes an infringement. Hypernudging supported by influencer messaging, as an integrated mechanism for influencing consumer decisions, can and should be assessed under the provisions on unfair market practices as a single, multi-layered market practice, in which the platform is responsible for designing and optimizing the choice architecture, while

the influencer is responsible for the communication layer and legitimizing the message. The current legal framework necessitates a case-by-case analysis of this practice from the perspective of Article 4 of the Countering Act and the possibility of classifying it as an innominate aggressive market practice. Effective consumer protection in a digital economy supported by artificial intelligence solutions requires recognizing that regulation can no longer encompass a single market message, but the entire process of its technological production and distribution, and that legal liability should be assigned in accordance with the participation of individual entities in this process.

A multidimensional analysis of the hypernudging practice demonstrates that the contemporary digital ecosystem of commercial communications has undergone an irreversible transformation. In the current climate, where online platforms act as gatekeepers of digital infrastructure, and independent creators (influencers) function as highly precise providers of personalized, persuasive content, preserving the autonomy of market participants requires the development of an integrated, and above all, two-tiered, legal approach.

The Polish Act on Combating Unfair Market Practices is built on a two-way B2C (business-to-consumer) model. It does not offer tools for resolving liability in a three-way model (platform-influencer-consumer). Therefore, the legal regulations (DSA, DMA) that impose new obligations on businesses should be given credit. These include strict liability for automated recommendation systems, a ban on implementing models that include child profiling, and combating the phenomenon of deceptive interfaces (dark patterns). In an era of rapidly evolving technologicalization of economic transactions, they constitute an essential regulatory foundation. However, it is precisely from this foundation that it is necessary to build a national regulation dedicated to consumer protection, which will fill this structural legal framework with powers that effectively deconstruct the existing algorithmic asymmetry, especially in the context of hypernudging practices. Existing regulations regarding unfair market practices will require further clarification in the future regarding the intersection of technological innovation and consumer behaviour. This challenge is particularly significant today, especially given the current state of play of the Digital Fairness Act. New legal challenges related to counteracting the negative effects on consumer market behaviour caused by algorithmic choice architecture, designed almost imperceptibly and reinforced by the emotional and psychological persuasion of internet creators, will require a new approach to the act on unfair market practices, particularly with regard to expanding the catalogue of black market practices. Current obligations regarding the labelling of commercial content by influencers and related to advertising content directly contradict an environment of illusory spontaneity, a paradigm of misleading omission and aggressive pressure. However, hypernudging practices will operate more subtly

and indirectly, further underscoring the importance of protecting children as consumers naturally susceptible to subliminal influence.

In light of the above, it becomes obvious that effectively capturing the phenomenon of hypernudging in the legal system (and especially in consumer protection) requires considering the complex technological and psychological aspects of creating influence. From the perspective of the axiology of competition and consumer protection, the boundary separating permissible market persuasion from unfair practice lies in absolute respect for consumer autonomy and their ability to make free and rational decisions in economic transactions. Legal persuasive practices, even those that rely on rational argumentation or conscious emotions, leave the recipient with full freedom to make choices based on the information gathered. In the digital economy, however, hypernudging operates under different principles. If its essence relies on addictive design and the real-time, algorithmic deployment of opaque interfaces – where static dark patterns act merely as execution tools for the dynamic hypernudging infrastructure – then such a structure directly violates the consumer's decision-making autonomy. Exploiting psychological and cognitive vulnerabilities in this coordinated manner should consequently constitute an innominate aggressive market practice under the provisions of the Act on Counteracting Unfair Market Practices. These actions systemically limit consumers' ability to make informed and rational choices, exploiting the recipient's unequal position vis-à-vis professional entities and a digital architecture focused on maximizing attention. Consequently, it should be concluded that hypernudging may be classified as an unfair market practice, and the application of the Countering Act's provisions should take into account the functional nature of digital influence, including systemic attention economy, in order to effectively protect consumer autonomy and interests. Such qualification should arise only where the cumulative operation of the platform architecture and influencer communication exploits identifiable consumer vulnerabilities and materially impairs (or is likely to) the consumer's ability to make an informed and autonomous transactional decision, thereby causing a material distortion of the consumer's market behaviour within the meaning of Article 4(1) of the Act.

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