

THE CONSUMER'S HYPERVULNERABILITY IN THE FACE OF ARTIFICIAL INTELLIGENCE IN THE CONTEXT OF LIQUID MODERNITY

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ABSTRACT

In the comparison of the happiness that is achieved by excessive consumption, the consumer may be in an even more vulnerable position in the face of artificial intelligence. In this differentiated format of human-machine relationship, where the opacity of algorithms finds its apex, the consumer is led in many ways to choose without autonomy and especially without the necessary knowledge to achieve the consequences of the use of this new digital reality. The present study intends to investigate how this abstraction builds a submission beyond the traditional vulnerabilities of the consumer relationship, using as a common thread the context of fluidity present in Bauman's liquid modernity.

Keywords: Vulnerability. Consumer. Artificial intelligence. Liquid modernity.

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FULL TEXT

The rapid advancement of technology in recent years, especially the development of technologies that can learn behavior patterns and, based on certain commands, generate content, called Artificial Intelligence, opens up a range of daily facilities, but also, on the other hand, generates great concern about its negative externalities.

The exponential growth of information exchanges through the Internet, with the exchange of data and the commercial use of the network, has brought about an interaction between physical objects and virtual objects, where the limit between one and the other is increasingly tenuous². Access to the internet occurs not only through the computer, but also through a series of physical devices, reaching the milestone of having more 'things or objects' connected than people, configuring what has been called *Internet of Things* or *Internet of Things*(IoT) (CHAGAS, LAGE. 2019).

The reach of the internet and the growth in the search for equipment that has connection capabilities to it is remarkable, such as television sets (Smart TVs), whose use for internet access grew 31.9% between 2018 and 2019, according to the IBGE. According to data from the latest CETIC survey – ICT Households, more than 83% of households in Brazil had internet (IBGEeduca, 2019; CETIC, 2022).

The Internet of Things (IoT) – smartphones, tablets, wearables, toys, appliances and other connected devices – has become part of everyday life, the continuous connection of the various moments of life is a reality, with a consequent availability of personal information online, this allows the creation and sharing of various data through wireless networks or, also, by other technologies associated with IoT, such as artificial intelligence.

Usually, consumers leave data on the network not only when they make purchases in *e-commerce*, but also when with other simple accesses they view websites and blogs, consume content on the network such as music and videos or interact through social networks. The sensitive point is that these individuals, as a rule, are not aware that they leave traces even without making purchases.

In this context, in order to process the data obtained more quickly, artificial intelligence has been developed³, a kind of computing that allows processing in a similar

² "They are reciprocal interactions: online relationships modify offline relationships and vice versa, causing the digital and the "real" environment to have a certain symbiosis attributed to them, which can be identified from the objects (intelligent products/services), the subjects (consumption and work profiles), the structure (virtual) and the relationships established there" (MARQUES, 2022)

³ Article 3 of the EU Al Act defines artificial intelligence as "a system designed to operate with elements of autonomy and that, based on data and inputs provided by machines and/or humans, that infers how to achieve



way to human intelligence the information absorbed from users and mobile devices that access the network. Situations unimaginable a few years ago are part of everyday life: autonomous vehicles such as drones and automobiles; online assistants (Siri); medical diagnoses; artistic creation of music and poetry; speech, image and video recognition; facial recognition; real-time translation, ChatGPT (GPT-3 "Generative Pre-trained Transformer" architecture), among others.

The digital environment has become an extension of physical reality achieved through representations of beings and places in the form of data and computer codes. Thus, algorithms – mathematical representations of a structured process for a task – are used for the purpose of conducting a series of social, governmental and commercial functions (CHAGAS, LAGE. 2019). The facilities that these have brought to daily life are undeniable, however, in the interaction of information, algorithms carry within themselves variables, embodied in human values, worldviews; Biases that can end up harming the less favored, increasing inequalities.

The concern is legitimate and takes on contours of astonishment if we consider the social context of postmodernity. It turns out that society is experiencing a widely connected moment, and it is certain that virtual interactions structure and lead new social relations. Industrial society has changed to the information society, as Wolkmer (2013) shows:

The passage from the twentieth century to the new millennium reflects a paradigmatic transition from industrial society to the society of the virtual age. The impact of the development of cybernetics, computer networks, e-commerce, the possibilities of artificial intelligence and the vertiginous diffusion of the internet on the field of law, on world society and on the cultural assets of the massifying potential of the digital space is extraordinary.

As can be seen, the moment is marked by new types of relationships, especially remote relationships and, according to Giddens in his work The Consequences of Modernity⁴, also because of the disorientation that plagues individuals as they are immersed in a universe of events that they do not fully understand and that they feel are out of their control. Global forms of interconnection have altered the most intimate form of human existence and, if in the pre-modern period immutable traditional modes

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a given set of objectives using machine learning approaches and/or approaches based on logic and knowledge and that produces results created by systems, such as content (generative AI systems), predictions, recommendations, or decisions, that influence the environments with which the AI system interacts" Available at: https://www.europarl.europa.eu/portal/pt Accessed on: 21 Feb.2024

⁴ GIDDENS, Anthony. The consequences of modernity. São Paulo: UNESP, 1991.



predominated, generating tranquility and security, today no longer. High modernity for Giddens implies the replacement of tradition and this generates insecurity and discomfort, turning individuals to the development of mechanisms of trust in expert systems⁵, which integrate abstract systems defined as "mechanisms of disengagement because they remove social relations from the vicinity of the context"⁶, making remote and non-face-to-face relationships prevail.

The rupture of space-time, which previously coincided, implies that relations do not require the same physical space for contracts and social bonds. Expert systems are increasingly swallowing up everyday life, present in public transport, in the judicial system and even in the symbolic exchanges represented by money, which at first was physically presented through gold or paper, has moved to plastic and now, less and less palpable, can only be digital. For Giddens and Beck, it will be a reflexive modernization that means "a reform of rationality that does justice to historical ambivalence *a priori* in a modernity that is abolishing its own categories of ordering" (GIDDENS, BECK, LASH, 1997).

It is in this context marked by remote relationships, in which personal data ends up constituting the main form of representation of people before the most diverse state and private organizations (DONEDA, 2018), that e-commerce becomes a global phenomenon and the virtual environment becomes fertile ground for financial exploitation from the collection of information.

On this scenario – marked by disorientation and rupture in space-time, as Giddens, Beck and Lash point out – and especially on the consumer society, Sygmunt Bauman's thought is irreproachable. The surgeon, born in Poland in 1925 and deceased in 2017, is recognized for the concept of liquid modernity, one of his main theoretical contributions. Here his ideas work as a sociological framework that directs the research, being applied in order to better understand the consumer's position in relation to artificial intelligence, which, in hypothesis, is vulnerable in a different way from the vulnerabilities previously known.

In his diagnosis of modernity, Bauman (2001) first differentiates the solid society from the liquid society. In the first, which is related to the period of modernity, linked to Fordism, the individual is unable to fill a space that is not of his form, while in the second – related to the period that is commonly called post-modernity – the individual sees himself as more

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⁵ "Systems of technical excellence or professional competence that organize large areas of the material and social environments in which we live today" (GIDDENS, Anthony. *The consequences of modernity*. São Paulo: UNESP, 1991. p.35)"

⁶ (GIDDENS, Anthony. *The consequences of modernity*. São Paulo: UNESP, 1991. p.36)



adaptable to the environment, capable of filling an environment and then emptying it, filling another, taking different forms and therefore not settling on a certain space, He is always on the move, willing to change, and thus free to experience the new. Thus, in contemporary society characterized by this fluidity and mutability, everything is volatile and therefore the

forms of power are relocated and the objects are non-durable.

Following Bauman's reasoning, it is necessary to understand that all this freedom means, however, a weight since the individual is responsible for his choices and pays the price for what he wants. It means more, a constant dissatisfaction, since he always seeks new experiences, so that he experiences momentary pleasures and ephemeral relationships. This individualistic position, with an autonomous and self-assertive posture, overlaps with the collective and, thus, they do not inquire about the reasons for the situations around them.

In fact, it is an incomplete freedom, since it is controlled by the capitalist system that, in order to maintain itself, molds itself, ceasing to have a solid character to present itself as light. The individual, more precisely the consumer, is seduced by several choices and, when suffering the anguish of having to choose between so many, he seeks references in fast people, focusing on image and beauty. Such icons show him what he wants to be, what he should be, and what choices he must make to do so. An addictive and self-destructive cycle of frustration of not yet being opens, followed by consumption to be, by momentary pleasure and by quick disposal, since goods are not durable, hence a new frustration and a new consumption. All these choices end up solidifying contemporary liquidity, so that it is consumption that dictates the identity of the individual. It is this pseudo-freedom of choice that leads to increasingly exacerbated consumption and over-indebtedness.

Space and time are also malleable for Bauman, since spaces do not need to be filled, each one can consume without the need to interact, and what matters most is the ability to perform multiple tasks in the same time and environment.

For this context to be formed, Bauman noted, cultural and social codes were lost, liquefied, and life became an individual project. Categories such as class, family, religion, and nationality were replaced by an emphasis on consumption, and identity became a commodity. Thus, we see the emptying of public space and collective disengagement, all sustained by a mentality that validates: consumption imperatives are a cornerstone in the constitution of the subject.



If in a solid society work was a source of stability and wealth, in contemporary fluidity it is uncertain, deregulation is constant as well as the increase in temporary jobs, part-time jobs and chronic unemployment. The plans are short-term and old employees should be replaced by new ones, with a more tenuous relationship. The worker must be ready for new positions, demonstrating adaptability, under penalty of no longer being admitted to the labor market.

For all these reasons, the individual in the consumer society, increasingly, seeks superfluous and instantaneous needs. Before, in a society of producers, the "long term" prevailed over the "short term" and the possession of a large volume of solid, durable goods was sought, which ensured an existence free from the surprises of fate. According to Bauman (2007), "eternal" and "supra-individual" values were considered superior to the ephemeral needs of the individual. In the consumer society, however, we live in the era of ephemeral pleasure. Consumerism is linked to the volume of desires that implies immediate use and rapid replacement, with happiness being detached from the satisfaction of essential needs.

In time, a differentiation is in order: the liquid modernity coined by Bauman (2001) does not have the same meaning as postmodernity. What the sociologist does is to criticize contemporary society by indicating that, in fact, there is no rupture, but only the transformation of a structure that is continuous and that still maintains its untouchable capitalist core, but more adapted and voracious. Nothing has been overcome to say that the moment is no longer what is called modernity, for him it is still modernity, but more fluid.

This whole scenario demonstrates the fragility of the consumer and how this vulnerability can take on even more sensitive contours in the face of data processing through artificial intelligence. Aware of this reality and predicting greater profits, the supplier uses data collection, processing it through artificial intelligence, to then identify, predict and even induce and manipulate purchase behaviors, and it is common for the consumer to be aware of this practice because it occurs in a hidden way, when for example accessing programs on the network, Essential apps and pages for your daily tasks.

It can be seen that the behavior is a clear reflection of the so-called platform capitalism, an adaptation of the economic system in which the center is the extraction and use of data, especially by platforms connected to the internet, creating a renewed way of accumulating capital from digital platforms. This reality generates the appearance of new suppliers in the consumer relationship and innovations in the ways of consuming, the fact



certainly hinders state governance in the search for efficient consumer protection in the digital world (MARQUES, 2022).

Precisely, what we have in our hands are microprocessors and not telephones which, in fact, are not only new forms of social interaction, they are more: a reformulation of how capitalism continues to manipulate and foster consumption (GIDDENS, BECK, LASH, 1997). However, here it is noticeable that we are facing an unfolding of late capitalism, an issue already faced by Habermas (1980) when he points out that if before the crises derived from the economy itself, from its self-regulation and from fair exchanges (bourgeois ideologies), today its orbit shifts to the political-administrative capacity of the intervening State to reactively avoid them. The Welfare State, now based on the rule of law, has been trying to mitigate the inequalities produced by the logic of bourgeois accumulation, but legitimacy continues to be a problem when it is commonly questioned whether state action results from the effective attempt to protect fundamental guarantees or from other influences, such as large global corporations.

This scenario is especially critical for the consumer since it aggravates in a unique way their vulnerable character in the relationship with the supplier, configuring a status of *Hypervulnerability*. It immediately highlights the fact that consumers are laymen in relation to the use of programming language, which results in a logical and notorious technical-informational disparity (MARTINS, FALEIRO JUNIOR, 2022).

For this reason, Cláudia Lima Marques (2022) argues that this is a new and specific vulnerability since the "digital ambience and omnipresence" would result in a digital vulnerability of the consumer. In addition to the types already mapped by the consumerist doctrine (technical vulnerability, legal vulnerability, factual and informational vulnerability), it would also be possible to specifically observe hypervulnerability, which is subdivided into structural digital vulnerability and situational digital vulnerability. The author in question even defends the need to amend the Consumer Protection Code in order to update legal principles as a response to the special vulnerabilities listed by her.

A common example occurs when the consumer feels constrained to consent to the so-called *cokies* so that the product, information or service accessed is not denied. This is because, in general, computer systems are in the format of *take it or leave it*, and it is up to the consumer to accept or not have what he is looking for. As a result, the consumer's own consent is impaired, as well as their informational self-determination. (MARQUES, 2022).



And so it is that, without understanding what this means because he lacks structural technical knowledge of the system, he ends up providing his data without a view of what will be done with it. It ends up allowing them to be processed by artificial intelligence, capable of mapping their accesses and tracing their profile, and can be the target not only of constant and boring offers of products but also of the manipulation of their consumption desires.

Still scrutinizing the condition of the consumer in the face of artificial intelligence, the example brought by Ciro Costa Chagas and Lorena Muniz and Castro e Lage when they work on the opacity generated by algorithms in Artificial Intelligence⁷, a text that makes up the book "Civil Law in the Age of Artificial Intelligence" from 2020, coordinated by Gustavo Tepedino, is relevant:

A practical and large example is Civil Inquiry number 347, which is being processed before the 5th Prosecutor's Office of Collective Protection for Consumer and Taxpayer Protection in the capital of Rio de Janeiro. In this Survey, the alleged practice of discrimination by the company "Decolar.com" according to the geographic origin of the platform user to manipulate the values of hotel accommodation offers, changing the price and availability of the offers, was identified. In that case, what was identified by the prosecutor's office was the practice of geographic discrimination ("geopricing" and "geoblocking"). Notice that there is no direct human action for discrimination. This discrimination is previously programmed in the algorithms of the online platform in codes with variables that act according to the geographical origin detected by the site.

Here it is necessary to bring more from Cláudia Lima Marques in her work on Vulnerability in the Digital Age (2022), in which she analyzes the special vulnerabilities of the consumer within the digital environment, even more so in the face of artificial intelligence. The author is categorical in stating the existence of a new digital vulnerability, especially in this case, and presents us with a complement to the existing vulnerability criteria, as well as others not addressed in the traditional consumerist doctrine.

In addition to the technical vulnerability, it states that the consumer in the digital environment is not an expert in computers or internet systems or data science, a fact that, with AI, has increased its fragility for three reasons: by automated decisions (data processing); by the new symbiotic digital services (smart digital products that encompass a

⁷ An algorithm can recommend us a movie or protect us from a computer virus - but that's not all. There are certain algorithms that "govern" our lives and tend to harm the most disadvantaged. That is why it is necessary to observe the absorption and manipulation of the transit of these data defined as "opaque, unregulated and irrefutable" (CHAGAS, LAGE. 2019)



physical product and a digital service – smartwatch for example) and by the complexity of the smart environment.

There is also another complement to the technical vulnerability, not in relation to the consumer, but to the system itself, structural, which does not have the security capable of preventing attacks and illicit invasions.

In the treatment of legal vulnerability, it complements by stating that in the digital environment, when they exist, the terms and conditions of use, extensive and with language that is not palatable to the consumer, are not read. Eager for access to the desired content, consumers stop reading and thus become more fragile in the face of the operator that uses artificial intelligence.

For scientific vulnerability, he highlights as a complement that more and more sciences linked to digital transformation develop more methods of maintaining users to the detriment of the duty of information and clearer writings.

As for factual and informational vulnerabilities, he adds that the lack of information is the factor that generates the greatest imbalance, because it is the supplier who decides what to inform, perhaps this is the main vulnerability. When we talk about factual vulnerability, we are dealing with consumer qualities that cause their structural subordination to the supplier, such as children, the elderly, illiterate, the sick or people with disabilities, and also situations of superiority such as a monopoly of an essential product or a crisis such as a pandemic. At these times, the consumer is more susceptible to the appeals of suppliers, requiring special care.

But what she points out to be most astonishing is structural digital vulnerability, which occurs when data processing allows for effective consumer manipulation, resulting in the commodification of vulnerabilities, which are then transformed into assets. This means that consumer consent is directly affected, existing only in an apparent way⁸. It also means the lack of transparency arising from opacities and, last but not least, it means the latent risk of discrimination.

There is talk of apparent, uninformed consent, because the system offers immediate gratifications and mediate losses, directing the consumer to immediacy and unreasoned

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⁸ "This complexity is aggravated when consent is more apparent than real, given that the consumer is, in most cases, constrained or pressured to consent so that the product or service accessed is not denied, since the basis of *take it or leave it* resists with a certain normality, causing the freedom to consent to be impaired, as well as its informational self-determination." (MARQUES, 2022)



purchase. The fact is that the complexity of the flow of information puts in check the rational decision and only superficial consent happens.

By the way new technologies penetrate our daily lives, with great damage to human rights, privacy and equality and, in particular, to the consumer, it is already visible that they have direct effects on the effectiveness of justice. Within this virtualization movement, a "change in the axis of gravity" (LÉVY, 1996) is necessary to face new social conflicts, so Law and Sociology must set out means to solve new types of society's demands.

Relating liquid modernity to consumption within artificial intelligence, one cannot fail to understand that Bauman's theory justifies the differentiated vulnerability of the consumer in this digital environment. This is because the fluidity that requires dynamism matters in the identity of the individual traced by consumption, which generates exacerbated consumption and not reasoned under the prism of essentiality.

In this search for incessant satisfaction, the obtaining of data and its treatment by artificial intelligence – always based on the lack of information (opacity), the absence of consumer knowledge and the omnipresence of the digital medium in everyday life – transform the consumer into fertile ground for the search for solidification through quick purchases and ephemeral relationships on social networks, which is where the models of quick personalities are found that indicate what one should buy to be relevant in this system that feeds back.

In this way, vulnerable not only by their position as a consumer, but also by the sociological context, the consumer has in the digital environment, always present, the potentiation of their disorientation (immersed in a larger universe of events that they do not understand and that is out of their control), remote relationships, instability at work (they can be discarded or hired by some algorithm) and anguish in the face of so many possible choices (even more so in the face of so many possible choices). *e-commerce*), choices for which the responsibility of choice weighs for the individual.

Bombarded with digital offers, promotional emails, the fear of missing out on the best opportunity is common and pushes for consumption. You can't miss a good opportunity, but would there be a good one because it is in fact good or because the algorithm, in the treatment of the data provided by that consumer, analyzed and mapped his profile, offering him something of interest, whose inclination is recurrent in his searches? Manipulation is commonplace, it happens in the opacity of artificial intelligence and uses the user's weaknesses.



It is concluded that the statement that artificial intelligence implies a hypervulnerability of the consumer, fostering their already recognized vulnerabilities and bringing other specific ones is corroborated by the sociological context that explains exactly why the consumer is in this even more fragile position in the face of the tricks applied by data processing.

The considerations brought here by this study do not intend to exhaust the issue, there is still much to study and especially much to understand about the subject. Moreover, it is important to act in order to prevent the continuity of mass consumption, disposables, immediacy and, together, curb irresponsible action in the use of artificial intelligence. Perhaps, by working on these two fronts, it will be possible to change this reality in which people are identified by their data and the 'I' always comes ahead of the whole.

Being aware that the individual remains as a mass of maneuver of the capitalist system in contemporary times and identifying the weak points of his relationship with consumption is, at least, a good starting point for something different to be put into effect, especially if we consider that technological advances do not cease and that they tend to a formulation increasingly capable of maintaining pathological dependence on consumption.



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