

# Dynamics and Mechanisms of Reproduction of the Ideology of Consumerism by Transnational Data Firms

**Stéfano Mariotto de Moura\***

**Abstract:** Through the literature review method, this research identifies a non-exhaustive series of dynamics and mechanisms used by data companies such as Google, Facebook, Amazon, and also by the group of companies known as 'data brokers,' for the reproduction of the ideology of consumerism. A definition for such ideology is also presented. Five dynamics and 17 mechanisms are described within these two categories. The combination of subsets of elements in the second categorization gives rise to the first. The research question addressed here is: how do transnational data companies act in the international reproduction of the ideology of consumerism? It is argued that they take advantage of a deliberate lack of interest, mainly state interest, in regulating how they operate in the International Political Economy, to capture data through general dynamics that result from the articulation of specific data capture mechanisms. Thus, these companies manage to naturalise, ideologically, the act of consuming. The general dynamics identified by the paper were five: personalisation, web concentration, architecture of choice, infrastructural imperialism, and lock-in. The phenomenon is discussed in the light of the Critical Theory of International Relations.

**Keywords:** data firms; ideology; consumerism; International Political Economy; Critical Theory.

## Introduction

The work of the present research is to evidence and better understand the mode of operation of the Transnational Data Enterprises (TDEs) in the reproduction of the ideology of consumerism, demonstrating the dynamics and mechanisms used by them for this purpose and critically analysing the object addressed. It seeks to answer the following central question: how do TDEs act in the international reproduction of the ideology of consumerism? It is argued that they take advantage of a deliberate disinterest, mainly by the state, in regulating how they act in the International Political Economy (IPE) to

---

\* Universidade Federal do Rio Grande do Sul (UFRGS), Porto Alegre – Rio Grande do Sul, Brasil; stefanomdemoura@protonmail.com. ORCID: 0000-0002-3717-9409

capture data through dynamics such as *lock-in*, architecture of choice, personalisation, web integration and infrastructural imperialism. These dynamics are the result of the articulation of specific capture mechanisms. Through them, these companies manage to naturalise, ideologically, the act of consuming.

To this end, initially, the central argument and the role of ideologies is discussed in light of Critical Theory (CT) of International Relations (IR), the theoretical framework of the work. Then, the TDEs to be analysed in this research (Google, Facebook, Amazon and brokers, such as Experian and Acxiom) are presented, contextualising their importance. The term TDEs refers to companies that earn profit through their work with data across state borders. Then, a definition is provided for ideology of consumerism as understood in this paper. Next, the main findings of the research are presented. Identified in the literature, the findings were categorised into ‘general dynamics’ and ‘specific mechanisms’ of reproduction of the ideology of consumerism, without claiming to be exhaustive, given the impossibility of listing all possible dynamics and mechanisms. The former, pertinently discussed, are five: personalisation, web concentration, architecture of choice, infrastructural imperialism and lock-in. The latter make up a list of 17, such as cookies, corporate absorption, GPS use, bubble formation, etc. The use of the adjectives ‘general’ and ‘specific’ is intended to alert that the former make up a broader picture, made possible by moves to synthesise the latter. The method used to accomplish this work was the bibliographical review in the literature and in the news about the activity of these companies and about the data market, in legislative documents and in financial reports of the TDEs. The paper is concluded with a re-evaluation of the argument presented.

## Critical Theory, ideologies and TDEs

In CT, ‘(...) there is and can be no single motor force: history has produced many motor forces, and the job facing today’s scholar is to canvas the historical terrain and ask how new agents are being formed and/ or making themselves’ (Germain, 2009: 89). It is in attention to this notion that it is deemed necessary to elucidate through which dynamics and mechanisms TDEs operate to reproduce the ideology of consumerism – and how they use them. Such work is in keeping with the central purpose of CT: an ethical commitment to the search for a theory of change, for human emancipation (Cox 1981; Linklater 1998; Gill 2008; Macartney and Shields 2011; Worth 2011; Garcia and de Sá 2013).

CT, as a theoretical apparatus linked to Post-Positivism, does not carry<sup>1</sup> the same ontological and epistemological assumptions of *problem-solving theories*. Post-Positivist theorists understand that the problems addressed by *problem-solving theories* are often created from the very ontology that defines the existence of such a problem. That is, the theoretical construct of *problem-solving theories* defines what matters and, consequently, the problems that matter – in other words, self-fulfilling prophecies that have assumed and created assumptions for the theorising itself. For example, the classical realist view understands that States are the axis of the international system, and that they seek their

survival in an anarchic system through the maximisation of their forces. As a result, it is basically the issues involving States that matter for realists; the anarchy of the international system, for example, is a problem arising from this view. Liberalism, on the other hand, understands economics and politics as separate spheres, and that States should leave the economy free from interference so that it reaches an optimum point, which makes social and political life subordinated to the circulation of capital, as well as the resulting problems being related to economicism (in terms of absolute numbers, which is well explained by the importance of metrics such as the Gross Domestic Product (GDP)).

In this sense, Cox's claim that 'every theory is for someone and for some purpose' (1981: 87), while stemming from this reading of *problem solving* theories, also drives the afore mentioned ethical commitment of CT to pursue a theory of change. This is because critical theory production, as post-positivist, sees the duty to look at the world, identify the prevailing conflicts within the analyzed clipping, and explore the possibilities of transformation arising from those conflicts. And in the case of the TDEs, there is a stagnation that constrains changes, because there is state disinterest<sup>2</sup> in better regulating the activity of these companies. Firstly, there is a *know-how* gap. The knowledge on how to operate and improve the most advanced technologies is in the private sector, not in the public sector, since the most qualified companies and professionals are located in the technological centres of the TDEs (Chenou and Fuerte 2019; Sequeiros 2021). In addition to the obvious state weakness in the debate, managing the critical resources needed to run the internet becomes a task necessarily shared with the private sector, as there is not enough *know-how* to even be clear about what would be the best decisions to be made in the public interest. For example, if '[a] small number of Internet providers carry most of the data over the "backbone," and most Internet data drops and is routed through the United States (USA), even if this makes little geographical sense' (Segal 2016: 34-5), does the current cable infrastructure serve the interests of those who reside in the Global South? Or perhaps it would be critical for the South to build an undersea optical cable connecting the BRICS countries, a project aborted in the early 2010s (BricsCable 2013)?

Secondly, TDEs take advantage of being located in institutional fissures of the regulatory system. Atal (2020) calls this inherent characteristic of TDEs the 'Janus face', and explains that through this positioning they are able to circumvent the regulatory system by claiming to be, as convenient, social networks that defend freedom of expression; companies based in the territory of a certain country and that, therefore, could not be taxed by other countries; among other situations. Thirdly, I argue that the fact that TDEs take on developmental roles that States could never fulfil in the midst of the economic bankruptcy of the neoliberal era makes States accept them without much regulation, because they end up fulfilling useful roles for the occasional politics of the democratic regimes we have today. The multistakeholder internet governance model (Mueller 2010; Canabarro 2014; DeNardis 2014; Carr 2015; Raymond and DeNardis 2015) that is in force today is partly a consequence of this (Oppermann 2018). Assuming such disinterest, the logical consequence is that capitalist companies that are not properly regulated and practically monopolistic in their segments act to maximise their profits, expanding

as far as possible. Being practically monopolistic, unregulated, and dominating an extremely complex expertise due to the hermeticism of the technical knowledge required to handle data, the articulation of specific mechanisms becomes a natural path for these companies. After all, they control the execution and possibilities of using these mechanisms, allowing them to offer products increasingly aligned with users' psyches. But the articulation of these specific mechanisms in a more complex way also generates broader dynamics, which are interesting to the TDEs because they facilitate the naturalisation, a typical characteristic of the ideological process (Eagleton 1997), of consumerism, by retaining internet users in permanent consumption relations.

Revealing these dynamics allows us to understand how companies so dominant in the global capitalist system manage to operate to reproduce an ideology, that of consumerism, which favours their interests, but not necessarily those of human beings who reside on a planet tremendously impacted by excessive consumption. In other words, it aims at human emancipation, at a theory of change.

### *Importance of ideologies*

Clarifying the range of possible options for a theory of change involves elucidating the ideologies that make this range of options possible and those that impede social change. The ideology of 'technological solutionism' (Morozov 2018), for example, seeks to spread the idea that technology can solve problems of all kinds, including social, political and economic ones, thus omitting existing and possible processes of hegemony and counter-hegemony. Solutionism stifles every cry of resistance with a neoliberal blanket that captures counter-hegemonic processes, both those that directly challenge the heart of the system and those that are within it, such as open source initiatives and file sharing over the internet (Simpson, 2004), or anti-consumerism actions (Worth and Kuhling 2004).

Disciplinary neoliberalism and its legal consequence, the new constitutionalism, according to Gill (2008), provided the basis for the passive revolution that took place in Europe with the end of the communist States between the 1980s and 1990s. In the Gramscian conception, this type of revolution occurs when it is not the masses who lead the revolutionary process, but when it is taken over by other class forces than the most oppressed; moreover, it is a slow transformation that does not touch the core of the society affected. Simpson (2004) even believes that it is also possible that some apparently counter-capitalist actions carried out during the construction of the commercial Internet, such as the open source Linux system and file sharing over the Internet, may be seen as part of a neo-Gramscian context of passive revolution, since they would not change the prevailing characteristics of the system, as well as being co-opted by business capital in the medium to long term. This power of capital is currently instituting a passive revolution, through a 'transnational historical bloc' (Gill 2008: 64), of which today's data companies are understood to be fully a part. It seems clear that figures such as Mark Zuckerberg (Facebook) and Jeff Bezos (Amazon), to stay with the most obvious examples, are the capitalist leaders that maintain the aforementioned transnational historical bloc. And examples of organic intellectuals constituting this historical bloc would

be other technocrats who reproduce, currently, the ideological discourse of exaltation of technologies and their virtues.

In this sense, it is important to draw a parallel. At the time, when the notion of organic intellectuality is formulated (Gramsci 2001), capitalists engendered intellectuals in the midst of society, and these acted exposed in platforms, newspapers, etc. Nowadays, with the internet, messages are disseminated differently than a few decades ago. As Eagleton (1997: 22) States, 'ideology has more to do with the question of who is saying what, to whom and for what purpose than with the inherent linguistic properties of a statement'. It is not (only) through stands in squares, television or radio programmes, like the organic intellectuals of yesteryear, that ideology is disseminated today. And the fact that the source of origin of ideological messages is not specified does not in any way delegitimise the process of ideological reproduction.

### *Importance of TDEs*

If the power of transnational corporations in general was already enormous (Mikler 2012), the TDEs have become the most important ones on the planet (Pariser 2011; Vaidhyathan 2011; Marr 2016; Galloway 2017; Zuboff 2018). They are the five most valuable brands in the world (in order: Apple, Amazon, Microsoft, Google and Samsung), and their estimated market value exceeds US\$ 1t, which corresponds to more than a third of the market value of the 100 top brands in the world (Interbrand 2021). As the population of internet users has increased almost five-fold since 2005, from 1b to 4.9b people connected in 2021 (ITU 2021), TDEs, by working with user data, are expected to further increase their political and economic power.

In IPE, there is an important lack of studies on the subject, pointed out in a double issue released between 2020 and 2021 by two of the main journals in the field, *Review of International Political Economy* (RIPE) and *New Political Economy* (NPE). One of the arguments about this gap dealt with the problem generated by the strictly 'disciplinary' view of IPE, that is, intellectual excesses that create 'blind spots' in the field (Best et al. 2021), such as the lack of studies on the predominance of TDEs in society and on the digitalisation of production. In this vein, Atal (2020) and Lebaron et al. (2020) argue that the field has a gap of studies on these 'platform firms'.

As for the economic power of TDEs, this is remarkable and comes mainly from one source of income: ads. Google and Facebook (which changed its name to Meta in 2021) were two of the companies chosen for analysis in this work because they are the ones that earn the most profits globally through ads, a classic discursive tool of the ideology of consumerism. Together, they accounted for 34% of global advertising in 2020, for a total of US\$ 218.6b (GroupM 2021). In the case of Google, examining its billion-dollar revenue in conjunction with the percentage that ads contribute to the company's earnings is even more impactful than in the case of Facebook, considering that Google ranks as the fourth most valuable brand in the world. See graphically the evolution over the last ten years:

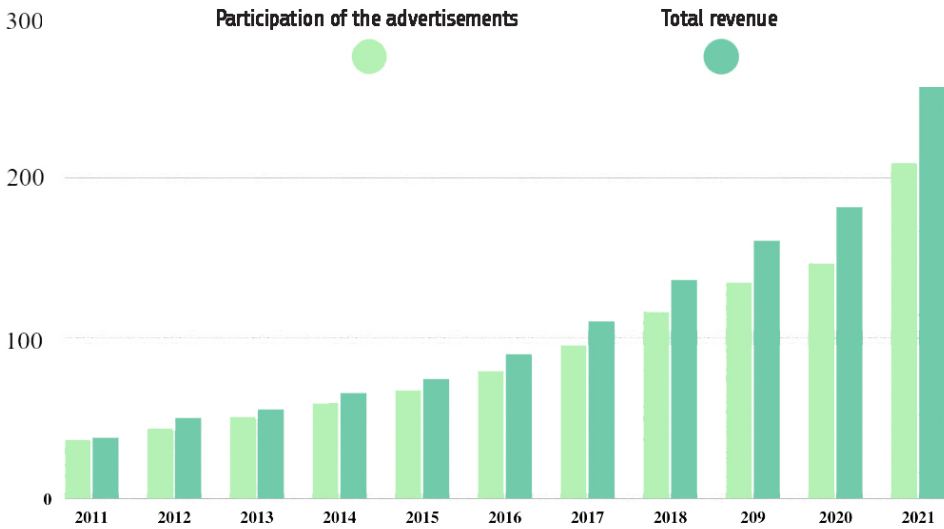


Figure 1. Share of ad revenues in Google’s total revenue (2011-2021, in billions of US dollars).  
 Source: own preparation based on Statista (2022a, 2022b).

As this is a work about the ideology of consumerism, the choice of Amazon is justified because it is the largest *e-commerce* company in the world (Statista 2022c). Moreover, Amazon has also seen a substantial expansion in its ad-related profitability over the past few years: a 383% growth between 2016 and 2020, from a profit of US\$ 4.2b to US\$ 20.3b (GroupM 2021).

In addition to Google, Facebook and Amazon, we chose to analyse in this work the mechanisms employed also by data brokers, or simply brokers. Less known to the public, they demand a brief explanation of why they are included in this analysis. In recent years, such companies have been at the centre of discussions about privacy, especially in the USA, but also in Europe. Like the data giants, they are also active in the collection and sale of information, but in a more underground way. The US Federal Trade Commission defines them as ‘companies that collect personal information from consumers and resell or share that information with other companies’ (Federal Trade Commission, 2014: 1). Some of the world’s leading data brokers are Acxiom3, Experian, LexisNexis, Nielsen, Equifax, CoreLogic, Verisk, Oracle and Epsilon – with the exception of Experian, all based in the USA. These companies alone (there are many smaller ones) collect data on millions of USA citizens, and for each citizen there are sometimes tens of thousands of data (Sherman 2021). The performance of data brokers occurs in an almost totally unregulated market, with equal or even greater potential damage to the individual existence of each person than in the case of the largest TDEs, given that these are at least in the focus of public criticism.

## Ideology of consumerism: a definition

In this paper, ideology of consumerism is understood as *a set of ideas, implicitly accepted by society, that consumption is a structuring axis of social life, either as a form of projection of identity in the social environment or as a consequence of stimuli directed by capitalist companies. This stimulus is carried out mainly through distortion and concealment in order to naturalise the act of consuming. It is a partial ideology.* This definition is structured from the works of Plamenatz (1971), Bourdieu (1983), Eagleton (1997), Trentmann (1998), Adorno (2002), Jenkins (2004), and Schor and Holt (2011). Six aspects of this definition deserve further elaboration:

The ideology of consumerism is a *'set of ideas, implicitly accepted by society, that consumption is a structuring axis of social life'* by virtue of advertising, whose discourse explicitly stimulates consumption having as one of its main consequences that of maintaining, in the social psyche, the permanent notion that one lives with the aim of using the material fruit of labor efforts for the acquisition of goods that cause comfort and satisfaction (Schor and Holt 2011).

Consumption functions as a *'form of projection of identity into the social environment'*. This is because it is believed that one of the most important factors justifying the act of consuming is that it often has the meaning of projecting an identity to other reference groups (Bourdieu 1983; Schor and Holt 2011), either through goods or services or even through aesthetic narratives, from the goods consumed, made possible by social networks.

Consumption is also *'the consequence of stimuli directed by capitalist enterprises'*. This is because companies are the ones who benefit most from unbridled consumption, since they own the means of production; thus, they produce, sell or finance the goods consumed. Moreover, the dominant classes also benefit in immaterial terms, since bourgeois preferences end up being reproduced in consumer objects (Bourdieu 1983).

Consumption is stimulated by such classes *'mainly through distortion and concealment'*, characteristics present in Eagleton's (1997) understanding of ideology, because the main way in which the ideology of consumerism is reproduced is through advertising, which need not necessarily be false, but at the very least overvalues the qualities of the product for sale.

*'Naturalising the act of consuming'* is a direct consequence of this normalisation widely reproduced by advertising, but also of exploitative labour relations (Adorno 2002). This is because these generate routines so stressful that they deny time needed for non-market leisure, offering, in exchange, consumer relations (Adorno 2002; Schor and Holt 2011).

The ideology of consumerism is of the *'partial'* type (Plamenatz 1971) as it deals with implicit values of society without the same rigour in its elaboration as total ideologies – that is, it lacks a greater theoretical grounding. Also, the ideology of consumerism does not point to an inescapable, predetermined future.



According to Jenkins (2004: 77), understanding ‘how cultural forces and institutions create the ‘global consumer’ is essential to understanding how individuals accept and disseminate global capitalism’. In this sense, the adopted definition emphasises:

The *beliefs* that both motivate people to consume and also help naturalise the practice: consumption as a structuring axis of people’s lives and projection of identity.

The *power relation* that justifies the reproduction of ideology: economically and culturally hegemonic classes.

The *technique*, in Eagleton’s (1997) line, of distortion and dissimulation used for such reproduction: advertising.

## General dynamics of reproduction of the ideology of consumerism

To present the dynamics and mechanisms of reproduction of such ideology, two tables were drawn up: table 1 deals with general dynamics and table 2 deals with specific mechanisms. Table 1 lists five general dynamics compiled in the literature of the area, relating them to the companies analysed in the present work and using a keyword, in the ‘central aspect’ column, for a better understanding of how they operate. This is because the general dynamics reported account for broader operations of reproduction of the ideology of consumerism than those enabled by the specific mechanisms reported in Table 2. Remember that neither of the two tables is exhaustive, and that the assignments made were based on finding evidence that the company uses that particular mechanism. Thus, some company that was not attributed the use of a mechanism may undoubtedly be using it; however, as no evidence was found, it was decided not to make the attribution. The explanation of each of the mechanisms immediately following the table allows conclusions about the potential use of a tool or not.

Finally, in the case of *brokers*, due to the fact that the way they operate in the data market is essentially indirect (purchase/collection of data from third parties and sale to interested parties), it is important to point out that, although they do not directly use the ‘architecture of choice’ mechanism described below, the indirect benefit they achieve is highly relevant with regard to inducing user consumption. Therefore, we have chosen to mark with an ‘i’ this situation in the table, and explain it in the relevant section.

Table 1. General dynamics of reproduction of the ideology of consumerism

MECHANISMS	CENTRAL FEATURE	DATA FIRMS			
		Google	Facebook	Amazon	Brokers
Personalisation	Segmentation and/or forecasting	x	x	x	x
Web concentration	Unification	x	x	x	x
Architecture of choice	Sense of freedom	x	x	x	i
Infrastructural imperialism	Mastery of data flow channels	x	x	x	
Lock-in	Imprisonment	x	x		

Source: author’s elaboration.



## Personalisation

Zuboff (2019: 243) states: ‘personalisation is a means of “individualising” supply operations in order to ensure a continuous flow of behavioural surplus from the depths.’ The ideology of consumerism is, in this sense, reproduced through the personalisation made possible by the collection, analysis and cross-referencing of data obtained from various sources, which are the practical result of a ‘consumer labour’, a concept coined from Marxist feminist theory (Jarrett 2019:104). Data is, in practice, a form of capital, and this understanding makes it possible to look at dynamics of personalisation as a ‘political-economic regime driven by the logic of the perpetual (data) capital accumulation’ (Sadowski 2019:2). Datafication (Sadowski 2019; Sadowski 2020; da Silveira 2021), *pan-optic* sort (Gandy Jr 2021) and surveillance capitalism (Zuboff 2019) are some concepts that describe this state of affairs.

The possibilities of accumulation and segmentation generated are distinct from each other, depending on the type of data (an audio, image, immediate interest, projection in the networks, among others). The Internet Protocol (IP) address of each user is the most baseline instrument used by TDEs, but companies have advanced exponentially over the last few years in what they are able to do not only with IPs, but also with the data that users deliver directly or indirectly and end up calibrating the algorithms of TDEs, even generating a programmed sociality (Bucher 2018), which consequently has practical effects on consumer relations. The naturalisation of the act of consuming stimulated by the dominant classes of the capitalist system through the dissemination of extremely personalised ads is present in dynamics of personalisation.

## Web concentration

According to Zuboff (2019: 237), ‘once a third party (a company) captures its surplus, it is shared with other third parties, who share it with other third parties, and so on.’ This dynamic occurs because consumer data are not rivals to each other; consequently, that one ETD acquires the data of a particular person does not prevent another ETD from also acquiring it (Ichihashi 2020), and even sharing it with supposedly rival companies (Gu, Madio & Reggiani 2021). Consequently, data is disseminated through the increasingly concentrated *web* market because, in a way, the internet is becoming integrated without our being clear about it. The consumer harm reported is a consequence of the increased possibility of reproducing the ideology of consumerism through the integration of TDEs, generated indirectly through the work of *brokers*, and directly through the buying and selling of TDEs among the TDEs themselves.

It is important to note that the three giants analysed in this paper (besides *brokers*), Amazon, Facebook and Google, officially deny that they buy or sell data from and to *brokers*, or to third-party companies. However, around 2016, Facebook partnered with Experian (Silveira, Avelino & Souza 2016), which ended in 2018 (Ingram and Fioretti 2018), to offer segmentation by income to advertisers on the social network, which demonstrates how reliability in the official version should be limited. Dynamics of *web*

concentration generates enormous potential for distortion and concealment, typical of the ideology of consumerism, based on several distinct sources of data collection.

### *Architecture of choice*

Originally, the concept is described in Thaler and Sunstein (2008). In their work, the architecture of choice is roughly described as the context given to people subjected to a certain series of choices. In this context, the choices granted to those who must decide are not denied: they are varied, even in opposition to one another. However, *nudges* ('interventions') take place within that system of choices with the intention of modifying users' behaviour:

An intervention, as the term will be used, is any aspect of the choice architecture that alters people's behaviour in a predictable way, without prohibiting any options or significantly altering their economic incentives (Thaler and Sunstein, 2008: 6).

The concept of 'architecture of choice' is used by many different areas of knowledge production dealing with the induction of consumerism through the internet, either directly (Gronbekk 2020) or indirectly (Schneider, Weinmann & vom Brocke 2018; Adjerdid, Acquisti & Loewenstein 2019; Susser, Roessler & Nissenbaum 2019). Vaidhyanathan (2011) uses this concept to establish a relationship with the way in which data companies like Google design the system of choices for their users so that they choose alternatives that, without failing to (in theory) be good for the user, are very useful for the company, generating a false sense of freedom. The architecture of choice is well summarised in this passage:

It's clear that Google understands the power of architecture of choice. [...] Google gives us the power to disable all of these features. It also provides videos explaining how to do that. But unless you change them, the company's default settings constitute your choices (Vaidhyanathan, 2011: 88-89).

Therefore, the naturalisation characteristic of the ideology of consumerism here is quite evident, due to the user's training. The other data companies also make use of the architecture of choice. Users of Facebook and adjacent networks also have the option to deny the company some access, but it takes some knowledge and quite a bit of interest to do so. Amazon pays human workers to eavesdrop on the conversations of users near its home assistant, Alexa, reportedly to improve the company's voice recognition device (Day, Turner & Drozdiak 2019). However, the default setting of the service, in the privacy terms, is to allow the recording and collection of these audios, making this a typical architecture of choice practice.

Finally, *brokers*, as companies that act with less public exposure by collecting navigation data in general, benefit from the framework of 'privacy policies' and 'cookie usage' adopted by default across the internet. If a user has an interest, it is possible to open

options about data delivery and/or cookie use and deny at least some access; however, by default, data delivery is replete. In addition, the privacy policies that we end up accepting by functionality tend to be quite permissive, which makes the *brokers'* job easier. In the table, *brokers* were flagged as indirect beneficiaries of the mechanism by virtue of the fact that *websites* are intermediary actors between data collection by companies and the benefit they subsequently extract by selling such data.

### *Infrastructural imperialism*

Infrastructural imperialism (Vaidhyathan 2011) is directly related to the most materialist features of the ideology of consumerism: '*consumption as the structuring axis of social life*' and '*stimuli directed by capitalist enterprises*'. The dynamic carries with it the understanding that *where* information flows matters more than *what* flows (Vaidhyathan, 2011). These data companies' pipelines, patterns and ways of acting structure ways of 'searching, finding, exploring, buying and presenting that influence habits of thought and action' (Vaidhyathan 2011: 110). That is, this infrastructure of passage delimits ways of acting and, in the case of the data market, ways of consuming. The channels and ways in which personal data flows include both Google's ads, Facebook's Marketplace, Amazon's sales; and broader phenomena such as the black box of algorithms (Pasquale 2015; Brevini and Pasquale 2020), *the zero-rating policies*<sup>4</sup> and discussions on net neutrality, a principle that consists in the flow of data not being favoured to certain actors.

The dominance of such companies over the web infrastructure enables them to structure contemporary forms of consumption, generating passive consumers rather than active internet users (Belli 2017). The Free Basics initiative (Anastácio 2016), later subsumed by Internet.org, both Facebook's (Belli 2017), and Google's Loon (Dixit and Munavalli 2020), all *zero-rating initiatives* for less developed regions of the globe, fall within this context, as data collection would provide knowledge about these potential consumers. Amazon's '[b]uy with one click' option, for example, encouraging ease of consumption. Finally, Google, of course, is the most notorious example of the exercise of infrastructural imperialism. The company, through its most used search engine in the world, its access to private Gmail messages (which it claims to have abandoned in 2017), its text-writing apps, its cloud file storage, its Android mobile phone operating system, in short, through the wide range of infrastructural services it offers, holds great dominance of global information flows.

### *Lock-in*

Pariser's (2011: 26) concept reports that '[l]ock-in is the point at which users invest so much in their technology that, even if competitors can offer better services, it is not worth making the switch.' In other words, it is a kind of entrapment, which intensifies market monopolizations (Plavčan and Funta 2020; Whish and Bailey 2021). Through a generic explanation, one has a clearer example of the mechanism:

It's not much use being the only person you know with a fax machine, but if everyone you work with uses one, it's a huge disadvantage not being in the loop. Lock-in is the dark side of Metcalfe's law: Facebook is useful largely because everyone is involved (Pariser 2011: 27).

The case of *lock-in* is exemplarily represented by Google and Facebook, although it is exploited by other actors in the digital ecosystem (Pitt 2020). For example, it is very normal to choose to open a Google Account to be able to use the company's services, or account in some Facebook network to maintain an online social life. All of this becomes natural for the user, not noticing the options are not perceived. As a result, the user is permanently connected to that data company, subject to ads based on their data exchanges. Moreover, after some time of use of these chained services, a relevant burden is created for the user: it becomes very difficult to abandon the services used (Plav an and Funta 2020; Gutiérrez 2021), where the user will have stored a great deal of particularly important personal and professional information, as well as a large part of his or her social relationships. Thus, companies will create hostages of their services.

Finally, it should be noted that there are consequences of *lock-in* that do not operate only to facilitate sales and advertisements (although they are still useful for that). Companies such as Google and Microsoft, to mention among the biggest *big tech* companies, have been competing to take over universities' infrastructural services (Gutiérrez 2021), thereby trapping students and potentially taking over research data.

## Specific mechanisms of reproduction of the ideology of consumerism

The general dynamics encompass a wide range of possibilities. And it is these possibilities that are described in the following table as specific mechanisms of reproduction of the ideology of consumerism. It is recalled that the list referenced below, with 17 mechanisms, is far from exhaustive. And, as in Table 1, it is noteworthy that the attributions made in the table below prized by finding evidence that the company uses that particular mechanism. Example: Amazon and Facebook most likely use click signals on their pages and apps to better segment users and reach them with consumption induction. There would be no reason not to do so, given that it is a simple technology to use and the tools to do so (search results) are available to both. However, as no evidence was found, it was not pointed out that they use it. The explanation of each of the mechanisms immediately after the table allows one to conclude whether a tool is potentially used or not.

Finally, it is important to highlight that, in the case of *brokers*, even though these companies use part of these mechanisms directly, it is of utmost relevance the fact that their activities in the data market are almost always indirect, collecting and buying data from third parties and reselling such data to interested parties. Therefore, they end up benefiting, indirectly, from almost all the mechanisms listed. With this in mind, we opted, in the *brokers'* column, to differentiate between direct and indirect use, marking 'i' when indirect use is meant and 'x' when direct use is meant.

Table 2. Specific mechanisms of reproduction of the ideology of consumerism

MECHANISMS	DATA FIRMS			
	Google	Facebook	Amazon	Brokers
Direct data collection	x	x	x	
Buying and selling data				x
Cookies	x	x	x	x
Absorption of companies	x	x	x	x
Use of GPS	x	x	x	i
Bubble formation	x	x	x	i
Income segmentation	x	x	x	x
Audio collection	x	x	x	i
Personal Assistants	x	x	x	i
SEO	x	x	x	
Auction of adverts	x	x		
Indistinction between organic and advertisement	x	x		
Internet 'super-citizens'	x	x		
Click signals	x			i
Facebook tracking on other sites		x		
Recommendation by collaborative filtering			x	
Affective computing				i

Source: author's elaboration.

Specific mechanisms found in the literature review of the area are briefly described below.

### Description of the specific mechanisms

- a. *Direct data collection*: this is the most obvious mechanism used by companies on the internet. The term 'direct collection' is used to distinguish it from data that companies collect in more complex ways, such as through permissive privacy policies, storing *cookies* in users' browsers and devices (i.e. through other mechanisms). Users give data to these companies directly through searches on Google's search engine, through sharing and activity on Facebook, through searching for products, and through the purchase itself on Amazon's website.
- b. *Buying and selling of data: brokers*, as presented in this work, are responsible for buying and selling data collected over the internet. They do so in partnership with third party websites that deliver data to such companies through mechanisms such as those reported (the most common example is the use of *cookies*),

but also buying data from third party websites. And, of course, they have as their main activity the sale of data to interested companies.

- c. *Cookies*: are text files that have the function of storing preferences about the visited site; for such, they are stored in the users' browsers at the moment a site is accessed (Peng and Cisna 2000). With *cookies*, companies interested in inducing a user to consume can potentially follow him/her all over the internet.
- d. *Absorption of companies*: when Google, Facebook, Amazon and *brokers* acquire other internet companies, *lock-in* is consolidated<sup>5</sup>, increasingly entrapping users to such companies, as well as *web* concentration. The acquisitions seen as most relevant for the purposes of the present work are the purchase of Instagram (Meta 2012) and WhatsApp Messenger (Meta 2014) by Facebook. In the case of Google, the company has 232 companies costing US\$ 20.89b (Cattlin 2021). Google's purchase of YouTube in 2006, the world's largest video platform, and Motorola in 2021 are worth highlighting in terms of delving into general dynamics of this work. Amazon, meanwhile, has acquired more than 100 companies since its stock market debut in 1998. The acquisitions in the robotics and cloud computing sectors seem to be the most relevant in terms of reproducing the ideology of consumerism. *Brokers* also make acquisitions that are relevant for the purposes of this paper, such as the purchase of Brazil's largest credit analysis company, Serasa, by Ireland's *Experian* (Experian plc 2012).
- e. *GPS*: a large portion of the world's population today has internet-enabled mobile phones. With this, unless the user is concerned about keeping GPS turned off and location history disabled, data companies can have access to literally your every move. Ceruzzi (2018) explains the trajectory of the technology from military origins and later commercial uses, and Zuboff (2019) comments on some more contemporary commercial uses.
- f. *Bubble formation*: in general, a user will see ads with greater potential to induce them to consume because generalised data extraction allows categorisation into a bubble.
- g. *Income targeting*: TDEs can reach the internet-using population with targeted ads based on a very clear notion of income. Some ways of doing this: *cookies*, GPS (indicating which neighbourhood the user lives in, for example), Facebook shares, analysis of the time of day when browsing occurs to compare with other patterns, purchase of data collected by *brokers*, etc.
- h. *Audio collection*: it is public knowledge that people employed at Google, Facebook and Amazon eavesdrop on conversations near mobile phones and/or other devices (Day et al. 2019; Frier 2019). Google admits to listening to 0.2% of the audio captured around the globe (EFE 2019)<sup>6</sup>.
- i. *Personal assistants*: digital assistants such as Google Assistant (available on any Android phone), Microsoft's Cortana, or Facebook's attempt entitled M (launched in 2015 but not out of beta<sup>7</sup>) go a step further in encouraging consumption. This is because they work by 'researching' the user population:

assistants learn from *online* interests and acts to be able to predict what these interests will be in the near future (Zuboff, 2019).

- j. *SEO*: unlike most other mechanisms, SEO is used by advertisers<sup>8</sup> in search of making an impact directly on organic search. It is basically the work of using keywords that most attract the algorithm so that the company's result is better positioned in organic search, whether by Google or Amazon. In the case of Facebook, it is also possible to use SEO, but to improve the performance, for example, of a company's page on the social network in Google's results. Ziakis et al. (2019) provides detailed explanations of the mechanism.
- k. *Ad auction*: the way Google displays its ads in search results and other sites allows both advertisers with a lot of financial resources (therefore, who bid high in an ad) and with less advertising budget, but with ads that better meet the quality guidelines imposed by the company (such as the use of better keywords than competitors, for example), to succeed in the auction and have their ad aired to more potential consumers. Galloway (2017: 116) describes this auction formula and then States: '[t]he result is that corporate clients believe that Google's business is run by mathematics, not greed.'
- l. *Distinction between organic results and ads*: Vaidhyathan (2011) cites research by *Pew Internet and American Life Project* in 2005, which reported that only 38% of users surveyed reported knowing the distinction between organic results and an ad. In a recent survey conducted by Lewandowski and Schultheiß (2022), the percentage remains low: only 29.2% reported understanding the distinction.
- m. *Internet 'super-citizens'*: these are people whose 'opinions' on the *web*, because they are registered with some service such as Google and Facebook, generate more relevant impacts than the opinions of others who are not registered. In 2009 Google, for example, authorised those who were logged in 'to add or exclude sites from specific search results' (Vaidhyathan, 2011: 67). Facebook, meanwhile, allows sites to insert a comment field (on media outlets, for example) whose commenters are only those logged into the social network.
- n. *Click signals*: these are actions that are interpreted by the companies' algorithms so as to generate data in addition to those collected directly. For instance, conducting a search for a subject but, in the search result, clicking on the third link, instead of the first or the second, generates a click signal (Pariser 2011).
- o. Facebook *tracking through the 'Like' button*: websites that have the Facebook 'Like' button installed automatically pass your browsing data to the social network, without you even having to click on the button (Mozilla no date).
- p. *Recommendation by collaborative filtering*: Amazon's filtering to sell products on its site works with people's metadata, deciding what of that metadata the company 'wants to use with you and then offers items that people with a similar profile to yours have bought' (Marr 2016: 289). This does not mean, of course, that Amazon does not qualify its recommendations with other sources.<sup>9</sup>



- q. *Affective computing*: Affective computing resides in capturing bodily changes (Caruelle et al. 2022) as a basis for understanding the user. It is based on work from the 1960s and 1970s by Professor Paul Ekman combined with the computational technology developed in the 1990s by Professor Rosalind Picard (Zuboff 2019). Basically, the software developed can capture, in facial expressions, emotions that not even those who are filmed are aware that they are feeling or may come to feel, opening space to sell products based, therefore, even on the unconscious.

## Conclusion

The present work sought to answer the following central question: how do TDEs act in the international reproduction of the ideology of consumerism? To this end, a bibliographical review was conducted, not only for the purpose of providing a theoretical foundation for the research within IPE, but also as a research method. It is argued that companies take advantage of a deliberate lack of interest, mainly on the part of the state, in regulating how they operate within the IPE, in order to capture data through general dynamics that result from the articulation of specific data capture mechanisms. Through this, these companies manage to naturalise, ideologically, the act of consuming.

To allow the evaluation of the central argument, the identification of these dynamics and mechanisms was sought in the literature of the area; this identification, it is recalled, had no pretension to be exhaustive. The intention is that it serves to elucidate the *modus operandi* of the companies, enabling further discussions, within the scope of IPE, about the theme, which is related to the search for cracks in existing structures with a look aimed at a theory of change, this being the ethical commitment of TC, the theoretical approach used in the analysis.

The understanding of what the reported mechanisms are and how they work, added to the information on data collection presented, allows, it is believed, to confirm the central argument. It was possible to perceive that the TDEs researched operate, in the reproduction of the ideology of consumerism, based on technicalities (the specific mechanisms) that are not necessarily illegal, nor are they necessarily unethical (although they often are). Such technicalities lead to broader phenomena (the general dynamics) of data collection for distortion and concealment through the classic discursive tool of the ideology of consumerism – the advertisement. These broader phenomena, as much as they are certainly products of capital, are accepted by global society mainly by virtue of this ideological naturalisation of the act of consuming.

Following this understanding, a two-way street is observed. Citizens basically seem to be giving up their privacy in exchange for convenience. However, with this, their data ends up in the hands of companies that are often loosely regulated by national States or the international community, even because there is no state interest in regulating them. This lack of interest occurs essentially for three reasons. The first, it is argued, is the fact that it is not possible for the public sector to replace the services offered by data companies due to the economic bankruptcy of States in the neoliberal era. Second, there is a

huge *know-how gap* in the private sector, which is where the most qualified technology professionals work, a hermetic sector whose novelties often remain entrenched in the public domain. Third, TDEs are positioned in gaps in the regulatory system that allow them to escape from territorially defined legislation and taxation. In addition, another risk factor arising from this part of the central argument is that these transnationals have reached such an advanced level of *web* concentration that it is no longer possible to control which data are held by the companies and which are also held by the States (due to legislation in certain territories, for example). Evidently, in countries with fragile democracies, there is a huge risk that private data will pass into the hands of authoritarian rulers.

The companies analysed here are very powerful in every respect, but critical work on them helps to reveal the positive and negative potentialities of this contemporary informational ecosystem. In terms of the three spheres of IPE (political, economic and cultural (Gonçalves 2005)), it is observed, in the cultural sphere, the mastery of technical structures and the use of the mechanisms that have been presented enables these companies to reproduce messages and ideologies as they see fit. In the economic sphere, it is evident from the observation of the figures presented that the stimulus to consumerism is crucial for the financial balance sheets of data companies. Finally, the concentration of power in both the economic and cultural spheres amplifies the political power that companies enjoy. Their movements are closely followed by the international news, the consequences of their decisions are considered in state policy-making and options for internet governance are sabotaged by lobbyists linked to these transnationals.

Considering the growing number of connected people added to the unrestrained intrusion of technologies in our routine, with important impacts for the global society, one must increasingly open one's eyes to the growing power that is being acquired by TDEs through the use of the mechanisms reported here – besides, potentially, others.

## Notes

- 1 Or does not intend to carry, at least. Structured criticism of the ontological and epistemological status of CT, including equating it with a version of liberal idealism, but also denouncing it for eclecticism, conceptual misappropriation, the need to better explain the categories of analysis themselves, can be found in (dos Passos 2013, 2016; Casanova and dos Passos 2017; Oliveira 2018; Schmid 2018).
- 2 Simpson (2004), while looking at the process of deepening of the commercial Internet in the early 2000s, analyses the actions of States without dwelling on the arguments presented here about state disinterest. For him, there is an interest in promoting the *ethos* of a new liberal and self-regulatory system that prioritises trade.
- 3 Acxiom had total revenues of US\$ 917m in 2018, the fiscal year to which the company's latest report released to date refers (Acxiom Corporation, 2018).
- 4 These consist of allowing 'free' access to the internet under certain conditions, such as access to specific websites only.
- 5 It is understood that the phenomenon of *lock-in* consolidation through the absorption of companies is more evident in the case of those that offer digital services, such as Google, Facebook and Amazon, than in the case of the absorption of companies carried out by *brokers*. An example

to justify this understanding is that Experian owning Serasa will help the broker to expand its data collection, but not to lock users into its digitally offered services.

- 6 In this case, *brokers* have access to the conversations of mobile phone users and other devices indirectly.
- 7 'Facebook is killing off M, the messenger assistant that books dinner reservations on command' (Peterson 2018).
- 8 Even though SEO is not used by Google, Facebook and Amazon directly, it is these companies that host the practice; how important it is on the internet to stimulate consumption is highlighted in this research.
- 9 An example of qualifying this data occurs with Amazon Prime (video streaming service), from which the company can access which films you are interested in, and with Kindle (device for reading books).

## References

Adjerid, I, A Acquisti and G Loewenstein. 2019. 'Choice Architecture, Framing, And Cascaded Privacy Choices' *Management Science* 65 (5): 2267-2290.

Adorno, T.W. 2002. *Indústria Cultural e sociedade*. São Paulo: Paz e Terra.

Anastácio, K. 2016. 'A View From the Cheap Seats: Internet and Colonialism'. In *Giganet: Global Internet Governance Academic Network, Annual Symposium*. At <https://ssrn.com/abstract=2909369> [Accessed on 11 April 2022].

Atal, M R. 2020. 'The Janus Faces of Silicon Valley' *Review of International Political Economy* 28 (2): 336-350.

Belli, L. 2017. 'Net Neutrality, Zero Rating and the Minitelisation of the Internet' *Journal of Cyber Policy* 2 (1): 96-122.

Best, J, C Hay, G Lebaron and D Mügge. 2021. 'Seeing And Not-Seeing Like A Political Economist: The Historicity of Contemporary Political Economy And Its Blind Spots' *New Political Economy* 26 (2): 217-228.

Bourdieu, P. 1983. 'Gostos de classe e estilos de vida' *Pierre Bourdieu: Sociologia*. São Paulo: Ática.

Brevini, B. and F Pasquale. 2020. 'Revisiting The Black Box Society by Rethinking The Political Economy of Big Data' *Big Data & Society* 7 (2).

BricsCable. 2013, 'Brics summit forms business council to deepen trade, investment ties.' *BricsCable* [online]. 27 March. At <https://bricscable.com> [Accessed on 25 April 2022].

Bucher, T. 2018. *If... Then: Algorithmic Power And Politics*. New York: Oxford University Press.

Canabarro, D R. 2014. *Governança global da Internet: tecnologia, poder e desenvolvimento*. Phd Thesis, Federal University of Rio Grande do Sul.

Carr, M. 2015. 'Power Plays In Global Internet Governance' *Millennium* 43 (2): 640-659.

Caruelle, D, P Shams, A Gustafsson and L Lervik-Olsen. 2022. 'Affective Computing In Marketing: Practical Implications And Research Opportunities Afforded By Emotionally Intelligent Machines' *Marketing Letters* 33 (1): 1-7.

Casanova, L F T and R D F dos Passos. 2017. 'Cox, Teoria Crítica Das Relações Internacionais E O Realismo: Aproximações E Diferenças' *FFC Journal of Scientific Initiation-(Cessation)* 17 (1): 27-38.

- Cattlin, R. 2021. 'Google Acquisition History: What Are the Biggest Companies Google Owns?' *Forex* [online]. At: <https://www.forex.com/en/market-analysis/latest-research/google-acquisition-history> [Accessed on 18 May 2022].
- Ceruzzi, P E. 2018. *GPS*. Cambridge: MIT Press.
- Chenou, J-M and J S R Fuerte. 2019. 'The Difficult Path To The Insertion of The Global South In Internet Governance', In D Opperman (ed), *Internet Governance In The Global South: History, Theory, And Contemporary Debates*. University of São Paulo, São Paulo, pp. 42-73.
- Cox, R. 1981. 'Social Forces, States And World Orders: Beyond International Relations Theory', In R Cox and T Sinclair (eds), *Approaches To World Order*. Cambridge University Press, Cambridge, pp. 85-123.
- Day, M, G Turner and N Drozdiak. 2019. 'Amazon Workers Are Listening to What You Tell Alexa.' *Bloomberg* [online]. At <https://www.bloomberg.com/news/articles/2019-04-10/is-anyone-listening-to-you-on-alexa-a-global-team-reviews-audio> [Accessed on 18 May 2022].
- Denardis, L. 2014. *The Global War For Internet Governance*. New Haven: Yale University Press.
- Dixit, S and Munavalli, N. 2020. 'Internet Service To The Remote And Rural Regions By Cost-Effective Loon Technology.' *International Journal of Engineering Research and Technology* 8 (11): 151-156.
- Eagleton, T. 1997. *Ideologia*. São Paulo: Unesp.
- EFE. 2019. 'Google Admite Escutar 0,2% das Conversas de Usuários com seu Assistente Virtual.' *EL PAÍS Brasil*. At [https://brasil.elpais.com/brasil/2019/07/12/tecnologia/1562914719\\_220640.html](https://brasil.elpais.com/brasil/2019/07/12/tecnologia/1562914719_220640.html) [Accessed on 18 May 2022].
- Experian Plc. 2012. 'Experian Further Strengthens Position in Brazil With Proposed Acquisition of Additional Interest In Serasa.' *Experian Plc* [online]. At <https://www.experianplc.com/media/latest-news/2012/23-10-2012-1> [Accessed on 18 May 2022].
- Federal Trade Commission. 2014. *Data Brokers: A Call For Transparency And Accountability Federal Trade Commission*. Washington.
- Frier, S. 2019. 'Facebook (FB) Paid Contractors to Transcribe User Audio Files, Bloomberg.' *Bloomberg* [online] At <https://www.bloomberg.com/news/articles/2019-08-13/facebook-paid-hundreds-of-contractors-to-transcribe-users-audio> [Accessed: 18 May 2022].
- Galloway, S. 2017. *The Four: The Hidden DNA of Amazon, Apple, Facebook, And Google*. New York: Penguin.
- Gandy Jr, O H. 2021. *The Panoptic Sort: A Political Economy of Personal Information*, 2nd ed. New York: Oxford University Press.
- Garcia, A S and M B de Sá. 2013. "Overcoming The Blockage": An Interview With Robert W. Cox.' *Estudos Internacionais: Revista de Relações Internacionais da PUC Minas* 1 (2): 303-318.
- Germain, R. 2009. 'Of Margins, Traditions, And Engagements: A Brief Disciplinary History of IPE In Canada.' In M Blyth (ed.), *Routledge Handbook of International Political Economy (IPE)*. London: Routledge, pp. 87-102.
- Gill, S. 2008. *Power And Resistance In The New World Order*, 2nd ed. Hampshire: Palgrave Macmillan.
- Gonçalves, R. 2005. *Economia política internacional: fundamentos teóricos e as relações internacionais do Brasil*. Rio de Janeiro: Elsevier.

- Gramsci, A. 2001. *Cadernos do Cárcere: Os intelectuais. O princípio educativo. Jornalismo*, Vol. 2, 2nd ed. Rio de Janeiro: Civilização Brasileira.
- Gronbekk, M E. 2020. *When Consumers Fumble In The Dark: A Study of Choice Architecture In Online Markets*. Phd Thesis, Norwegian University of Life Sciences.
- Groupm. 2021. 'This Year Next Year: the Global Mid-Year Forecasts.' *Poder360* [online]. At [https://static.poder360.com.br/2021/07/groupmglobaladforecast\\_june2021.pdf](https://static.poder360.com.br/2021/07/groupmglobaladforecast_june2021.pdf) [Accessed on 27 September 2022].
- Gu, Y, L Madio and C Reggiani. 2022. 'Data Brokers Co-Opetition.' *Oxford Economic Papers* 74 (3): 820–839.
- Gutiérrez, EJD. 2021. 'Gobernanza Híbrida Digital Y Capitalismo Edtech: La Crisis Del COVID-19 Como Amenaza.' *Foro De Educación* 19 (1): 105-133.
- Ichihashi, S. 2020. *Non-Competing Data Intermediaries*. Ontario: Bank of Canada.
- Ingram, D and J Fioretti. 2018. 'Facebook Cuts Ties to Data Brokers in Blow to Targeted Ads.' *Reuters* [online]. At <https://www.reuters.com/article/us-facebook-privacy/facebook-cuts-ties-to-data-brokers-in-blow-to-targeted-ads-idukbn1h41kv?edition-redirect=uk> [Accessed on 17 May 2022].
- Interbrand. 2021. *Best Global Brands For 2021*. Nova York.
- ITU. 2021. 'Statistics.' *ITUWRC* [online]. At <https://www.itu.int/en/itu-d/statistics/pages/stat/default.aspx> [Accessed on 29 April 2022].
- Jarrett, K. 2019. 'Through The Reproductive Lens: Labour And Struggle At The Intersection of Culture And Economy', In D Chandler and C Fuchs (eds), *Digital Objects, Digital Subjects: Interdisciplinary Perspectives On Capitalism, Labour And Politics In The Age of Big Data*. London: University of Westminster Press, pp. 103-116.
- Jenkins, B. 2004. 'Creating Global Hegemony: Culture And The Market', *Rethinking Global Political Economy*, Routledge, pp. 77-97.
- Lebaron, G, D Mügge, J Best and C Hay. 2020. 'Blind Spots In IPE: Marginalized Perspectives And Neglected Trends In Contemporary Capitalism.' *Review of International Political Economy* 28 (2): 283-294.
- Lewandowski, D and S Schultheiß. 2023. 'Public Awareness And Attitudes Towards Search Engine Optimization', *Behaviour and Information Technology*, 42 (8):, pp. 1025–1044. Available at: <https://doi.org/10.1080/0144929X.2022.2056507>.
- Linklater, A. 1998. *The Transformation of Political Community: Ethical Foundations of The Post-Westphalian Era*. Cambridge: Polity Press.
- Macartney, H and S Shields. 2011. 'Space, The Latest Frontier? A Scalar-Relational Approach To Critical IPE.' In S Shields, I Bruff and H Macartney (eds). *Critical International Political Economy*. London: Palgrave Macmillan, pp. 27-42.
- Marr, B. 2016. *Big Data In Practice: How 45 Successful Companies Used Big Data Analytics To Deliver Extraordinary Results*, John Wiley and Sons, Chichester.
- Meta. 2012. 'Facebook to Acquire Instagram.' *Meta* [online]. 9 April 2012. At: <https://about.fb.com/news/2012/04/facebook-to-acquire-instagram> [Accessed: 18 May 2022].
- Meta. 2014. 'Facebook to Acquire Whatsapp', *Meta* [online]. 19 February 2014. At: <https://about.fb.com/news/2014/02/facebook-to-acquire-whatsapp> [Accessed: 18 May 2022].

- Mikler, J. 2012. 'Corporations.' In R Pettman (ed), *Handbook On International Political Economy*. Melbourne: World Scientific, pp. 249-264.
- Mozilla. No Date. 'Facebook Container: Impeça Que o Facebook Rastreie Você em Outros Sites', *Support.Mozilla* [online]. At: <https://support.mozilla.org/pt-BR/kb/facebook-container-impeca-que-o-facebook-rastreie> [Accessed on 8 December 2023].
- Mueller, M. 2010. *Networks And States*, Cambridge: The MIT Press.
- Oliveira, G C. 2018. 'Reconstructive Methodology And Critical International Relations Theory.' *Contexto Internacional*, 40: 9-32.
- Opperman, D. 2018. 'From Bandung to the DNS.' In D Opperman (ed), *Internet Governance in the Global South. History, theory, And Contemporary Debates*. São Paulo: Universidade de São Paulo, pp. 12-41.
- Pariser, E. 2011. *The Filter Bubble: What The Internet Is Hiding From You*. New York: Penguin.
- Pasquale, F. 2015. *The Black Box Society*. Cambridge: Harvard University Press.
- Passos, R D F dos. 2013. 'Gramsci e a teoria crítica das relações internacionais' *Revista Novos Rumos* 50 (2). Available at <https://doi.org/10.36311/0102-5864.2013.v50n2.3462>
- Passos, R D F dos. 2016. 'Cox e a teoria crítica das relações internacionais: ecletismo ou coerência? Uma avaliação preliminar.' In R D F dos Passos and A Fuccille (eds), *Visões do Sul: crise e transformações do sistema internacional*, Vol. 1. Marília: Oficina Universitária, pp. 81-96.
- Peng, W. and J Cisna. 2000. 'HTTP Cookies - A Promising Technology', *Online Information Review*, 24 (2): 150-153.
- Peterson, B. 2018. 'Facebook Is Killing off M, the Messenger Assistant That Books Dinner Reservations On Command.' *Business Insider* [online]. At: <https://www.businessinsider.com/facebook-is-ending-its-bot-messenger-assistant-m-2018-1> [Accessed on 16 May 2022].
- Pitt, J. 2020. 'From Trust And Loyalty To Lock-In And Digital Dependence', *IEEE Technology And Society Magazine* 39 (1): 5-8.
- Plamenatz, J P. 1971. *Ideology*. New York: Springer.
- Plavčan, P and R Funta. 2020. 'Some Economic Characteristics of Internet Platforms.' *Danube* 11 (2): 156-167.
- Raymond, M and L Denardis. 2015. 'Multistakeholderism: Anatomy of An Inchoate Global Institution.' *International Theory* 7 (3): 572-616.
- Sadowski, J. 2019. 'When Data Is Capital: Datafication, Accumulation, And Extraction.' *Big Data and Society* 6 (1): 1-12.
- Sadowski, J. 2020. *Too Smart: How Digital Capitalism Is Extracting Data, Controlling Our Lives, And Taking Over The World*. Cambridge: MIT Press.
- Schmid, D. 2018. 'The Poverty of Critical Theory In International Relations: Habermas, Linklater And The Failings of Cosmopolitan Critique.' *European Journal of International Relations* 24 (1): 198-220.
- Schneider, C, M Weinmann and J Vom Brocke. 2018. 'Digital Nudging: Guiding Online User Choices Through Interface Design.' *Communications of The ACM* 61 (7): 67-73.
- Schor, J and D B Holt. 2011. *The Consumer Society Reader*. New York: The New Press.

- Segal, A. 2016. *The Hacked World Order: How Nations Fight, Trade, Maneuver, And Manipulate In The Digital Age*. New York: PublicAffairs.
- Sequeiros, F G. 2021. 'Internet Governance: A Critical Theory Analysis of The Internet Corporation For Assigned Names And Numbers (ICANN)'. Final paper Bachelor's Thesis, University of Ottawa. Available at: <https://ruor.uottawa.ca/handle/10393/42641>
- Sherman, J. 2021. *Data Brokers And Sensitive Data On US Individuals: Threats to American Civil Rights, National Security, And Democracy*. Durham: Duke University. Available at <https://techpolicy.sanford.duke.edu/wp-content/uploads/sites/4/2021/08/Data-Brokers-and-Sensitive-Data-on-US-Individuals-Sherman-2021.pdf> [Accessed on 8 December 2023].
- Silveira, S A da. 2021. 'Digital Capitalism.' *Revista Ciências Do Trabalho* (20): 1-10.
- Silveira, S A. R Avelino and J Souza. 2016. 'A privacidade e o mercado de dados pessoais.' *Liinc em Revista* 12 (2). Available at: <https://revista.ibict.br/liinc/article/view/3719>
- Simpson, S. 2004. 'Explaining The Commercialization of The Internet: A Neo-Gramscian Contribution.' *Information, Communication and Society* 7(1): 50-68.
- Statista. 2022a. 'Advertising Revenue of Google From 2001 to 2021.' *Statista.Com* [online]. At <https://Www.Statista.Com/Statistics/266249/Advertising-Revenue-of-Google> [Accessed on 24 May 2022].
- Statista. 2022b. 'Annual Revenue of Google From 2002 to 2021.' *Statista.Com* [online]. At: <https://Www.Statista.Com/Statistics/266206/Googles-Annual-Global-Revenue> [Accessed on 24 May 2022].
- Statista. 2022c. 'Market Cap Value of top Consumer Internet Index Companies 2021.' *Statista* [online]. At: <https://Www.Statista.Com/Statistics/208843/Stock-Market-Value-of-Web-Based-Companies> [Accessed on 27 September 2022].
- Susser, D, B Roessler and H Nissenbaum. 2019. 'Online Manipulation: Hidden Influences In A Digital World.' *Geo. L. Tech. Rev.* 4 (1).
- Thaler, R H and C R Sunstein. 2008. *Nudge: Improving Decisions About Health, Wealth, And Happiness*. New Haven: Yale University Press.
- Trentmann, F. 1998. 'Political Culture And Political Economy: Interest, Ideology And Free Trade.' *Review of International Political Economy* 5 (2): 217-251.
- Vaidhyanathan, S. 2011. *The Googlization of Everything (And Why We Should Worry)*. Berkeley: University of California Press.
- Whish, R and D Bailey. 2021. *Competition Law*, Oxford: Oxford University Press.
- Worth, O and C Kuhling. 2004. 'Counter-Hegemony, Anti-Globalisation And Culture In International Political Economy.' *Capital and Class* 28 (3): 31-42.
- Worth, O. 2011. 'Reclaiming Critical IPE From The "British" School.' In S Shields, I Bruff and H Macartney (eds), *Critical International Political Economy*. London: Palgrave Macmillan, pp. 117-131.
- Ziakis, C, M Vlachopoulou, T Kyrkoudis and M Karagkiozidou. 2019. 'Important Factors For Improving Google Search Rank.' *Future Internet* 11(2): 32.
- Zuboff, S. 2018. *The Age of Surveillance Capitalism: The Fight For A Human Future At The New Frontier of Power*. New York: PublicAffairs.



## About the author

**Stéfano Mariotto de Moura** is a PhD candidate in the Postgraduate Programme in International Strategic Studies at the Federal University of Rio Grande do Sul (PPGEEI/UFRGS), Brazil. He has a master's degree and a *lato sensu* specialization also from PPGEEI. He is a journalist graduated at UFRGS with a university extension in the area by Universidad de Navarra / O Estado de S. Paulo. He researches topics related to the political economy of data, such as big tech companies and internet governance, the global information system, think tanks and ideology. He adopts the Critical Theory perspective in his work, especially the heuristic mechanisms of Robert Cox's historical structures.

### Dinâmica e mecanismos de reprodução da ideologia do consumismo por empresas transnacionais de dados

**Resumo:** A investigação identifica, através do método de revisão bibliográfica, uma série não exaustiva de dinâmicas e mecanismos utilizados pelas empresas de dados *Google, Facebook, Amazon* e os corretores de dados para a reprodução da ideologia do consumismo, e é também apresentada uma definição para essa ideologia. Cinco dinâmicas possibilitadas por 17 mecanismos específicos são categorizadas, uma vez que a combinação entre elementos da segunda categorização gera a dinâmica descrita na primeira. A questão de investigação aqui abordada é: como é que as empresas transnacionais de dados atuam na reprodução internacional da ideologia do consumismo? Argumenta-se que tiram partido de uma deliberada falta de interesse, principalmente do interesse do Estado, em regular a forma como operam na Economia Política Internacional, para capturar dados através de dinâmicas gerais que resultam da articulação de mecanismos específicos de captura de dados. Através disto, estas empresas conseguem naturalizar, ideologicamente, o ato de consumir. As dinâmicas gerais identificadas pelo jornal foram cinco: personalização, concentração da web, arquitetura de escolha, imperialismo infra-estrutural, e *lock-in*. O fenómeno é discutido à luz da Teoria Crítica das Relações Internacionais.

**Palavras-chave:** Empresas de dados; Ideologia; Consumismo; Economia Política Internacional; Teoria da Crítica.

*Received on 28 May 2022 and approved for publication on 7 December 2022.*



<https://creativecommons.org/licenses/by/4.0/>