

# Beyond science denialism: disinformation during the Covid-19 pandemic

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## Abstract

An analysis of an archive formed by editorials from two of the most important Brazilian newspapers during the first two years of the Covid-19 pandemic identified the predominance of a framing that attributed decisions of the Bolsonaro government to a denial of science. Based on historical and sociological sources, this paper discusses what this normative framing about science and health ignored, especially how the extreme-right adapted use of the paradigm of disinformation created by the tobacco industry to the new mediatic ecosystem. The paper concludes that the journalistic framing of science denialism emphasized criticisms that accused the state of incompetence, giving less visibility to the role of the federal Unified Healthcare System during the health emergency.

Keywords: science denialism, fake news, disinformation, Covid-19 pandemic, technical-mediatic public sphere.

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## ***Más allá del negacionismo científico: desinformación durante la pandemia de Covid-19***

### *Resumen*

Un análisis de un archivo formado por editoriales de dos de los periódicos brasileños más importantes durante los dos primeros años de la pandemia de Covid-19 identificó el predominio de un enfoque que atribuía decisiones del gobierno de Bolsonaro a la negación de la ciencia. A partir de fuentes históricas y sociológicas, este artículo analiza qué este enfoque normativo sobre ciencia y salud ha ignorado, en especial, cómo la extrema derecha adaptó el uso del paradigma de la desinformación creado por la industria tabacalera al nuevo ecosistema mediático. El artículo concluye que el enfoque periodístico del negacionismo científico enfatizó las críticas que acusaban al estado de incompetencia, haciendo menos visible el papel del Sistema Único de Salud federal durante la emergencia sanitaria.

*Palabras clave:* negacionismo científico, fake news, desinformación, pandemia de Covid-19, esfera pública técnico-mediatizada.

Throughout the world, disinformation during the Covid-19 pandemic caused negative consequences for public health. In Brazil, where the federal government was controlled by the far-right, President Jair Messias Bolsonaro rejected recommendations of entities such as the World Health Organization (WHO) about the need for social isolation, use of masks and vaccinations, collaborating to the circulation of fraudulent news that encouraged the adoption of ineffective forms of self-medication and treatments. The public health concern for the SARS-CoV-2 virus emerged, therefore, during a government that had a digital support network for the dissemination of fake news that questioned measures to confront and impede the contagious virus.

In an effort to understand how public opinion accompanied this social and historic context through the lens of the professional press, I undertook a study based on the creation and analysis of an archive formed by the compilation and reading of a selection of editorials about the pandemic, from the day it was declared by the WHO, on March 11, 2020, until March 11, 2022, in two widely circulating Brazilian newspapers: the *Folha de S. Paulo* and *O Globo*. The analysis focused on the editorial section because it usually defines the most important issues in a period, presenting the official position of the paper and the editorial line of the newspaper's coverage of an issue – even if indirectly. The reading of the editorials focused on the framings that they create and disseminate, offering keys for public opinion to understand events and issues (San Andrés; Castromil, 2020).

The compilation of the editorials involved reading all those concerning the polemics around the public health emergency. They were collected manually, and their selection was based on the criteria of mentioning federal government measures to confront the pandemic: those focused on the Bolsonaro government, and those that addressed state and municipal governments, healthcare, and related agencies, if they had some reference or comparison to federal actions. Articles were excluded that only described a stage of the pandemic, its local impact, advances in science, or that only addressed economic aspects, such as the crisis, or social issues, such as

increased domestic violence. In total, 170 editorials were selected from the *Folha de S. Paulo* and 219 from *O Globo*.

Once the selection was made, a second reading was conducted, with detailed annotations, to identify recurring themes about the pandemic, word choices used to characterize government conduct of the public health emergency, rhetorical structures, and other issues.<sup>1</sup> It was also possible to create a timeline with the themes that delimited periods of the conflicts over the measures used against Covid-19, among which stand out the first semester of 2021, which began with the tragedy caused by the lack of oxygen for Covid-19 patients in Manaus, followed by the second and most mortal wave of the pandemic, culminating in the beginning of activities of the Parliamentary Investigative Commission (PIC) for Covid. In addition to the identification of these aspects, the reading was conducted from the perspective of Foucaultian discourse analysis. Michel Foucault defined discourses as practices that incessantly create the objects to which they refer (Foucault, 2021), therefore, for the philosopher, discourse is not synonymous with text, but with a dimension of production of social reality.

A discourse analysis inspired by Foucault's analysis of power involves reading textual sources, with an effort to identify actors and reconstitute power relations in a certain social and historic context. Articulating the procedures of a qualitative approach of the study of media framings to a discourse analysis with sociological objectives, I identified an editorial framing characterized by criticism of how the Bolsonaro government confronted the pandemic, as well as some aspects that it left out.

The concept of framing does not have an established definition, but was inspired by Erving Goffman's work *Frame Analysis: an essay on the organization of experience* (2012), originally published in 1974, in which

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<sup>1</sup> Research about media framings includes lines that emphasize a quantitative, mixed, or purely qualitative approach. The characteristics of this investigation, undertaken by a sociologist with training in history, allowed opting for a purely qualitative work. The analytical procedures involved the identification of recurrences that inductively contribute to delimiting framings. For a discussion about the qualitative method for framing analysis, see Linström and Marais (2012).

framing designates a scheme of previous interpretation, used by a subject to define a situation. Robert Entman (1993) applied the concept to explain how the media structures the news, promoting certain interpretations about events. In general, it is possible to affirm that media framing refers to how the media interpret and represent reality, which sociological studies can identify and contrast to empiric sources of the social sciences and history.

The predominant framing of the pandemic in the journalistic editorials analyzed associated the president's positions and decisions to denialism, as affirmed by *O Globo*, in a sub-headline to the editorial of 25 March 2020: "The error of disregarding the pandemic leads the president to go against science and the country". The *Folha*, in turn, took a similar view in an editorial of 31 March 2020, which read "president Jair Bolsonaro was seen grabbing the role of poster boy for a dangerous form of denialism of the gravity of the disease". The opposition denialism *versus* science also appeared in synonyms or other discursive structures that kept it present in the editorials – such as those that associated the president's decisions to delirium. *O Globo* described it this way, in the headline of an editorial of 17 March 2021, which awaited Bolsonaro's fourth minister of health: "Queiroga's Challenge in [the Ministry of] Health is to resist the Bolsonarist delirium". The *Folha* of 22 September 2021 declared: "But, in the Brazil of Jair Bolsonaro, the Minister of Health is not much more than a sounding board for the delirium of the presidential clan".

In a schematic manner, the denialists were the Bolsonaro government and its supporters, while those that respected science were the readers of the editorials, presumed to be among the population that followed measures such as social distancing. Bolsonaro's public positionings and decisions were frequently described in the editorials of the *Folha* and *O Globo* as denialist, which was attributed to his ignorance and considered to be proof of his incompetence. On 25 March 2021, close to the peak of the second contagious wave, *O Globo* argued: "Denialism, omission, incompetence, and above all disdain for human life have dragged 300 thousand Brazilians to the tomb". On 17 January 2022, *Folha* concluded: "Disconnection from

reality and incompetence are two of the marked characteristics of the Jair Bolsonaro (PL) government in confronting Covid-19". These criticisms can exempt Bolsonaro and his government from the intentionality of their actions, hiding what in sociological terms is precisely what should be investigated: the reasons and interests that steered the decisions of the Bolsonaro government during the pandemic.

I will now present what remained outside the framing of the government measures interpreted as scientific denialism, I question the diagnosis that we were living through an anti-science wave, as this framing failed to explore the historic tensions between scientific, clinical, and experiential knowledge, ignoring the history of how public health had previously been sabotaged by market interests using the paradigm of disinformation. I then analyze how the Bolsonaro government's disinformation strategy found ideal conditions in the public sphere shaped by digital social networks. Not by instilling doubt – as did the tobacco industry in the second half of the twentieth century – but discord, because the business of the contemporary far right can be understood to be the prevention of the formation of collective consensuses.

## What remained outside the diagnosis of science denialism

There is no doubt that the editorials of the two Brazilian newspapers criticize the Bolsonaro government for its disastrous conduct of the Covid-19 pandemic and hold it responsible, as evidenced by the *O Globo* editorial of 18 April 2021, entitled "Bolsonaro's responsibility for chaos in the pandemic": "There is no question that Bolsonaro's denialism and obtuseness, his promotion of ineffective drugs and his disdain for the victims are despicable attitudes". The *Folha*'s editorial on 27 September of that year took a similar line: "It can never be forgotten that Brazil lived through a catastrophe, by the direct effect of the negligence of the Jair Bolsonaro government". The identification of the framing that was predominant in the editorials allows discussing how this criticism was constructed, casting light on its presumptions and submitting them to a historically founded analysis. These procedures

can help recognize the limits of this framing, and in figurative terms, reveal elements that were ignored, preventing a broader vision – potentially different and more complex – about what occurred.

The predominant framing in the editorials synthesized the controversies about the forms of confronting the Covid19 pandemic in the opposition: denialism *versus* science. This framing summarized the conflicts and debates about healthcare measures to an adhesion to or a rejection of science, as if the question involved only a choice between reason and folly and not between diagnoses about the public health emergency that implied different forms of confronting Covid-19. Historically, healthcare policies have always involved approximations or distancings between scientific, clinical, and experiential knowledge, which were not recognized or discussed by the editorials and probably also not by the rest of the media coverage that adopted this framing during the pandemic in Brazil – although this will be up to future studies to evaluate.

Public health issues involve decisions, measures and policies that are the result of debates within various fields, and not the mere application of scientific discoveries. Medical research is a specialized scientific field, while most doctors have predominantly clinical experience. The presumption of the editorials that the field of healthcare as a whole is a scientific field or one where science is applied is simplistic and does not stand up to a specialized look. A single healthcare theme can be faced from the perspective of scientific medical research, medical practice, and from the knowledge of the population, based on its experiences.

John H. Evans and Eszter Hargittai (2020) add that discussions about healthcare involve not only scientific facts, knowledge, and educational level, but also and above all personal values. In the US context, where the pandemic also took place under a far-right government and a politically divided society, studies indicate that segments of the population did not trust measures against Covid because they came from authorities whose values they questioned. In other words, the framing of the Brazilian conflicts

as denialism tended to reduce a complex and multifaceted situation to a binary opposition between science and denialism.

The framing identified and described here also attributed the decisions and measures of the Bolsonaro government to ignorance or incompetence, ignoring well-founded perspectives, such as the study by Rossana Rocha Reis, Deisy Ventura and Fernando Aith (2021), that demonstrates that the federal government's refusal of social isolation and the use of masks was related to the diagnosis that collective immunity could be reached if more people would become contaminated. It is important to note that this diagnosis was proved to be mistaken by experiences in the United Kingdom and Sweden. This interpretation was also suggested in some of the discoveries of the Congressional Investigative Committee of Covid-19, like the existence of a parallel ministry that advised the president and collaborated in the drafting of measures to avoid social isolation.<sup>2</sup>

What the editorials described during the first two years of the Covid-19 pandemic as denialism revealed a normative concept of science and at times the presumption that we live during a time of distrust or refusal of science. According to Pechula, Gonçalves and Caldas (2013), from the normative perspective of science, knowledge and scientific development are seen as unique and universal, generating absolute and definitive results, as if science only dissects nature and synthesizes it in numbers. The axiom that there was a wave of distrust or rejection of science is also not in keeping with the data presented by studies about "Public Perception of Science and Technology in Brazil" conducted from 1987 to 2019, by entities linked to the Ministry of Science, Technology and Innovation, such as the Center for Strategic Management and Studies. According to Delabio, Cedran,

<sup>2</sup> A discovery made in June 2021 in a document presented to the PIC by the medical oncologist Nise Yamagucho, a controversial defender of the Bolsonaro government and participant of the "parallel ministry" that discussed the drafting and publishing of presidential measures. A meeting to which the document refers was also exposed by Bolsonaro's first minister of health, Luiz Henrique Mandetta, in his book *Um paciente chamado Brasil. Folha* addressed the denunciation of the existence of a parallel ministry in an editorial of 6 June 2021, entitled *Delírios paralelos*.

Mori and Kioranis (2021), the results prove that there is broad trust in the Brazilian population for science and a growing positive view of scientists.

A study by the *Pew Research Center* (2020) found that scientists are the professionals who are most trusted in Brazil. However, the study was presented in an editorial of the *Folha* on 5 October 2020 with emphasis on another fact, that from among 32 countries, Brazilians are those who least trust science and scientists, which would reinforce the thesis that we are living in a time of distrust of science. The analysis of the editorials of *Folha* and *O Globo* allow affirming that they are dominated by a categorical affirmation of science, defining as denalist those whose positions would be explained by ignorance or adhesion to extremist ideologies. The diagnosis of denialism considers that the refusal and or sabotage of scientifically based measures results from mere ignorance or foolishness, ineptness and incompetence, other terms that appear in the editorials.

In early 2021, the beginning of the second and most deadly wave of the pandemic, the *Folha* affirmed: “By a combination of mistaken choices, stupid ideas and government incompetence, Brazil is shamefully behind in vaccinating its population against the largest pandemic in a century” (*Folha de S. Paulo*, 5 jan. 2021). *O Globo* described the government as continuing to “commit madness” (7 jan. 2021) and Bolsonaro as “disconnected from reality” (*O Globo*, 26 fev. 2021). This diagnosis failed to explore the historic tensions and disputes between knowledge about healthcare, mentioned previously, or the perspective adopted by Reis, Ventura and Aith (2021) that the government actions would have to be investigated as a possibly organized strategy to expose the population to contagion.

In specifically sociological terms, science should be understood in its historicity and cultural insertion and the conflicts about forms of confrontation of the pandemic inserted in a longer history that also involves economic and political interests. It is possible to trace the bases of the controversies about the origin of the SARS-CoV-2 virus, forms of prevention and treatment, recovering what was discovered through access to archives of the tobacco industry, in the 1990s. Studies have proven that the tobacco industry created

a paradigm of manipulation of public opinion and institutions to prevent its products from being declared carcinogenic. Historians of public health (Proctor; Schiebinger, 2008) have analyzed how economic interests drove practices such as financing of research, publications and press articles that impede or dispute the proof of the unequivocal relationship between tobacco and cancer.

Historians of science such as Naomi Oreskes and Eric M. Conway (2010) affirm that the industry's objective was to disseminate doubt in the scientific environment and public opinion, retarding legal decisions that negatively affect their business. Historic antecedents like this may have contributed to have part of society come to suspect the interests that articulate companies, researchers, and press entities, paving the trail that has led us, in the twenty-first century, to a context in which it is common to search for alternative sources of information about health. In general, it created a climate suspicious about issues of public interest that involve the lives of citizens.

Large industries such as tobacco, plastics, weapons, and pharmaceuticals have made strategic use of the scientific sphere and the press to create controversies to impede or at least delay government regulations and policies. In this context, public health became hostage to organized campaigns to create uncertainty, such as the questioning the tobacco industry successfully implemented beginning in the 1950s, through the public relations firm *Hill and Knowlton* (Oreskes; Conway, 2010). Its campaign created a paradigm used until today by other industries and interest groups that disseminate doubt and harm public health using three main arguments: 1. Cause and effect about the use of a product or good and harm to health cannot be established; 2. Statistical data do not provide complete responses, which allows questioning epidemiological studies, even by presenting other data, graphs and tables; 3. More research is needed to reach conclusions, because the evidence is still not sufficient.

Various interest groups have continued to use similar arguments, only adapted and updated within the same communicational strategy that we can

call disinformation. A paradigmatic case is precisely that of the Bolsonaro government during the Covid-19 pandemic. Inserting it in this historic lineage allows a more sophisticated debate about the controversies over the means for confronting the healthcare emergency, given that it renovated the disinformation paradigm created by carcinogenic industries operating in mediations that trigger the support of public opinion in the definition of public policies. The historic relationship between the tobacco industry and this strategy makes understandable and rational the action of the so-called “chloroquine caucus” during the Covid PIC, which was described by *O Globo* (10 May 2021) as having presented “preposterous questions” to ex-Minister of Health Mandetta. In reality, the questionings were led by a senator whose electoral base was in a tobacco producing region and emulated those mentioned above created by the tobacco industry.

David Michaels (2008) affirms that public healthcare measures and policy involve a group of social agents and that science has a decisive role not only because of its discoveries or achievements, but because it is used as a powerful legitimizer of arguments of different interest groups. It is in this sense that opposing fields can simultaneously evoke science to present different diagnoses about a collective problem and its solution. Science maintains its power and legitimacy, which explains why interest groups are supported by supposed scientific sources even when they try to question or impede the adoption of preventive measures and or means of effective treatment recognized by most of the scientific community. Studies like that of Amit Prasad (2021) and Michael Lynch (2020) reject diagnoses of denialism or the affirmation of an anti-scientific wave. Lynch ponders: “instead of an outright rejection of science and objectivity, what is involved is an effort to produce adversarial claims of objectivity and institutional support for those claims” (2020, p. 50).

It can be said that the controversies over confronting the pandemic in Brazil did not involve a pure and simple denial of science, nor did they

result from the inability of public opinion to understand it.<sup>3</sup> In light of the history of the emergence of the disinformation paradigm, it is important to question if the framing of the public debate with the opposition of denialism and science does not deviate the focus from economic interests involved in the dispute around the measures against the pandemic. For this reason there is little interest in exploring the reasons behind Bolsonaro's attack on forms of prevention that threatened to decrease economic activity, while greater attention was given to the political interests, as in the *Folha* editorial entitled "No to denialism" (14 Oct. 2021), which affirmed: "Bolsonaro insists on the antivaccine con because he must offer something to feed the fanatics who still sustain part of his declining popularity. He depends on these radicalized sectors to make viable his re-election campaign next year".

Among the limits of arguments such as that his supporters are fanatics, can be highlighted the fact that even a specialized professional entity took a position – depending on the perspective of the evaluator – favorable or beneficial to the government position. The Federal Council of Medicine did not establish protocols or take a position against supposed "preventive" treatments against the infection from the Sars-Cov-2 virus, impeding public opinion from having a reliable reference amid the false polemics created by the far right.<sup>4</sup> *O Globo* affirmed that during the pandemic the Federal Council of Medicine "made mincemeat of science" (26 Oct. 21) and *Folha* maintained that the Council "renounced its obligation to promote evidence-based medicine" (6 Oct. 21). In the editorials analyzed neither paper explored the hypothesis that the political composition of the entity may have led to its actions.

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<sup>3</sup> Based on other contexts, Martin Rooke affirms: "scientific misinformation may be linked to wider conspiratorial concerns about sociopolitical issues than a simple misunderstanding over facts" (2021, p. 14).

<sup>4</sup> See the report Parecer 4/2020, which was mentioned in the report of the Parliamentary Investigative Commission (PIC). Although the Federal Council of Medicine recognized that chloroquine and hydroxychloroquine were not effective against Covid-19, it defended the "medical autonomy" to prescribe them.

In sum, different from what was affirmed in the editorials, what is most probable is that part of public opinion distrusted the established news media and not science. The diagnosis of scientific denialism does not account for the political dispute for public opinion that marked the Covid-19 pandemic and tended to reify under the idea of ignorance the action of interest groups or authorities to discredit other institutions involved in the discussion about how to fight the pandemic. The use of denialism to frame conflicts during the Covid pandemic also attributed the disinformation created by the government and its supporters to an apparatus of dissemination of lies and not to a rational paradigm in defense of political and economic interests. I will now seek to present a preliminary reflection on this topic, which will require entering discussions about political communication and digital sociology.

## The use of disinformation during the Covid-19 pandemic

The previous section allows understanding disinformation as an organized and systematic form of communication used by groups that make use of different tactics to conquer or influence public opinion. During the Covid-19 pandemic, one of these tactics involved the dissemination of conspiracy theories that shift attention from the domestic problem, defining the virus as an invention of the Chinese and the WHO, which according to a former minister of foreign relations of the Bolsonaro government Ernesto Araújo, was used as a “global tool for construction of planetary communist solidarity” (Editorial, *Folha de S. Paulo*, 25 abr. 2020).

The importance of the phenomenon of disinformation during the Covid-19 pandemic was associated to the perception by healthcare entities that we live under an avalanche of information. This led the WHO (2020) to declare that along with the pandemic we are suffering an “infodemia”, suggesting that the excess of information creates a context propitious to disinformation. This created conditions to different forms of questioning healthcare authorities. In addition, the contemporary disinformation

developed in a context different from that when the tobacco industry was created, which made it necessary to take a step back in search of definitions for disinformation and fake news created before the pandemic erupted and during it.

In 2018, the United Nations Educational, Scientific and Cultural Organization (UNESCO) published a manual for journalists which rejected the term “fake news” because it understood that “news means verifiable information in the public interest”. UNESCO sought to define and differentiate three phenomena: disinformation, misinformation and *misleading information*. According to UNESCO (2019), disinformation is information that is false and deliberately created to cause harm to a person, social group, organization or country, while misinformation, is false, but does not have the objective to cause harm, while misleading information is that based on reality, but used to harm a person, group, organization or country. The world’s largest news agency, the British Reuters, goes farther by affirming that “*fake news* is only in part about fabricated news report narrowly defined, and much more about a wider discontent with the information landscape – including news media and politicians as well as platform companies” (Muriel-Torrado; Pereira, 2020, p. 9).

In this context, disinformation is a broader and more complex phenomenon than simply fraudulent news. Opinion polls – conducted in various countries – by agencies such as Gallup (2018), Reuters (2017) and IPSUS MORI (2019) – allow concluding that “western media audiences are relatively distrustful of news media to report on events accurately and fairly” (Roque, 2021, p. 3). The situation of distrust was propitious to the search for alternative information sources, such as those abundantly provided by content creators outside the major media, which promote news on sites, video channels and social networks that – in countries like Brazil – wind up feeding messages exchanged on messaging apps like *WhatsApp* and *Telegram*.

Distrust of the professional news media contributed to the use of the digital social networks as an information source (Alcott; Gentzkow, 2017). The credibility and dissemination of contents that circulate on social networks or messaging apps can be derived from what the *Media*

*Insight Project* (APNORC, 2016) observed: “when people see a post from a trusted person [...] they feel more likely to recommend the news source to friends”. In addition, the status of a so-called “independent creator” of content can give greater validity to news created by a digital influencer than its accuracy, and have it circulate at a level relatively equivalent in relation to the other, created by a professional journalist and published by an established information vehicle.

Thus, it is possible and necessary to indicate the limits of notions such as infodemia and fake news to understand the contemporary phenomena of disinformation. Infodemia seeks to characterize – from the perspective of the public health emergency of the Covid-19 pandemic – what some communication scholars define as “ambient journalism” (Hermida, 2010) or “information overload” (Austin *et al.*, 2012). Therefore, it is a previous phenomena already identified and discussed by researchers of the sociology of media. Fake news, in turn, is more than misinformation (incorrect news) or lies and is usually created intentionally as part of an organized strategy of disinformation with economic, political, or other objectives.

The editorials analyzed from *O Globo* and the *Folha de S. Paulo* show a predominance of the understanding of the Bolsonaro government’s disinformation strategy as synonymous with dissemination of fake news, understood to be lies about the Covid-19 pandemic. At most, there were sparse mentions of digital militias or affirmations like that by *O Globo*, in an editorial of 18 March 2021: “However, Bolsonarism inhabits its own bubble of disinformation, a type of parallel reality”. In an editorial of 21 January 2021, the *Folha* affirmed: “President Jair Bolsonaro served in a sordid battle of disinformation in support of the virus, in which he promoted, with the applause and collaboration of a radical and inconsequential fan club, the discredit of basic measures to contain dissemination of the disease”.

The editorials of both newspapers associated the disinformation about healthcare to radicalism and irrationality without recognizing how, in the complex contemporary communicational landscape, far-right politicians associate with interest groups and followers on networks for coproduction

of disinformation (Herasimenka *et al.*, 2022). The disinformation about healthcare was not recognized by the editorials as a strategic paradigm with rational objectives such as exposing the population to the virus or financial exploitation by networks of interest groups that can be identified, firstly, as political marketing, to maintain the allegiance from the base of support for the government and its allies. Although the issue is Covid-19, the focus on denialism tended towards a tangential analysis of the polemics involving the complexities of disinformation about healthcare, while the needs of the public healthcare system were barely discussed.

The predominant reference by the editorials to fake news as a new phenomenon, created by “amateur” media, such as obscure sites or users of social networks is questionable. As the history of the tobacco industry previously presented proved, disinformation is usually organized and in the past counted on the major media as one of its partners. The projection of fake news on social networks and its understanding as disinformation helps to understand why vehicles of Brazil’s major media undertake fact-checking, which in addition to being an unending activity, is based on the axiom that facts or truth prevail. This ignores the fact that information is a social process and that, as Walter Lippmann (2015/1922) warned in his classic *Public Opinion*, news is not the truth.<sup>5</sup> The news is only an element that can assist readers, individually, or public opinion, in collective terms, come closer to the truth.

Seeking to contribute to a preliminary understanding of disinformation in its current form and how it was used during the Covid crisis in Brazil, I raise two elements that I discovered in previous studies about changes in the public sphere under the hegemony of the new media ecology that includes digital social networks and interpersonal communication by messaging apps. The first is the deepening of the media exposure that better explains

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<sup>5</sup> According to Walter Lippman: “The function of news is to signalize an event, the function of truth is to bring to light the hidden facts, to set them into relation with each other, and make a picture of reality on which men can act. Only at those points, where social conditions take recognizable and measurable shape, do the body of truth and the body of news coincide” (2015, p. 367).

what the term infodemia seeks to do, yet in an isolated and insufficient manner. The second element aims to go beyond fake news to understand disinformation as inseparable from the way that the internet intensified media segmentation, making the formation of consensuses more difficult.

As I presented in another study (Miskolci, 2016), beginning with large movie screens passing to medium-size TV screens until reaching the small screens on cellphones, a process of growing individualization of access to the media is recognizable, as well as that of greater exposure to them. Occasional visits to movie theaters gave way to daily television viewing until reaching the now nearly uninterrupted use of smartphones, so that we are now much more exposed to news and to novelties presented by journalism, entertainment and propaganda.

The consolidation of the platforms by which we access on-line contents led users to unify profiles into a single one, which facilitates entrance to sites and portals, offering their owners the conditions to track us and make commercial use of our data (Machado, 2021). A commercial objective was technologically shaped, centralizing our interpersonal communication into a unified profile that generated contextual collapses, contributing to misunderstandings and even conflicts (Marwick; Boyd, 2010; Machado; Miskolci, 2019). This fact allowed a degree of media segmentation that encouraged individualized perspectives of comprehension and agency, impeding the formation of consensuses based on common interests or values.

The intensified media exposure, associated to access by a unified profile, helps understand how technological and communicational changes strengthen the circulation of customized interpretations of reality, many of which were linked to political or economic interest groups. If in the past these groups sought to win over public opinion through professionalized corporate news vehicles, this also now involves communicational environments such as websites, social networks and even messaging apps.

The new media ecology was capable of mediatizing public opinion in its methods of informing, decision making and acting. The door to this public sphere is the smartphone, which is simultaneously a phone and a

computer, which perhaps helps understand why most of the bibliography discusses the technological aspect more than the media aspect (Pasquale, 2017). Even if there is no univocal definition of mediatization, the term began to be used to refer to the impact of the media on political communications, and more recently, on the ways that they transform institutions and social processes. Mediatization, therefore, does not refer only to communicative mediation, but to the ways that society becomes increasingly dependent on the medias and their logics.

Stig Hjarvard affirms that the concept of mediatization refers to “whether and how structural changes between the media and various social institutions or cultural phenomena come to influence human imaginations, relationships, and interactions” (2013, p. 3). Therefore, it contributed to understanding how the media has a dominant role in other institutions, to the point of changing them, and through them, political and interpersonal relations. The advent of the commercial internet, since the mid 1990s, progressively changed the media ecology and intensified mediatization, because “society to an increasing degree is submitted to, or becomes dependent on, the media and their logic” (Hjarvard, 2008, p. 113). Among these models-logics, I highlight spectacularization (Berrocal, 2017) and infotainment (Ferré, 2013), which shape both suspicious news sites as well as *YouTube* or television channels that explore what Jeffrey Berry and Sarah Sobieraj (2014) call outrage discourse. During Covid-19, both had an important role in the support for measures of the far-right government, highlighted in Brazil by the newschannel Jovem Pan.

Although studies about mediatization present an important analytical framing, they only tangentially explore the role of the internet, new technologies and communicational interfaces. Only when we articulate mediatization to digitalization can we attain analyses capable of understanding how the political and cultural conflicts of our time are inseparable from the situation of the new media ecology and the public sphere which it engendered. To understand disinformation as a communicational strategy requires rethinking how framings are created today and situate disputes

over public opinion in a balance of different forces than existed before the internet. Windows of opportunity are open for politics and business, not only for far-right groups, but also for radical social movements such as anti-vaxxers (Ferrari *et al.*, 2022), ultraconservative doctors, and others who, circumstantially, especially during healthcare emergencies, can associate and or work in network in a cooperative manner (Herasimenka *et al.*, 2022).

In the media system predominant until the late twentieth century, the media was linked to cultural and business elites, while today, the public agenda is more disputed and involves actors like those mentioned above, as well as digital influencers and science communicators. Some of them contributed to popularizing the diagnosis of science denialism during the pandemic, therefore, a theme in the health field, in which there is more adhesion to a normative concept of science than in sociology or in history. The use of the term denialism in the editorials of the two newspapers dates from the beginning of the pandemic, but intensified with the hiring of science communicators by the newspapers. *Folha de S. Paulo* hired Átila Iamarino as a columnist and *O Globo* Natália Pasternak, both have PhDs in microbiology. In late August 2021 Pasternak published the book *Contra a realidade: a negação da ciência, suas causas e consequências* [Against reality: the denial of science, its causes and consequences] in coauthorship with Carlos Orsi. Her columns were cited in some editorials of *O Globo* and the use of the term denialism intensified in the editorials after October 2021. The inspiration for this framing requires more studies and may have originated among science communicators like those cited, but also among doctors and other communication professionals.

From a Foucaultian perspective of discourse analysis, it can be affirmed that the predominance, in the editorials, of the framing; science *versus* denialism, suppressed the also political character of the defense of scientifically based measures, circumscribing the politicalization only to those who question or sabotage them. This framing counters science, the real and truth to denial, illusion and lies, failing to reveal that opposition to scientific consensus and in public healthcare administration may not simply be the result of ignorance

and government incompetence, but of a political-communicational strategy with rational objectives. The framing of denialism may have contributed to the failure to explore other hypotheses like that of the association of interests in search of monetization and other forms of profiting.

In the public health sphere, discussions are inevitably political, given that they involve a predominantly technical field. Someone educated in medicine or nursing does not necessarily participate in an apparatus for scientific production or have knowledge of public policies. The conditions are thus created so that the broadened public sphere includes professional voices with different levels of knowledge about the virus and the pandemic. One of the problems that this coverage brought was to equate questions of daily health and whose forms of treatment are known and consolidated to a global healthcare emergency of an infectious-contagious character that required an epidemiological perspective, preventive measures that require the articulation of policies and the establishment of treatment protocols.

This cacophony was possible because collective forms of regulation of professional action were not taken. The decision of the Federal Council of Medicine to defend doctors' individual freedom to make diagnoses and to reach agreements with patients when defining treatment, in practice allowed the adoption of measures and medications scientifically proven to be ineffective or harmful for treating Sars-CoV-2. In the battle for public opinion, the decisions of the Federal Council of Medicine provided munitions to groups who defended these ineffective forms of prevention and treatment. The policy positions of professional medical researchers with experience in the development of public policies and administration of healthcare programs were placed at the same level as the policy positions of professionals with predominantly clinical experience or in the private healthcare system. The consequence of this leveling is greater in a new media system that expands the number of broadcasters, thus opening more space so that voices with less knowledge and qualification gain attention and support in the new information landscape in which access to and interaction with news sources are more segmented than in the past.

## Preliminary conclusions

The Covid-19 pandemic arose at a historic moment marked by distrust in journalism and trust in science. It is worth highlighting that according to the previously mentioned poll by the *Pew Research Center* (2020), trust in science in Brazil was independent from political affiliation, thus, at least at the beginning of the pandemic – it was a unifying trust in a politically polarized nation. When journalism approximates to science, it gains credibility, which can be associated to an increase of confidence of the public in the press, indicated in a study by the *Reuters Institute* (2021), presented in an editorial of *O Globo* on 25 June 2021.

Segments of public opinion that distrust the news of large communication companies mention reasons such as the suspicion that the “major media” does not defend their interests and looks only to manipulate them to the benefit of economic and cultural elites, for example. Not by chance, in various national contexts, it is against these elites that populists have presented themselves to gain support and win elections. During the pandemic, they extend this tactic of presenting themselves as defenders of the people against measures to confront Covid-19 that supposedly threatened their work or source of income. In this sense, they have the indirect support of media coverage made in the framing analyzed in this text, because the qualification as denialists tends to cut off communication with the segment of the population labeled as ignorant or fanatical, establishing or reinforcing a supposed class division between a clarified elite and ignorant people.

Disinformation can be seen as an ethically questionable paradigm harmful to the collectivity that must be avoided by a suitable institutional apparatus and effective monitoring. Among the facts identified by this study is that disinformation about the pandemic thrived in the confluence between the new media ecosystem and the public health emergency, counting on the support or abnegation of entities and institutions that could prevent it, such as the Federal Council of Medicine mentioned.

Thus, as Michaels (2008) highlighted, the contemporary debate about science has substituted or overlapped the discussion of public policies. The health emergency established by the Covid-19 pandemic made clear the mortal danger of orchestrated attacks on public healthcare policies for the collectivity. In historic and sociological terms, a politically divided society has shaped the debate about a public health emergency, creating conditions propitious for the federal government and its supporters to launch a disinformation strategy. The political divisions before the pandemic – in particular, like the public opinion polarized in the elections of 2018 – contributed to transform into polemics the origins of the virus and the forms of transmission, affecting the definition of measures for prevention and treatment and their implementation. In this context, commercial press entities contributed to disseminating in public opinion a framing about what was happening that reinforced old criticisms of incompetent and poor public administration. Thus, they gave less emphasis to the importance of the state and universal and free public healthcare policies.

Going beyond the broadly accepted analysis of the paradigm of disinformation that was created by industries that produce polluting, carcinogenic or ethically questionable products, based on the dissemination of doubt, in this article, I argue that this paradigm in the techno-mediatised public sphere (Miskolci, 2021) revealed itself to be suitable to groups that sow not just doubt, but discord, profiting from the prevention of consensus that would lead to collective protocols, measures and regulations that would probably be more effective in confronting the pandemic. Among the results achieved stand out the maintenance of a segment of public opinion as an electoral base, the promotion of individual forms of dealing with healthcare (including self-medication) and above all, the disarticulation of the federal Unified Healthcare System (SUS), and in some moments, even its sabotaging.

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