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Algorithm-driven populism: An introduction

Populizm oparty na algorytmach. Wprowadzenie

Abstract: This paper introduces the concept of algorithm-driven populism, considering whether it has a consonant or a conflicting relation with liberal democracy. The overall argument is that social media platforms are not just new media used by populists; algorithms have co-constituted a new form of populism. Based on a literature review that connected different fields of research together in order to elucidate the relation between populism and digital media, this article details a few important features of social media platforms, examining how they set up specific affordances that endanger the values of liberal democracy.

Keywords: populism, democracy, technology, algorithms, social media

Abstrakt: Niniejszy artykuł wprowadza pojęcie populizmu opartego na algorytmach, zastanawiając się, czy ma ono związek z liberalną demokracją, czy jest z nią raczej sprzeczne. Generalna teza zakłada, że media społecznościowe to nie tylko nowe media, które wykorzystują populiści. To znacznie więcej, bowiem algorytmy wzięły udział w stworzeniu nowej formy populizmu. Na podstawie przeglądu literatury, który uwzględniał badania przeprowadzone w różnych dziedzinach nauki, by wyjaśnić związek między populizmem a mediami cyfrowymi, artykuł eksponuje kilka istotnych cech platform mediów społecznościowych, jak również analizuje zagadnienie wpływu utworzenia konkretnych afordancji na zagrożenie wartości liberalnej demokracji.

Słowa kluczowe: populizm, demokracja, technologia, algorytmy, media społecznościowe

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The multiple competing concepts of populism derive from divergent approaches. From one (positive) perspective, populism may be understood as an elementary democratic way of life, built through popular engagement in politics (Canovan), as an emancipatory force (Laclau), as an eccentric way of challenging the ruling elites (Peston, Richards), or even as an interactive and participatory populism derived from contemporary social media activism (Gerbaudo's "populism 2.0").

Contrarily, populism may be (negatively) considered inflamed emotion-driven politics that inevitably leads to confrontation (Moffitt, Tormey), a deflection of political pluralism which predicts a time of intolerance (Müller), and it may also be related to artful politics, either as the political mobilization of the masses, a governing strategy based on direct and unmediated support from the "people", or even a kind of "irresponsible" economic policy.

That is the reason why it has been possible for the very same term to have been used to describe very contrasting (both left- and right-wing) political leaders, in different regions across the globe with unique backgrounds. We should add that this malleability is also due to the fact that populism is a catch-all label frequently ascribed to others with a negative connotation – despite the fact that one may find some cases of self-proclamation.

Which concept of populism does this article relate to, and how is it developed here?

- This paper introduces the concept of *algorithm-driven populism*: a discourse structured and conditioned by algorithms.
- Heuristically stated, algorithms are sets of codes used to perform a given task. For the purposes of this study, algorithms are a new kind of knowledge – constitutive of particular subjectivities – that imposes itself as a new form of world.
- The question we consider is whether algorithm-driven populism has a consonant or a conflicting relation with liberal democracy. And, more specifically, what are the features of this new model of populism that may challenge the latter concept.
- To answer the research question, a literature review was conducted, connecting different fields of research together in order to elucidate the relation between populism and digital media. We have specifically limited our study to social media platforms, acknowledging this is just a portion of the ubiquitous sociotechnical experience and of the influence of algorithms in everyday life.
- The overall argument is that social media platforms are not just new media used by populists; algorithms have co-constituted a new form of populism.
- This argument is structured as follows: in the first section, three essential features of populism are presented; the second section further elaborates on the concept of algorithm-driven populism; then, the article details a few important features of social media platforms, examining how they set up specific affordances that endanger the values of liberal democracy.

1. A note on the perspective employed

Generalizations and assumptions of knowledge are essential aspects of theoretical thinking. Claiming universality, however, without recognizing knowledge is significantly situated and contextual, is bad abstraction, and we are well aware of that (França 2021). Populism is not knowable in the same way and from the same point of view.

Latin American populism is one example. Latin America is the legacy of a historical colonization enterprise, characterized by quasi-ungovernable societies, weak democratic institutions coexisting with strong and violent polices, cultural clashes and the absence of conscience of people and nation. Analyzing in particular the recent Latin American populist experience, Zaffaroni (2017) describes this primitive, crude and vengeful discourse as "popularesco" (a term with no direct English equivalent, but close to the German *Völkisch*). Deeply embedded in the political scene, this "popularesco" discourse is designed to restore a lost societal cohesion – which never actually existed – nourishing and reinforcing the worst prejudices to publicly stimulate the identification of the enemy of the moment. Most Latin American countries have experienced domestic struggles with non-predefined, transitory enemies, who succeed one another without combining (Zaffaroni 2017), standing opposed to the ideal, momentary assumptions of who the "people" are. While there is no expression of sovereignty/the general will of the people, "popularesco" discourses also draw on anger and resentment against confronted others. In this context, the way Latin American populist politicians and movements have found to secure the support of the discontent throughout history is through the idea of generalized lawlessness, and the exacerbation of internal and regional (neighboring countries) rivalries (Tormey 2019). With an attentive focus adjustment, it is clear these countries experience a particular expression of populism.

Though it may not be thoroughly applicable to each and every populist event, and a geo-politically more sensitive theoretical approach is highly recommended (Aas 2012), this essay relies on a general concept of populism, which is based on core coincident elements identified in the most relevant related literature. In addition, the main issues analyzed here – politics and technology – have evenly impacted different societies, allowing us a reasonable claim of universality. After all, when Thom Yorke sang "they don't speak for us" twenty-five years ago – on an album that appropriated, revealed and denounced the effects of modern technology on individuals – the verse was as truthful as it is today; and, with time, it has gained much more resonance for many different people across the globe.

2. Three essential features of populism

In order to grasp the conceptual multiplicity presented in the introduction, it is more manageable to conceive of populism as a discourse. Based on three core elements coincident in various approaches of populism – (1) the virtuous and homogeneous people or *Volk*, (2) the dangerous elite/others and (3) the general will/popular sovereignty – Mudde & Rovira Kaltwasser (2017) define populism as a *thin-centered ideology* that considers society to be ultimately separated into two monolithic and antagonistic camps, and which argues that politics should be an expression of the sovereignty/general will of the people.[1] Inspired by this definition, we are able to rework the idea of populism, unpacking it to three essential features: the dichotomous social perspective, the emotional appeal and its discursive instrumentalization.

2.1. Two monolithic and antagonistic camps

Hopster (2021) and Engesser et al. (2017) suggest these opposing segments might be connected to the more general dichotomy of "in-group" versus "out-group", which allows this definition to encompass both right and left populisms, with their own representations of "the people", "the common enemy" and the political solutions.

In the rightist perspective, "the people", delineated in terms of national identity, is constructed in opposition to migrants and ethnic and religious minorities – to which we could add criminals as a segment targeted by populist resentment (Pratt 2007) – through an exclusionary/xenophobic discourse (horizontal dimension). In the leftist stance, "the people", in terms of class, is constructed in opposition to an immoral elite (greedy bankers, corrupt politicians) through an exploitation discourse (vertical dimension) – for an illustration of the latter, just think about of the famous Occupy slogan "we are the 99 per cent" against the "1 per cent" (Gerbaudo 2014; Mudde, Rovira Kaltwasser 2017).

An immediate rebuttal would claim these monolithic estates do not conform with late-modern individualism. Yet, they are based on ideal assumptions, not practical ones, in the sense of an abstract totality or near-totality of a collective political identification. In this line, Gerbaudo (2014: 72) explained that populist movements "appeal to an ideal subject that is seen as highly atomised, and thus in need of a process of reintegration in the social body." Later, addressing our main theme here, he (2018: 748) added that "the hyperindividualism dominating social media has led to a condition of atomisation that is ultimately conducive to

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[1]   In the same sense of populism as an ideology, a set of ideas, an ideological orientation, a style of communication, a (digitally) mediatized communicative and discursive relation, respectively: Albertazzi, McDonnell (2008), Gerbaudo (2014), Engesser et al. (2017), KhosraviNik (2018), Maly (2018).

the populist logic which is centrally concerned with fusing atomised individuals in the collective body of the people." That is exactly what has been happening in some political campaigns: algorithmic constructs of many different individuals, characters and voices are 'datafied' as different target groups that represent "the people" (Maly 2018, on Trump's campaign).

The same can be argued about the opposed group. Engesser et al. (2017) illustrate that the elites attacked by populist actors may substantially vary: political, economic, legal, supranational, or media elites. They also indicate "that the economic elite are preferably attacked by left-wing politicians while media elites are predominantly targeted by right-wing populists" (Engesser et al. 2017: 1122). An identical rationale is applicable for the exclusionary, horizontal dimension, where migrants and minorities also vary substantially.

2.2. Affective-driven politics

One implicit feature that permeates populism is its "commonsensical anti-intellectual nature" (Pratt 2007: 17). Populism represents the defeat of Reason (rationality, science, truth) and its ability to structure and inform the parameters of governance in the modern world (Pratt, Miao 2017). In every possible style, populist discourses draw on anger and resentment to touch the most profound fears and hopes. And the political solution is silly, though sometimes epic and redemptive (Tormey 2019): "I would build a great wall, and nobody builds walls better than me, believe me, and I'll build them very inexpensively. I will build a great great wall on our southern border and I'll have [the others!] pay for that wall."

In this way, populism opposes itself to liberal democratic principles, as it walks over the inherent and indispensable social differences, oversimplifies the intricate social structures, and replaces political pluralism with antagonism (Tormey 2019).

2.3. A discourse at odds with liberal democracy

As a thin-centered ideology, Mudde & Rovira Kaltwasser (2017) explain that populism has a restricted structure, allowing it to be malleable enough to adopt distinctive shapes and to attach to and be assimilated into other thick- or full-centered ideologies – as fascism, liberalism, socialism. We prefer to describe it as a discourse, rather than an ideology. Discourses are specific social and political, contingent and historical, constructions that establish and frame communicative relations between objects and practices (Howarth, Stavrakakis 2000), while ideologies relate to what discourses are filled by, their contents and the concrete demands formulated by agents. Though close and related, the former conveys the impression of something that can be strategically employed rather more conveniently than the latter. In fact, some of those depicted as populists are not submerged in any readily recognizable ideology; they artfully adopt populist rhetoric when it is opportune.

The relation of populism with democracy is quite controversial. The former can have either a positive or a negative impact on the latter. If we consider democracy as an always incomplete and dynamic form of government, populism can work as either a corrective for or a threat to democracy. This rationale becomes further remarkable whenever we differentiate democracy (*sans* adjectives), the combination of popular sovereignty and majority rule, from *liberal* democracy, a political regime that tries to find a harmonious equilibrium between majority rule and minority rights, with independent institutions specializing in the protection of fundamental rights (Mudde, Rovira Kaltwasser 2017). In short, populism is essentially democratic, but at odds with liberal democracy. (This inference is only valid if we consider democracy in its original sense, not as a politically tailored epithet employed by de facto authoritarian politicians).

3. The algorithm-driven populism

Weiser (1991) once wrote that the most profound technologies are those that disappear, weaving themselves into the fabric of everyday life until they are indistinguishable from it. That's what happened to the very complex technique of writing: while we translate our thoughts into a standard system of symbols, the reader, properly trained to cope with this same technology and informed by a common vocabulary, is able to decode meanings from these agglutinated characters according to his or her own experience and expectations – and this communication process has become quite ordinary. The same could be said about motorized transport and the hundreds of volts coursing through wires in the walls. Algorithms have not been fared differently, and have intensely, but now quite imperceptibly, refashioned our everyday life. Just think about the increasing privatization and automation of cultural decision-making processes – such a significant shift of how we experience and understand culture that some (e.g., Striphas 2015) have described it as the emergence of an "algorithmic culture".

If computer scientists and programmers were asked what an algorithm is, most would likely say that, at the most basic level, algorithms are sets of instructions used to solve a well-defined problem. This is a common definition focused exclusively on the technological features. To be clear and avoid semantical bruits, when we talk about algorithms in this essay, we avoid ontological approaches, where this technique is something objectifiable as codes and instructions. We also avert anthropological or instrumental approaches, i.e. the idea that this technology, as an instrument available to the control of human rationality, necessarily derives from and returns to men. In Heideggerian terms, we prefer to see them as a new kind of knowledge. Algorithms – as a technology – are mathematical frameworks, constituted as a system and increasingly more objectively articulated, not as a material

apparatus or the social-technical networks that end up forming this themselves, but as the knowledge that allows all this to not only work, but to impose itself as a new and radical form of the world.

Introna (2016) asserts that algorithms are important sociomaterial actors in contemporary society – with which we must agree. Drawing on the Foucauldian notion of governmentality to analyse academic writing practice, he suggested that algorithms are linked to regimes of knowledge and are constitutive of particular subjectivities. Hopster (2021) provides a similar conceptual approach. Using a term commonly employed in technological design studies, he explained how *affordance* describes how a given technological setting invites people to act in specific ways; in other words, and adapting to our argument, in what ways social media ecology offers specific communicative as well as ideological possibilities for populists.

While some understand the relation between algorithms and populism in terms of technological expression or furtherance of prior societal and political predicaments (Bruns 2019a, 2019b); or congruent, though separate phenomena, such as "elective affinities" (Gerbaudo 2018); or as a momentum opportunity, in which technological systems allow affective-driven politics and populism to replicate or perpetuate (Tucker et al. 2017; KhosraviNik 2018; Callihan 2020); we ally ourselves with the idea of a co-constitutive algorithmic-structured populist discourse identified as algorithmic (Maly 2018) or digital (Cesarino 2019, Prior 2019) populism. In a few words: social media platforms are not just new media used by populists; algorithms have given birth to a new form of populism. *Algorithm-driven populism is a discourse structured and conditioned by algorithms, based on the ideological belief that society is divided into two antagonistic groups and that politics should express the claims of one of them – acknowledged as "the people".*

4. How the social media architecture hacks liberal democracy

Social-media platforms were established at the turn of the twenty-first century as interactive technologies that allow the production and the exchange of information. In very few years, these apps turned into a mass medium (Gerbaudo 2014) – in December, 2020, Facebook alone reported as having 2.8 billion monthly active users, and 1.84 billion daily active users (Facebook 2021). Ideally, these platforms would resemble a liberal democratic arena where everyone is able to design their own public or semi-public profile, express and share their ideas, inform and be informed, easily interact with and follow other like-minded profiles with similar interests (Boyd, Ellison 2007; Klinger, Svensson 2016), with an architecture that seems to provide a horizontal system of decision making, well suited to superseding discredited institutions such as party politics (Gerbaudo 2014).

Considered as such, one could easily understand how social media became a channel for the populist urge to "represent the unrepresented", providing a voice to a voiceless and a common ground where some may meet affinities. From the Brexit campaign, to the Usonian (2016) and the Brazilian (2018) presidential elections, we have witnessed social media favoring populist discourses against establishment ones, by providing a suitable channel for the former to invoke the support of ordinary people against the latter (Gerbaudo 2018). In his research on online supporters of populist parties and movements, Bartlett (2014a, 2014b: 103) observed they "consistently displayed significantly lower levels of trust in political parties, the justice system, parliament and the media, compared to the typical citizen"; whether they were from the left or right, he added, was immaterial.

These new apparatuses, however, do not have the same nature as other liberal democratic standards (rule of law, political freedom, equality before the law) and praxes (elections, political representation), and they cannot be considered social achievements historically struggled for. From the commercial imperative aspect, social media platforms are essentially products of for-profit companies, designed to data mine both the personal information displayed (solicited or spontaneously updated) and aggregated past online behavior to best serve the interests of their advertising customers and of other organizations interested in targeting users with information. It is essentially a business model based on ad revenue, and data mining and selling. To this end, their commercial orientation is based on an engagement-driven logical algorithm – which leads us to the technological aspect of these platforms: algorithms set specific affordances that condition how people make use of social media. Designed to generate and promote interaction between users and content, social media algorithms structure and condition discourses that polarize antagonistic groups, endangering the values of liberal democracy, as we detail below.

4.1. Algorithm black boxes

Most social media algorithmic models are inscrutable. This opacity is manifest in three distinct forms (Burrell 2016). First, one cannot directly inspect them because their inner workings are purposely obscured from public view. This opacity is intentional corporate secrecy as institutional self-protection and concealment. "One common justification is that the algorithm constitutes a 'secret sauce' crucial to their business", writes O'Neil (2017: 29); as intellectual property, "it must be defended, if need be, with legions of lawyers and lobbyists." Second, understanding the source code is complicated. Opacity, in this case, is related to technical illiteracy. Third, algorithms are self-executable, i.e., algorithmic systems can operate automatically without need of human intervention (Introna 2016). This is an opacity that stems from the characteristics of complex machine learning algorithms and the human-scale reasoning required to apply them usefully. To these, we may add

another important security-related justification for opacity: it prevents malicious hacking and gaming the system (DeVito 2017).

Critically scrutinizing the metaphor itself, Bucher (2018) argues that algorithms are neither as black nor as boxed as they are sometimes made out to be. From a sociotechnical perspective, she explains, where the social and technical engage in symbiotic relationships, the enactive powers of these assemblages cannot be reduced to constituent parts, as independently separate entities (Bucher 2018: 50). Conceptualizing algorithms in terms of a relational ontology, Bucher asks what algorithms *do*, instead of questioning what they *are*. This focus shift allows us, for instance, to investigate how life takes shape and gains expression through encounters of people with algorithms, or, in her own words, how "people make sense of algorithms despite not knowing exactly what they are or how they work" (Bucher 2018: 63). In this sense, while it is still possible to uphold the inscrutability of algorithmic models, one should not infer the social media experience cannot be researched.

If algorithms are constitutive of particular subjectivities, conditioning how people act within and outside these platforms, and also how a populist discourse may be structured, it is important to note that, due to the troubled role played by social media companies in recent political events (2016 US election, Brexit, genocide in Myanmar etc.), there is an increasing criticism for their opaque nature and a demand for greater accountability from the technology companies. The development of substantial literature in what is called *digital transparency studies* (Gorwa, Ash 2020) confirms this orientation.

4.2. Traditional gatekeepers versus algorithmic filters

In the pre-social media ecology, established media outlets had a major influence on information production and broadcasting. Their filtering process was rooted, as a rule, in journalistic quality standards. Pratt and Miao (2019) remind us that, since the 1980s, mass media restructuring has brought about a much more diverse and pluralistic set of understandings about the world. As an illustration, they allude to talkback radio programs, where "those with grievances about what they saw as the growth of crime, the inadequacies of law enforcement and overly lenient judges could be given a platform to sound their views, spark debate, even become national figures, however detached from the reality of crime and punishment their opinions were" (26), whereas the criminal justice establishment had its influence reduced in, and became unable to control the parameters of, public debates related to such matters (Pratt, Miao 2017, 2019).

Despite being originally designed to connect users and engage them with diverse content, not to report news, social media platforms have become a key source of news information, allowing users to create and distribute information worldwide as active producers of content, circumventing traditional journalistic gatekeepers (DeVito 2017; Engesser et al. 2017; Tucker et al. 2017; KhosraviNik

2018; Pratt, Miao 2019). It could be argued that the *social* aspect of social media refers to users' ability to influence and interact with the content and each other (Klinger, Svensson 2016: 23).

If, on the one hand, this favors a greater diversity of political voices being expressed, on the other, some critique issues emerge. First, in these spaces, there is a widespread conflation of information and knowledge, and these are very different matters (McNeely, Wolverton 2008). Second, by drowning out the traditionally credentialed gatekeepers, information produced on social media platforms by untrained users, though authentic, may lack accuracy, corroboration and reliability. Third, thoughtless opinions may pave the way for more extreme views (Hopster 2021), ranging from hate speech to historical negationism and disproven conspiracy theories – like those disseminated by the QAnon mass movement in the United States or by the *Olavistas* (a reference to the self-proclaimed-philosopher Olavo de Carvalho's supporters) in Brazil. Finally, personalization features introduced by social media platforms to deal with the increasing amounts of information and simultaneously promote users' engagement lead users to experience a logic in which content is produced reflexively with regard to personalization and attention maximization (Bozdag 2013; Klinger, Svensson 2016). And related to this, there is something noteworthy: this new praxis of user-generated and shared information is not actually unfiltered; their contents are selected and ranked by those black-boxed algorithms, based on the "attention economy". Gatekeeping of both traditional and now algorithmic news sources plays a key role in determining the content and vocabulary of the public conversation (DeVito 2017). At this point, the algorithmic filters of social media are generally favorable both to spreading the contents of populist messages and to the style of populist communication' (Hopster 2021: 557; in the same sense: KhosraviNik 2018).

4.3. False information

A decade ago, the late neuroscientist Iván Izquierdo (2011: 87) enunciated: "It doesn't seem true that, in the information age, when precisely the excess of information constitutes a major problem, this other noise, the echoes of ignorance, exists and it is so prevalent." This was some time before "fake news" featured in Trump's rhetoric (2016) and became Collins Dictionary's Word of the Year (2017). Fake news describes both the deliberate creation of pseudo-journalistic information, and the political instrumentalization of the term to delegitimize the traditional news media (Stark, Stegmann 2020).

The common idea of "fake news" conflates three types of information disorder (Wardle, Derakhshan 2017). Misinformation is false or misleading information, created or disseminated without harmful intent. Disinformation is false or misleading information, deliberately created or disseminated with harmful intent. Mal-information refers to genuine information, shared to inflict harm. This conceptual framework is important to distinguish messages that are true

(mal-information) from those that are false (misinformation, disinformation), and messages deliberately created/shared to inflict harm (disinformation, mal-information) from those that are not (misinformation).

False or harmful information is as old as communication itself. And vilifying political adversaries, whether based on true facts or not, is nothing new. However, social media platforms are especially susceptible to rapid and widespread dissemination of these three kinds of disordered information due to their attention-oriented, promoting "emotionally and ideologically charged stories comprised of misleading information that embodies a certain worldview and attempts to create an alternative reality" (Stark, Stegmann 2020: 32). Tucker et al. (2018) highlight two issues that make social media platforms particularly vulnerable to disinformation campaigns: first, focused on ad revenue, the social media business model has little interest in screening advertisers before registration; second, optimized for engagement, their algorithms often help spread disinformation packaged in emotional news stories with sensational headlines. Spreadability is a very interesting trait here. That is the very reason why Venturini (2019) argues the notion of fake news is misleading: it presumes malicious pieces of news are manufactured, while reliable ones correspond directly to reality. Analyzing how news producers exploit political interests to capture attention, while users consume messages because they are addictive, rather than appreciated, Venturini suggests "viral news" or "junk news" would be more adequate terms.

Stark and Stegmann (2020) explain that false information can destabilize democracy at the individual and societal levels, directly and indirectly. At the individual level, studies on the effects of disinformation of users show no persuasive effects but a confirmation bias: false information is able to confirm and strengthen pre-existing attitudes and worldviews. This undermines the free and self-determined formation of opinion. At a societal level, false information may affect democracy in two ways. Democracies demand a public discourse made up of a diversity of trustworthy and therefore correct information to function properly. Therefore, indirectly, if the prevalence of disinformation reaches a level that distorts the public discourse by essentially replacing and suppressing truthful information, the foundation of democracy becomes unstable. Directly, disinformation campaigns may threaten the integrity of elections, incite polarization on conversely debated issues and undermine trust in democratic processes (e.g., the Brexit disinformation campaigns, Trump's false claims that the presidential election had been stolen, Bolsonaro's insistence on adopting printed ballots as a substitute for the "untrustworthy" electronic voting system). Even if Venturini's (2019) terminological and analytical adjustments – shifting the attention from falsity to diffusion of information – were to be adopted, these problems would persist, and maybe even be aggravated: "junk news" is not necessarily dangerous because it is false (falsity can be debunked), but "because it saturates public debate, leaving little space to other discussions, reducing the richness of public debate and preventing more important stories from being heard."

This account is even more alarming when we observe how the architecture of social media platforms enables investment in bots and "click farms" that create the illusion of engagement and popular support. Bots are software applications that run automated tasks. Click farms are made up of generally very low-paid individuals, hired to engage with online posts ("like", share etc.). Through fake accounts both mechanisms manipulate the information feeds of platforms by generating artificial reach, ranking posts as more relevant, and therefore more likely to be shown to a larger audience (Stark, Stegmann 2020).

4.4. Filter bubbles and echo chambers

Coined by Pariser (2011), *filter bubbles* are the constant structuring of unique and particular universes of information. Despite the difficulties in accessing the values embedded in black-boxed algorithms, there is a common logic in their equations. Based on the previous actions and data of users, algorithms personalize the information immediately available to them. Algorithmically surrounded by information that corroborates their world view, with little exposure to conflicting information, individuals may experience a state of intellectual isolation, derived from sustained exposure to a false body of evidence (Bartlett 2014b). Pariser did not provide a clear definition for the concept, which remains vague and anecdotal; this has not prevented it from gaining considerable currency in scientific and mainstream societal discourse (Bruns 2019b).

Using a content analysis of Facebook's own patents, press releases, and Securities and Exchange Commission filings to identify a core set of algorithmic values that drive story selection on the Facebook News Feed, DeVito (2017) found a set of nine News Feed values that drive story selection (friend relationships, explicitly expressed user interests, prior user engagement, implicitly expressed user preferences, post age, platform priorities, page relationships, negatively expressed preferences, and content quality). DeVito's analysis, and many others, demonstrate that information delivery in social media platforms through filters heavily weighted towards personally-focused algorithmic values may bake this potential for polarizing personalization directly into their designs.

As with echo chambers (below), filter bubbles affect the exposure diversity. "On a collective level," Bartlett (2014b: 108) says, "there is some evidence that this might increase political polarization and radicalize perspectives" (In the same sense: Klinger, Svensson 2016).

The effect of users largely being exclusively exposed to consonant opinions, constantly reassuring them of their respective ideas, in an online environment with like-minded users, is usually referred to as an *echo chamber*. The echo chamber is also a highly evocative yet unfortunately ill-defined metaphor (Bruns 2019a). The lack of robust definitions of the filter bubble and echo chamber concepts from their original proposers (Eli Pariser and Cass Sunstein, respectively) has

led scholars to introduce their own definitions and also to the use the two terms essentially interchangeably.

Bruns (2019b) employed interesting, minimal definitions: a filter bubble emerges when a group of participants choose to preferentially *communicate* with each other, to the exclusion of outsiders; an echo chamber emerges when a group of participants choose to preferentially *connect* with each other, to the exclusion of outsiders. And he added later (2019a: 5): "using these definitions, the 'echo chamber' metaphor then addresses the structure of Facebook friendship or Twitter follower networks, while the 'filter bubble' metaphor focusses on the actual networks of communication that may or may not follow these connection structures (on both platforms, it remains possible to communicate with other users who are not friends or followers)."

It is interesting to note that the phenomenon does not manifest itself when the topic of discussion is not contentious, but echo chambers have been confirmed in politically contentious topics (Garimella et al. 2018, Bruns 2019a). Uncoupled from the general debate, these parallel, personalized discourses marginalize divergent ideas, affecting the diversity of media content individual members of the audience are eventually exposed to (Stark, Stegmann 2020: 14).

A self-centered *Weltanschauung*, as an individual's limited capacity to reach common understanding on political issues, is unquestionably a peril to modern democracies because healthy political deliberation of dissimilar views is a necessary condition of liberal democratic societies.

Yet, there are three considerations we must present here. First: as Barberá (2020) reminds us, enclave deliberations are not inherently negative. In closed social media groups – say a feminist group restricted to female users, for instance – individuals are offered a safe space to discuss issues of interest, an opportunity that otherwise would be more challenging in the off-line world.

Second: the perception of polarization on social media may derive from a minority of visible users, whose posts and tweets escalate because they are highly active, boosting the attention economy.

And, third: there are compelling arguments on both sides of the debate about whether technologies like web search and social media platforms increase or reduce ideological segregation, and increasing evidence that recent technological changes both increase and decrease various aspects of the partisan divide (for a short review, see Flaxman et al. 2016). In fact, recent research has shown that the actual scope of filter bubbles and echo chambers is widely overestimated (Stark, Stegmann 2020), and that people do not live in digital bubbles, learning about more general political news from other sources (Zuiderveen Borgesius et al. 2018). Bruns (2019a, 2019b) claims both metaphors represent a moral panic that distract us from confronting far more important matters. Despite demonstrating that articles found via social media or web-search engines are indeed associated with higher ideological segregation when compared to those an individual reads by directly visiting news sites, Flaxman et al. (2016) also found, that these channels are associated with greater

exposure to opposing perspectives. Tucker et al. (2018) provide a literature review of empirical studies that demonstrates that, while exposure to political disagreement on social media appears to be high, internet access and social media usage are not correlated with increases in polarization, and misinformation appears to have only limited effects on citizens' levels of political knowledge.

4.5. Microtargeting

Microtargeting is related to a kind of personalized communication based on diverse, individual information collected. Originally a marketing strategy, it soon became a political tool to target potential voters. Using this technique and social media's architecture, political parties and candidates can identify individual voters and deliver messages that suitably match their specific interests and vulnerabilities.

From an optimistic perspective, online political microtargeting may increase interest in politics, as it leads users to become more knowledgeable about certain topics, specially those citizens who ignore traditional media, and thus may raise electoral turnout as consequence. But we should be attentive to the other side of the coin. To begin with, there are privacy concerns related to data collection: online political microtargeting involves massive-scale gathering and combining of personal data about individuals to infer sensitivities and political preferences. Apart from this, there is a threat of manipulation. For instance, a political party may either, misleadingly, present itself as a single-issue party to different individuals, or it may target particular voters with tailored information that maximizes or minimizes voter engagement.

Even though we cannot rule out that "companies that offer microtargeting services to politicians exaggerate how effective microtargeting is" (Zuiderveen Borgesius et al. 2018), we must keep in mind microtargeting enables actors to strategically incite and escalate debates by disseminating manipulated information to susceptible groups, thereby distort the public's climate of opinion (Stark, Stegmann 2020). While "we're kept in the dark about what our neighbors are being fed", O'Neil (2017: 195) writes, this "asymmetry of information prevents the various parties from joining forces – which is precisely the point of a democratic government."

4.6. Polarization

Based on the idea developed here – of algorithm-driven populism as a co-constitutive algorithmic-structured populist ideology – it would be pointless to examine whether societies around the world are becoming increasingly polarized, or whether such polarization is simply becoming more visible – as Bruns (2019b) suggests. Our interest is on how social media algorithms have structured and conditioned political polarization, or, using affordances scheme, how social media architecture offers specific communicative and ideological possibilities for populist polarization.

It has been acknowledged (Stark, Stegmann 2020) that it is the very nature of social media algorithms to reinforce affective polarization, because these platforms' affordances can lead to stereotypical and negative evaluations of out-groups, contributing to the formation of the two ideally monolithic and antagonistic camps which structure populism.

Stark and Stegmann (2020: 45) argue that the "increased accessibility of public debates on social media means, in the case of controversial topics, that polarized and thus more radical opinions and positions are more visible online than in the offline world." This overrepresentation of radical viewpoints and arguments stimulates polarization at the ends of the political spectrum. In fact, a study conducted by Allcott et al. (2020) found that the deactivation of Facebook accounts for the four weeks before the 2018 USA midterm elections reduced political polarization.

A related factor to polarization is a particular algorithmic conditioning of communicative practices. One implicit feature of populism, mentioned above, is its bald, affective-driven communicative style. Social media conditions communicative practices through low-level affordances embedded in the user interface (Hopster 2021). Some platforms incentivize short messages, which restrains elaborate opinions and clears a path for bold, empty claims. For instance, tweets were originally restricted to 140 characters. In 2017, most tweets in English had 34 characters (Rosen, Ihara 2017). A year later, after Twitter doubled the limit to 280, the most common length of a tweet had surprisingly dropped to 33 characters; only three percent of global tweets were over 190 characters, and only one percent of English tweets reached the 280-character limit (Gesenhues 2018). Other platforms stimulate quick information sharing, without any careful analysis of the shared content. In most of them, users are stimulated to interact through specific emotion-driven buttons (Like, Love, Care, Haha, Wow, Sad, Angry). Beneath this interface, algorithms foster a new world of simple language, uncontested information and emotional appeals, which matches the preference of populists for polarized discourses.

Some recent studies state the opposite. Barberá (2015) evidenced that exposure to political diversity on social media, facilitated by social media platforms, induced political moderation at the individual level and decreased mass political polarization (on German, Spanish, and Usonian users). Bruns (2019a) reasons that social media platforms enrich rather than impoverish their users' information diets.

5. Coda

This essay emerged from a concern about whether algorithm-driven populism, defined here as a discourse conditioned by algorithms, has a consonant or a conflicting relation with liberal democracy. In order to do so, based on a literature

review, we examined a few important features of social media platforms, demonstrating how they set up a renewed, contemporary ideological belief that society is divided in two antipathetic groups, endangering liberal democracy values. That said, it is important to mention some challenging factors to our analysis.

First, we have tried to avoid hasty causal-relation conclusions of social media on populism, or even to imply that social media companies deliberately seek to actively game the political system and promote populist agendas (they are in it for the ad revenue and data trading). We must acknowledge social phenomena were important factors to the ascendancy of the new populist politics, materialized as a shock absorber against the seismic events that took place at the turn of the twenty-first century: dramatic economic downturns such as the effects of the 2008 global financial crisis, disclosures of cases of systematic corruption, rising immigration, employment and livelihood insecurity, the general feeling that the political system is unresponsive, a legitimacy crisis for governance due to the decline of deference and trust in politicians and political processes, and the far-reaching revolt against the uncertainty of our present time, inflamed by globalization (Pratt 2007; Mudde, Rovira Kaltwasser 2017; Pratt, Miao 2019), to which we ought to add the COVID-19 global pandemic. From this perspective, human and non-human players are taken into account, as a sociotechnical assemblage (Gillespie 2014; Maly 2018).

Although causality is not our claim (though this is claimed by KhosraviNik 2018 and others), we cannot agree with the idea of a subsidiary role of algorithms. Nor it is our intention to discuss technology misuse – first and foremost, this would suggest "the underlying technology is not inherently harmful in itself" (Polonski 2017), with which we disagree; further, this discussion would lead to matters of individual accountability, a debate more suited to other disciplines. As explained, algorithms impose themselves as a new and radical form of world, and those companies should be aware and be held accountable for the damage done to democracy (ultimately, they make profit from social engagement).

In a paper arguing that echo chambers and filter bubbles constitute an unfounded moral panic and a distraction from a much more critical problems, Bruns (2019a) resorts to a provocative (populist?) style: "It's Not the Technology, Stupid" says the title. From a Heideggerian theoretical framework, algorithms are a new kind of knowledge that allowed technology to structure and condition, among many things, a renewed, though idiosyncratic, contemporary ideological belief that society is divided in two antagonistic groups and that politics should express the claims of one of them, underpinning what we have called the algorithm-driven populism. Thus: "It's *also* the technology."

Second, we have kept in mind the diversity of social media and its rapidly changing applications. And this is no different when related to social media's constitutional algorithms. Social media platforms are not based on locked formulas; their algorithms are constantly updated, better described as a personalized machine learning model, updating and changing its outputs based on user behaviors (De-Vito 2017). Cyberspace and its architecture are by nature transient. However, as

Hopster (2021: 554) explains, "even if we acknowledge their transient nature, some properties have also remained fairly stable and uniform, such as the commercial logic underlying their design."

Third, we are aware that algorithms did not materialize from nothing, and that they do contain biases. Since Friedmand's and Nissenbaum's (1996) inaugural discussion – though we might trace it back to Moor's (1985) *invisible programming values* – on bias on computer systems, a robust scholarship has been developed endorsing the claim that algorithms do carry preexisting, technical, and emergent biases. Sometimes these "blind spots" don't matter, says O'Neil (2017); however, she warns that, reflecting the judgements and priorities of their creators, opaque algorithmic models may encode a host of assumptions into software systems that increasingly manage our lives. "In each case, we must ask not only who designed the model but also what that person or company is trying to accomplish" (O'Neil 2017: 21).

Finally, it is also important to clearly state our epistemological position in simple terms: we are neither technological enthusiasts, like those "techno-Utopians" who foresaw the implosion of the knowledge and power monopolies (Tormey 2019), nor nostalgic detractors, willing to force an idealized past, to act retroactively, to protest against the irreversible (Cioran 2010: 32). But we are certainly sceptical about the relation of algorithms and society. In the original draft of this article, we claimed we were not Luddites. One reviewer corrected us: 'Luddites were not anti-technology'. He is right. Hobsbawm (1952) had already pointed out early nineteenth-century workers were not concerned with technical progress in abstract, but with the practical problems derived from it. "The Luddites", wrote Mueller (2021) more recently, "believed that new machines were undermining their livelihoods and destroying their communities, and that targeting those machines was a valid strategy in their fight against it." While their legacy has been mistakenly related to a kind of technophobia, Luddites were ultimately acting against exploitation through technology. We are probably more Luddite than we had thought.

How should we address algorithm-driven populism, then? Mudde & Rovira Kaltwasser (2017) warn us that a coordinated frontal attack on the populists is a bad approach. By portraying "them" as "evil" and "foolish", emphasizing their irrationality and incivility, simply challenging their negative affective crusade and its constant attacks on institutions and minorities, we might play into the hands of the populists. Worse: by getting into this ideological fight, we might both contribute to the falsely intended image of the elites as "victims" of antidemocratic acts, and make room for the rise of outsider parties and politicians (Tormey 2019). Three alternative strategies seem more helpful.

A long-term, prospective plan of action involves civic education "aimed at socializing the citizenry into the main values of liberal democracy and, although not always openly, warning about the dangers of extremist challengers" (Mudde, Rovira Kaltwasser (2017: 112). Particular to criminal justice matters, criminol-

ogists have a relevant role in reinventing knowledge production, influence and visibility (França 2021), from a hermetic discussion restricted to academics to an engaging dialogue with society. Taking this idea further, Tucker et al. (2017) ponder whether it would be considered a new responsibility of citizenship to ask users to fact-check their social ties' posts and tweets; albeit these kinds of steps may give way to "defriendings" and "unfollowings", one can fairly argue that the collaborative environment of social media gives rise to new notions of citizenship and political engagement.

A medium-term, preventive policy, suggested by O'Neil (2017), is explicitly embedding democratic values into algorithms that one way or another govern our lives, creating models that follow primarily ethical leads, not only engagement and profit. In a similar vein, social media platforms could be compelled to insert information-check controls, either by asking users to validate information before sharing it, or through automated notices generated by content analysis on reasonable accuracy and harm hazard – which is what actually materialized around COVID-19 pandemic posts. We are well aware the distinction between true and false is problematic, and this separation has never been straightforward; hence any information-check control should tackle both fact-checking and the digital virality of information (Venturini 2019).

As argued elsewhere (França, Quevedo 2020), this democracy-bound programming strategy meets the idea that the architecture of cyberspace is capable of regulating and controlling the behavior of users and the responsibility of internet companies (Katyal 2001, 2003; Lessig 2006). Lessig (1998) was responsible for highlighting the importance of code in people's interactions within the virtual space. Years later, and in a more detailed way, Lessig (2006) explained that there are two types of codes. The first one denotes technique, as old as the government itself, through which a Congress makes laws; the second type of code is that elaborated by algorithm developers. What Lessig (2006: 72) claims is that the first type of code may affect the second one: like an architectonic structure subjects human behavior, the programmed code, regulated by the legislative code, structures and conditions behaviors, establishes restrictions and permissions, allowing the prevention of unwanted actions. Arguing for the proposition of a digital architecture to control cybercrime, Katyal (2003: 2273), however, points out that, in the same way some urban projects for crime reduction ended up prejudicing communities, architectonic responses to violence in cyberspace must be well planned, or risk creating severe damage in the long term. On this matter, while moderation is an essential and welcome feature of any media outlet to prevent unlawful acts and protect democratic values (and a recent prime example is Trump's ban from Twitter and Facebook for violating these platforms' policies on "civic integrity", i.e. for the perceived inciting of violent and undemocratic acts), it is important to note that, though very appealing, social media platforms' censorship mechanisms do raise legal concerns regarding unwarranted censorship, especially since a fundamental task of law enforcement is transferred to private companies (Stark, Stegmann 2020).

Finally, a more immediate course of action is ostracizing populists through a *cordon sanitaire* around them (Mudde, Rovira Kaltwasser 2017), either excluding any official collaboration, preventing them taking the stage or demonetizing platforms that grant them space. Sleeping Giants' activism is a prime example of the latter: campaigners pressured companies into removing ads from news outlets that propagated mis- or disinformation; hence a similar strategy might be successful in compelling social media companies to both revise their algorithms and remove accounts that promote populist discourse. Rendering populists innocuous is something mainstream political parties, offline and online activists, domestic or supranational institutions specialized in the protection of fundamental rights, and social media platforms are able to do.

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