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Discursive Resilience

Countering polarization and fragmentation in (social) media discourse

In contemporary digitalized media environments, the interaction between technologies and user practices can lead to polarization, fragmentation, and radicalization of the media discourse. We argue that these issues require efforts to strengthen ‘discursive resilience’, which we define as the capacity of the discourse on digital platforms or (social) media and its participants to cope with polarization, fragmentation, and radicalization, and to adapt and transform its capacities, procedures, and structures in anticipation of these issues. In this contribution, we propose three strategies to counter such threats and build discursive resilience: diagnosis of risks and vulnerabilities, user literacy in digital media environments, and platform regulation and self-management.

1 Transformed media environments, transformed audience practices

Media have the function to inform citizens and enable them to develop an informed opinion on current issues relevant for society, to allow the expression of a plurality of views and to monitor actions and plans of governments. Media freedom is a value of constitutional order in democracies, even if often imperfect compared to the constitutional expectations. The media landscape has undergone a substantial transformation towards digital production, distribution, and usage. News can be accessed through social media such as Facebook, Twitter/X, or Reddit, and specialized ‘digital-born’ news media such as Huffington Post in the US or Correctiv in Germany (Nicholls et al., 2016). With these digital alternatives, traditional news in newspapers or television face strong competition for the audience’s attention.

Of course, there are many benefits to these developments. One benefit is the increased availability of news and information. Also, political participation is supported by low-threshold, convenient technological tools that enable conversations with other citizens. However, these developments also come with their own downsides and challenges. For example, published information is often user-generated, that is, posted by regular users and not subject to journalistic gatekeeping or other quality control, resulting in a flurry of false information and extreme views (Lorenz-Spreen et al., 2023). Users have widely adapted to the digital news world:

Over the past ten years, users worldwide consumed less and less TV and print for news. For instance, in Germany, weekly print consumption fell from 63% in 2013 to 26% in 2022, and weekly TV news usage declined from 82% in 2013 to 65% in 2022 (Newman et al., 2022). While only 11% of the general German population consider social media as their main source of news, it is 39% of the younger generation of 18 to 24 year-olds (Hölig et al., 2022).

Attention of users is the central currency that operates social media: Users can post content that they think is important and noteworthy – and that they think will garner the most attention: reads, likes, re-posts and comments. Social media platforms also have an interest to keep users on their platforms as long as possible to market their content, create attachment to the platform, and, above all, to collect valuable data for personalized, targeted advertising.

This transformed situation and the transformed user practices create a potentially problematic situation that could impede the media’s ability to fulfill their democratic function. In this contribution, we outline the processes that lead to polarization, fragmentation, and radicalization of the media discourse, introduce the concept of discursive resilience, and suggest ways to promote its development.

2 Polarization and fragmentation in social media environments

To optimize media environments for users, algorithms are embedded in social media platforms that automatically curate personalized information environments according to a user’s interests and habits. The algorithms record (unobtrusively) what contents are used, liked, commented, discussed and re-posted, what is bought, and what links are clicked; in addition, meta-data are collected such as topic and type of content or popularity cues attached to the content, e.g., the number of likes (Schweiger et al., 2019). The interaction between algorithm and user behavior creates a reinforcing spiral of human behavior and technology (Donkers &

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Ziegler, 2021), which can homogenize a person's media environment in terms of topics and opinions. This phenomenon has been termed "pre-selected personalization" (Borgesius et al., 2016). The technical side of the process is complemented by selective user behavior that is biased towards seeking out similar others, beliefs, and opinions, the "self-selected personalization" (Borgesius et al., 2016). These types of personalization have been discussed under the slightly more open and vague terms of 'filter bubbles', usually attributed to the influence of technical algorithms that pre-select content according to previous user interactions (Stegmann et al., 2022), and 'echo chambers', primarily associated with self-selection of like-minded media content (Terren & Borge-Bravo, 2021).

Within the larger social media networks, personalization can lead to the emergence of various homogeneous sub-communities with little or no connection to each other – and ultimately set the stage for crumbling social cohesion: fewer common topics, less understanding of other groups and fewer shared values. If those sub-communities drift apart, we can observe polarization – a situation in which, formally speaking, intra-group connections are strong but inter-group connections are weak within a network (Interian et al., 2023). Polarization can be divided into *epistemic* polarization, which creates a uniform environment that includes some information and omits others, and *ideological* polarization, which openly opposes opposing information and positions and discredits the other group (Donkers & Ziegler, 2021). A third type is *interactional* polarization that refers to a lack of interactions between opposing groups (Yarchi et al., 2021). Esau et al. (2023) see five elements of 'destructive' polarization: it "erodes channels of interaction and trust, dismisses information from the 'other' side, erases differences, gives disproportionate space to extreme voices, and uses emotions to exclude" (p. 15).

Although there is agreement that both pre- and self-selected personalization are enablers of fragmentation and polarization, the overall effect seems to be rather small and more dependent on the behavior and characteristics of the users (Stark et al., 2020). Along these lines, Borgesius et al. (2016) point out that social media dependence is not absolute: Apart from social media, people use traditional news such as television or newspapers, they talk to their friends who may have alternative views, and they may stumble upon political information in accounts that are primarily non-political. Bruns (2021) repeatedly pointed out that the metaphors of the echo chamber and the filter bubble are appealing, but simultaneously misleading and ill-defined. Likewise, Stark et al. (2021) conclude from an extensive research overview that echo chambers and filter bubbles are grossly overestimated and that they are unlikely to exist in their "pure form"; the question should not be *whether* people are inside an echo chamber or a filter bubble, but *to what degree* – ranging from a balanced news repertoire that overlaps with the repertoire of many people to a dysfunctional, disconnected news diet. In addition, Borgesius et al. (2016) concede that technological advancements may increase the background machinations of algorithms in the near future. As we have elaborated above, there is also some strong indication that generational changes in news practices (putting more emphasis on social media as a news source) may bring about more reason to worry in the future. Finally, Stark et al. (2021) point out that members of fringe groups could be affected to a greater extent by polarization and at the same time contribute more to it than the majority of the population, restricting the problem to a smaller, but potentially more vulnerable group. The authors go on to suggest that the activity of fringe groups and people with

extreme positions could end up dominating the public space in social media and falsely create the impression that the fringe opinion is a majority opinion.

Apart from polarization and fragmentation, the texture of the discourse is also undergoing changes. With increasing dependence on online distribution, typical political content competes with more exciting, lively, emotional, and entertaining content (Stark et al., 2020). Social media logics dictate a bias towards user engagement, shareworthiness, virality and clickbait headlines (Klein et al., 2023). In addition, the tone of the discourse has been observed to become more and more uncivil and infused by hate speech, creating more radical positions and more distance between users (Kümpel & Rieger, 2019). There is a tendency for users with moderate positions to keep quiet in social media discussions, and for users with extreme positions to express themselves more; in turn, those extreme expressions are favored by algorithms as they tend to evoke more user reactions (Stark et al., 2021).

Summing up, the public discourse through modern media that is supposed to support and enable democratic functioning is fundamentally challenged by the digital transformation. There are mechanisms in place – like pre-selected and self-selected personalization – that can potentially limit societal exchange. As of now, the dysfunctional effects seem to be limited by exposure to traditional news, personal conversations, or serendipitous exposure to news in other contexts. However, more sophisticated technology is expected to evolve, including the forces of artificial intelligence methods operating in the background or engaging users in direct dialogue. In addition, new generations of users will become more estranged from professional journalism with quality control: There is already a trend that young users initiate their daily news usage from 'side-door routes' such as social media, search engines, or news aggregators (e.g., Google News) rather than news providers (Newman et al., 2023, p. 32) and that they are less willing to pay for professionally produced content (Newman et al., 2022, p. 19).

3 Discursive Resilience

The question now is how individuals, platforms, and societies cope with such disturbances of their democratic function. We suggest that the concept of *social resilience* is useful to reflect and act upon the potential and actual problems imposed by dysfunctional dynamics in contemporary media environments. Social resilience is the capacity of individuals and social entities to cope with and adjust to disturbances, as well as to generate new options for dealing with them, while maintaining their existence and identity (Cinner & Barnes, 2019; Obrist et al., 2010). Social resilience goes well beyond simple preparedness and considers dynamic and sequential processes before and after a disturbance. It includes: 1) coping capacity (or persistence), i.e., the ability of social actors to handle disturbances while preserving existing structures; 2) adaptive capacity (or adaptability), i.e., the ability to use disturbances to adapt for future events, and 3) transformative capacity (or transformability), i.e., the ability to create new structures suitable for future disturbances, even before a crisis occurs (Folke et al., 2010; Keck & Sakdapolrak, 2013).

We argue that a specific type of social resilience is crucial for contemporary media environments: the resilience of the media

discourse and its actors, which we label ‘discursive resilience’ and define it as:

Discursive resilience is the capacity of the discourse on digital platforms or (social) media and its participants to cope with polarization, fragmentation, and radicalization and adjust itself to regain normal functioning. Discursive resilience also encompasses a transformation of the capabilities of its actors, structures, and procedures in preparation of future disturbances.

The disturbance in the case of discursive resilience are threats such as polarization, fragmentation, and radicalization. The consequences of these disturbances and at the same time characteristics of an *unresilient* discourse are: intransparency, limitations in the range of voices (less diversity), vulnerability to false information, presence of extremist positions and incivility, premature closure of the discourse and a softening of its notion of what ‘news’ is.¹

4 Strategies to improve discursive resilience

We suggest that discursive resilience can be improved in three ways: First, by an exact diagnosis of the actual extent of polarization and fragmentation that exists in media discourse; second, by improving user literacies and raising user awareness of potential problems; and third, by strengthening legal regulation and self-management of communities.

4.1 Identifying risks and vulnerabilities

The basis for any improvement in discursive resilience is the development of a scientific approach to assessing the risks and vulnerabilities posed by a disturbance. As we pointed out before, the disturbance in discursive resilience are dysfunctional processes such as polarization, fragmentation, and radicalization. The ambivalent findings about the extent of polarization and fragmentation suggest that the diagnosis is not simple and highly dependent on the method used. Research has been able to detect polarization in networks based on network metrics, such as homophily, the similarity between neighbors (Interian & Ribeiro, 2018), or community detection, the identification of close communities in a network (e.g., Garcia et al., 2015; Wolfowicz et al., 2023), or to analyze the polarization of entire threads on social media (Borrelli et al., 2022; Garimella et al., 2018).

On an individual level – to find out how much an individual is located in a homogeneous environment – polarization is much harder to identify. Research has often used surveys to establish the position of individuals in polarized environments (e.g., Dubois & Blank, 2018). However, social desirability, recall bias, lack of accuracy and awareness limit the usefulness of survey data (Stier et al., 2020; Terren & Borge-Bravo, 2021; Vraga & Tully, 2020). To begin to think about discursive resilience, we need to develop methods

that capture the extent to which an individual user’s repertoire of news (across different social media, news aggregators, search results, TV, and newspaper usage) shows signs of polarization. With such an individualized approach, it is possible to identify groups of users who have a specific vulnerability to polarization.

4.2 Improving user literacies and raising awareness

Users need to be aware of polarization and fragmentation and how they emerge in digital media environments. They also need to know strategies to deal with polarization and fragmentation and be able to apply them in their daily media use (i.e., develop self-efficacy). Finally they need to perceive sufficient relevance to be motivated to act against the biases in their digital media environment (Cinner & Barnes, 2019). These qualities are commonly subsumed under the umbrella of social media literacy (Cho et al., 2022), digital literacy (Nichols & Stornauiolo, 2019) or algorithmic literacy (Dogruel et al., 2022; Silva et al., 2022). Social media literacy not only includes knowledge of “the stable and modifiable characteristics of different platforms, but also how their interactions with them shape, modify, and reinforce the reality” (Cho et al., 2022, p. 10). This ability to reflect on the relationship between the user, the media, and the real world is seen as an essential aspect of resilient user behavior in social networks.

User literacy is an important, but not sufficient element in building discursive resilience – research has shown that there is a significant gap between general knowledge of how social media work and the awareness of a polarized environment in actual use. Despite some awareness of filter bubbles and interest in tools to reduce their effects (Plettenberg et al., 2020), users often deny that these filter bubbles affect them personally, and even fewer are willing to take action against them, for example by deleting their browser history (Burbach et al., 2019). Knowledge does not directly translate into action. Moreover, removing filter effects is often not in the user’s interest, as it is precisely the personalized information environment that acts as a major motivation for using social media in the first place (Sundar & Limperos, 2013; Wang et al., 2022). Thus, we can assume that users favor self-directed systems to deal with polarization, which allows the users themselves to titrate when, for what topic, and how much they seek to depolarize their media contents. Ideally, this should happen using a method of alerting the user in a concrete usage situation. This presupposes a functioning method for automatically and unobtrusively recognizing polarization in a specific user’s media environment and current usage. Based on this detection, automatically administered alerts could make the user aware that information is missing or that the full spectrum of opinions is not present and suggest ways to manage this restriction.

4.3 Creating resilient structures through legal regulation and self-management

Both becoming literate in dealing with social media and developing situational awareness place the burden of being and becoming resilient on the user. However, a comprehensive and realistic consideration of resilience needs to be complemented by a thorough reflection on structural, systemic, and legal options of developing resilience (Böschen et al., 2022; Folke, 2016). Technical measures to counteract polarization have been developed and tested. For example, users can be offered random content or opposing

¹ We define discursive resilience in a wider sense than the very few definitions so far. Lehning et al. (2023) restrict discursive resilience to resilience against false information, which is countered by an individual’s capability to process and interpret news as well as collective regulations to enable accurate and fact-based communication in the public domain. Our notion is wider in that other disturbances of the free discourse are also considered (like self/pre-selection, restriction of diversity of voices, etc.). Other definitions are very different from our thinking, for example, Hájek (2018) sees discursive resilience as the ability of actors to use words to maintain or restore their social position.

arguments from outside of the bubble (Einav et al., 2022; Interian et al., 2023). However, the problem here is that technical solutions are tied to an experimental situation in the lab because there are no regulations that would require platforms to actually implement them. We argue that platforms also have a responsibility, and that regulations are needed to enable technological action on the part of platform operators. Technical innovation and legal regulation go hand in hand for building discursive resilience.

In addition, regarding legal regulation of social media, transparency is considered to be one of the core principles for regulating algorithmic effects (Zuiderveen Borgesius et al., 2016). The use of alerts as described in section 4.2 also represents an instrument of transparency. For implementing this into practice, it is necessary to examine how this instrument fits into the existing and future approaches to social media regulation, both at the national level, for example in the German 'Medienstaatsvertrag (MStV)', and at the EU level, especially with regard to the regulatory approaches in the Digital Services Act (DSA) and the Digital Markets Act (DMA; Flamme, 2021). In the legal discussion, however, it is controversial whether the approach of relying on user autonomy through transparency alone can solve the problem of polarization. It is therefore necessary to examine how this instrument can be combined with other legal approaches, such as the obligation to adapt algorithms or approaches under data protection law, in order to deprive algorithms of the necessary information base in the first place (Ivanova, 2020). An example of regulation that is along these lines, but is still very limited in its scope, is Art. 26(3) DSA, which prohibits the presentation of advertising based on profiling with sensitive data (Legner, 2024).

As an act of self-management, platforms can also decide to engage in some form of community management. Users can flag problematic content or engage in counter speech in response to content that is problematic. Other forms include professional moderators who review comments before or after they are posted and eliminate those they deem inappropriate (Kümpel & Rieger, 2019), always at the risk of crossing the line into censorship.

5 Conclusion

Contemporary (social) media discourse is crucial for democratic functioning. However, the interaction of algorithmic curation and self-personalization of news can result in polarized, fragmented, and radicalized information environments which no longer serve to provide citizens with balanced, diverse, transparent, and accurate news. While pure forms of filter bubbles and echo chambers are not likely, future technologies and changing user practices may intensify the problem of polarization and fragmentation. With these mechanism in place, discourses badly needed for democracies can be toned down, or interfused with false facts, rumors, or conspiracy theories. Outsiders on the extremes of the political spectrum can gain traction and power (Jungherr et al., 2019) and external forces can interfere with elections and undermine trust in institutions or democracy itself (Howard, 2020).

We argue that the time has come to think about discursive resilience – the capacity of the discourse on digital platforms or (social) media and its participants to cope with polarization, fragmentation, and radicalization and to adjust and transform itself. We have outlined three strategies to counter threats to the discourse and build discursive resilience, (1) to have valid methods

to identify risks and vulnerabilities, (2) to improve user literacies and raising awareness and (3) to create resilient structures through legal regulation and self-management. The three sides – diagnosis, users, and regulation – are thought to be part of a comprehensive approach to improve discursive resilience. Even if the problem is arguably not excessive at this moment, it is precisely the idea of resilience to act before the problem is fully pronounced, to prepare for future and potential disturbances.

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