International Journal of Communication 18(2024), 4579-4602 1932–8036/20240005

Modes of Recognition and the Persistence of Center-Periphery Constellations in the Digital Public Sphere

PATRICK DONGES
CHRISTIAN PIETER HOFFMANN
CHRISTIAN PENTZOLD
Leipzig University, Germany

The digital public sphere is characterized by seemingly paradoxical tensions between centers and peripheries: While some actors leverage the affordances of digital platforms to garner attention and gain prominence in public discourse, others prefer to seek out a role of relative obscurity or even attempt to evade observation. These tensions challenge established public sphere theories that assume a uniform orientation and attraction toward a center. In this article, we argue that in the digital public sphere, four distinct modes of recognition emerge: attention, resonance, allegiance, and engagement. These modes induce persistent yet contingent center-periphery distinctions among actors, issues, and even entire arenas. Since modes of recognition can carry positive or negative valence, they can prompt a purposive orientation toward peripheries rather than centers. We discuss how digital platforms afford, manifest, and manipulate modes of recognition and how actors leverage positions of relative centrality or peripherality within and across digital arenas.

Keywords: public sphere, networked publics, center, periphery, counterpublics, social media

The advent of networked technologies and social media platforms came with new hopes for structural change that would enable those participating in the public sphere to engage with each other on a more equal footing (Correa & Jeong, 2010; Hirzalla & van Zoonen, 2010; Sasaki, 2017). Since digital media significantly reduce the costs of creating, disseminating, retrieving, and accessing content or messages (Jungherr, Rivero, & Gayo-Avello, 2020, p. 22), a digital public sphere may have unfolded as a network where boundaries dissolve, inequalities between elites and citizens disappear, and broader political participation of all online citizens is made possible.

However, assumptions of openness and flexibility tempt us to overlook that the digital public sphere is neither uniformly "open" nor "flat"—that is, devoid of hierarchies and inequities. In this contribution, we will argue that digital networks do not imply the absence of centers. Instead, new centers continually emerge

Patrick Donges: patrick.donges@uni-leipzig.de
Christian Pieter Hoffmann: christian.hoffmann@uni-leipzig.de
Christian Pentzold: christian.pentzold@uni-leipzig.de
Date submitted: 2023-12-11

alongside existing ones, and their rise or decline entail a concomitant reordering of peripheries. Studies of antagonistic and irreverent expression online (Philips & Milner, 2017) as well as analyses of polarized and largely disconnected networks of communication (Jones-Jang & Chung, 2024; Yarchi, Baden, & Kligler-Vilenchik, 2021) have produced ample evidence for the incongruous formation of arenas where peripherality is not eschewed and centrality is not championed. They make us aware of the broad spectrum of more or less central and peripheral positions that are purposefully managed and maintained in the digital public sphere. Instead of uniformly seeking a position of centrality by boosting their publicity, actors employing digital media might follow a more diverse set of strategies to calibrate their public profiles.

We propose the distinction of center and periphery as a persistent yet contingent order of the public sphere in the digital age. Take, for instance, Donald Trump, who styled himself on Twitter as a political misfit challenging the centers of power even while occupying the White House. Think of the flourishing newsletter service Substack that promises a decentralized journalistic ecosystem while exhibiting a familiar, highly concentrated power distribution among its authors. Or consider micro-influencers in niche domains who seek out and attract the attention of a small but enthusiastic audience. How can we make sense of such a topsy-turvy world in which elite actors pursue liminal positions, where alternative media bolster the powerful, or where influencers purposefully remain marginal to maintain a status of relative prominence?

The persistence and contingency of centers and peripheries are not exclusively determined by factors such as political influence, economic strength, or cultural power but hinge on public communication itself. Specifically, centrality and peripherality in the digital public sphere accrue from four modes of recognition: (1) *attention* as the orientation toward an actor or issue, (2) *resonance* as an echo in complex constellations of connected audiences, (3) *allegiance* as ideological loyalty that can be mobilized for further action, as well as (4) *engagement* as the active response and enduring activity beyond an initial prompt. By distinguishing these four modes, we propose a framework for the analysis of centers and peripheries from a distinctly communicative perspective. Modes of recognition in our argumentation are not synonymous with esteem or respect (Honneth, 1995; Wells & Friedland, 2023). As we will discuss below, they can have both negative and positive valence (cf. Keuchenius, Törnberg, & Uitermark, 2021). We propose that modes of recognition structure the public sphere; they shape and animate center-periphery constellations of issues, actors, and arenas within the digital public sphere. Whereas the co-constitutive constellation of centers and peripheries remains a persistent feature of the digital public sphere, specific manifestations of the four modes of recognition vary and can become contested terrain. Center-periphery constellations are thus both a persistent *and* contingent characteristic of the digital public sphere.

Center and Periphery in Public Sphere Theory

In public sphere theory, the distinction between center and periphery is of fundamental importance. For Habermas (2006), the public sphere constitutes an "intermediary system of communication between formally organized and informal face-to-face deliberations" (p. 415). While the center rests on due procedures and institutions, the periphery contains "networks of wild flows of messages" (p. 415). Thereby, Habermas comes to see the structure of center and periphery as a sieve, "a cleansing mechanism that filters out the 'muddy' elements from a discursively structured legitimation process" (p. 416).

Conceptualizations of the public sphere as an intermediary system have been criticized by proponents of pluralist models that seek to open the public sphere up for marginalized groups and alternative counterpublics (Fraser, 1992; Jackson & Kreiss, 2023; Warner, 2002). But even critiques of Habermas's conceptualization of centers and peripheries in the public sphere share some of its assumptions: the existence of a unified center, mostly constituted by political power, a general orientation toward this center, and an impetus to move toward the center through public communication.

With the rise of the Internet and social media platforms, Benkler, Roberts, Faris, Solow-Niedermann, and Etling (2015) diagnose the emergence of a "networked public sphere," highlighting the "possibility of greater decentralization of the capacity to shape a public agenda and frame the debate" (p. 612). In the same vein, Habermas (2022) acknowledges that platforms "radically alter the previously predominant pattern of communication in the public sphere by empowering all potential users in principle to become independent and equally entitled authors" (p. 159). Habermas (2022) calls it a "centrifugal expansion" (p. 158) that disintegrates the orientation toward the center of the polity and societal institutions and erodes the position of traditional media intermediaries.

A Plurality of Networked Public Spheres?

A potential resolution to this apparent disintegration of the public sphere lies in a deconstruction of *the* public sphere into multiple spheres. Treating the public sphere not as a unified entity but as a plurality of subspheres implies that there are different publics with alternative—at times corresponding, at times competing—validity claims and forms of communication (Kavada & Poell, 2021; Stewart & Hartmann, 2020). Some argue that the term *public sphere* should more accurately only be used in plural (Bruns, 2023) or criticize the lack of theoretical conceptions of the public in networked public spheres (Ojala & Ripatti-Torniainen, 2023).

Nevertheless, even the pluralization of a manifold of spheres commonly entails some sort of hierarchization, for example, along parameters of societal significance, stability, rationality, durability, professionality, or impact. Some subspheres, especially when carried by social elites, are thus deemed to be more consequential and central than others, whereas other subspheres—for instance, those centered around leisure and parochial pursuits—are devalued as less culturally significant, socially representative, or politically powerful (Ma & Zhang, 2022).

Although a strategy of marginalization aims to reserve centrality for political institutions and legacy media, the Internet and digital media seem to have rendered the uniform hierarchical structuration of the public sphere increasingly untenable or even obsolete (Dahlgren, 2009). This has been captured by numerous conceptual iterations such as "personal, private," or "networked" publics (Ojala & Ripatti-Torniainen, 2023; Papacharissi, 2015; Schmidt, 2014; Waldherr, Stoltenberg, Maier, Keinert, & Pfetsch, 2023). Some have proposed that digital media induce a fragmentation of the public sphere—as contentious concepts such as the "filter bubble" illustrate (for a critique, see Bruns, 2019; Stark, Stegmann, Magin, & Jürgens, 2020).

Arenas Within the Public Sphere

Although we agree with the proposition to disentangle diverse subpublics in the analysis of the digital public sphere, we instead refer to the interconnected multitude of subspheres within the public sphere as *arenas.* Following Hilgartner and Bosk (1988), arenas are discursive spaces or "environments" (p. 56) of actors (in roles of audience and speakers), issues, and communicative acts "where social problem definitions evolve" (p. 55). Arenas cannot be identified separately from the competition for social problems unfolding within them. They only emerge on the basis of the issues and the actors who, in their communication, refer to these issues as well as to each other. Arenas can be institutionalized, such as in the form of parliament and its debates, but they may also emerge and develop from interpersonal face-to-face interactions. Arenas can unfold entirely on one media service or span multiple platforms and applications. Arenas settle, stabilize, and attain stability through institutionalization, or remain fleeting, flexible, and even ephemeral while being subject to swiftly evolving patterns of activity and technology.

Although the arena metaphor suggests a single space or field of action that actors—speakers and audiences—enter and leave, actors are in fact present in multiple arenas simultaneously with varying degrees of attention and centrality (Moe, 2023). Moreover, arenas rarely form closed spaces; their boundaries are porous, they tend to be visible and accessible to outsiders (with exceptions), and in some instances they overlap—when an issue simultaneously captures the attention of distinct arenas, for example, or when multiple arenas attract engagement on the same media platform. Arenas can, therefore, not be delineated in the abstract but only based on the empirical reconstruction of constellations of interconnected issues and actors, which usually have a self-reflexive understanding of themselves as forming an arena.

Hilgartner and Bosk's (1988) arena concept indicates that arenas as discursive spaces are animated by (the competition for) *attention*. Although institutionalized rules, technological resources, and situational practices shape the specific instantiation of an arena and can lend it stability, arenas are populated by individuals seeking or paying attention. Attention, thus, is the *sine qua non* of any arena. Attention implies a relational dynamic between observers and the observed (Starr, 2021). It also suggests a dynamic calibration of an arena, as attention wanders, shifts, or is attracted. Building on this, we highlight two distinctive characteristics of the digital public sphere: First, in the digital realm, attention is no longer the sole animating force for the emergence and calibration of arenas. Rather, it is complemented by additional modes of recognition. Second, as these modes of recognition can carry both positive and negative valence, the resulting dynamic in the digital public sphere is no longer necessarily oriented toward centers alone but may also exhibit a purposive orientation toward peripheries. We focus our analysis on issues and actors in arenas, but do not discuss individual pieces of content. Indeed, the communicative dynamics we describe anchor in pieces of content, yet our focus rests on dynamics on the level of the public sphere, which implicates a discourse of communicative relations, references, and reverberations between multiple pieces of content. In the following, many of our examples revolve around actors. Yet, we propose that this conceptual framework equally lends itself to the analysis of issue dynamics, such as agenda setting, cutting, or surfing, and even entire arenas.

Modes of Recognition in the Digital Public Sphere

We propose a distinction of four modes of recognition that animate the digital public sphere: attention, resonance, allegiance, and engagement. Each mode serves as a structuring and animating force within and across arenas, affecting the relative centrality or peripherality of actors and issues within arenas, and arenas within the digital public sphere (Figure 1). One of these modes, attention, is well established as a constitutive and structuring force in public sphere theory. However, compared with mass media, which inform many public sphere theories, digital services and technologies, such as social media, are characterized by participatory affordances (boyd, 2010; Treem & Leonardi, 2013). On social media, users can connect with each other, post content, and they can see, replicate, or add to each other's content. Of course, research on the "participation divide" points out that not all users choose to use these affordances. Yet, digital platforms actively encourage their users to interact with one another and the content created and shared. User engagement—views, likes, comments, shares—is at the heart of their business models. These multiple dimensions of exchange and cohesion point us to modes of recognition that go beyond mere attention, encompassing resonance, allegiance, and engagement.

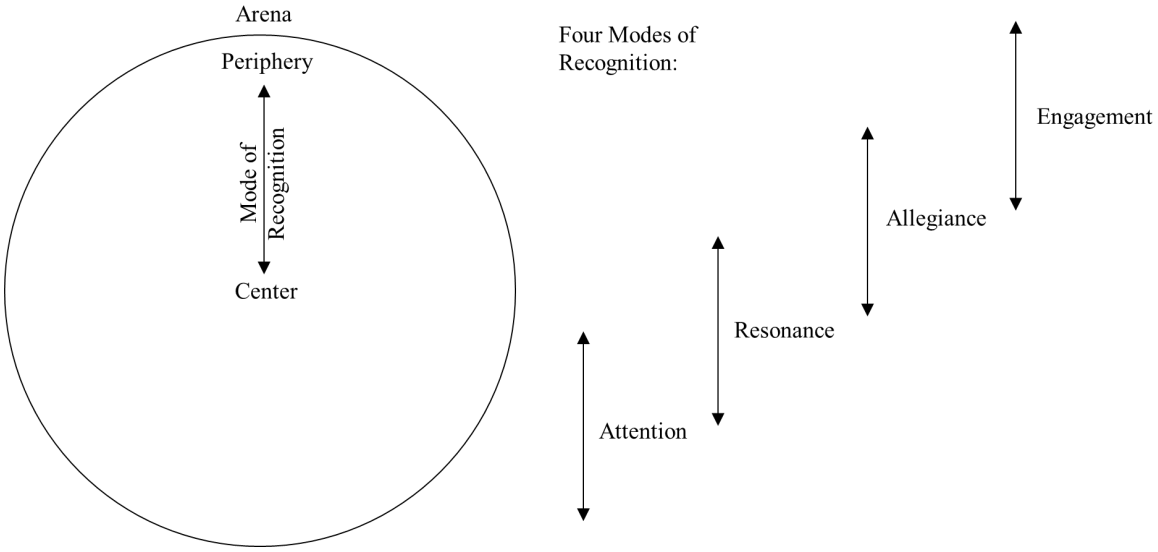

Figure 1. Modes of recognition.

Attention

As noted, attention as a mode of recognition is well established in public sphere theory and underlies most empirical audience ratings of popularity and prominence (Bennett, Segerberg, & Yang, 2018; Buzzard, 2012). It is, Warner (2002) notes, "the principal sorting category by which members and nonmembers [of the public] are discriminated" (p. 419). In other words: those not paying attention, in effect, are not part of an arena, while those seeking attention attempt to move to the center of an arena.

With the digitalization of the public sphere, attention becomes a pledge and parameter of platforms that enable users and messages to gain visibility and that, at the same time, harvest the resultant data to filter, tailor, and curate content to direct attention toward or away from actors or issues. Discussions of "shadow banning" (Cotter, 2023; Savolainen, 2022) and the contentiousness of content moderation indicate awareness of the power of platforms to guide attention. Attention is also subject to the Matthew effect: It tends to accumulate so that prominent actors, issues, or arenas attract ever more attention (Friemel & Neuberger, 2023). However, attention can also wane when audiences lose interest, get distracted by other competing actors, issues, or arenas, or choose to ignore their previous object of attention (Ungar, 2008). It is, however, difficult to ward off attention. In cases of scandals or whenever a sensitive issue requires confidentiality, actors seek to avoid attention.

Attention, thus, must not necessarily be associated with a positive value judgment (i.e., the more attention, the better). Ostracized minorities, for example, are the focus of intense attention by their detractors, and hence central to the respective arena. The mode merely captures that a communication has been perceived as such. For both individual as well as collective and corporate actors (like media), attention is scarce, volatile, and self-reinforcing (Wouters & Lefevere, 2023, p. 3). It is therefore often described in terms of an "attention economy" (Franck, 2019). Audiences pay attention to several arenas, actors, and issues at once, but never to all of them at the same time, and arenas, actors, and issues each only receive a share of the attention available at any given moment. Consequently, actors attempt to redirect attention by setting new issues, changing the perspective on an existing issue, or "surfing" on them (Wouters & Lefevere, 2023).

Resonance

The term *resonance* denotes an echo prompted by a communicative act that is characterized by affect and emotion (Lünenborg, 2019; Ural, 2023). As such, being resonant would mean to stand in a "dynamic relationship of mutual listening and responding" (Rosa, 2019, p. 20). Similarly, Habermas (1996) describes a resonant public as one that is observing and evaluating actors and issues in the public sphere. Resonance, thus, can be directed at actors and issues. Audiences can also resonate with entire arenas as they feel affected by those within the arena and their behavior. Resonance emerges in the complex interplay of connected audiences "where the reaction of one audience influences that of others," as Malacarne (2021) suggests (p. 19). Digital media have made it easy to observe the resonance of others in response to an actor or their message. Resonance—above and beyond attention—imbues actors with a sort of authority, as audiences deem them sufficiently relevant to develop a stance toward them and to react to their communication (Baden & David, 2018; Peters, 1994/2008a).

On digital platforms, resonance has become more easily quantifiable and comparable in terms of likes or reactions. The resulting data and algorithm-based rankings are not exact or error proof but have nevertheless become core devices for determining prominence in public arenas—which helps explain the sustained investment in monitoring, governing, and harnessing user metrics (Baym, 2013; Fisher & Mehozay, 2019). Occasionally, actors even attempt to synthesize indicators of resonance, for example through automated applications such as bots and fake accounts (Barbour, Jensen, Call, & Sharma, 2023; Bimber & Gil de Zuñiga, 2020; Santini, Salles, Tucci, Ferreira, & Grael, 2020).

As in the case of attention, resonance does not imply a specific normative judgment; it does not necessarily have to be affirmative or contribute to consonant and harmonious social relations. Provocateurs can toy with taboos to generate resonance. Particularly in digital arenas, actors might seek the rejection or disruption of a discourse by attaining negative or critical resonance (Buckels, Trapnell, & Paulhuss, 2014; Keuchenius et al., 2021). Also, the affirmative reactions of some may become the point of contestation for other, secondary audiences (Malacarne, 2021). With increasing affective polarization and deepening ideological fault lines, the likelihood of exclusively positive resonance decreases, and spirals of affirmative echoes and critical counter-echoes become ever more likely (Brady et al., 2023; Lünenborg, 2019; Pfetsch, 2018). Such a dynamic is further spurred by emotionalization, the public display and weaponization of sentiments, and what Papacharissi (2015) has described as "affective attunement" (p. 4) through which people "feel" their resonance with people or issues.

Allegiance

Allegiance implies loyalty that goes beyond immediate, measurable reactions. An audience's allegiance with an actor describes a more durable connection, a residual willingness to observe and follow, a tendency to offer attention and resonance. Individuals can feel allegiance to actors, but also to issues—think of activists deeply invested in following a cause—and to arenas, for example, those identifying with fellow members of a fan community. Even if silent, allegiance has consequences for the structuring of arenas, actors, and issues. Allegiance undergirds, for example, the evocation of "silent masses" that are not actively engaging in a discourse but provide the substance of support and the arsenal for prospective mobilization (Hochschild, 2016). Similarly, so-called "dog whistling" of political messaging implies suggestive appeals and coded terms or symbols that are employed to garner support among attentive audiences without provoking immediate reactions (Goodin & Saward, 2005).

Allegiance as a mode of recognition is characteristic for the digital public sphere since social media affordances, for example, revolve around the expression of one's identity or self-presentation (Karahanna, Xu, Xu, & Zhang, 2018). As Jenkins (2006) notes, the resulting cultural dynamics revolve around the manifestation of relationships, the emergence of communities, and a sense of belonging. In the digital public sphere, allegiance is often expressed by, for example, following relationships, manifestations of devotion (e.g., signs and symbols of fandom), membership in groups or message boards, or the adoption of codified terminology (Tucker & Jones, 2023). Social media platforms frequently enable users to display their allegiances in user profiles, for example, by signaling a fan status or aspect of identity through icons and self-descriptions.

As with the other modes of recognition, allegiance can have positive as well as negative valences. Actors may be united as followers or fans, yet their association might also rest on a shared rejection of an actor, issue, or arena. That way, new collectives are constituted, which may have little more in common than a joint disaffirmation. Anti-fans and hater communities are exemplars of this sort of negative allegiance (Nagle, 2017). Allegiance taps into the actors' self-conceptualizations and identities, for instance as a fan or as a critic. It is not merely a case of reacting to performative acts; allegiance implies a more stable relationship in which actors come to perceive of themselves as part of a larger collective.

Allegiance turns members of an audience and bystanders into supporters backing an arena, actor, or issue (Snow & Benford, 1988).

Engagement

Engagement constitutes an active response prompted by a communicative act. It is a visible reaction or activity associated with a higher unambiguity than allegiance and is more clearly interpretable for outsiders. Following Bimber, Flanagin, and Stohl (2005), who reframe collective action as "a set of communication processes involving the crossing of boundaries between private and public life" (p. 367), engagement turns a stance into observable action. Individuals can engage with issues (e.g., actively supporting a cause), actors, and arenas (for example, when moderating an online forum or policing the boundaries of a community). We choose the term *engagement* here rather than "participation," as the latter is more narrowly related to political action (van Deth, 2014).

In the digital public sphere, engagement has been emulated in a repertoire of activities (Gerlitz & Helmond, 2013). Digital platforms afford common practices of engagement, such as commenting, mentioning, recommending, and reposting, which also fuel their revenue model (Klinger & Svensson, 2014; Nielsen & Ganter, 2022). Online, engagement is dynamic, volatile, and difficult to perpetuate without constant activity and input. Because of its evanescent nature as well as its extensive metrification, engagement is prone to manipulation (Cotter, 2019). As van Dijck and Poell (2013) note: "What makes this element of social media logic different from mass media logic, though, is its ability to measure popularity at the same time and by the same means as it tries to influence or manipulate these rankings" (p. 7). The visibility and prominence of digital engagement metrics render such rankings a constant subject of gaming attempts (Grohmann et al., 2022). Platforms, in turn, deem these ventures illegitimate and attempt to suppress them (Petre, Duffy, & Hund, 2019).

As concepts such as "dark participation" (Quandt & Klapproth, 2023) or "negative participation" (Lutz & Hoffmann, 2017) denote, engagement need not be constructive or associated with positive valence. First, members of an arena can be engaged by opposing an idea or actor (Keuchenius et al., 2021). Second, some forms of engagement are explicitly destructive, such as in the case of religious or political extremism, doxing, or hate speech. In fact, negative affect, such as outrage, can sustain intensive engagement (Crockett, 2017).

The Emerging Order of Centers and Peripheries

The four modes of recognition animate and structure the emerging digital public sphere. As such, they establish and form arenas where actors address common issues and each other and come to conceive of themselves as part of a salient discursive constellation. Given the limited size and capacity of audiences, all modes are subject to scarcity and thus result in a relational order of the public sphere that entails centers and peripheries (Peters, 1994/2008a): The position of an actor within an arena is predicated on the recognition they receive from others. The more—and more intensive—recognition actors are able to garner by capitalizing on a salient mode of recognition, the more they move toward the center of an arena. These dynamics are independent of the mode's valence, which can be positive, negative, or a mix of both. Key to

the dynamics of centrality and peripherality are communicative relations, references, and reverberations, not their negative or positive tonality.

As an extreme example, the allegiance offered by members of a cult to their charismatic leader renders the leader the undisputed center of this particular arena, while the leader's circle of close confidants will also command heightened levels of resonance and engagement from fellow cult members. At the same time, an absence of recognition for the cult leader delineates the arena and distinguishes disciples from outsiders. Disapproval and criticism by outsiders, in turn, contribute to the centrality of that cult and its leader within other arenas.

In our conceptualization, recognition is akin to a social currency, rendering some actors within an arena "richer" than others. Such distinctions are coupled to inequalities of power and prestige (Benson, 2009; Moe, 2023), and even material inequities (Bourdieu, 1984). The four modes of recognition, thus, are subject to an accumulative dynamic. Yet they differ in their amenability to be attained and instrumentalized, with allegiance and engagement being more diffused and difficult to steer. In principle, modes do not presuppose each other, and there is no unidirectional flow of influence: an arena can attract the engagement of many without generating allegiance; an individual might feel allegiance to an issue without paying much attention to it in the moment. In practice, however, some modes of recognition are likely to occur in conjunction: Allegiance is difficult to attain without resonance, engagement usually requires attention, resonance can morph into engagement, and engagement can generate attention.

As some actors struggle for recognition (or attempt to avoid it), the emerging relational order is often in conflict with previous center-periphery constellations or the modes they rest upon. If, for example, the actors of an arena chose to favor a mode of recognition at the expense of another (e.g., measures of attention are replaced by engagement metrics on a digital platform), those previously holding central positions may gain or lose centrality (Figure 2). In a highly formalized arena, such as that formed by a political party, a switch from engagement to mere attention, for example, is likely to result in the downfall of leading figures. Differentiating four modes of recognition thus helps us to better understand the complexity and dynamic of the multiple center-periphery-constellations characterizing the digital public sphere.

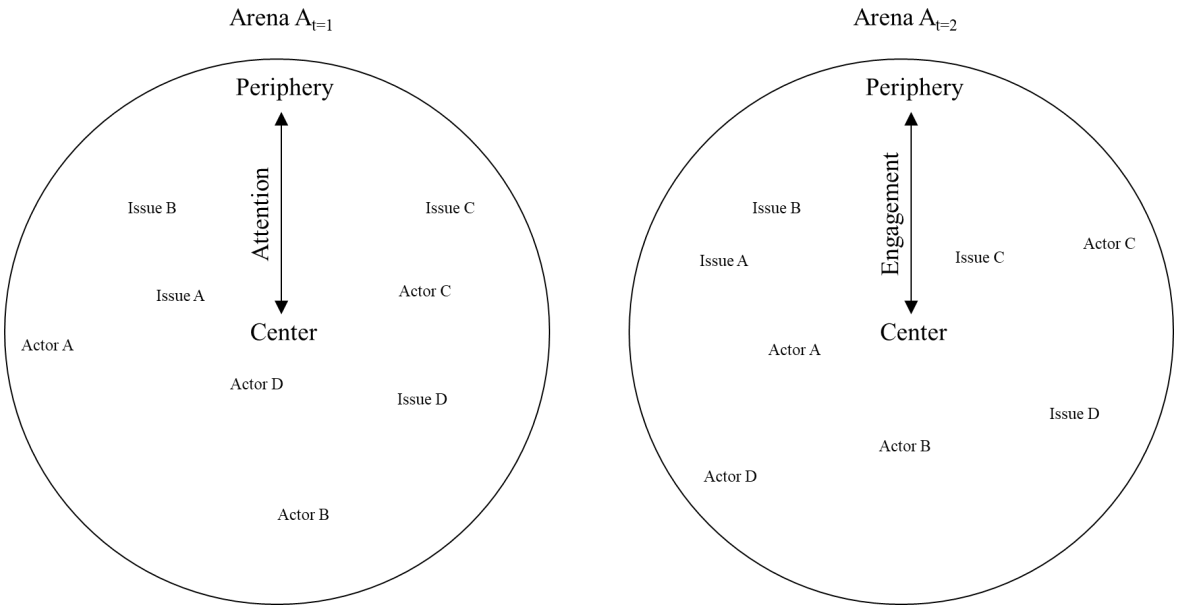

Figure 2. Recalibration of an arena due to a shift in mode of recognition.

Center-periphery relations are not limited to the micro level of individual actors or issues. They are also found in the configuration of the digital public sphere as a constellation of distinct, occasionally colliding or even partly overlapping arenas (Figure 3). As an arena accrues more recognition—either by attracting more participants or by fostering popular modes of recognition—it tends to adopt a more central position within the public sphere (Freelon, McIlwain, & Clark, 2018). As Hilgartner and Bosk (1988) explain, an arena gaining centrality within the public sphere may be more successful in imposing its issues as general "social problems," a hegemonic position that tends to be associated with access to material resources, too. For example, an arena focused on a popular sport, such as soccer or football, will be more central within the public sphere than an arena focused on a niche sport (e.g., snowkiting), as it is recognized more by other arenas. Among niche sports, in turn, those attracting the most enthusiastic fans will attain a more central position; their recognition is not a matter of attention but hinges on the fans' intense engagement and resonance.

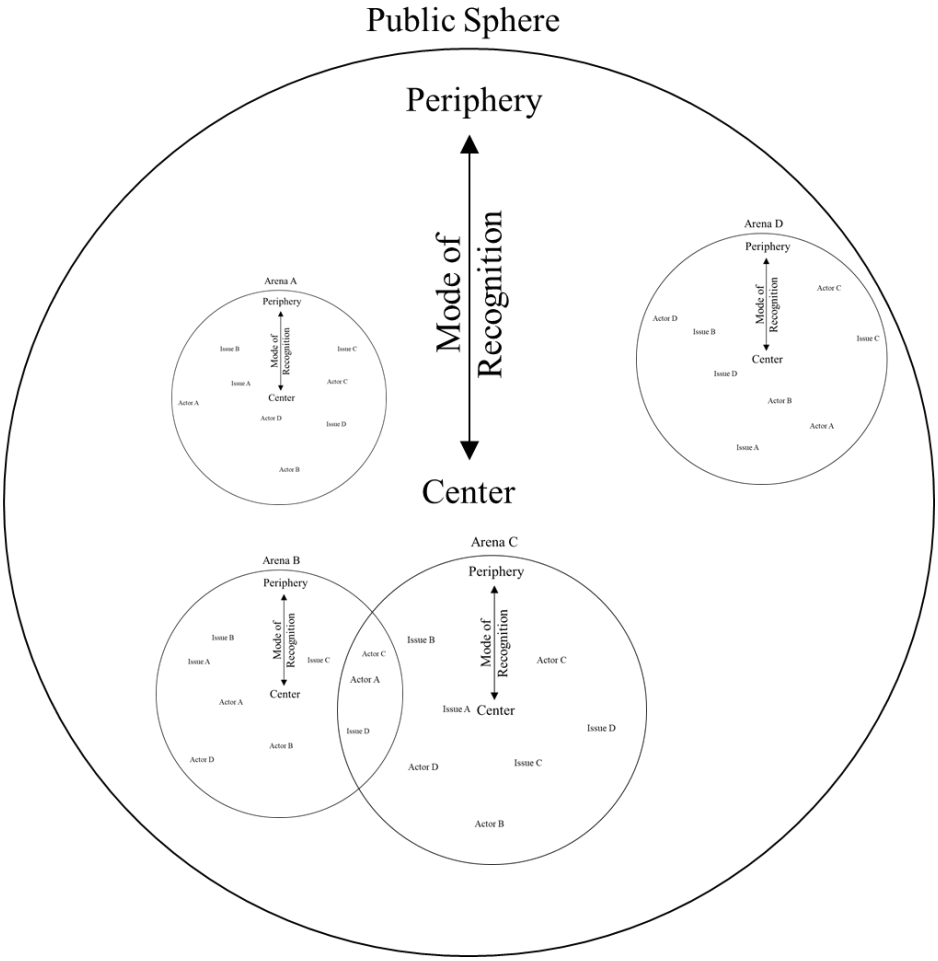

Figure 3. Center-periphery constellations of arenas within the public sphere.

Persistence and Contingency of Centers and Peripheries

We conceptualize the center-periphery distinction in the digital public sphere as both persistent and contingent. Center-periphery constellations are persistent because recognition is an inevitably scarce resource. In fact, similar to material resources the short supply of which engenders competition, or, alternatively, competition for power over the institutions regulating access to them (Bourdieu, 1984), attention, resonance, allegiance, and engagement are themselves contested resources (Hilgartner & Bosk, 1988; Simon, 1971).

On a cognitive level, Neisser (1976) argued that human perception implies the selection of only a few elements of an environment as central, which renders other elements peripheral by default. In social

terms, Schroeder (2018) suggests that digital media intensify rather than ease the competition for recognition because of a rise in supply of potential distractions. The persistence of the center-periphery distinction implies that public discourse will always configure as constellations of central versus peripheral arenas comprised of central versus peripheral actors and issues, independent of the specific modes that distinguish centrality versus peripherality at any given time. This persistence is also independent of the intentions of individual actors or arenas at any given moment—issues, actors, and arenas will be embedded in center-periphery constellations whether or not they aspire to a specific position of centrality or peripherality. Positionality, particularly the position of an actor in an arena but also of an issue or an entire arena, is not always and not fully the result of strategic action. Usually, it is the transintentional mix of purposive decisions and social dynamics resulting from the activities of other actors and the existence and development of other issues and arenas. Yet, although centrality and peripherality may escape full control or may be beyond an actor's purview, it is difficult not to know one's position in the digital public sphere or be made aware of it through metrics and performance feedback. This kind of awareness can reflexively prompt and inform strategizing that hinges on some level of intentionality, even in cases where the preferred strategy is to do nothing.

The contingency of the center-periphery distinction, in turn, is a consequence of shifting modes of recognition and the ever-evolving relation and formation of arenas; the changing composition of and positions among actors; as well as the ebb and flow of the issues their discourses revolve around. The digital public sphere, therefore, is a multidimensional space; while relationally connected, it may appear fragmented when discourses gravitate toward different modes of recognition, resulting, in some instances, in apparently contradictory center-periphery constellations (Kavada & Poell, 2021). This is the case, for example, when nano-influencers trade attention for seemingly more meaningful engagement and build a business by promising effective persuasion and marketing (Park, Lee, Xiong, Septianto, & Seo, 2021).

The Paradox of Peripherality

A phenomenon that previous public sphere theories, including notions of "counterpublics," struggle to incorporate is that of deliberate peripherality as they assume speakers to default on attention maximization (Ferree, Gamson, Gerhards, & Rucht, 2002; Habermas, 1989, 1996). Of course, issues, actors, or arenas can happily find themselves in a position of relative peripherality merely because of a lack of attention or engagement—think of niche hobbies or highly specialized communities of practice. Yet, when assuming a general gravitational pull from the periphery toward the center, the purposive avoidance of large audiences, the strategic addressing of a minority, or the self-branding as outsiders must remain a paradox.

A critical element of the framework proposed here is that all four modes of recognition can have either positive or negative valence. Actors may thus seek attention, resonance, allegiance, and engagement, but they may just as well shy away from all modes of recognition provided by critics, detractors, or enemies. It is important to note here that recognition is given by others, so actors cannot directly control the recognition they receive. They can merely attempt to influence the mode or the intensity of a mode of recognition they are subject to. In case audiences pay attention to, resonate, feel allegiance, or engage with an actor, they will gain centrality no matter if he or she wishes to do so or not. It should also be noted that

actors may wish to eschew recognition even if it is characterized by positive valence—for example, in case a Hollywood star wishes to spend a family vacation in private.

Some actors or arenas strive for a peripheral position within the public sphere to avoid the negative valence of the recognition provided by others (Dahlgren, 2009), for instance for ventilating extremist views or nurturing fringe interests. They may even seek obfuscation, as in the case of dark Web forums. In turn, such positions then can afford increased levels of recognition within the peripheral arena. The intense engagement and allegiance attained in a small, peripheral arena may be preferable to the scarce attention available within a larger one.

Furthermore, actors might choose to strive for negative recognition—attention, resonance, engagement, even allegiance—to gain centrality within an arena. In most cases, such a path ultimately may not end up in an arena's center but rather in a contested niche within it. Trolls, for example, revel in the negative recognition they receive, while they may also garner positive recognition from others for their communicative harm and irreverence (Buckels et al., 2014). Entire subcultures seeking negative recognition form on platforms such as 4chan or KiwiFarms (Tuters & Hagen, 2020). Hater communities such as "incels" and the "red-pilled" find common purpose and identity in a negative allegiance to their object of dislike (Dessart, Veloutsou, & Morgan-Thomas, 2020).

The instance of a hater community further illustrates a key aspect of the relational order characterizing the digital public sphere: an actor's niche position in one arena can be associated with a central position in an adjacent or overlapping arena (Figure 4). Some negative attention and resonance accrued in a comparatively large arena can translate into positive recognition and centrality in another, smaller arena. In a case study of the Occupy Wall Street protests, Bennett et al. (2018), for example, found that "actors who are peripheral to core protest events but powerful or central in their own circles may play a particularly important role in networked framing processes" (p. 663). Similar dynamics mark populist political entrepreneurs who attach themselves to the negative recognition garnered in mainstream journalistic outlets, as it increases clout among their electoral or ideological base (Fawzi, 2019; Shayegh, Storey, Turner, & Barry, 2022). Studies of political Twitter/X in the United States illustrate how out-group animosity fuels reach and in-group recognition especially of those being attacked or criticized (Rathje, Van Bavel, & Van Der Linden, 2021). In effect, an actor's centrality in one arena, fueled by the negative recognition garnered in another arena can, paradoxically, ultimately result in an even more central position in the latter. Such tipping points (Centola, Becker, Brackbill, & Baronchelli, 2018) are reached, for example, when a populist outsider ends up in elected office, or when a marginalized subculture becomes mainstream, or when an increasingly popular leisure activity is ultimately recognized as a sport.

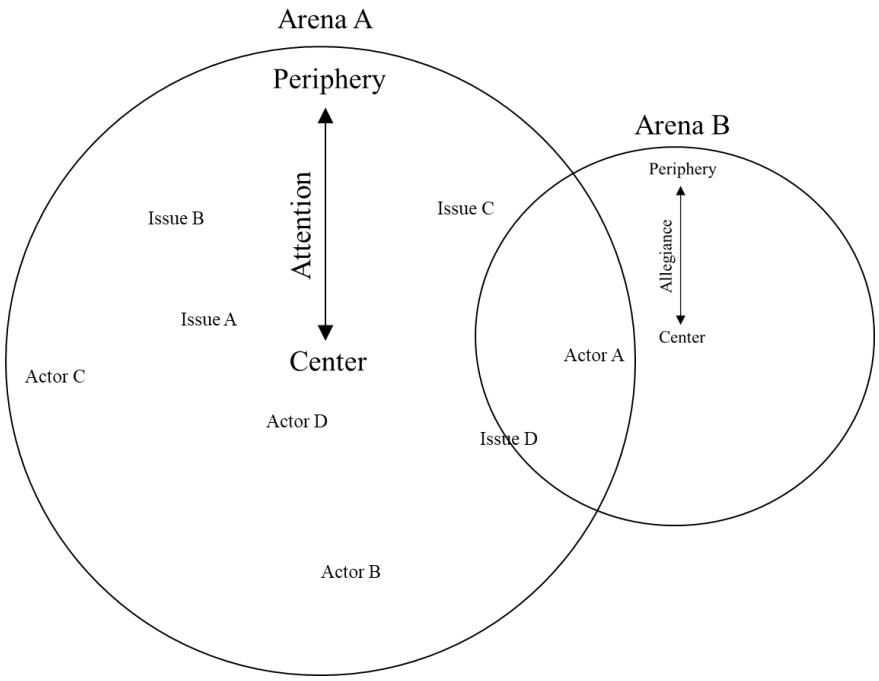

Figure 4. Leveraging centrality versus peripherality across arenas.

Dynamics of the Digital Public Sphere

The dynamic relationship among arenas is a critical component of the digital public sphere. As noted, digitalization may challenge established institutions and thereby render an arena's center-periphery constellation more malleable. The resulting increase in contestation, competition, change, and diversity of salient modes of recognition can be perceived as disquieting or threatening by those traditionally holding central positions (Jungherr & Schroeder, 2021). Digitalization also facilitates the emergence of new arenas, driven by specific situational practices and technological affordances that can quickly dissolve again, thus rendering the digital public sphere generally more turbulent. A point in case is the short-lived hype around the mobile game *Pokémon Go* (Niantic, 2016).

Moreover, as indicated by research on networked publics, digitalization increases the potential for collisions between arenas that might result in an exchange of ideas and participants, or even for disparate arenas to merge. However, it may also lead to conflict between them (Kavada & Poell, 2021). Conceptualizing these changes as a "fragmentation" of the public sphere cannot account for the relational complexity of such intra-arena and inter-arena interactions. In fact, concepts such as the "filter bubble" have been characterized as a "myth" (Bruns, 2019; Stark et al., 2020) also because digital platforms tend to increase, rather than decrease, the connectivity and diversity of social interactions (Bail, 2021; Fletcher, Kalogeropoulos, & Nielsen, 2023).

In the digital public sphere, established arenas struggle to maintain a position of centrality. An increase in contestation, however, is far from achieving a utopian situation of "flattening" the public sphere. Established organizations and institutions still persist, such as corporations, political parties, or mass media, that induce inertia into the interplay and emergence of more central or more peripheral arenas (Yang, Choi, Abeliuk, & Saffer, 2021). Those focusing on the disruptive potential of counterpublics tend to overlook the resilience of established arenas and their ability to absorb emerging adjacent arenas, actors, and issues. This happens in various settings, for example, when political systems withstand the onslaught of populist challengers, when cartelistic record labels and publishing houses capitalize on independent artists, or when the content produced by traditional news organizations, such as the *New York Times* or the BBC, saturates the offerings of alternative media.

Arenas in the digital public sphere are mediated. Some revolve around bespoke platforms, as in the case of alternative online media, topical forums, or mobile instant messenger groups (Schroeder, 2018). The reliance on a special, even detached media platform is more likely if an arena's participants either seek a more peripheral position within the public sphere or if negative recognition pushes an arena toward the periphery. Often, however, various arenas unfold on shared platforms. Such platforms increase the likelihood of arenas colliding, overlapping, or interacting. The affordances of digital platforms that serve to manifest modes of recognition, such as likes, shares, comments, and more, also help to carry issues and actors across the boundaries of arenas.

The digital public sphere simultaneously facilitates the pursuit of peripherality and impedes its maintenance. On the one hand, it is easy to establish niche communities online, to find like-minded pursuers of minority interests—even those that are regarded with scorn by most. Digital platforms afford the establishment of closed groups or networks safeguarded by encryption. Even illegal activities can be pursued online, for example on the "dark Web." On the other hand, the reliance on shared platforms dominating the digital domain (van Dijck, Poell, & De Waal, 2018) increases the likelihood of "spillage" from peripheral to more central arenas. As noted above, shared platforms facilitate subjecting actors or issues from one arena to the recognition of another. As such, even consciously pursued positions of peripherality remain precarious in the digital public sphere.

Note also that there are obstacles that might frustrate an actor's push for centrality and result in resignation; ultimately, even the willful embrace of a status of peripherality. In that respect, Duffy and Meisner (2022) show how content creators on TikTok and Instagram are keenly aware of algorithmic (in)visibility and the limited ability to counteract boosts and bans. Through algorithmic amplification or repression, platforms play a major role in guiding recognition toward (or away from) an arena, issue, or actor. Because of the reliance on a few infrastructural platforms, their choices can have major repercussions for those bargaining on the mastery of digitally manifested modes of recognition. As a point in case, see the Kardashians' outcry to "make Instagram Instagram again" as Meta sought to remodel its recommendation algorithm in response to the success of TikTok (Liang, 2022).

Conclusion

We began our exploration of the persistent-yet-contingent role of center-periphery constellations in the digital public sphere by pointing out the apparent paradox of individual actors and entire communities deliberately seeking marginal positions, avoiding or even attacking established centers of power and prestige. The digital public sphere, we argue, consists of arenas that are multidimensional, dynamic center-periphery constellations subject to persistent centrifugal and centripetal tensions. In essence, a framework of persistent-yet-contingent center-periphery constellations conceptualizes the digital public sphere as networked, not fragmented, dynamic, yet not chaotic, and as hierarchic rather than flat. It is on these terms that a prominent political actor like Donald Trump can leverage an adversarial stance toward political and journalistic institutions—and the ensuing attention—to garner allegiance among an arena of fans bonded by a shared sense of institutional mistrust and political disenchantment. Likewise, an established journalist may choose to give up a highly visible position within a mainstream media outlet to engage with a devoted community of Substack subscribers.

The polycentric and polyperipheral structuration of the digital public sphere poses a challenge to classical conceptualizations (Fraser, 1992; Habermas, 1996; Peters, 1997/2008b). These classical conceptualizations understand the public sphere as primarily political. Normatively, the public sphere should serve the democratic process and improve political decision making. Normative theories of the public sphere are therefore linked to the idea of a (political) center that makes collectively binding decisions and to which messages are directed, be it deliberative, liberal-representative, or agonistic-confrontational. However, our argument here is different: Rather than locating the public sphere in the polity, we examine modes of recognition to approach the digital public sphere in communicative terms, not from democratic principles or with respect to normative implications. Thereby, polycentrism and polyperiphery are neither desirable nor problematic per se, but an adequate description of today's digital public sphere.

In this contribution, we cannot satisfactorily explore all elements of center-periphery constellations in the digital public sphere. Further work is necessary to conceptualize how, for example, agenda setting constitutes an attempt to attract the recognition of fellow actors within an arena directed towards a particular issue. Successful agenda setting tends to be associated with positional improvements within the relational configuration of an arena. Similarly, strategic communication as the purposeful interference of modes of recognition within and across arenas remains to be examined in that respect. The distinction of situational practices, institutional rules, and technological affordances, and their respective contribution in shaping center-periphery constellations, require further analysis, too. To that end, focusing on how public communication affects ever-changing yet inescapable center-periphery constellations through distinct modes of recognition can provide a rich ground for future interrogations of the digital public sphere.

References

Baden, C., & David, Y. (2018). On resonance: A study on cultur-dependent reinterpretations of xtremist violance in Israeli media discourse. *Media, Culture & Society, 40(*4), 514–534. doi:10.1177/0163443717734404

Bail, C. (2021). *Breaking the social media prism: How to make our platforms less polarizing.* Princeton, NJ: Princeton University Press.

Barbour, J. B., Jensen, J. T., Call, S. R., & Sharma, N. (2023). Substance, discourse, and practice: A review of communication research on automation. *Annals of the International Communication Association, 47*(3), 261–291. doi:10.1080/23808985.2023.2183232

Baym, N. K. (2013). Data not seen: The uses and shortcomings of social media metrics. *First Monday, 18*(10). doi:10.5210/fm.v18i10.4873

Benkler, Y., Roberts, H., Faris, R., Solow-Niederman, A., & Etling, B. (2015). Social mobilization and the networked public sphere: Mapping the SOPA-PIPA debate. *Political Communication, 32*(4), 594–624. doi:10.1080/10584609.2014.986349

Bennett, W. L., Segerberg, A., & Yang, Y. (2018). The strength of peripheral networks: Negotiating attention and meaning in complex media ecologies. *Journal of Communication, 68*(4), 659–684. doi:10.1093/joc/jqy032

Benson, R. (2009). Shaping the public sphere: Habermas and beyond. *The American Sociologist, 40*(3), 175–197. doi:10.1007/s12108-009-9071-4

Bimber, B., Flanagin, A. J., & Stohl, C. (2005). Reconceptualizing collective action in the contemporary media environment. *Communication Theory, 15*(4), 365–388. doi:10.1111/j.1468-2885.2005.tb00340.x

Bimber, B., & Gil de Zúñiga, H. (2020). The unedited public sphere. *New Media & Society, 22*(4), 700–715. doi:10.1177/1461444819893980

Bourdieu, P. (1984). *Distinction: A social critique of the judgement of taste*. Abingdon, UK: Routledge.

boyd, d. (2010). Social network sites as networked publics. In Z. Papacharissi (Ed.), *A n*e*tworked self: Identity, community, and culture on social network sites* (pp. 39–58). New York, NY: Routledge.

Brady, W. J., McLoughlin, K. L., Torres, M., Luo, K., Gendron, M., & Crockett, M. (2023). Overperception of moral outrage in online social networks inflates beliefs about intergroup hostility. *Naure Human Behavior, 7*(6), 917–927. doi:10.1038/s41562-023-01582-0

Bruns, A. (2019). Filter bubble. *Internet Policy Review, 8*(4). doi:10.14763/2019.4.1426

Bruns, A. (2023). From "the" public sphere to a network of publics: Towards an empirically founded model of contemporary public communication spaces. *Communication Theory, 33*(2–3), 70–81. doi:10.1093/ct/qtad007

Buckels, E. E., Trapnell, P. D., & Paulhus, D. L. (2014). Trolls just want to have fun. *Personality and Individual Differences, 67*, 97–102. doi:10.1016/j.paid.2014.01.016

Buzzard, K. (2012). *Tracking the audience: The ratings industry from analog to digital*. New York, NY: Routledge.

Centola, D., Becker, J., Brackbill, D., & Baronchelli, A. (2018). Experimental evidence for tipping points in social convention. *Science, 360*(6393), 1116–1119. doi:10.1126/science.aas8827

Correa, T., & Jeong, S. H. (2010). Race and online content creation. Why minorities are actively participating in the Web. *Information, Communication & Society, 14*(5), 638–659. doi:10.1080/1369118X.2010.514355

Cotter, K. (2019). Playing the visibility game: How digital influencers and algorithms negotiate influence on Instagram. *New Media & Society, 21*(4), 895–913. doi:10.1177/1461444818815684

Cotter, K. (2023). "Shadowbanning is not a thing": Black box gaslighting and the power to independently know and credibly critique algorithms. *Information, Communication & Society, 26*(6), 1226–1243. doi:10.1080/1369118X.2021.1994624

Crockett, M. J. (2017). Moral outrage in the digital age. *Nature Human Behaviour, 1*(11), 769–771. doi:10.1038/s41562-017-0213-3

Dahlgren, P. (2009). *Media and political engagement: Citizens, communication and democracy*. Cambridge, UK: Cambridge University Press.

Dessart, L., Veloutsou, C., & Morgan-Thomas, A. (2020). Brand negativity: A relational perspective on anti-brand community participation. *European Journal of Marketing, 54*(7), 1761–1785. doi:10.1108/EJM-06-2018-0423

Duffy, B. E., & Meisner, C. (2022). Platform governance at the margins: Social media creators' experiences with algorithmic (in)visibility. *Media, Culture & Society, 45*(2), 285–304. doi:10.1177/01634437221111923

Fawzi, N. (2019). Untrustworthy news and the media as "enemy of the people?" How a populist worldview shapes recipients' attitudes toward the media. *The International Journal of Press/Politics, 24(*2), 146–164. doi:10.1177/1940161218811981

Ferree, M., Gamson, W., Gerhards, J. & Rucht, D. (2002). Four models of the public sphere in modern democracies. *Theory and Society, 31*(3), 289–324. doi:10.1023/A:1016284431021

Fisher, E., & Mehozay, Y. (2019). How algorithms see their audience: Media epistemes and the changing conception of the individual. *Media, Culture & Society, 41*(8), 1176–1191. doi:10.1177/016344371983159

Fletcher, R., Kalogeropoulos, A., & Nielsen, R. K. (2023). More diverse, more politically varied: How social media, search engines and aggregators shape news repertoires in the United Kingdom. *New Media & Society, 25*(8), 2118–2139. doi:10.1177/14614448211027393

Franck, G. (2019). The economy of attention. *Journal of Sociology, 55*(1), 8–19. doi:10.1177/1440783318811778

Fraser, N. (1992). Rethinking the public sphere. In C. Calhoun (Ed.), *Habermas and the public sphere* (pp. 109–142). Cambridge, MA: MIT Press.

Freelon, D., McIlwain, C., & Clark, M. (2018). Quantifying the power and consequences of social media protest. *New Media & Society, 20*(3), 990–1011. doi:10.1177/1461444816676646

Friemel, T. N., & Neuberger, C. (2023). The public sphere as a dynamic network. *Communication Theory, 33*(2–3), 92–101. doi:10.1093/ct/qtad003

Gerlitz, C., & Helmond, A. (2013). The like economy: Social buttons and the data-intensive Web. *New Media & Society, 15*(8), 1348–1365. doi:10.1177/1461444812472322

Goodin, R. E., & Saward, M. (2005). Dog whistles and democratic mandates. *The Political Quarterly, 76*(4), 471–476. doi:10.1111/j.1467-923X.2005.00708.x

Grohmann, R., Clara Aquino, M., Rodrigues, A., Matos, É., Govari, C., & Amaral, A. (2022). Click farm platforms: An updating of informal work in Brazil and Colombia. *Work Organisation, Labour & Globalisation, 16*(2), 7–20. doi:10.13169/workorgalaboglob.16.2.0007

Habermas, J. (1989). *The structural transformation of the public sphere: An inquiry into a category of bourgeois society.* Cambridge, UK: Polity.

Habermas, J. (1996). *Between facts and norms*. Cambridge, MA: MIT Press.

Habermas, J. (2006). Political communication in media society: Does democracy still enjoy an epistemic dimension? The impact of normative theory on empirical research. *Communication Theory, 16*(4), 411–426. doi:10.1111/j.1468-2885.2006.00280.x

Habermas, J. (2022). Reflections and hypotheses on a further structural transformation of the political public sphere. *Theory, Culture & Society, 39*(4), 145–171. doi:10.1177/02632764221112341

Hilgartner, S., & Bosk, C. L. (1988). The rise and fall of social problems: A public arenas model. *American Journal of Sociology, 94*(7), 53–78. doi:10.1086/228951

Hirzalla, F., & van Zoonen, L. (2010). Beyond the online/offline divide. How youth's online and offline civic activities converge. *Social Science Computer Review, 29*(4), 481–498. doi:10.1177/0894439310385538

Hochschild, A.R. (2016). *Strangers in their own land*. New York, NY: The New Press.

Honneth, A. (1995). *The struggle for recognition: The moral grammar of social conflicts*. Cambridge, UK: Polity Press.

Jackson, S. J., & Kreiss, D. (2023). Recentering power: Conceptualizing counterpublics and defensive publics. *Communication Theory, 33*(2–3), 102–111. doi:10.1093/ct/qtad004

Jenkins, H. (2006). *Fans, bloggers, and gamers: Exploring participatory culture*. New York, NY: New York University Press.

Jones-Jang, S. M., & Chung, M. (2024). Can we blame social media for polarization? Counter-evidence against filter bubble claims during the COVID-19 pandemic. *New Media & Society, 26*(6), 3370–3389. doi.org/10.1177/14614448221099591

Jungherr, A., & Schroeder, R. (2021). Disinformation and the structural transformations of the public arena: Addressing the actual changes to democracy. *Social Media+ Society, 7*(1), 1–13. doi:10.1177/2056305121988928

Jungherr, A., Rivero, G., & Gayo-Avello, D. (2020). *Retooling politics: How digital media are shaping democracy*. Cambridge, UK: Cambridge University Press.

Karahanna, E., Xu, S. X., Xu, Y., & Zhang, N. A. (2018). The needs—affordances—features perspective for the use of social media. *MIS Quarterly, 42*(3), 737–756. doi:10.25300/MISQ/2018/11492

Kavada, A., & Poell, T. (2021). From counterpublics to contentious publicness: Tracing the temporal, special, and material articulations of popular protest through social media. *Communication Theory, 31*(2), 190–208. doi:10.1093/ct/qtaa025

Keuchenius, A., Törnberg, P., & Uitermark, J. (2021). Why it is important to consider negative ties when studying polarized debates: A signed network analysis of a Dutch cultural controversy on Twitter. *PloS One, 16*(8), e0256696. doi:10.1371/journal.pone.0256696

Klinger, U., & Svensson, J. (2014). The emergence of network media logic: A theoretical approach. *New Media & Society, 17*(8), 1241–1257. doi:10.1177/1461444814522952

Liang, M. (2022). The end of social media? How data attraction model in the algorithmic media reshapes the attention economy. *Media, Culture & Society, 44*(6), 1110–1131. doi:10.1177/01634437221077168

Lünenborg, M. (2019). Affective publics: Understanding the dynamic formation of public articulations beyond the public sphere. In A. Fleig & C. von Scheve (Eds.), *Public spheres of resonance: Constellations of affect and language* (pp. 30–48). London, UK: Routledge.

Lutz, C., & Hoffmann, C. P. (2017). The dark side of online participation: Exploring non-, passive and negative participation. *Information, Communication & Society, 20*(6), 876–897. doi:10.1080/1369118X.2017.1293129

Ma, L., & Zhang, Y. (2022). Three social-mediated publics in digital activism: A network perspective of social media public segmentation. *Social Media + Society, 8*(2), 1–10. doi:10.1177/20563051221094775

Malacarne, T. (2021). Connected audiences in social performance. *Sociological Theory, 39*(1), 19–37. doi:10.1177/0735275120984824

Moe, H. (2023). Operationalizing distribution as a key concept for public sphere theory. A call for ethnographic sensibility of different social worlds. *Communication Theory, 33*(2–3), 112–121. doi:10.1093/ct/qtad008

Nagle, A. (2017). *Kill all normies: Online culture wars from 4chan and Tumblr to Trump and the Alt-Right*. Winchester, UK: John Hunt.

Neisser, U. (1976). *Cognition and reality. Principles and implications of cognitive psychology*. New York, NY: W. H. Freeman.

Niantic. (2016). *Pokémon go* [Mobile App]. San Francisco, CA: Niantic.

Nielsen, R. K., & Ganter, S. (2022). *The power of platforms*. Oxford, UK: Oxford University Press.

Ojala, M., & Ripatti-Torniainen, L. (2023). Where is the public of 'networked publics'? A critical analysis of the theoretical limitations of online publics research. *European Journal of Communication, 39*(2), 145–160. doi:10.1177/02673231231210207

Papacharissi, Z. (2015). *Affective publics*. *Sentiment, technology, and politics.* Oxford, UK: Oxford University Press.

Park, J., Lee, J. M., Xiong, V. Y., Septianto, F., & Seo, Y. (2021). David and Goliath: When and why micro-influencers are more persuasive than mega-influencers. *Journal of Advertising, 50*(5), 584–602. doi:10.1080/00913367.2021.1980470

Peters, B. (2008a). The meaning of the public sphere. In H. Wessler (Ed.), *Public deliberation and public culture: The writings of Bernhard Peters, 1993–2005.* (pp. 33–67). London, UK: Palgrave Macmillan. (Original work published 1994)

Peters, B. (2008b). On public deliberation and public culture. In H. Wessler (Ed.), *Public deliberation and public culture: The writings of Bernhard Peters, 1993–2005.* (pp. 68–120). London, UK: Palgrave Macmillan. (Original work published 1997)

Petre, C., Duffy, B. E., & Hund, E. (2019). "Gaming the system": Platform paternalism and the politics of algorithmic visibility. *Social Media + Society, 5*(4), 1–12. doi:10.1177/2056305119879995

Pfetsch, B. (2018). Dissonant and disconnected public spheres as challenge for political communication research. *Javnost—the Public, 25*(1–2), 59–65. doi:10.1080/13183222.2018.1423942

Philips, R., & Milner, K. (2017). *The ambivalent Internet*. Cambridge, UK: Polity.

Quandt, T., & Klapproth, J. (2023, August). Dark participation: A critical overview. *Oxford research encyclopedia of communication*. Retrieved from https://oxfordre.com/communication/view/10.1093/acrefore/9780190228613.001.0001/acrefore-9780190228613-e-1155.

Rathje, S., Van Bavel, J. J., & Van Der Linden, S. (2021). Out-group animosity drives engagement on social media. *Proceedings of the National Academy of Sciences, 118*(26), e2024292118. doi:10.1073/pnas.2024292118

Rosa, H. (2019). *Resonance*. *A sociology of our relationship to the world. Cambridge*, UK: Polity.

Santini, R. M., Salles, D., Tucci, G., Ferreira, F., & Grael, F. (2020). Making up audience: Media bots and the falsification of the public sphere. *Communication Studies, 71*(3), 466–487. doi:10.1080/10510974.2020.1735466

Sasaki, F. (2017). Does Internet use provide a deeper sense of political empowerment to the less educated? *Information, Communication & Society, 20*(10), 1445–1463. doi:10.1080/1369118X.2016.1229005

Savolainen, L. (2022). The shadow banning controversy: Perceived governance and algorithmic folklore. *Media, Culture & Society, 44*(6), 1091–1109. doi:10.1177/01634437221077174

Schmidt, J. (2014). Twitter and the rise of personal publics. In K. Weller, A. Bruns, J. Burgess, M. Mahrt, & C. Puschmann (Eds.), *Twitter and society* (pp. 3–14). New York, NY: Peter Lang.

Schroeder, R. (2018). Towards a theory of digital media. *Information, Communication & Society, 21*(3), 323–339. doi:10.1080/1369118X.2017.1289231

Shayegh, J., Storey, L., Turner, R. N. & Barry, J. (2022). A social identity approach to how elite outgroups are invoked by politicians and the media in nativist populism. *Political Psychology, 43*(6), 1009–1025. doi:10.1111/pops.12798

Simon, H. A. (1971). Designing organizations for an information-rich World. In M. Greenberger (Ed.), *Computers, communications, and the public interest* (pp. 37–72). Baltimore, MD: Johns Hopkins University Press.

Snow, D. A., & Benford, R. D. (1988). Ideology, frame resonance, and participant mobilization. *International Social Movement Research*, *1*(1), 197–217.

Stark, B., Stegmann, D., Magin, M., & Jürgens, P. (2020, June 30). *Are algorithms a threat to democracy? The rise of intermediaries: a challenge for public discourse. AlgorithmWatch*. Retrieved from https://algorithmwatch.org/en/wp-content/uploads/2020/05/Governing-Platforms-communications-study-Stark-May-2020-AlgorithmWatch.pdf

Starr, P. (2021). The relational public. *Sociological Theory, 39*(2), 57–80. doi:10.1177/07352751211004660

Stewart, E., & Hartmann, D. (2020). The new structural transformation of the public sphere. *Sociological Theory, 38*(2), 170–191. doi:10.1177/0735275120926205

Treem, J. W., & Leonardi, P. M. (2013). Social media use in organizations: Exploring the affordances of visibility, editability, persistance, and association. *Annals of the International Communication Association, 36*(1), 143–189. doi:10.1080/23808985.2013.11679130

Tucker, L., & Jones, J. (2023). Pronoun lists in profile bios display increased prevalence, systematic co-presence with other keywords and network tie clustering among U.S. Twitter users 2015–2022. *Journal of Quantitative Description: Digital Media, 3*(2023). doi:10.51685/jqd.2023.003

Tuters, M., & Hagen, S. (2020). (((They))) rule: Memetic antagonism and nebulous othering on 4chan. *New Media & Society, 22*(12), 2218–2237. doi:10.1177/1461444819888746

Ungar, S. (2008). Ignorance as an under-identified social problem. *The British Journal of Sociology, 59*(2), 301–326. doi:10.1111/j.1468-4446.2008.00195.x

Ural, H. (2023). Rethinking affective publics as media rituals through temporality, performativity and liminality. *Media, Culture & Society, 45*(5), 1036–1049. doi:10.1177/01634437231155557

van Deth, J. W. (2014). A conceptual map of political participation. *Acta Politica, 49*(3), 349–367. doi:10.1057/ap.2014.6

van Dijck, J., & Poell, T. (2013). Understanding social media logic. *Media and Communication, 1*(1), 2–14. doi:10.17645/mac.v1i1.70

van Dijck, J., Poell, T., & De Waal, M. (2018). *The platform society: Public values in a connective world*. Oxford, UK: Oxford University Press.

Waldherr, A., Stoltenberg, D., Maier, D., Keinert, A., & Pfetsch, B. (2023). Translocal networked public spheres: Spatial arrangements of metropolitan Twitter. *New Media & Society*. Advance online publication. doi:10.1177/14614448231156579

Warner, M. (2002). Publics and counterpublics (abbreviated version). *Quarterly Journal of Speech, 88*(4), 413–425. doi:10.1080/00335630209384388

Wells, C., & Friedland, L. A. (2023). Recognition crisis: Coming to terms with identity, attention and political communication in the twenty-first century. *Political Communication, 40*(6), 681–699. doi:10.1080/10584609.2023.2222267

Wouters, R., & Lefevere, J. (2023). Making their mark? How protest sparks, surfs, and sustains media issue attention. *Political Communication, 40*(5), 615–632. doi:10.1080/10584609.2023.2188499

Yang, A., Choi, I. M., Abeliuk, A., & Saffer, A. (2021). The influence of interdependence in networked publics spheres: How community-level interactions affect the evolution of topics in online discourse. *Journal of Computer-Mediated Communication, 26*(3), 148–166. doi:10.1093/jcmc/zmab002

Yarchi, M., Baden, C., & Kligler-Vilenchik, N. (2021). Political polarization on the digital sphere: A cross-platform, over-time analysis of interactional, positional, and affective polarization on social media. *Political Communication, 38*(1–2), 98–139. doi:10.1080/10584609.2020.1785067