Platformization, Pluralization, Synthetization

Public Communication in the Digital Age

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Abstract

The platformization of communication architectures is accompanied by a diversification of individual media use and an erosion of clear structural boundaries between different streams of public exchange. Nevertheless, it is by now evident that the digital transformation does not lead to a general loss of relevance of journalistic services or mass-received content per se and that selection thresholds remain in public communication despite increased connectivity. Against this backdrop, this paper argues that it is still instructive to describe the negotiation of public visibility as a multi-level process, which is now essentially shaped by the peculiarities of digital platforms: First, it examines the increasing platform orientation in media diffusion. Second, it discusses the associated diversification of individual media repertoires and the pluralization of public exchange. Then, the paper elaborates on three basic levels of public communication characterized by a heterogenous interplay of social and technical structuring services.

Zusammenfassung

Die Plattformisierung der gesellschaftlichen Kommunikationsstrukturen geht mit einer Diversifizierung der Mediennutzung und einer Erosion medientechnischer Grenzziehungen zwischen den vielfältigen Sphären des öffentlichen Austauschs einher. Gleichwohl ist es inzwischen empirisch evident, dass die digitale Transformation nicht zu einem allgemeinen Relevanzverlust journalistischer Leistungen oder massenhaft rezipierter Inhalte an sich führt und trotz aller Konnektivität soziale Selektionsschwellen in der öffentlichen Kommunikation bestehen bleiben. Vor diesem Hintergrund argumentiert dieses Diskussionspapier, dass es nach wie vor analytisch instruktiv erscheint, die Aushandlung öffentlicher Sichtbarkeit als einen Mehrebenenprozess zu beschreiben, der nun allerdings erheblich durch die Eigenheiten digitaler Plattformen mitgeprägt wird. Zunächst nimmt das Papier die zunehmende Plattformorientierung in der Mediendiffusion in den Blick. Anschließend werden die damit verknüpfte Diversifizierung individueller Medienrepertoires und die Pluralisierung des öffentlichen Austauschs diskutiert. Danach werden drei grundlegende Ebenen öffentlicher Kommunikation herausgearbeitet, die durch ein heterogenes Zusammenspiel sozialer und technischer Strukturierungsleistungen gekennzeichnet sind.

Contents

1 Introduction

Far before the effects of the digital transformation on markets and broader societal interrelations moved to the center of attention, the consequences of the Internet as a new medium of public communication were the subject of intensive discussion in social sciences. As early as the mid-1990s, many authors hoped for a transformation of the public sphere that would lead to an end of traditional mass media (Court 1994; Shirky 1995), since with the World Wide Web, a participatory mass communication system was supposedly in the making (see, critically, Wehner 1997). For example, Nicholas Negroponte (1995: 239f.) attested to the web's capability to advance the shift of intelligence from transmitter to receiver: "It has four very powerful qualities that will result in its ultimate triumph: decentralizing, globalizing, harmonizing, and empowering." At the same time, however, some researchers already warned against several "ways to control, privatize, and commercialize the Internet" (Sassen 1997: 9). In this sense, the more recent discourse on digitalization since the hype surrounding Web 2.0 from 2005 on has also been characterized by a variety of euphoric and pessimistic expectations (see, for a critical overview, Dickel/Schrape 2017; Schrape 2021, 2019a).

As a brief look back shows, the reconfiguration of media architectures since the social adoption of the Internet has indeed been far-reaching: In 1996, only an average of 7 percent of German, French, Italian, Spanish and English households had a cell phone, and only 5 percent of them had a multimedia PC with an Internet connection that could be used to explore the web for about one euro per hour (Zerdick et al. 1999). Technology-mediated many-to-many communication was hardly possible; those who wanted to express their opinion beyond their personal circles could send a letter to the editorial offices, raise their voices at face-to-face events, or try to place their content in small-scale subcultural media. If the COVID-19 pandemic had gripped the world during this period, many digital services that today offer viable alternatives to direct face-to-face interaction (e.g., video chats) and make restrictions of public life more bearable (e.g., streaming media) would simply not have been available.

The "complex institutionalized systems around organized communication channels of specific capacity" that we call media (Saxer 1980: 532; cf. Donges 2016), as well as the range of communication possibilities associated with them, have insofar fundamentally changed over the past 25 years. In view of the diversification of media use, the erosion of rigid structural boundaries between different spheres of public exchange, and the assumed dissolution of producer and consumer roles (cf. Bruns 2018; Bennett/Pfetsch 2018), several media scholars have recommended dispensing with comprehensive multi-level models of the public sphere, as they have long prevailed in particular in German-language social science discourse (seminal: Habermas 1996; Gerhards/Neidhardt 1991; cf. Gerhards/Schäfer 2010), and to instead conceptualize public communication in situational terms as a dynamic network of actors, communicative

acts, and content, in order to flexibly capture the plethora and diversity of empirical phenomena (Friemel/Neuberger 2021; Rainie/Wellman 2019; Papacharissi 2015).

Such an open perspective is unquestionably important to be able to identify new exchange dynamics and changing interrelations between the multiple streams of public communication. This is especially true in phases of transition, in which the diffusion of media innovations usually does not take place disruptively but rather in longer-term, ambiguous, and uneven social appropriation processes. Nevertheless, it is by now empirically evident that the ongoing digital transformation is not accompanied by a general loss of relevance of journalistic services, mass media, or mass-received content in itself, and that despite increased connectivity, fundamental social selection thresholds remain in public communication, which are challenging to overcome (Bimber/de Zúñiga 2020; Mölders/Schrape 2019; Curran/Hesmondhalgh 2019). In this respect—this is the thesis put forward here—it is still instructive, in the sense of an analytical heuristic, to describe public communication as a multi-level process, which is now, however, strongly shaped by the characteristics of digital platforms and ecosystems.

The paper at hand develops this thesis in three steps: *Section 2* examines the increasing platform orientation in media diffusion. *Section 3* then discusses the associated diversification of individual media repertoires and the pluralization of public exchange. Following on from this, *section 4* elaborates on three basic levels of public communication that are characterized by a heterogenous interplay of social and technical structuring services.

2   Platformization of media diffusion

As in other socio-economic fields (see, e.g., Kirchner/Schüßler 2019), the increasing platform orientation in public communication has become the focus of media research for some years now and has been expressed in the term *platformization* (Helmond 2015). Yet, per se, intermediary platforms in the media economy are not an exclusive phenomenon of the present: With the spread of telegraphy, modern news agencies emerged in the mid-19th century to collect, curate, and distribute news (e.g., 1846: Associated Press). At the same time, the first wholesalers emerged in the bookselling sector as logistic intermediaries between publishers and retailers. Furthermore, in many respects, newspaper and broadcasting houses can also be described as intermediary platforms between (freelance) journalists, agencies, advertising companies, and audiences, in addition to their position as producers (Rochet/Tirole 2003).

It is only with the societal diffusion of the Internet and information technology devices suitable for everyday use, however, that media users are able to access the respective platform catalogs regardless of time and space and to independently select the content offered there using algorithmic tools—just as all usage dynamics on the platform can

be aggregated, integrated, and evaluated. Thus, for one thing, the platform comes to the fore of social science perception as a "digital service that facilitates interactions between two or more distinct but interdependent sets of users" (OECD 2019: 21). For another thing, the accompanying informatization results in far-reaching shifts in the patterns of competition and cooperation in the media economy. In this respect, José van Dijck and colleagues (2018) aptly speak of an *unbundling* and *rebundling* of content, advertising, and audience for the news sector:

> "As one of the first societal sectors, news was transformed through the development of online platforms […]. This is effectively a history of the 'unbundling' and 'rebundling' of news content, audiences, and advertising. […] the contemporary news ecosystem is constituted through a variety of platforms, of which social media are only one type." (Van Dijck et al. 2018: 51)

With regard to the transformation of the infrastructures of public communication, it is not only crucial that these dynamics of rebundling involve big technology-centered corporations such as Apple, Alphabet, Facebook and Twitter, which hardly feel committed to journalistic codes and standards, but also that the socio-technical interactions of divergent platforms such as search engines, social media, advertising networks, and journalistic portals are accompanied by a changing balance of centralization and decentralization: On the one hand, the cross-societal diffusion prospects of statements or viewpoints in public communication are no longer solely determined by their reflection in the publications of large media outlets but in a distributed interplay between all mentioned online-based platforms and their algorithmic logics. On the other hand, the ongoing structural change is no longer characterized only by traditional dynamics of media concentration but also by a historically singular infrastructural dominance of a few globally operating IT corporations (Dolata 2020a; Couldry/Hepp 2016).

The increasing platform orientation in news diffusion and reception is reflected in the results of the Reuters Digital News Report (Newman et al. 2021, 2020) as follows:

- When asked about the news sources used last week, the Internet (in its entirety) took the lead in the UK, Spain, and Canada in 2021, with percentages well above 70 percent (tab. 1). In Germany and the USA, the Internet and TV were on par. Since 2013, the relevance of social media has increased significantly in all countries considered here except for Sweden, while the relevance of print media in particular has decreased sharply in news reception (cf. European Commission 2020).

- At the same time, the widespread points of contact for news and the most shared news content on the social web in these countries were still primarily fed by the offerings of established media brands, such as ARD Tagesschau, Spiegel, or BILD in Germany and CNN, MSNBC, or Fox News in the USA. In addition, a variety of online-mediated partial publics have emerged around instant messaging groups and so-called 'alternative' or 'partisan' media offerings such as Breitbart News, which tend to orient themselves toward the fringes of the political spectrum in their selection of statements and content (cf. Müller/Schulz 2021; Heft et al. 2020).

- Young media users in particular often no longer access news sources directly but rather via aggregators such as Google News or come across news content on social media platforms such as Instagram, Twitter, TikTok, and YouTube based on their interest profiles explicated there. Across all markets reflected in the Digital News Report, in 2021, about 34 percent of respondents aged under 35 years considered social media their primary way to access news; 17 percent viewed news aggregators or alerts on their smartphones as primary access point (cf. García-Perdomo 2021; Geers 2020; Boczkowski et al. 2018).

Tab. 1: 'News sources used last week' in selected countries 2021 (2013) in percent

	Internet total	Social media	TV	Print
United Kingdom (UK)	74 (74)	41 (20)	60 (79)	15 (59)
USA	66 (75)	42 (27)	66 (75)	16 (47)
Canada	79 (75)	55 (48)	61 (71)	16 (36)
Germany	69 (66)	31 (18)	69 (82)	26 (63)
Spain	78 (79)	55 (28)	64 (72)	26 (61)
Brazil	83 (90)	63 (47)	61 (75)	12 (50)
France	67 (68)	38 (18)	68 (84)	14 (46)
Sweden	84 (89)	47 (56)	84 (89)	26 (43)

Source: Newman et al. 2021 (news users, multiple answers possible)

Even though professional journalism has, despite the "evolutions of long-standing tensions in journalism as an institution" (Hansen 2020: 175), not yet experienced threatening competition in the periodic *production* of news from amateurs or automation, established media companies are increasingly losing control over the *diffusion* and *monetization* of their offerings, as digital platforms become the decisive intermediaries between content, audiences, and advertisers (Mansell/Steinmueller 2020; Meese/Hurcombe 2020; Bell/Owen 2017). On these platforms, the diffusion of news is increasingly aligned with the algorithmically ascertainable preferences of recipients, which can in a sense be understood as a decentralization in the weighting of news, that goes hand in hand with new visibilities for peripheral content as well as 'fake news' (Quandt et al. 2019; Waisbord 2018). Then again, each platform is characterized by a strong organizational nucleus that structures the communication dynamics through rules and orientations already inscribed in its technical architectures (Dolata/Schrape 2018).

To that effect, digital platforms can no longer be classified in conventional media taxonomies—and this is what makes their political and legal treatment so difficult: Social media platforms and their operating corporations are not traditional media outlets that produce informative or entertaining content for the mass market. Neither are they

neutral transmission service providers like the postal service or an Internet provider, legally prohibited from intervening in the transmitted content in any channeling manner. Vice versa, the services that platforms like Facebook, Instagram, TikTok, and Twitter indirectly sell to their users explicitly consist of the automated collection, selection, and linking of content produced elsewhere or generated by other users. Tarleton Gillespie (2018, 2020) thus describes digital platforms as a new *hybrid media form* between technical intermediaries and mass media providers:

> "In a way, those choices are the central commodity platforms sell, meant to draw users in and keep them on the platform, in exchange for advertising and personal data. […] Because of this, they are neither distinctly conduit nor content, nor only network or media, but a hybrid that has not been anticipated by information law or public debates. […] It takes years, or even decades, for a culture to adjust itself to the subtle workings of a new information system […]." (Gillespie 2018: 210)

Similar to previous media innovations of modern times, digital platforms expand the range of individual and collective information and communication possibilities and could, therefore—without any further points of orientation—quickly lead to cognitive overload (see, already, Toffler 1970). At the same time, however, further orienting instances regularly emerge on the basis of the respective new media architectures (as in the 1950s, for example, compact TV news), which offer solutions for reducing this complexity in individual and collective world perception (Stöber 2004; cf. Luhmann 2012, 2013). Against this background, the novelty of digital platforms lies not in their structuring services per se, nor in the implicitness with which many users engage with them, but in the high degree of automation of these services, which has contributed to the pivotal positions of a few platform operators (Dolata 2020a). Whether these structuring services function sufficiently from the user's point of view seems secondary at first; they offer an initial orientation basis from which to proceed further.

This form of IT-based automation is equally effective in entertainment media, which have acquired a central position in European and American households with the general expansion of prosperity in the 20th century (Fang 1997). Whereas in the 1990s, it was still necessary to purchase the desired content on physical carrier media for specific devices (e.g., vinyl records, compact discs, videotapes), today it is sufficient to subscribe to a media platform in order to access an extensive catalog of entertainment content. The example of recorded music provides an impressive illustration of this development: While nearly 97 percent of revenues in the global music industry came from recorded music on physical carrier media in 2001, in 2020, carrier media accounted for just 19.5 percent. Streaming on platforms such as Spotify, Apple Music, Amazon Music, or in China QQ Music, KuGou, and Kuwo (all part of Tencent), by contrast, generated over 62 percent of global revenues in 2020 (Dolata 2020b; IFPI 2021).

With the digital transformation, *streaming content* becomes the norm in everyday media use, while physical media goods (except for books) are only purchased in specific cases (Storstein Spilker 2017). In view of the abundance of available content—Apple

Music and Spotify each offered access to 70 million music titles at the end of 2020—algorithmically supported curation services have become indispensable on entertainment platforms as well. Although digitalization opens up the potential for an almost unlimited personalization of media consumption, in practice, this automated organization of content, combined with the concentration of the streaming market, leads to a further channelization of reception dynamics in the music and video sector (Napoli 2019, 2016; Morris et al. 2021). In most extreme cases, content does not even find its way into the platforms' catalog; however, even a (non)inclusion in popular playlists can have a significant impact on the success of an offering—similar to the former (non-)inclusion in the 'heavy rotation' of a radio station. As Robert Prey (2020: 3) points out regarding music streaming services such as Spotify, platform-operating corporations hence acquire a far-reaching "curatorial power," which at the same time remains dependent on volatile usage dynamics and changing competitive relationships.

In both news and entertainment, media diffusion and reception are thus subject to a comprehensive process of platformization in which established media-economic constellations are eroding, and new dependencies are emerging. On the one hand, this is associated with a flexibilization of media use which, at first glance, seems to fulfill the promise of personalized media consumption. But, on the other hand, given the abundance and ubiquitous availability of media content, information technology structuring and algorithmic curation services are becoming as indispensable as they are unavoidable. Therefore, the "power of the producer" that Heinrich Popitz (1992: 31f., 2017) recognized for the producers and architects of technical-material artifacts can today be attributed to the providers of market-dominating media platforms too. This *power of the platform operators* consists of defining the algorithmic logics, rules, and user interfaces that shape the reception and communication dynamics on their platforms.

3   Diversification of media repertoires and pluralization of public exchange

With the increasing penetration of modern society with information technology services and digital ecosystems—Andreas Hepp (2019) calls this process *deep mediatization*—the diversification of media repertoires is becoming evident in everyday life: In professional as well as in private contexts, a variety of communication channels are available whose use must be agreed upon situationally; in conversations, it can no longer be readily assumed that all participants have received similar content; no one has to bow to the 'program dictates' of the mass media anymore. Of course, the typical composition of media repertoires has always been a matter of social milieu (cf. Watson-Manheim/Bélanger 2007); in the online sphere, however, media use is undergoing diversification not just in terms of the preferred media channels but also already *within* a platform ecosystem, i.a. in terms of regularly used options and functions.

Social media platforms, in particular, not only offer an expanding spectrum of communication and information options but equally shape the online lives of their users through numerous factual, social, and temporal structuring services aligned with the recorded platform identity (tab. 2). In a close interplay between the structuring logics of the platform used and the interests and contact references specified on the respective platform, extremely heterogeneous information and communication portfolios are thus already created on a social media platform in itself (Schrape/Siri 2019). Against this backdrop, the further context-specific combination of various platforms, communication channels, and media offerings gives rise to *highly individualized media repertoires* that vary according to social milieus, individual preferences, and everyday necessities. Studies on the communication processes on an isolated platform (e.g., Facebook, Twitter, Instagram) can therefore only assess the dynamics on this very platform. A transfer to the general information management of the users is not possible without further ado since they communicate and receive information on several platforms, fall back on divergent media offerings, and still participate in face-to-face interactions.

Tab. 2: Structuring services of social media platforms

Factual dimension	Social dimension	Temporal dimension
Selection	*Explication*	*Contextualization*
Filtering of content based on the platform identity of a user	Differentiation of contact references by standardized distinctions	Integration of content in personal and collective streams

Source: Schrape/Siri 2019; Schrape 2017

The thesis put forward by Eli Pariser (2012) of personalized filter bubbles and intellectual isolation on digital platforms can thus at best be applied to the platform identity of a user, but not to his or her overall person. In addition, Axel Bruns (2019) points out that the phenomena discussed by Eli Pariser—a selective perception and a preference for opinions close to one's own point of view—have been known in social sciences for a long time and cannot be attributed to platformization alone:

> "Echo chambers and filter bubbles are exceptionally attractive concepts; they offer a simple, technological explanation for problems that many emerging and establishes democracies face. However, the closer one looks and the more one attempts to detect them in observable reality, the more outlandish and unrealistic they appear. […] The research we have encountered simply shows no empirical evidence for these information cocoons in their absolute definitions, especially in a complex, multi-platform environment. […] Mainly, the debate about these concepts and their apparent impacts on society and democracy constitutes a moral panic." (Bruns 2019: 95f.)

Furthermore, the diversification of media repertoires is not associated with a complete fragmentation of audiences in the reception of news and entertainment content. Such fragmentation is counteracted not only by the curation services of streaming and social media platforms but also by the preferences of media users themselves, who, in addition

to recommendations from their peer groups, are often guided by reviews of popular experts and influencers (Frey 2019; Siles et al. 2019). In the general news reception, in particular, an increasing orientation toward the offerings of established media brands can be observed for several years now (Newman et al. 2021, 2020; European Commission 2020). For the pandemic-ridden year 2020, which was marked by increased television use, the Digital News Report diagnoses, especially for European countries:

> "It would be wrong to over-emphasize any temporary bump in TV consumption given the longer-term shift towards digital sources, but it is a reminder of the continuing draw of video-based storytelling as well as the strength of traditional news brands. But perhaps the most striking finding around consumption has been the extent to which people have placed a premium on reliable news sources in general, not just on TV." (Newman et al. 2021: 10)

So, for one thing, we have come a long way from the much-criticized media architectures of the 20th century, in which a few mass media providers were able to define the program for a passive majority of recipients. Then again, digitalization has by no means led to a loss of relevance of key media providers or mass-received content per se (Deuze 2020; Elvestad/Phillips 2018; Smyrnaios et al. 2010). Nonetheless, the ongoing diversification of media repertoires is accompanied not only by expanded communication possibilities for individual media users but also by profound *reconfigurations in the structures of public exchange*, whereby the notion of a public has often been charged with normative values and suggests a uniformity that in fact cannot be achieved (Schrape 2017; Schmidt 2001). Therefore, it seems hardly instructive to simply assume a digitalization-induced disintegration of a uniform public—which never existed (beyond a communicative construct) in the first place.

To that effect, it seems to be more helpful to understand the current transformation of public communication as a pluralization of technically mediated spheres of interpersonal exchange. In addition to conversation spaces perceived as personal-private, various novel public communication arenas have emerged based on divergent media forms. In this regard, Mark Eisenegger (2021), with reference to Chris Anderson (2006), suggests describing the digital transformation of public communication along the idea of a "platform-based longtail public sphere" characterized by a *shorthead* with "few media providers of high reach" and a *longtail* with "providers of low reach that are increasing in quantity." From this perspective, the *shorthead* experiences an expansion through an "upgrading of digital celebrities according to criteria of platform prestige;" in the *longtail*, the "access barriers to the public sphere" decrease constantly, and the "influence potentials for challengers increase" (Eisenegger 2021: 27ff., 35f., my translation).

A more tangible taxonomy of online-based public communication applicable in empirical research has been developed by Jan-Hinrik Schmidt (2013) and Ines Lörcher and Monika Taddicken (2019, 2017). Schmidt (2013: 41, my translation) defines a public arena, following Neidhardt (1994), as a "specific constellation of actors [...] that provide information based on their own selection and presentation rules as well as software architecture." Building on these considerations, seven linked and overlapping

public arenas can be distinguished at first approximation, which differ in terms of their regular reach, interaction possibilities, and participation barriers (tab. 3):

Tab. 3: Online-based arenas of public communication

	Participation barriers	Audience	Selection criteria	Interaction	Regular reach
Mass media arena	high	dispersed, anonymous	e.g.., news values	hardly possible	high
Advertising and organizational arena	high	dispersed, anonymous	interest-led	hardly possible	high
Influencer arena*	(high)	following public	subject, own person	limited	contextual
Expert arena	high	peer community	subject, peer review	limited	contextual
Mass media-induced discussion arena	low	unspecified	personal relevance	possible	contextual
General discussion arena	low	unspecified	personal relevance	possible	low
Personal arena	low	own network	personal relevance	possible	low

Source: Own compilation, based on Lörcher/Taddicken 2019 (*added by author)

- The *mass media arena* comprises publishing offerings from established information and entertainment providers that address a large anonymous audience. The inclusion of content is based on its anticipated general relevance and well-rehearsed selection criteria (e.g., news values; Brighton/Foy 2007). The barriers to participation are high in view of professional standards and organizational gatekeeping positions.

- The *advertising and organizational arena* includes the self-descriptions of companies, parties, foundations, and other organizations, which also address a dispersed audience with their advertisements and content aligned with corporate interests. Opportunities for interaction are usually opened up in a controlled way, e.g., via a company's social media presence or as part of crowdsourcing activities.

- The channels and accounts of video, photo, and text bloggers (e.g., on YouTube, TikTok, Instagram, Twitch) are located in the *influencer arena*. Social media influencers reach a more or less significant following public and are, as multipliers, also interesting for the advertising industry. Their content mostly focuses on their person or a nameable subject area (e.g., gaming, fashion, politics). The initial hurdles for operating a channel are low; nevertheless, achieving a high level of regular visibility remains preconditional. With increasing popularity, interaction is only possible in a limited and ducted mode (cf. Whitmer 2021; Khamis et al. 2017).

- The *expert arena* identifies thematically focused communication contexts in which the genesis of content can be traced intersubjectively. Lörcher/Taddicken (2017) cite specialist discourses in academic journals as an example. In addition, this category includes communication in digital project communities and working groups (e.g., open-source software communities), which, after a certain degree of consolidation, are also characterized by high epistemic participation barriers (Schrape 2019).

- The *mass media-induced discussion arena* is constituted by controversies and communication processes on social media platforms, which are triggered by mass media news and entertainment offerings. The participation barriers are low; the content is geared to individual relevance criteria. Unless the contributions are made by already prominent users (e.g., politicians, celebrities), their reach usually remains limited (cf. Langer/Gruber 2021; Huber et al. 2019; Boccia Artieri/Gemini 2019).

- The *general discussion arena*, in which viewpoints on issues individually perceived as relevant are presented, is also characterized by a high degree of interaction and low entry barriers. Most of the comments, though, do not gain any further visibility, whereas in some cases, an active cross-linking of the contributions can successfully trigger bottom-up agenda-setting dynamics (cf. Su/Borah 2019; Feezell 2018).

- Finally, the *personal arena* is limited in its reach to the user's own acquaintance networks on social media platforms and is oriented toward personal priorities and authenticity in its presentation. However, it does not coincide with communication contexts subjectively perceived as personal-private (e.g., group chats on WhatsApp, Discord or WeChat) but can be described as a semi-public communication arena where the experience of being perceived by one another prevails.

Such an overview, which is by no means complete, shows that, even on the social web, the public sphere can be understood as a complex network of a wide range of intertwined arenas of public communication. Thus, the basic definition that Jürgen Habermas (1996) put on record more than 25 years ago has not lost its principal validity:

> "The public sphere can best be described as a network for communicating information and points of view (i.e., opinions expressing affirmative or negative attitudes); the streams of communication are, in the process, filtered and synthesized in such a way that they coalesce into bundles of topically specified public opinions. […] It represents a highly complex network that branches into a multitude of overlapping international, national, regional, local, and subcultural arenas. […] Moreover, the public sphere is differentiated into levels according to the density of communication, organizational complexity, and range […]." (Habermas 1996: 360, 374; cf. Habermas 2021)

4   Levels of public communication

However, the digital transformation of communication infrastructures is substantially changing and expanding the possibilities for constituting specialized issue-centered publics, the spectrum of public arenas, and their mutual interactions (Curran/Hesmondhalgh 2019). On the one hand, this change is linked to new scope for civil-society

agenda-setting dynamics, since digitalization is counteracting, in some sense, long-criticized imbalances in media coverage. This applies both to the question of who can act as an author or opinion-maker and to the question of which topics are considered newsworthy or which events (e.g., demonstrations) are not reflected. Both limitations are broken down to a certain extent with the platformization and pluralization of public communication: Every online user can articulate his or her opinion; any topic or statement can in principle participate in the game of public relevance; gaps and errors in mass media reporting can be identified and spread more immediately than before.

On the other hand, the pluralization of public communication is also accompanied by growing *selection pressure*, which is addressed by automated structuring services on digital platforms as well as novel and rather classical journalistic offerings. In this context, Siegfried Weischenberg (1995: 552ff.) already suspected that in times of nearly unlimited availability of information, multifaceted problems of cognitive accessibility arise, which can be solved primarily by an organized presentation and contextualization of initially undimensioned data by competent communicators. The ongoing discussions about online-centered disinformation campaigns and 'fake news' likewise indicate that journalistic synthesizing services cannot be fully technically bridged for the time being, although they are now building on algorithmic pre-structuring in many ways (see Pennycook/Rand 2021; Loosen et al. 2020; Waisbord 2018; Loosen/Scholl 2017). Furthermore, with a view to civil society agenda-setting dynamics, it becomes clear that selection thresholds still exist in the production of societal visibility, the non-incidentally overcoming of which requires a conscious elaboration of public attention (Mölders/Schrape 2019). This can also be seen in the example of the global climate movement Fridays for Future, which entered the realm of public visibility in late 2018 and has since developed multilayered internal coordination structures and highly focused forms of external communication that play out the entire repertoire of tried-and-tested protest PR (cf. Haunss/Sommer 2020; Wahlström et al. 2019).

In a society characterized by nearly infinite options for information retrieval and ubiquitous connectivity, cumulative processes of complexity reduction remain indispensable in public communication, on which individual, collective and organizational actors can rely (cf., already, Simon 1971). In this respect, the observations on arenas of public communication on the web show that, with their typical scope, the patterns of selection are continuously becoming more specific. While almost all topics that appear subjectively relevant can be included in open discussion arenas on the social web, much narrower selection criteria must be met for their integration in public arenas with a higher societal reach. There is no doubt that remarkable examples of much-shared social media posts or hashtag dynamics (e.g., for #MeToo, see Clark-Parsons 2021; Lindgren 2019) can be found time and again, which at first glance catapult a topic abruptly into the realm of public attention. However, precisely because the digital transformation is accompanied by previously unheard-of possibilities for articulation, reliable procedures for cognitively reducing the abundance of content are of particular relevance.

Against this backdrop, it still seems reasonable, in a heuristic sense, to conceptualize the negotiation of public visibility as a gradual multi-level process, starting from Jürgen Habermas' basic definition (cf. Debatin 2008). However, several media researchers have rightly pointed out that such a multi-level model should be specified both in terms of the characteristics of digital platforms and the intensified interactions between different streams of public exchange (Schlesinger 2020; Curran/Hesmondhalgh 2019; Lünenborg/Raetzsch 2017; cf. also Habermas 2021). In such a model, which aims to break down these complex relationships into a quickly processable overview depiction, three basic levels of public communication can be distinguished: The level of situational public communication, the level of issue-centered public communication in arranged contexts, and the level of a society-overarching 'public' as a construct and reference base in general communication and political decision-making (fig. 1).

Fig. 1: Interrelated levels of public communication
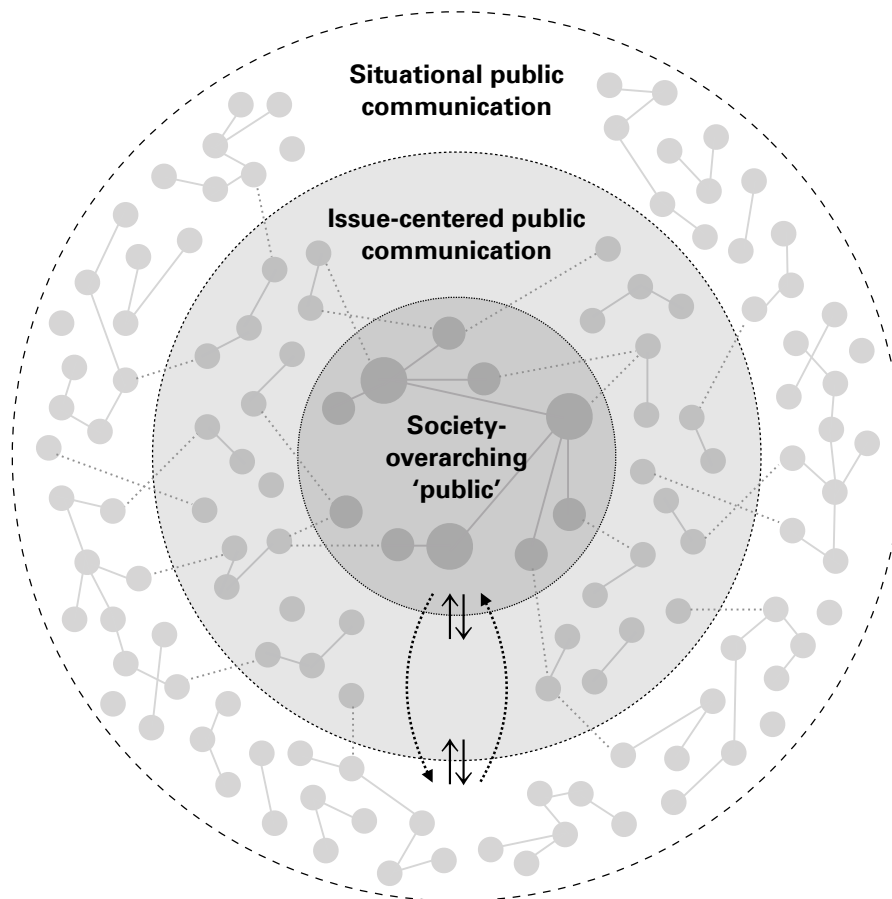
Source: own reflections

In *situational public communication,* communication partners with heterogeneous social backgrounds interact with each other more or less unplanned based on the given socio-technical infrastructures. In classic literature, examples of this are somewhat random conversations in public transportation or pubs and bars that are shaped by the

respective socio-technical conditions. On the social web, volatile exchange dynamics, e.g., on Facebook, Twitter, TikTok, or Instagram, can be listed in this regard, which are characterized by a comparatively high degree of social openness and clearly co-determined by the enabling, structuring, and channeling peculiarities of the platforms used. In contrast to unmediated face-to-face interactions, the infrastructural premises on the Internet can lead to immediate basal conjunctions between different communication streams (e.g., via hashtags). Without any further coordination efforts, though, a consolidation beyond the situational moment remains unlikely. However, since the statements and viewpoints negotiated on the social web are more visible and searchable than in less technologized contexts, they can be processed more directly in stabilized communication domains, e.g., in journalistic reporting or social movement organizations (Walters 2021; Della Porta/Diani 2020; Bruns 2018; Kavada 2018).

In contrast, forms of *issue-centered public communication* are characterized by a significantly higher degree of organization, regulatory density, and communicative asymmetry. Relevant examples of this are public events with clear speaker and audience roles geared to a structuring topic and conducted by an identifiable group of people. In addition, all forms of arranged communication contexts can be located at this level, both online and offline, which are defined by a coordinating core and a clear thematic orientation. Such arranged communication contexts emerge over time from situational discussion dynamics that today often occur on the social web. Over time, however, they form their own coordination structures, formal rules, and informal conventions and pursue distinct public relations strategies, making them more independent of the peculiarities of specific platforms. Likewise, political movements that experience lasting relevance do not solidify without preconditions but along identifiable thematic and organizational reference points (Dolata/Schrape 2018). This can be seen in the example of focused social movements such as Fridays for Future (Blühdorn/Deflorian 2021; Haunss/Sommer 2020) and in the solidification or decay dynamics of radical populist initiatives such as 'Querdenken' in Germany (Teune 2021).

Due to the multiplicity of public arenas and discussion streams, however, even in digitalized society, broadly received instances of synthetization remain of key importance, which regularly produce a complexity-reduced version of the communication dynamics taking place at the level of a *society-overarching 'public'* as a non-specific reference base. In the 20th century, this task was primarily attributed to the traditional mass media—i.e., large broadcasters and newspapers. Meanwhile, mass media brands take on this role independently of distribution channels and across all platforms. Such high-reach media offerings continuously create a quickly receivable information basis for individual and collective orientation by selecting those issues and viewpoints that appear relevant across society from the abundance of floating content based on journalistic guidelines and socially crystallized criteria (e.g., conflict, quantity, local relevance). The cumulative result of these selection processes is a highly complexity-reduced description of the present that continuously excludes viewpoints and topics from

the cross-societal public discourse. Yet this does not change the need in a polycontextual society for a quickly graspable reference base to which non-specific communication and political decision-making processes can be oriented (Schrape 2021; Deuze 2020; Elvestad/Phillips 2018; see, for a normative perspective, Habermas 2021).

This is, of course, not to say that there is a uniform public sphere (or public opinion), nor that it is not possible to set oneself apart from mass media descriptions. Nevertheless, communicative objects that are known across the board constantly crystallize and serve as points of reference even in the case of their rejection—also in communication streams (e.g., radical right-wing 'counterpublics') in which mass media reporting is doubted in principle. In this respect, however, Niklas Luhmann (2012, 2013) pointed out as early as in the 1990s that this function is not necessarily linked to established media organizations, but more generally to thematically broad oriented intermediaries that regularly reach a large audience with their content offerings. In this respect, it remains conceivable that new nodes of mass attention will gain prominence in the future, which are, as some news aggregators already today, strongly based on algorithmically automated selection and synthetization services (Fletcher et al. 2021).

Accordingly, public communication in the digitalized society can still be described as a widely ramified network of intertwined communication arenas that can be analytically differentiated into several levels according to communication density and scope. In this sense, the systematization outlined here distinguishes three basic levels of public exchange—situational public communication, issue-centered public communication, and a society-overarching 'public' as a construct and general reference base—which, admittedly, do not have a clear hierarchical relationship to each other, but are characterized by multiple interactions and interchange processes. However, these intensified interchange processes are not necessarily accompanied by increased chances of integration into the sphere of overarching societal attention for deviating descriptions or new content. On the contrary, since the amount of potentially processable content is constantly growing and individual and collective cognitive capacities are not expanding at the same rate, the probability of attracting widespread attention may even decrease.

Consequently, in order to be able to step out of a communicative niche (see, for the concept of niches, Schot/Geels 2007) beyond coincidence, a coordinated elaboration of public visibility is becoming more important than ever (cf. Mölders/Schrape 2019; Schrape/Dolata 2018; Schrape 2017): It makes a difference whether (political) impulses are articulated without further coordination in situational communication or whether collective strategies are thoroughly implemented in issue-centered communication contexts. It makes a major difference to what intensity collective formations, social movements, or organizations strive to integrate their positions into mass media coverage through conscious publication efforts. And it makes a substantial difference to what extent these endeavors reflect both the sociotechnical logics of digital platforms and the selection criteria of editorial offices and journalistic outlets.

In this respect, the negotiation of public visibility today is more clearly than before based on an *interplay of social and technical structuring processes* that varies according to communication density and reach: While dynamics at the level of situational communication are shaped to a large extent by the enabling, structuring and channeling characteristics of the platforms used, in issue-centered and arranged contexts of public communication distinct social coordination structures and institutional patterns of their own emerge over time, making them more independent of specific infrastructures and enabling a deliberate combination of different publication channels. At the level of the society-overarching 'public,' then again, the emphasis continues to be on socially crystallized selection criteria, based on which topics are selected that are characterized by an assumed general relevance—such as conflicts, crises, and scandals. Even if these selection services may be increasingly provided by intelligent IT systems henceforth, the selection patterns behind them will ultimately remain a subject of distributed social negotiation: Almost nothing is discussed more intensively in modern society than the question of how and according to what criteria the daily news is compiled.

5 Conclusion: A new interplay of social and technical structuring processes

As a result of the digital transformation of media architectures, public communication is undergoing substantial reorganization, although this change can be understood less as a revolutionary disruption than an incremental transformation process characterized by multilayered interactions of established and novel forms of information, entertainment, and communication media. This transformation includes the following dynamics of gradual adjustment and reconfiguration, which, taken together, argue for describing public communication in digitalized society still as a multi-level process that is now, however, clearly influenced and shaped by the enabling and structuring characteristics of digital platforms and the respective socio-technical ecosystems:

- *Media diffusion* is subject to increasing platformization in news and entertainment, associated with an unbundling and rebundling of media-economic constellations. For one, this is accompanied by a flexibilization of media use; for another, because of the ubiquity of content, algorithmic curation services are becoming indispensable. Against this backdrop, dominant platform-operating companies are gaining a structural power incomparable with traditional forms of media concentration.

- *Personal media repertoires* are undergoing diversification not only in terms of the media channels used but also in terms of the context-specific combination of different platforms and structuring functions. For one thing, digitalization opens up the potential for almost limitless personalization of media reception. Then again, most users not only orient themselves to the curation services of their favorite platforms but fall also back on long-trusted media brands, especially in news retrieval.

- The spectrum of *arenas of public communication* has become gradually pluralized with society's increasing information technology penetration. These public arenas are clearly distinguishable from communication spheres classified as personal-private and differ in their regular reach and participation barriers. In addition to the organizational and mass media arenas, which still have a broad reach in the online realm and are characterized by strict relevance criteria, the spectrum of low-threshold discussion and self-expression arenas has expanded considerably.

- The *negotiation of public visibility* in the digitalized society can be described more explicitly than before as a socio-technical process in which divergent levels of public communication interact in a multidirectional manner. Dynamics at the level of situational communication are oriented to a large extent to the peculiarities of the platforms used, while the exchange in arranged issue-centered contexts is based on a case-specific interplay of social and technical structuring services. At the level of a society-overarching 'public' as general reference base, socially crystallized selection patterns prevail based on which content is identified and processed further.

On the one hand, the digitalization of media infrastructures has noticeably expanded the latitude and scope for personal interaction and public communication. This is accompanied, as discussed, by increased possibilities for the articulation of viewpoints and the diffusion of content in situational and issue-centered public communication and changing dynamics in the negotiation of overarching public visibility. Furthermore, the transformation of public communication also includes novel potentials for self-presentation, which have not been considered in detail here (cf. Djafarova/Trofimenko 2019; Baker/Walsh 2019): Erving Goffman (1956) already posited that individuals in modern societies strive to establish a distinctive identity and to control their external image as comprehensively as possible. For this purpose, platforms such as YouTube, TikTok, and Instagram today offer the appropriate socio-technical correlates—especially when other public fora (as in the COVID-19 pandemic) fade into background.

On the other hand, the expanded possibilities for articulation, the heterogeneity of public arenas, and the intensified exchange dynamics between manifold communication streams increase the need for robust procedures of cumulative complexity reduction and reliable synthesizing instances that can produce a general description of the present along socially crystallized selection criteria as an initial reference base in individual perception, social communication, and political decision-making. According to the current state of observation, there are several indications that this task will continue to be performed primarily by journalistic providers and discourse-guiding mass media (cf. Langer/Gruber 2021; Elvestad/Phillips 2018; McCombs/Valenzuela 2020). However, whether the associated professional profiles will continue to correspond to the familiar ideas of journalists in the future, which technical aids will support their work, and to what extent the respective synthetization processes will undergo algorithmic automation remains an open empirical question.

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Further Publications

Research Contributions to Organizational Sociology and Innovation Studies

Kungl, Gregor, 2021: Ein grüner Geist des Kapitalismus? Konturen einer neuen Wirtschaftsgesinnung. SOI Discussion Paper 2021-01.

Dolata, Ulrich, 2020: *The Digital Transformation of the Music Industry. The Second Decade: From Download to Streaming*. SOI Discussion Paper 2020-04.

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Dolata, Ulrich, 2020: Internet – Platforms – Regulation. Coordination of Markets and Curation of Sociality. SOI Discussion Paper 2020-02.

Dolata, Ulrich, 2020: *Internet – Plattformen – Regulierung. Koordination von Märkten und Kuratierung von Sozialität*. SOI Discussion Paper 2020-01.

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