

In/Visibility in the Digital Age: A Literature Review From a Communication Studies Perspective

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Date submitted: 2022-10-02

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Visibility and its counterpart, invisibility, are critical concepts in digital communication, although research on these concepts in communication studies has rarely been reflected on in an integrative way. This article aims to map key discussions in current research on in/visibility from a communication studies perspective. Therefore, through a literature review, we elaborate on these discussions in research areas dealing extensively with in/visibility. The resulting mapping highlights similarities and differences between definitions of in/visibility and systematizes the various approaches according to three essential understandings (perceptibility, presence, and valuation) and three paradigmatic perspectives (functionalist, interpretive, and critical). The article offers a deeper understanding of the range of previous studies on the undertheorized concepts of in/visibility and demonstrates the concepts' potential for future research within communication studies.

Keywords: visibility, invisibility, digital communication, online communication, literature review, communication studies

In/Visibility in the Digital Age

In the digital age, in/visibility is no longer based exclusively on spatiotemporal presence but increasingly results from mediated and multimodal interactions. Both visibility and invisibility refer to multiple subjects and objects, such as individuals, groups, and organizations, or information, values, norms, and power relations. Against this background, the predigital coupling of visibility with spatiotemporal proximity, human senses (particularly the sense of sight), and thus human actors is increasingly inadequate. This is especially true given shifts in communication (technologies), for instance, regarding societally biased perceptions of marginalized groups or when augmented reality changes perceptual practices and potentially shifts the sense of spatiotemporal proximity (Dahlberg, 2018; Georgiou, 2018; Schroer, 2014; Thompson, 2005). Online spaces for enacting digital visibility are expanding through sociotechnical systems that quantify the self, such as wearables, and virtual reality formats, among others (Dayan, 2013). Agency increasingly includes software that communicates and interacts visibly and transparently (Klinger & Svensson, 2018). Technical requirements such as platform-specific protocols and algorithms play a role in who or what is made visible, as well as framing what is kept invisible, particularly regarding data security and privacy. Existing studies in communication explore issues such as the ability and willingness to speak and tactics for becoming or remaining in/visible.

The corpus of research in contemporary communication studies—as opposed to cultural studies—oriented media studies or related disciplines—on in/visibility is as large as it is polysemic, especially when

it comes to capturing the various understandings and perspectives. To date, research on in/visibility in the digital age and the use of these concepts in communication studies have rarely been reflected on holistically. This article predominantly adopts a social scientific perspective on communication studies to describe the central discussions of research from this perspective. The resulting mapping highlights similarities and differences between definitions of in/visibility and systematizes the various approaches according to three essential understandings (perceptibility, presence, and valuation) and three paradigmatic perspectives (functionalist, interpretive, and critical). By analyzing the terminology and definitions through a literature review, we examine various understandings and perspectives of in/visibility and their implications for future communication research, highlighting research areas within the discipline that intensively examine in/visibility. Methodological considerations are followed by analyzing how the different areas deal with the concepts of in/visibility. We then compare and contrast their usage of in/visibility, offering insights for future analysis in communication studies.

Approach

We applied a two-step qualitative theoretical literature review (Paré, Trudel, Jaana, & Kitsiou, 2015). First, we defined research areas that address in/visibility within the discipline of communication studies based on a comprehensive literature search of the EBSCO, OLC, and WISO databases. We searched for the terms "invisibility," "visibility," "invisible," and "visible" in publications from 2000 to 2019.

We categorized the results by research areas in communication studies, using standard classifications such as those from the International Communication Association to initially assess their involvement with in/visibility topics and definitions. For further analysis, we derived the following subdisciplinary areas, which intensively address in/visibility: (a) visual communication studies; (b) communication research into gender, diversity, and intersectionality; (c) educational media research; (d) research on organizational communication and public relations; (e) journalism studies; (f) research on political communication; and (g) research on media selection and reception. Areas that seldom address the topic in this initial analysis were excluded, such as game studies or communication history. This classification proved helpful for identifying areas that engage with in/visibility in various ways, aiding a holistic perspective. However, it can only serve as a guide, as there are further topics situated between these areas that are only implicitly assessed (e.g., digital communication and technology).

In a second step, we searched for in/visibility in the selected areas to map their specific perspectives on the topic. This search was carried out until the end of June 2021. Depending on the respective area and how intensively it deals with in/visibility, this step involved either a representative or comprehensive search strategy. A representative search strategy identifies "a representative sample of a larger group of published works related to a particular area of investigation" (Paré et al., 2015, p. 189), while a comprehensive search strategy includes "all of the relevant literature" (Paré et al., 2015, p. 189; emphasis in original).

A representative search strategy was employed to capture literature and key aspects of in/visibility in areas such as visual communication studies and communication research on gender and diversity. This approach was used given that visibility is a crucial concept in these areas, and a targeted search strategy

was necessary to manage the vast amount of relevant literature. By contrast, a more comprehensive search strategy was applied for other areas (e.g., organizational communication and public relations) to identify literature for further analysis. In a comprehensive search strategy, the detailed analyses are based on a search in key literature databases for the respective areas, and exemplary literature is cited. Systematic searches were performed in EBSCO, ERIC, Google Scholar, OLC, Scopus, and Web of Science using the terms invisibility/visibility and invisible/visible in combination with keywords for the respective areas (e.g., visibility *and* public relations).

The publications identified were then assessed for definitions, research questions, theoretical perspectives, and research gaps concerning in/visibility.

In/Visibility in Communication Studies

In the following, we show how the delineated research areas address in/visibility. The areas are discussed according to the intensity of their engagement with these concepts, reflected in aspects such as the number of publications and the depth of the theoretical discussion. We subsequently assess the relevance afforded to in/visibility and the research tradition within each area, as well as definitions, theoretical perspectives, foci, and key findings. The review concludes with trends and potential gaps in each area.

Visual Communication Studies

An increasing visualization of media environments (notably on visual social media platforms) has been evident in recent decades, reflecting our immersion in a *visual culture* (Mitchell, 2005). Visual communication studies are interested in visibility as a core concept, with understanding visibility—etymologically and theoretically—as a core concept of visibility (e.g., Rose, 2016). “Our ways of seeing the world are not only about vision (what the eyes observe), but ‘visuality’ or ‘visualities’” (Parry, 2015, p. 422). For visual communication studies, the peculiarities of the visual mode for creating visibility are essential. This includes devoting special attention not only to the *motifs of visual representation* but also to their *aesthetic components and representation techniques*, as well as the role of visual media and visual media representations in creating “mediated visibility” (Thompson, 2005, p. 31).

Furthermore, visual communication studies critically reflect on visual aspects of visibility and invisibility in relation to power and knowledge orders, highlighting the importance of visual representation for economic, social, and political power and recognition (Schroer, 2014). To create equality in visual representation, an adequate representation of minority groups in society is essential. Equal visibility requires not only a certain quantity of visuals but also adequate ways in which these groups become visible. In fact, visual representations are never neutral and can even promote the marginalization of social groups—for example, by reconfirming and consolidating existing hegemonic pictorial orders or visual representation regimes through stereotypical visualizations (Hall, 2007). The motifs depicted and the facial and bodily appearance of persons represented interact with visual representation techniques, such as head-body ratio or shot length, when creating meaning (e.g., Konrath & Schwarz, 2007; Lobinger & Brantner, 2016).

In-depth analysis and acknowledging the complexities of images are vital when studying visibility (Schaffer, 2008), which visual communication studies explore through topics such as visual stereotyping, visual bias, visual agenda setting, or visual framing (Bell & Milic, 2002; Coleman & Wu, 2016). In today's visual media environment, invisibility often implies powerlessness, yet choosing (Thomson, 2021) or regaining invisibility can signify control and recognition and even be a "sign of power" (van Veeren, 2018, p. 199).

Thus, visibility and invisibility are central to visual communication studies, and visual analysis and methods are increasingly crucial for examining these concepts because of the growing visibility of media.

Research on Gender, Diversity, and Intersectionality

Both gender and feminist communication research analyze the relationship between gender and digital visibility. Gender communication research is predominantly informed by social psychological gender theories (e.g., Wood & Eagly, 2012) and examines how gender representation and norms in media content and production affect individuals. Feminist communication research aims at a structural social change toward gender equality and is closely linked to political movements such as feminist activism (Mendes & Carter, 2008). The gender and feminist perspectives are combined with media and communication theories and theories of the public sphere to analyze the role of digital technology within these processes (e.g., Banet-Weiser, 2015).

The following subdimensions of digital visibility are especially relevant to the research area (Wilhelm, 2021): (1) The visibility of *individuals and groups* addresses the representation and participation of all genders in digital contexts. For example, studies examine gender differences in political online participation or the influence of the visibility of queer identities on visible political engagement in social media (e.g., Fox & Warber, 2015). (2) The visibility of *gender norms* applies to the gender stereotyping of self-presentations and behaviors in online interactions. For example, research analyzes the effects of digital technology and gender norms on self-presentations in social media (e.g., Butkowski, Dixon, Weeks, & Smith, 2020). (3) The visibility of *power relations* refers to gendered inequalities in the control of privacy or harassment and abuse in digital media environments. For example, the causes and effects of hate speech or harassment are analyzed concerning unequal power relations that become visible in digital media environments (e.g., Sobieraj, 2020).

Overall, feminist media and communication research focusing on digital visibility can be characterized by a critical perspective on postfeminist gender representation in digital media. This research highlights the prevailing hegemonic structure of power relations related to increased digital visibility that engenders experiences of sexual harassment and abuse (e.g., Stubbs-Richardson, Rader, & Cosby, 2018).

Often connected to organizational human resources approaches, it is also necessary to reflect *diversity* along with postfeminist discourses that tend to incorporate marginalized perspectives of equal-rights movements, their terminology, and methods within neoliberal ideology (Linke, 2016).

Gender communication research has been criticized for overestimating (binary) gender gaps, differences, and their effects. By contrast, the feminist perspective argues for a critical, nonbinary, and intersectional approach to studying digital visibility. The concept of *intersectionality* addresses a concatenation of dimensions of inequality, leading to the intertwining and reinforcement of inequalities and ultimately to discrimination (Crenshaw, 1989). Communication research has adapted the perspective of intersectionality to analyze participation in the media industry (e.g., Mayer, 2011). Furthermore, visibility on screen and in news coverage has been a vivid subject of research about unequal and racialized *representations of sexual violence* (e.g., Patil & Purkayastha, 2015). In terms of digital communication spaces, an intersectional analysis helps to reflect—for example—on strategies of othering, oppression, and discrimination on social media or the invisibilities of people of color in mediated debates (e.g., Chakravartty, Kuo, Grubbs, & McIlwain, 2018).

Overall, our review reveals a comparatively small body of research that is specifically interested in the causes and effects of inequalities in gendered and intersectional digital visibility. Future research in communication studies could be more closely aligned with works that—for instance—explore the relationship between digital visibility and participation, diversity, and empowerment of all genders and groups, and it could address how it can facilitate social change (e.g., Noble, 2018; Wilhelm, 2021).

Educational Media Research

As an interdisciplinary area, educational media research draws on the humanities, social sciences, cultural studies, and cognitive sciences. The field links to theories and methods from image sciences, focusing on the nexus of images, media, and educational media (e.g., Bock & Halder, 2015). It is concerned with in/visibility, drawing on a long tradition of analyses of visibility and the concept of “image” (Mitchell, 1992). Lately, the analysis of *the digital* in the context of education has increasingly accompanied the discussion about *the visual* as an object that is relevant to education. Research on in/visibility focuses on two areas: *the use of visual media in teaching* and *the visualization of learning outcomes*.

When analyzing the use of *visual media in teaching*, the visual in the *media didactic research* strand is examined in the context of digital schooling as part of the audiovisual, multimedia, or multimodal offerings of media in schools (e.g., Maclaren, Wilson, & Klymchuk, 2017). By contrast, the *pedagogical media research* strand increasingly addresses the challenges presented by a visual media culture and more specifically the use of visual media for teaching visual literacy in an educational context (Eutsler, 2021). Such studies address issues of visual media as digital objects and their perception, appropriation, and use by teachers, children, and adolescents.

About the *visualization of learning* and in addition to media education research on the use of digital media, studies on “visible learning for teachers,” such as Hattie and Zierer’s (2019), draw on the visible as an instrument for measuring educational success. Linked to the idea that learning can be materialized or visualized, such studies explore educational assessment and the assumption that what can be seen can also be measured. Studies on data visualization in education attempt to make learning trajectories visible to improve the learning process (e.g., Wijngaards-de Meij & Merx, 2018). Finally, in addition to the links

between visibility and evidence suggested by Hattie and Zierer (2019), recent research has shifted increasingly toward examining *invisible* data.

Datafication—in terms of “making data visible”—is interpreted in “highly sophisticated digital interactive data visualizations to construct knowledge” (Williamson, 2016, p. 123). Datafication research is strongly interested in learning analytics software to understand how it tracks and predicts students’ performances through digital data traces. In the tradition of critical studies of “edtech,” this emerging perspective questions the materiality of visual media—for example—in the form of multimodal (text) books or examines the in/visible data practices of software producers (Bock & Macgilchrist, 2019; Jarke & Macgilchrist, 2021).

In summary, in/visibility in (visual) educational media research is rarely theorized and barely explained as a term. Visibility in this research area appears to be taken for granted and used in an everyday understanding. When speaking of visibility, the visible is meant in the sense of the visual and is closely intertwined with the understanding of perceptibility. However, the concept is related to different objects in the educational context, such as educational media, learning, or data. To date, at the time of writing, only a few analyses have problematized in/visibility from a sociocritical perspective (e.g., Hardy & Lewis, 2018).

Research on Organizational Communication and Public Relations

Flyverbom, Leonardi, Stohl, and Stohl (2016) underline the significance of visibility in the digital age by stating “what we see, what we show, and how we look are fundamental organizational concerns” (p. 98). Organizational communication and public relations research examines the communication from, in, between, and about organizations. Following the European tradition, this area is seen as an integrated one, with organizational communication being understood as an umbrella term encompassing multiple types, structures, or practices of communication and organization, including public relations.

In this research area, three main understandings of in/visibility can be identified. First, visibility is discussed as the *identifiability of communicators*, such as organizations or individuals (e.g., Chen, Wei, & Yin, 2018). These protagonists might be clearly identifiable, anonymous, hidden, or unknown (e.g., Schoeneborn & Scherer, 2012). Visibility is seen as both a precondition and aim of strategic communication (Christensen & Cornelissen, 2011).

Second, it is viewed as the *public presence of communicators*, particularly in traditional but also digital media (e.g., Jonkman, Trilling, Verhoeven, & Vliegthart, 2020). It is considered a significant parameter in strategic communication and linked to reputation, for example (e.g., Mariconda & Lurati, 2014). The identifiability and public presence of a protagonist—also described as “media visibility” (Stocking, 1985, p. 360)—is partially tied to the perception of the communicators by significant reference groups and stakeholders, especially mass media and organizational members.

Third, visibility is understood as a combination of the *availability, approval to disseminate, and accessibility of information for third parties*, asking how organizations deal with these factors externally and internally (Stohl, Stohl, & Leonardi, 2016). In this understanding, in/visibility is addressed and explained in

more detail, such as in a “theory of communication visibility” (Leonardi, 2014), and the term visibility is differentiated from transparency, disclosure, secrecy, and surveillance.

Based on these three views on in/visibility, organizational communication and public relations research predominantly focuses on the relationship between visibility and key concepts of strategic communication (e.g., reputation) and the management of visibility—namely its creation and control—by various organizations. Key questions include what can and should be disclosed and what role intentional, systematically planned, and executed communication plays. Interdependencies with digital contexts also emerge, for example, when discussing “behavioral visibility” as a central concept of organizational communication in the digital age (e.g., Leonardi & Treem, 2020).

The management of visibility (and thus the first two understandings) is a focus in public relations, particularly in the dominating functionalist perspective. The third understanding is more likely to be found in organizational communication research where fundamental processes or situational contexts of in/visibility are front and center, and interpretive and critical perspectives are also more prominent. For example, Cruz (2017) discusses in/visibility from a critical, particularly feminist perspective and as a communicative process that is negotiated situationally and involves tensions.

In/visibility is increasingly being addressed, with this research area largely focusing on visibility rather than invisibility. While hidden, anonymous, or covert organizations are recurrent subjects of organizational communication research, invisibility tends to be negatively connoted, for example, when visibility is the goal of strategic communication. Flyverbom and colleagues (2016) summarize “that visibility is intimately connected to organization, communication, and management” (p. 102), especially in the digital age.

Journalism Studies

Journalism studies mostly analyze in/visibility in terms of *transparency* and *accessibility* (of journalistic routines) or *publicity* and *representation* (regarding workforce, content, and audience). Through publicity and representation, news media sources grant and maintain *authority* and *influence*, whereby *power* is most often an underlying theme. Five key aspects emerge from these studies:

In/visibility in the workforce: A diverse workforce in newsrooms is desirable to represent wider society. Scholars trace how marginalized groups have become more visible media producers while also investigating factors behind their repression. For example, studies discuss the invisibility of ethnic backgrounds or sexual orientations (e.g., Magrath, 2020) or women journalists and their visibility on television, mostly being invisible in leading positions (e.g., Chambers & Steiner, 2009).

In/visibility of the workforce: While recent studies engage with the issue of visibility as representing a heightened risk of being harassed (e.g., Löfgren Nilsson & Örnebring, 2016), journalists’ invisibility (e.g., by using pseudonyms) is suspected to be disadvantageous for building a reputation and in wage negotiations (Elsaka, 2005). Visible journalists and news organizations are perceived as authoritative, with credible expertise in their fields. Thus, visibility places them in a position of influence and power and simultaneously makes their jobs both tougher (e.g., more threat-prone) and easier (e.g., when approaching high-profile

sources). Another closely investigated issue is the role of journalists' social media practices in boosting personal and organizational visibility (e.g., Bruns, 2012).

In/visibility of news production routines: Traditional journalism studies link the term in/visibility to selection, sourcing, and framing processes, as well as journalists' professional norms and their awareness of gender and anti-racism aspects, for example (e.g., Vu, Lee, Duong, & Barnett, 2018; Yeboah, 2011). The digitization of news and the growing popularity of interactive features on news sites have permeated the demarcation line between the invisible backstage (production) and the visible frontstage (dissemination; Karlsson, 2011). Here, visibility is tied to concepts such as transparency, openness, and content cocreation, building trust and authority but also prompting a loss of control.

In/visibility in news content: In terms of content, visibility is understood as media presence and prominence (Tresch, 2009). Indicators of visibility include "the extent to which a message is covered by the mass media" (Koopmans, 2004, p. 367) or "relative frequency" (Petersen, 1973, p. 571). Empirical research focuses on the media representation of (marginalized) groups or topics, mostly in relation to gender, age, and race. While quantitative content analyses typically determine and/or explain the extent to which certain individuals, groups, or topics are reported on (e.g., Tresch, 2009), qualitative studies examine how marginalized groups are represented, for example (Thorbjørnsrud & Figenschou, 2016).

In/visibility of the audience: The audience's role is traditionally analyzed in a separate research area (see section on media selection and reception). Nonetheless, given audiences' new digital visibility and increasing participation options, journalism studies' interest in audience research is growing (e.g., Wilhelm, Stehle, & Detel, 2021). Visibility is mainly examined regarding the extended user role in the news process (e.g., Singer, 2014).

The concepts of in/visibility have already been introduced into journalism studies but have not yet been thoroughly developed. At the time of writing, the focus of the research is predominantly empirical.

Research on Political Communication

In political communication research, visibility has two different meanings, focusing on visibility in terms of *representation* and visibility as *salience*.

In a public—especially mass media—context, visibility is primarily used to refer to the *representation of political content* (e.g., Shoemaker & Reese, 2013), whereby one asks whether journalists select specific content (e.g., themes, frames, actors). What is not selected remains invisible, meaning nonperceptible. Here, studies ask—for example—which political content is under- or overrepresented in various contexts (Kaid, 2004), or they categorize political events according to news factors, which gain public visibility (Eilders, 2006). Framing research describes the presentation of issues through patterns of meaning and interpretation that help people to efficiently process and make sense of new information (de Vreese, Peter, & Semetko, 2001). Theories of the public sphere focus on which groups are represented in political communication or not (e.g., Hopmann, Vliegthart, de Vreese, & Albæk, 2010). Gatekeeping research analyzes the conditions of political media content production and the factors that influence media representation (e.g., Shoemaker & Reese, 2013).

Furthermore, studies problematize the effects of visible political media content (Preiss, Gayle, Burrell, & Allen, 2006). Depending on the theoretical and methodological approach, media effects are attributed to the presentation of political content. Media effects can be amplified by the quantity, scope, and presentation of political media content. In this case, visibility is referred to as salience. Since the cumulative effects of political content with identical meaning are an important precondition for strong media effects (Scheufele, 2004), all aforementioned reference points for visibility understood as *presence* are also likely to be relevant for visibility understood as salience (de Vreese et al., 2001).

When understanding visibility as *salience*, the volume and quantity of political media information hold interest. Salience is seen as an overarching concept of visibility, and it comprises “how an object is depicted among groups of other objects, stimuli, and so on—making the external environment central to these conceptions” (Kiousis, 2004, p. 72). This definition is designed to explore how a piece of information or an object is presented in relation to others. Regarding political media content, two dimensions of salience are brought together under the term visibility: *attention* and *prominence* (e.g., Golan & Wanta, 2001). Attention refers to the media awareness of an object, which can be measured as the volume or quantity of contributions or issues in different media. Prominence “refers to the positioning of a story within a media text to communicate its importance” (Kiousis, 2004, p. 74). Both meanings of visibility—representation and salience—play a role in short- or long-term media effects in agenda setting, framing, and priming, for example (McLeod, Kosicki, & McLeod, 2002).

In summary, visibility plays an increasingly significant role in political communication research, albeit often implicitly, as it is rarely explicitly addressed. Other terms that imply visibility or are linked to it are often used (e.g., selection or presentation). Generally, the representation and salience of political media content are analyzed, while the concept of invisibility is even less explicitly addressed. Moreover, the conditions of origin and the effects of in/visibility in the sense of a “mediated visibility” (e.g., Lester & Hutchins, 2012) and a “user-generated visibility” (e.g., Kümpel, Karnowski, & Keyling, 2015) are rarely addressed.

Research on Media Selection and Reception

Media selection, reception, and their effects are studied across various areas in which visibility is rarely explicitly theorized. Nonetheless, what is visible (in the sense of perceivable) in media affects all stages of media use.

The visibility of media in terms of visual perceptibility is most directly studied for *media selection processes*, especially in applied research. This is hardly surprising as media organizations strive to optimize their presentation to maximize usage and/or revenue. For instance, eye-tracking studies are commissioned to understand how visual stimuli guide the attention of newspaper readers or online news users (e.g., Bucher & Schumacher, 2006; Holmqvist, Holsanova, Barthelson, & Lundqvist, 2003). Digital environments offer media producers more flexibility when deciding or even A/B testing how to visually present their content to increase a target variable (e.g., time spent on the platform or click-through rates; Burgess & Hurcombe, 2019). On platforms where individual audience members are typically identifiable via log-in data, the presentation of the content can even be personalized at a visual level (Amat, Chandrashekar, Jebara, & Basilico, 2018).

The influence of visual stimuli on selection processes is likewise investigated in academic research. Messing and Westwood (2014), for example, show that selective exposure to news on social media is less strongly influenced by the partisan sources displayed if endorsements by other users are also visible.

For *reception research*, digital media open up new research possibilities as parts of the audience and aspects of their reception processes become visible on online platforms (Mathieu et al., 2016). This allows analyzing content and user reactions, such as Twitter messages during a television broadcast (Trilling, 2015). As these audience reactions are also visible to other users, they can influence reception and—in the case of many digital media—also the production of content. In a study of the live-streaming platform Twitch, a participant described how “you’re no longer just a regular viewer, but a person for the one who is streaming” (Spilker, Ask, & Hansen, 2020, p. 612). Users’ perceptibility and reactions can thus stimulate interactions between users and producers and influence reception processes and even the content itself.

Media effects research addresses visibility in online contexts via the impact of perceivable content on users. Similar to the questions raised in reception research, studies explore—for instance—how the visibility of user comments affects the perception of editorial content (e.g., Prochazka, Weber, & Schweiger, 2018). Other scholars analyze the effects of the *representation* of social reality (its visibility, in a wider sense) on users. As mentioned above, some aspects of the world are underrepresented in journalism or mass media or might receive stereotypical treatment, while digital environments offer a plethora of content and worldviews. Agenda-setting studies thus analyze how topics that emerge in digital media are picked up by traditional news sources, furthering the representation of marginalized groups beyond digital platforms (Billard, 2019). Other studies investigate how digital media portrayals can cultivate their own stereotypical perceptions of reality (Behm-Morawitz & Ta, 2014).

Overall, research into media selection, reception, and their effects treats visibility in various different ways. In some cases, visual perceptibility is studied, while in others the representation of social reality is key, which might extend beyond visibility in the strictly visual sense. Theoretical discussions of these concepts and how they are affected by digital media are scarce. Nonetheless, scholars investigate respective processes and thereby document how media selection, reception, and effects can be affected by the visibility of digital media, from the perspective of both content and technology.

Digital In/Visibility in Communication Studies: Similarities and Differences

The similarities and differences between the research areas are illustrated in the following. For this purpose, the definitions and synonyms of in/visibility and the paradigmatic perspectives that frame the research are analyzed using a qualitative approach. The discussion highlights the potentials and challenges of the current state of research and addresses open questions.

Concerning definitions and synonyms used for in/visibility in communication studies, it stands out that previous research has rarely explicitly focused on invisibility, rather mostly treating it in connection to its perceived counterpart, visibility. One might even wonder whether one concept exists only in the absence of the other or whether both have independent qualities. Moreover, invisibility is often addressed

subliminally and in a rather negative manner. Therefore, the following discussion of similarities and differences focuses predominantly on visibility.

Three Understandings of Digital Visibility

Across the areas examined, three understandings of visibility emerge, namely perceptibility, presence, and valuation. They can be linked to longstanding research on in/visibility in disciplines that border communication studies or provide an overarching framework (e.g., sociological perspectives: Brighenti, 2007, 2022; perspectives from literature studies and humanities: Spivak, 2010; perspectives from computer science: Lewis, Lang, & McKay, 2007).

The first understanding, *perceptibility*, is often associated with visibility and used synonymously ("being noticeable"; e.g., Brantner & Stehle, 2021; Leonardi & Treem, 2020). This understanding is common in all areas discussed, and human perception is key. However, in digital, multimodal contexts, its valuation is detached from traditional restrictions, such as spatiotemporal presence. At the same time, perceptibility is tied to conditions of digital communication that extend beyond human perception, such as technical limitations, including platform rules or algorithms.

Second, visibility is understood as *presence* in a public space. This perspective is specific to communication studies as it demonstrates references to the public sphere, its segments, or specifically the (journalistic) media (e.g., Brantner & Stehle, 2021; Kiouisis, 2004). Most of the areas examined refer to media visibility or representation as *presence* in journalistic media. Here, "being heard" by journalists is seen as a first step, which subsequently enables one to "be heard" by others in digital contexts. In this rather traditional understanding, in which the journalistic media are assigned the role of gatekeepers and which refers to a "two-step flow of being heard," the concept of media visibility is the focus in several areas, for example, public relations research. However, it is increasingly supplemented by concepts such as *user-generated visibility*, which is addressed in political communication research, for example.

In the third understanding, visibility is used in the sense of *valuation*, which often refers to marginalized topics or groups and addresses the idea that visibility is seen as a kind of "quality" with respect to (sections of) the public sphere (e.g., Brantner & Stehle, 2021; Dahlberg, 2018). Who or what is visible is not only (nonjudgmentally) perceived but also valued, and their visibility is interpreted—for example—in terms of the quality of the relationship between the valuers and the valued or possibilities to exert influence. This understanding links visibility to discourses of power and asks which agents are empowered to make other agents, issues, or things visible in public discourse. Although often involving the positive connotations of *being respected* or *being recognized*, visibility can also be associated with negative valuation, for example, in the form of hate speech (e.g., Chen et al., 2020). This understanding most frequently also addresses invisibility, for example, of marginalized groups. Both sides of this third understanding of visibility are particularly prevalent in research on gender, visual (educational) media research, and critically informed organizational communication research. In these areas in particular, it becomes clear that in/visibility is the object of a communicative process and that it is ambivalent, has to be negotiated, and contains active and passive aspects as well as tensions (e.g., Cruz, 2017).

The understandings of visibility as *perceptibility*, *presence*, and *valuation* can be thought of as building on each other, meaning that a valuation requires perceptibility and presence. Thus, there are links between the understandings, albeit which do not necessarily imply a sequence. In digital communication, perceptibility can merely exist as the potential for perception, which does not lead to presence or even being recognized or respected.

The understandings are not only characterized by phenomenon and object but also reveal theoretical and paradigmatic perspectives. These provide further guidance for mapping the discussion of in/visibility in communication studies.

Three Perspectives of Digital In/visibility

In addition to the three understandings, three perspectives become apparent across the examined areas. They can be categorized by a framework distinguishing functionalist, interpretive, and critical paradigms (Burrell & Morgan, 1979). Although this framework is occasionally criticized, it is considered one of the classic systematizations in communication studies (Littlejohn, Foss, & Oetzel, 2017). Each of the areas demonstrates a different focus with respect to the three paradigms when addressing in/visibility.

The *functionalist perspective*, which “seeks to provide essentially rational explanations of social affairs” (Burrell & Morgan, 1979, p. 26), leans toward realism, positivism, and determinism. It is particularly prevalent in areas such as public relations or political communication research when aspects of (media) presence are discussed, and the aim is to record these factors as objectively as possible or even “manage” them (e.g., Eilders, 2006; Flyverbom et al., 2016). This perspective is also evident when considering media effects, for example, when analyzing perceived media coverage or user comments (e.g., Kümpel et al., 2015; Scheufele, 2004).

The *interpretive paradigm* strives “to understand the fundamental nature of the social world at the level of subjective experience” (Burrell & Morgan, 1979, p. 28). It focuses on a social world created by individuals through social processes and is especially evident where visibility is defined as perceptibility and associated with individual perception and subjective sensemaking. For example, this perspective is evident in organizational communication research when it comes to perceiving organizations in terms of individual identifiability (e.g., Schoeneborn & Scherer, 2012). In journalism studies, this perspective comes to the fore when asking which topics should be focused on and how they should be addressed to attract public attention (e.g., de Vreese et al., 2001), although there is always an underlying critical perspective.

The *critical paradigm* focuses on shifts and changes in social realities and can lean toward both subjectivity and objectivity (Burrell & Morgan, 1979). This paradigm mainly becomes evident in valuation aspects and when in/visibility relates to considerations of power relations, discrimination, and marginalization. For instance, research on gender, diversity, and intersectionality exemplifies this perspective when analyzing links between visibility and the harassment of marginalized groups (e.g., Vera-Gray, 2017). This perspective is also present in visual communication and educational media research when visibility is examined about power or recognition, for example (e.g., Williamson, 2016).

The functionalist, interpretive, and critical perspectives are present in nearly all examined research areas but with different emphases. The perspectives can also be linked to all three understandings (perceptibility, presence, valuation), albeit to differing degrees and forms. For example, in addition to the critical perspective, the interpretive perspective is also used to analyze subjective evaluations of in/visibility in the sense of “being recognized” (e.g., Banet-Weiser, 2015).

Concluding Thoughts

Our findings indicate varied levels of analytical intensity in communication research concerning in/visibility in digital contexts. It is notable in studies on visual communication, gender, diversity and intersectionality, and visual educational media. At the time of writing, it is often considered but not fully conceptualized in organizational communication and public relations, journalism, political communication, and media selection and reception. Finally, in some areas, in/visibility merely forms the context of the analysis (e.g., public relations or political communication research), while providing the central analytical impetus in other areas (e.g., visual communication studies). Moreover, our findings suggest that invisibility attracts less of an explicit focus than visibility in almost all areas and is mostly treated in connection to visibility and in a rather negative manner. Our mapping reveals variability in addressing in/visibility and its varied concepts and terminologies, as well as striking similarities in usage.

Based on our results, we mainly identify three implications for future research. First, our mapping could be used to search more specifically for intersections, similarities, and differences between research areas and answer questions concerning the three *understandings* of in/visibility: How are perceptibility, presence, and valuation related? How can possible links between them be explored? About the three *perspectives*—functionalist, interpretive, and critical—future research is necessary to reveal the blind spots of each perspective and search for links between or across research areas when considering in/visibility.

Second, our analysis suggests an elusive relationship between the two concepts, with unresolved questions about their capture. Besides methodological questions of how to research the in/visible, challenges remain concerning how to grasp the concepts theoretically. If visibility is connected with perceptibility, presence, and valuation, which understandings are associated with invisibility? How can one make the invisible empirically visible?

Third, future research should carefully consider how in/visibility is intertwined with the changing nature of communication *in the digital age*. Our review points to several changes in the meaning of in/visibility in a communicative space shaped by digital technologies. Fruitful questions for further engagement include: Who or what remains or becomes in/visible? Who has what kind of agency within what digital spaces?

Our mapping reveals that visibility and invisibility are crucial yet undertheorized concepts for understanding communication in the digital age. We therefore regard our contribution as an invitation for dialogue with areas within and beyond communication studies to further discuss in/visibility in digital communication.

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