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Methodological Challenges in Audience Research

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Over the past few years, social media platforms such as Facebook and messaging apps such as WhatsApp have become an integral part of people's daily lives, including when it comes to accessing information and news (Newman et al. 2022; Wojcieszak et al. 2022). This development has had important implications for news providers and publishers, who are now routinely, although sometimes reluctantly, using various social media platforms to disseminate content and reach (new) audiences (Sehl, Cornia, and Nielsen 2021; Hase, Boczek, and Scharrow 2022). Second, considering the unique characteristics and affordances of these applications, audiences' news experiences and consumption habits have drastically changed as well. Especially on social media, news is often discovered incidentally, makes up only a (small) part of the information environment, and is subject to curation by algorithms and social contacts (Kümpel 2022b; Thorson and Wells 2016). Being an "intimate closed system of communication" (Yamamoto, Kushin, and Dalisay 2018, 2379), messaging apps are unique as well, as they favor communication among strong social ties and more private and in-depth discussions about current affairs (see also Kalogeropoulos 2021; Valenzuela, Bachmann, and Bargsted 2021). What both social media and messaging apps have in common is that they make the use of news and information more personalized, individualized, and dynamic. This situation also creates a whole set of *methodological challenges*. While these affect journalism studies as a whole, our contribution will specifically focus on the challenges faced by audience researchers who are interested in gaining access to people's everyday experiences with information and news use.

Having an interest in "individualized and hyperconnected audience experiences" (Ytre-Arne and Das 2019, 186) as audiences researchers prioritize, necessitates finding approaches that are able to tackle a whole range of obstacles. First, we need approaches that allow accounting for

practices and experiences in algorithmically curated—and thus *personalized*—media environments, not least for “dark social media” (Swart, Peters, and Broersma 2018b) such as messaging apps and private social media groups which are not visible publicly (e.g. without belonging to the groups or app groups). Because what news people see in their feeds or what news they discuss in their apps is commonly not visible to audience researchers, we need new ways to get both to the content and associated perceptions. Second, we need approaches that not only focus on audiences using news in the narrow sense, but methods that capture the use of content perceived as ‘informative’ as part of overarching everyday practices (Swart et al. 2022; see also Lindell, this volume). This also implies a methodological shift away from a sole focus on audience metrics such as clicks, viewing times, or shares to a more audience sensitive view that captures people’s “practices, preferences, and pleasures” (Costera Meijer and Groot Kormelink 2021, 5). Third, we need approaches that can also help us to make sense of what it even means to ‘be informed’ for different audiences (Kümpel et al. 2022) as well as strategies to investigate the non-use or avoidance of news and (journalistic) information (Villi et al. 2022).

The aim of this chapter is to discuss a selection of possible solutions to the described methodological challenges in audience research. Specifically, we make the case for using qualitative and mixed-methods designs that are particularly suitable to gain access to the perspectives and practices of modern news audiences. Other useful, more quantitatively oriented, methods for conducting audience research including experimental studies (Greussing, this volume) or computational methods (Merten, this volume) will be covered in other chapters of this Companion and are therefore excluded here. Thus, our selection of solutions is certainly not exhaustive, but it is not arbitrary either. The chosen approaches include 1) observations and self-confrontations, 2) media diaries, and 3) augmenting human memory with digital trace data.

These focus on different modes of knowing and experiential dimensions (Groot Kormelink 2019, 27 ff.). Following a discussion of these approaches, we will then address how they can be valuable not only for journalism research but also for journalism itself (e.g., for generating insights about their audiences) and why, in light of the increasing algorithmization of media environments, this is critical to constantly refine ‘old’ and develop new approaches to study information and news use.

A Discussion of Possible Solutions

In line with much recent audience research (e.g., Swart, Peters, and Broersma 2018a; Costera Meijer and Groot Kormelink 2021), the following approaches are focusing on users’ *experience* of information and news use. As put together by Groot Kormelink (2019, 29 ff.; see also 2020), experience is a fruitful point of departure for a variety of reasons. First, experience can be thought of as something that a person has gone through or is (currently) going through, which is why experiences may indicate more about a person’s actual use of information/news than beliefs or opinions. Second, experience is a broad concept that encompasses a wide range of dimensions relating to news use (e.g., perceptual, emotional, aesthetic), thus going beyond the typical focus on cognition and behavior. Third and relatedly, experience allows accounting for different modes of knowing, with sensation (*feeling*), perception (*seeing*), and conception (*thinking*) being the most important ones. Relying on this idea of experience, we will now outline the use of observations and self-confrontations, media diaries, and digital trace data as possible solutions to the abovementioned methodological challenges in audience research.

The Use of Observations and Self-Confrontations

A first way to account for people's information and news use experiences in personalized media environments is the use of *observational methods*, particularly in combination with elicitation techniques that confront people with what has been observed (i.e., *self-confrontations*; see also Hölsgens, this volume). Even though observations are not uncommon in journalism research, they tend to be producer-centric, with much of the research focusing on observations in the newsroom (for recent examples see Blanchett 2021; Hendrickx et al. 2021). Audience observations, on the other hand, have generally received less attention. Reflecting the plethora of observation techniques, we understand observation broadly as the purposeful, systematic, and selective recording (by sense or by equipment) of human behavior and actions. By observing individuals or groups as they read, watch, or listen to news, audience researchers can gain access to people's embodied knowledge by having them experience something in real-time and without interruptions (Groot Kormelink 2019, 37). Observations thus provide a direct and immediate view into (personalized) information and news use practices, bringing to light actions that remain unmentioned in interviews, because they seem trivial to participants, are habitualized or automated, or difficult to verbalize due to their complexity. Subsequent self-confrontations with recordings of the observation then enable both researchers and participants to 'peer in' and reflect on the witnessed news use practices.

Current audience research studies have already achieved productive results with combinations of observations and self-confrontations. For example, Groot Kormelink (2020) has used the so-called 'two-sided video-ethnography' to uncover the hidden and unspoken dimensions of (digital) news use. The method included filming participants from two angles while they used news in real time, and then watching and discussing the videos with them in a

viewing session. The study found that people's handling and navigation of their devices and platforms impacted their experience of news in ways they were not aware of, and that different dimensions of news experiences were interconnected. Moreover, the approach allows researchers to capture sensorial dimensions of news use such as rapid scrolling in situations of emotional overload. With a specific focus on social media news use, Kümpel (2019a) has used a combination of direct observations and self-confrontations to study how people engage with news encountered on Facebook. Her methodological design involved observing and recording participants while browsing their personal feeds without interrupting them, and then watching the recordings together with the participants to learn more about their news-related sensations, perceptions, and conceptions. In both studies, discussing the recordings immediately after the observation allows for identifying discrepancies between what the participants remember/articulate and what they actually did. Moreover, the fact that the practices of interest are *recorded* enables the researchers to pause, rewind, or slow down the videos, which is especially helpful to tap into behavioral patterns. Especially when participants are asked to use their own devices and applications, observations with self-confrontations allow access not only to personalized information environments, but also to ingrained habits and any (un)conscious avoidance or non-use of news.

Of course, this approach also comes with some challenges. First, it is comparatively labor-intensive and time-consuming, which may also hinder the success of recruitment efforts. Second, being a retrospective method, it may not be well-suited for capturing immediate reactions, because participants may already be familiar with the content included in their recorded feeds (Groot Kormelink 2019, 41).

The Use of Media Diaries

A second way to approach personalized information environments methodologically are *media diaries* (Berg and Düvel 2012). As an established way of investigating mass media usage practices that cannot be readily observed, diaries are also valuable for getting insights into personalized information environments provided by social media or messenger apps. During a pre-defined period of time, researchers can ask participants to document and report on specific instances of their media use; that is, to keep a (usually daily) diary on perceptions/evaluations of news and information they have encountered on different devices, websites, or apps. Through repeated entries from the same participant, diaries shed light on day-to-day practices and time patterns, thus focusing on aspects that would be hard to remember and/or verbalize for participants during retrospective interviews (Alaszewski 2006). While standardized approaches focusing on basic usage information (e.g., time spent with certain media sources or content) are most prominent (e.g., Ohme, Albaek, and de Vreese 2016), we argue that audience research profits most from more qualitative approaches that ask participants to not only report ‘facts’ on their media use, but also to *contextualize* and *comment* on them. In this configuration, diaries both allow detecting general patterns and temporal dynamics of (personalized) media use and considering the “subjective perspective of the researched person,” as they invite participants to reflect on contexts and interpretations of their media use (Berg and Düvel 2012, 79).

An example that illustrates how diaries may be integrated in experience-based social media research is the ‘Messaging App Diary Approach’ as proposed by Kümpel (2022a). The design combines multimedia diaries, conducted via common messaging apps (*documentation phase*), with semi-structured interviews during which participants are asked to comment on and contextualize their news/information use experiences as well as the overarching patterns

identified during an initial analysis of the diaries (*discussion phase*). Relying on commonly used messaging apps such as WhatsApp for submitting the diaries, the approach meets participants where they already are. This is convenient for both participants and researchers, with the latter being also easily able to monitor the process of data collection, improve response rates with daily reminders, and access the data. Importantly, participants can also submit screenshots/videos, voice messages, or make use of paralinguistic cues such as emojis and emoticons, which makes diaries especially suitable for generating insights into the aesthetic and emotional dimensions of news use.

Illustrating this approach, Kümpel (2020; for an English summary see Kümpel, 2022a) investigated young adults' news experiences over a course of ten days. After an initial briefing, participants were asked to report on aspects such as the contexts, places, and purposefulness of news encounters they had on a given day. Participants kept and sent their diaries with the help of WhatsApp, where the researchers provided them with daily reminders and templates for their entries. The motivation to provide diary entries remained fairly consistent during the whole documentation phase and many participants highlighted the convenience of participation via a messenger app that is already part of their daily routines. The integrated analysis of diaries and interviews proved particularly useful, uncovering discrepancies between participants' textbook-like understanding of news as timely and relevant, and their actual news usage practices guided by convenience and chance encounters.

Adopting a more narrative-oriented approach, Moe and Ytre-Arne (2022) use diaries in combination with recurring interviews to explore peoples' cross-platform news use. For one month (daily entries during the first week, weekly entries for three weeks), simple and experience-oriented questions asked participants to report on their (social) media use. The diary

submissions not only show why and how issues (do not) capture peoples' attention, but also how they evaluate and discuss information. For example, participants reported when they felt the urge for face-to-face discussions after news encounters and how certain issues affected their personal well-being and, as a result, their subsequent news use.

Taken together, the two examples illustrate how diaries provide detailed insights into (personalized) everyday media experiences and their interconnectedness with people's lives, self-concepts, and subjective preferences. Notwithstanding these advantages, diary studies also have some shortcomings. Not only are they time-consuming and require the researcher's constant attention over a course of days/weeks, they are also sensible for issues related to reactivity: For example, the selection of diary entries may be consciously or unconsciously biased, because participants may overestimate their news consumption or only report instances of media use that they consider socially desirable. Furthermore, it is possible that media content is only used because the participants feel compelled to do so by the study design.

The Use of Digital Trace Data

Against this background of reactivity effects, we want to highlight a third approach: *using digital trace data* as a basis for "augmenting participants' memories" (Ørmen and Thorhauge 2015, 336) when discussing their information/news experiences in personalized media environments. In contrast to the use of observations/self-confrontations discussed above, this approach does not include *direct* observations of media use. Instead, it relies on automatically generated data that are independent from any specific research context. Specifically, we focus here on activity logs (e.g., from social media platforms or messenger apps), which can be used as digital probes during qualitative interviews. These logs contain a detailed account of users' activities and actions on the platform such as, in the case of Facebook or Instagram, a person's posts, tags and

activities she is tagged in, as well as comments and likes (Facebook Help Centre 2023). Together with the researcher, participants can go through their activity logs, scrolling down the list of comments they made or encountered posts they have liked. In doing so, they are able to ‘re-live’ their past news/information experiences while the researcher asks them to comment and reflect on them. As activity logs can bring pieces of information and interactions to the forefront that participants may not recall or remember differently, they can help to increase the validity of interview data and address possible discrepancies between what was logged and what was actually experienced (Ørmen and Thorhauge 2015).

Although studies that utilize (social) media log data as digital probes in interview settings are still rather uncommon, particularly in the context of news use, there are a few examples that demonstrate the feasibility of this approach. For example, Latzko-Toth, Bonneau and Millette (2017) conducted a study in which they included participants’ Facebook activity logs in qualitative interviews to explore how young adults used the platform for obtaining information, communicating, and forming opinions about a student strike in Québec, Canada. Viewing their past interactions prompted participants to comment on their experiences and explain their interaction decisions. Sometimes, they also re-lived their news experiences with emotional reactions, highlighting the “liveliness” (Gangneux 2019) that activity logs can create and their ability to capture not only cognitive but also sensorial experiences. For instance, the use of data logs revealed *why* a picture was considered humorous and valued with a laughing emoji, or *in which cases* sharing a post reflects social relationships instead of political views. These are insights that would have been difficult to obtain without going back to specific instances of news/information use. Additionally, the authors conducted a post-hoc content analysis of the

activity logs, which further enhanced the researchers understanding of participants' information experiences.

Another example for the use of activity logs is a study from Kümpel (2019b) on the motives and practices of news tagging. Centered on discussing the logs and associated experiences of 'taggers,' the design helps to shed light on the social interactions and relations associated with social media news use. Specifically, Kümpel identified "tagging circles," (Kümpel 2019b, 386) a small group of users regularly tagging each other below news posts. The discussion of log data revealed that news tagging serves as an act of relationship-building that fulfills a need for reciprocity, rather than being purely a content recommendation. Additionally, by reviewing specific posts with participants, the researchers were able to discuss the topic of the news posts and gain insights into how some users also view tagging as a form of agenda setting.

These examples demonstrate how trace data can be used as a foundation for simultaneously re-living and reflecting on experiences in personalized information environments. However, it is important to note that such trace data captures only *active* behavior of participants or third parties in their network (e.g., if participants are tagged) and do not provide information about passive news/information use such as scrolling or reading posts without liking, sharing, or commenting on them. Furthermore, not all types of trace data are as easy to access and tangible as the scrollable activity logs provided by some social media platforms. Data download packages (DDPs, see Boeschoten et al. 2020), for example, usually store user data in a number of folders (often with unintuitive names), and thus require some kind of selection before they can be used in interviews. Provided as .json or .html files, they have to be requested and prepared prior to the actual interview session, requiring certain levels of digital literacy from participants and/or extended briefings that might decrease the motivation to participate. Finally, it is important to

note that activity logs often contain sensitive and private information, highlighting the need for ethical considerations, which will now be addressed as part of our outlook.

Outlook

In recent years, scholars have argued for not solely relying on platforms for providing ‘Big Data,’ but also for generating “thick data” (Geertz 1973), or data that is often small in sample size, but dense, detailed and context-sensitive. As we argued at the beginning of this chapter, personalized information environments, in particular, afford these kinds of experience-based data. The more individualized information environments become, the more standardized methods fail to provide audience researchers with an accurate understanding of *actual* practices. To tackle these methodological challenges, we outlined three approaches to study news/information use in personalized online environments: 1) observations and self-confrontations, 2) media diaries, and 3) augmenting human memory with digital trace data. All three approaches, being inherently multi-method, can be considered a form of “stimulated recall” (Dempsey 2010): Integrating recordings of observations, media diaries, or activity logs in interview sessions, researchers are able to confront participants with (parts of) their media experiences and invite them to remember, reflect, and comment on these experiences. These approaches allow participants to access and verbalize their internal state, providing researchers with detailed responses that enable them to understand how users navigate through personalized media environments and how their practices are related to outcomes, such as (subjective) knowledge and informedness.

We highlighted not only the epistemological but also the technical advantages of these approaches, such as their convenience and accessibility. However, it is important to note that the technical aspects of these methods also raise some ethical concerns, particularly related to participants’ privacy and establishing informed consent. For example, in the case of activity logs

and observations, participants may not be fully aware of the types of news/information and interactions/activities that are displayed in these logs, or, in the case of the logs themselves, may not be aware that such data is being collected *at all*. Additionally, all of these approaches require participants to allow researchers access to parts of their private lives by providing details about their personal media environments and, if messaging apps are used, their phone numbers.

Furthermore, these approaches have the potential to affect the privacy of non-consenting third parties, whether it be because one of their posts appears in the news feed during observations or because they were tagged by or otherwise interacted with research participants in the past.

These challenges underscore the importance of providing detailed briefings to ensure participants' informed consent. During these briefings, participants should be provided with examples of logs, diaries, or observation set-ups. To further minimize the violation of privacy, particularly for third parties, participants can be specifically asked *not* to submit posts from private accounts (e.g., accounts of friends or family members) for diary studies and may be given the opportunity to review and remove content from their logs or feeds before participating in the study. Additionally, scrolling through logs can be done progressively and step-by-step, giving participants opportunities to stop the process at any time. While these measures may limit the insights into audiences' experiences, they protect participants' and third-parties' privacy and can also be utilized as a trust-building measure that, at least potentially, decreases dropout rates in audience research.

With these considerations in mind, the approaches introduced here are not only useful for journalism scholars but also for journalism practitioners to better understand their audiences. Although audience orientation is already a content-shaping factor in newsrooms, journalists and editors often have a limited understanding of their online audiences, based on single (negative)

user interactions and metrics (Coddington, Lewis, and Belair-Gagnon 2021). Moreover, the focus on increasing popularity-driven metrics may cause conflicts between journalistic and platform logics (Walters 2021; Anter 2023). In this sense, qualitative approaches can help news organizations to better understand their audience and produce content that aligns with both journalistic values and user preferences. For example, observations can be used to evaluate how users navigate different kinds of social media content provided by the newsroom: What motivates them (not) to read post captions or view a full Instagram story? What characterizes the types of news content that ‘win the competition’ for attention with posts of friends or entertainment content? Activity logs, then, can provide insights into the motives and reasoning behind liking, sharing, or commenting. For example, newsrooms may identify which (news) topics are ‘taggable’, that is, worth for giving it as a virtual gift to friends (Kümpel 2019b). Diaries, in turn, can provide newsrooms with insights into the real-life contexts in which users access their content: For instance, how do experiences differ between morning routines and short ‘information breaks’ during bus drives? If news organizations consider these fine-grained insights into users’ preferences and experiences during the news production process, these approaches might also increase audience agency (Hendrickx 2022).

As we mentioned at the beginning of this chapter, the list of approaches outlined here is neither exhaustive nor arbitrary. If we were to re-write this chapter in a few years, it would almost certainly look different: With platforms, their features, and associated usage practices constantly changing and evolving, methods for investigating them need to “co-evolve with their objects of study and continuously adapt to their fields” (Latzko-Toth, Bonneau, and Millette 2017, 5) as well. This remains challenging, as social media platforms seem to become more and more predicated on algorithmic curation and users are increasingly engaging in ‘training’ the

algorithms according to their preferences. Consequently, researchers will continue to be confronted with highly personalized media environments that can best be understood by taking participants' individual *experiences* as a starting point.

Further Reading

Exploring new avenues for audience research, Costera Meijer and Groot Kormelink (2021) offer a comprehensive discussion of innovative methodological approaches for investigating online news use, along with examples of their implementation. Delving more deeply into the particular methods presented in this chapter, Kümpel (2022a) provides a detailed exposition of the “Messaging App Diary Approach,” including both practical advice for implementing the approach and a discussion of (ethical) challenges. Similarly, Gagneux’s (2019) article offers an illustrative and critical overview of how social media features can be employed in “stimulated recall” approaches for social science research.

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