Using Messaging Apps in Audience Research: An Approach to Study Everyday Information and News Use Practices

Anna Sophie Kümpel
Institute of Media and Communication, TU Dresden

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**Author Note**
Anna Sophie Kümpel [https://orcid.org/0000-0001-7184-4057](https://orcid.org/0000-0001-7184-4057)

Correspondence concerning this article should be addressed to Anna Sophie Kümpel, Institute of Media and Communication, TU Dresden, Zellescher Weg 17, 01069 Dresden, Germany. E-mail: anna.kuempel@tu-dresden.de
Abstract

Messaging apps such as WhatsApp or Facebook Messenger are an essential part of people’s communication practices, but have thus far received only little attention as a tool for data collection. In this article, it is argued that using established messaging apps in audience research can help to better make sense of everyday information and news use practices. Being already integrated into most smartphone users’ daily routines, providing easy-to-use solutions for the sharing of rich and context-sensitive data as well as an instant feedback channel, messaging apps make the documentation of one’s information/news use a familiar and convenient experience for participants that can easily be incorporated into their day-to-day life. Drawing on insights from two research projects focused on young adults’ information and news use practices, it is illustrated how messaging apps can be utilized in qualitative and mixed-methods diary study designs. Reflecting on methodological and epistemological issues, the advantages and challenges of using messaging apps in audience research are discussed from the researchers’ and the participants’ perspectives.

Keywords: audience research, news use, messaging apps, experience, diary method, mobile media, data collection
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Smartphones in general—and mobile messaging apps in particular—have become an essential part of everyday life, enabling users to be permanently connected to family and friends (Vorderer et al., 2016). As of October 2019, about two billion users worldwide were using WhatsApp, followed by Facebook Messenger and WeChat with about 1.3 and 1.2 billion monthly active users (Statista, 2020). While communication researchers have repeatedly studied the use of messaging apps—both by ‘ordinary’ users (e.g., Church & de Oliveira, 2013; Dhir et al., 2020) as well as by news outlets and journalists (e.g., Belair-Gagnon et al., 2018; Boczek & Koppers, 2020)—, they have just recently started to think of them as a means of data collection (Kaufmann & Peil, 2020). Especially in qualitative research, “the potential of the smartphone […] is yet to be fully explored” (Garcia et al., 2016, p. 510), particularly when it comes to utilizing apps that are already fully integrated into users’ daily routines. This is surprising, as using established messaging apps not only frees researchers from having to develop their own solutions for conducting (qualitative) studies on mobile devices, but also—quite literally—allows meeting participants ‘where they are.’ Audience researchers in particular are likely to have an interest in that, as it becomes increasingly important to capture the use of news and information in “the interstices of the daily routine” (Dimmick et al., 2011, p. 34), while simultaneously giving participants simple and tangible solutions to contextualize and comment on their experiences.

Although there is a lively interdisciplinary debate about mobile methods (Duffy et al., 2020; Schnauber-Stockmann & Karnowski, 2020)—which can be broadly defined as “the means by which mobile communication technologies are employed to study the social world” (Boase &
Humphreys, 2018, p. 154)—and many innovative stand-alone solutions and apps have been developed for studying media use in people’s everyday lives (e.g., Berg, 2017; García et al., 2016; Gergle & Hargittai, 2018), these might come with obstacles for participation. Specifically, participants might be reluctant to install additional apps on their phone or find it hard to integrate them into their routines.

Thus, in this article, I argue that using established messaging apps for data collection can help us to (better) make sense of everyday information and news use practices in modern media environments. Drawing on experiences from two empirical studies concerned with young adults’ (1) daily news use practices and (2) information use on Instagram, I show how messaging apps such as WhatsApp can be fruitfully integrated into audience research and illustrate both the advantages and challenges of using them for research purposes. Due to both studies relying on diary methods, the use of messaging apps for synchronous interview techniques will not be discussed (but see, for example, Pearce et al., 2014). Instead, the focus is on taking advantage of modern messaging apps’ opportunities to easily document and share various kinds of data—as well as one’s perceptions of and reactions to said data—in a way that is both familiar and convenient to participants.

Capturing Everyday Information and News Use with Messaging Apps

In line with previous news audience research (e.g., Costera Meijer, 2016; Groot Kormelink, 2019), the presented approach was inspired by gaining access to people’s everyday experiences with using information and news. Following Groot Kormelink (2020), I understand experience as a broad concept that not only focuses on cognition and behavior, but also on people’s perceptions and emotions. In comparison to mere opinions, experience is “something an individual has actually undergone or is undergoing” (ibid., p. 865), thus having a direct relation
to their lifeworld. Further, I assume that cumulating individual experiences can help us to make sense of people’s overarching information and news use practices, thus allowing insights into their routines and habits. Building on these assumptions, I will first describe the basic idea of using messaging apps for capturing experiences with using information/news and then briefly discuss how the approach was utilized in two recent studies.

**Basic Idea and Overview of the Approach**

Methodologically, the approach is situated within “mobile phone diaries” (Bartlett & Milligan, 2015, p. 63; Plowman & Stevenson, 2012) on a technological level and within qualitative media diaries (Berg & Düvel, 2012; Yurateva, 2017) on an epistemological level. Despite the differences between various forms of qualitative media diaries, the common goal is to collect data by having participants document or record entries about their everyday experiences with media over a certain period of time. Media diaries thus allow detecting patterns and temporal dynamics of media use, while also considering the “subjective perspective of the researched person” (Berg & Düvel, 2012, p. 79). Using (mobile) messaging apps to prompt participants to document and report on specific instances of media use—that is, to keep a diary—comes with several advantages such as easy integration into everyday life, comprehensive functionality for sharing various kinds of data, and instant feedback mechanisms (also see next main section). Figure 1 provides an overview of the approach as it was applied in the two studies.

After developing a research design that might benefit from using messaging apps for mobile diary studies, researchers need to decide which messaging app they want to use (*selection of messenger*). This decision should be guided by several considerations, most notably the

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1 More generally, following Schnauber-Stockmann and Karnowski (2020), the approach could be described as a qualitative, mobile self-report data collection method in repeated measurement designs.
research subject, the features required for data collection/analysis (e.g., support of voice messages), and preferences of the prospective participants. Once this decision is made, a briefing is needed to accommodate participants with the documentation process and provide necessary definitions. In the studies presented here, participants were asked to provide the data of interest not more than twice a day and at fixed times. However, it would also be possible to increase this frequency and/or choose the times to contact participants randomly (see the “mobile instant messaging interview” by Kaufmann & Peil, 2020). Furthermore, while audience researchers might exclusively rely on the data provided via messaging apps, a combination with additional semi-structured qualitative interviews—conducted face-to-face or via video calls—has proven invaluable for the research projects at hand. Accordingly, the documentation phase was complemented by a dedicated discussion phase, during which participants were asked to further contextualize and comment on their information/news use experiences as well as on patterns that were identified based on an initial analysis of the provided data (for a similar approach see Van Damme et al., 2015, p. 203). This, however, is not to suggest that participants were not allowed to directly comment on the provided data. In fact, for the documentation phase, they were asked to share as much (contextualizing) information as they deemed necessary.

Taken together, the approach allows us to gain access to various kinds of knowledge about participants’ information and news use (see Groot Kormelink, 2020 for classification criteria): (1) The (quasi-)real-time data provided during the documentation phase provides insights into people’s erleben and their perceptions of the news/information content they encounter on a given day. (2) The retrospective interview data provided during the

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2 The fact that participants were asked to provide the data (only) once or twice a day does not imply that they should not document the experiences of interest throughout the entire day. Indeed, in both studies, participants were encouraged to take notes/screenshots immediately after their experiences.
documentation phase, on the other hand, focuses on people’s erlebnis (i.e., the experiences they have undergone) and provides more in-depth knowledge about their conceptions (e.g., how they make sense of and evaluate their practices and routines).

**Insights From Two Studies**

To illustrate the approach in action, insight from two research projects concerned with young adults’ everyday news use practices and information use on Instagram will be presented. The focus here is solely on methodological aspects, which is why theoretical considerations or the studies’ results will not be discussed.

**Young Adults’ Everyday News Use Practices**

In a multi-method study concerned with, amongst others, the question of when, where, and how young adults inform themselves about current events in their everyday lives, WhatsApp was used to let participants (47 German young adults aged 18 to 24) keep a diary about their news experiences over the course of ten days in December 2018 (for results see Kümpel, 2020). WhatsApp was the messaging app of choice due to all participants already using the app daily, easy-to-use voice messaging and content sharing features, as well as the availability of a desktop/web application that allows the researchers to use text templates and more comfortably organize the communication with participants. During each day of the documentation phase, the participants received two reminders (around noon and evening) that asked them to report on aspects such as their whereabouts, what kind of news content they have encountered in which channel and from which provider, or whether they purposefully turned to the news to inform themselves (for a similar approach using text-message prompts see Gergle & Hargittai, 2018). Participants could provide their answers by using a text template or sending a voice message, depending on what suited them best in the given moment (see Figure 2).
In the briefing prior to this documentation phase, participants were provided with broad examples of what constitutes “news,” assured that it is perfectly fine to report nothing if they had no contact with news on a given day, and encouraged to contextualize their experiences with further verbal, textual, or paralinguistic (e.g., emojis) remarks. Participants’ motivation to document their experiences seemed to be high during the entire period of investigation, as indicated by the continuous provision of data and corresponding statements in the qualitative interviews. Indeed, participants remarked that the process was “very convenient,” particularly as they were not obliged to “log into an app or fill in spreadsheets” to give their answers—some even said they “had fun” and found it personally interesting to track their daily news habits. As participants were not limited to a restricted set of response categories, it was possible to learn about individual routines and news use practices even prior to the dedicated discussion phase. Moreover, having a log of all exchanges (in form of the WhatsApp chat history) proved useful to prompt participants to talk about specific news experiences and address supposed contradictions between practices reported during the documentation phase and views expressed in the discussion phase. For example, asked about their personal understanding of news in the interviews, participants offered almost textbook definitions and emphasized the importance of timeliness, relevance, and credibility. The reported practices, however, indicated that these factors are usually not relevant selection criteria and that using news heavily depended on more or less incidental encounters with (barely scrutinized) content from news aggregators or social media, because it is “just convenient” and “not as exhausting” as deliberately browsing selected news websites.

Data generated in this study consisted of a total of 940 diary entries and the transcripts of the 47 qualitative interviews. To tackle this rich dataset systematically, a quantitative codebook
was developed first and used to quantify the diary entries, thereby uncovering general tendencies of participants’ news use. Afterwards, a fine-grained qualitative content analysis was conducted to examine the diary entries and interviews in combination and enrich the material with meaning and interpretations offered by the participants.

**Young Adults’ Information Use on Instagram**

Yet another study with overall 48 German young adults (18 to 24 years old) was concerned with the use of Instagram for informational purposes, focusing on used content as well as associated informational needs and practices. The focus here was not strictly on news, but on information from a social perspective (see Hasebrink & Domeyer, 2010). Accordingly, whether something qualifies as information—that is, being both *new* and *useful/valuable*—is an inherently subjective assessment, depending on an individual’s interpretations and prior experiences. Again, WhatsApp was used to gather the data of interest. Although it was initially considered to use Instagram Direct, preferences of the prospective participants pointed against the in-house messenger.³ In contrast to the first study, participants were not asked to report on specific aspects of their information use, but to send screenshots of encountered Instagram content that qualified as “information” for them (i.e., being new and useful/valuable). For a period of seven consecutive days in December 2019, they received a WhatsApp message (around noon) that reminded them to take screenshots of relevant Instagram posts or stories throughout the day. In the evening, they then received another WhatsApp message that asked them to send the screenshots to the researchers and, if desired, make additional comments or remarks. As in the first study, a briefing was conducted prior to this documentation phase to highlight the

³ Participants repeatedly pointed out that they have muted push notifications for Instagram Direct, thus making the reminders less likely to be noticed.
interest in authentic experiences and accommodate participants with the broad concept of information. Similar to the first study, the motivation to participate seemed to be high and the participants appreciated the “pleasant” and “straightforward” way to provide the data via WhatsApp. The midday reminders were perceived as “very helpful” as well, particularly in the first two days. Afterwards, participants stated that they got used to the task and routinely took screenshots of relevant content whenever they browsed Instagram. Following the general procedure depicted in Figure 1, preliminary analyses were conducted prior to the discussion phase to infer patterns and peculiarities from the provided screenshots. The following qualitative interviews were then used to talk about participants’ general Instagram and information use and to discuss selected screenshots in more detail. Once more, using an established messaging app proved invaluable to easily communicate with participants and have them share data of interest in a familiar and almost natural way. Indeed, some participants stated that sending Instagram screenshots via WhatsApp is actually a common activity for them—to initiate conversations or to brighten a friend’s day with a funny meme. Thus, the study design could easily tie in with already existing information sharing behaviors.

Data generated in this study consisted of a total of 1,873 screenshots of Instagram posts/stories and the transcripts of 47\(^4\) qualitative interviews. Once more, data analysis started with a broad systematization, categorizing the screenshots with regards to type (post/story), content, and the posting account. Focusing first on each participant, this initial analysis of the screenshots was brought together with the material generated in the qualitative interviews to get a full picture of how Instagram is used for informational purposes. Finally, a comparison of all participants was conducted to uncover overarching patterns and routines.

\(^4\) One participant provided screenshots during the documentation phase but did not partake in the interview.
Advantages and Challenges of Using Messaging Apps in Audience Research

Building on the experiences with the two studies as well as methodological discussions regarding comparable approaches (e.g., Bartlett & Milligan, 2015, p. 63; Berg & Düvel, 2012; Kaufmann, 2019; Kaufmann & Peil, 2020; Plowman & Stevenson, 2012; Van Damme et al., 2015), the following section focuses on the advantages and challenges of using messaging apps in audience research, covering both the researchers’ and the participants’ perspectives.

For Audience Researchers

Advantages

Focusing first on technological aspects, the availability of desktop versions of commonly used messaging apps (e.g., WhatsApp, Facebook Messenger) makes it easy to use text templates and organize the communication with participants (see also Kaufmann & Peil, 2020). Read receipts help to track whether the message was successfully delivered and/or opened by participants, thus enabling researchers to monitor the progress and identify technical issues (ibid.). When the documentation phase asks for the provision of textual data, chat protocols allow to simply copy participants’ statements, obviating the need for additional transcription. Most messaging apps also provide easy access to photos, documents, and links that have been shared in the respective chat, which can be helpful when sorting through the collected data. Due to the various content sharing features of modern messaging apps, it is—in principle—possible to gain insights into all the information/news content the participants have encountered when asking for photos (e.g., when participants are reading a printed newspaper), links to online content, or screenshots. Moreover, if participants are willing to share their location, researchers are enabled to dive deeper into the situational contexts of information and news use as well (e.g., by studying the relationship between people’s whereabouts and usage routines, see Ørmen & Thorhauge,
2015 for a discussion of using log data in qualitative studies). Depending on one’s research interests, the provided data (e.g., photos/screenshots of news encounters, links to articles) could not only be used to draw inferences about news use practices, but also be subjected to content analyses to learn more about the topics/issues participants are exposed to. In comparison to other diary study designs, the use of messaging apps enables researchers to ask further questions, address ambiguities, or request additional details right away, thereby being close to participants’ actual experiences (see also Kaufmann & Peil, 2020). Last, as messaging apps are usually used for more private interactions, participants might be more open to admitting ‘undesirable’ news-related behaviors such as avoiding the politics section or not checking the news at all on a given day. At least in the two studies presented here, participants appeared to be quite up-front about their (non-)use of news.

**Challenges**

As with all qualitative research, both the data collection and data analysis phase are quite laborious and time-consuming, especially as the process cannot be (fully) automated.\(^5\) Indeed, the researchers need to keep track of the incoming data and should be available to participants throughout the entire period of investigation. Another challenge of using messaging apps in research concerns the fact that the roles of researcher vs. private person may be perceived as less distinct—particularly when researchers use their private cellphone number or social media accounts (see also Kaufmann, 2019; Kaufmann & Peil, 2020). Depending on the studied population and individual concerns, it might thus be advisable to get a research phone and/or accounts, not least to separate one’s work and leisure time. A major issue is, of course, that established messaging apps are part of privately-owned companies that may also process or use

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\(^5\) While there would be the possibility to use scheduling apps that allow auto-sending WhatsApp messages at specific times, there is still the need for the researcher to be responsive during the documentation phase.
the data that is generated in the chats. While WhatsApp—the messaging app used in the two research projects described here—, has end-to-end encryption (i.e., only the involved communication partners can access shared data), debates about security issues with this and other messaging apps are pervasive. Accordingly, the briefing of the participants should also cover privacy and security issues that are introduced by the used app (see also Van Damme et al., 2015). Last, as for all self-tracking and interview-based methodologies, the issue of reactivity (i.e., changed behavior due to the awareness of being studied) needs to be acknowledged. In the studies at hand, this was addressed a) by providing examples of information/news use behaviors in the briefings that might normally be perceived as ‘less desirable’ or even ‘embarrassing,’ and b) by openly talking about possible behavioral changes with participants in the qualitative interviews (see also Groot Kormelink, 2020).

**For Participants**

*Advantages*

In the interviews following the documentation phase, participants stated that they perceived the data collection via messaging apps as non-intrusive and convenient, often even as interesting and fun. In particular, they valued that they were not asked to install additional apps or keep track of the behaviors of interest in spreadsheets or via survey sites. Besides, there is the flexibility of participation: As the studied young adults always have their smartphones with them and their messaging apps running, it was easy for them to share the relevant data even if they were out and about. Participants also have a high degree of control about what and how (e.g., via text, audio) data is shared (see also Kaufmann, 2019). In the first study described here, answering via text could have been cumbersome, especially when the participants have used lots of news on a given day. Allowing participants to also share information verbally (see also the
idea of audio diaries, e.g., Williamson et al., 2015) is a good way of accommodating their preferences while simultaneously reducing missing data. Just like the researchers have the chance to immediately ask follow-up questions, the participants are also enabled to use the direct feedback channel to ask further questions or tell the researchers why they might not be able to participate during a certain period of time (see also Kaufmann & Peil, 2020).

**Challenges**

Although the approach is designed to make participation as easy and comfortable as possible, it can nevertheless be fatiguing to be part of a study that spans several days (see also Berg & Düvel, 2012; Kaufmann & Peil, 2020). In the two studies described here, participants seemed motivated throughout the entire ten or seven days, as indicated by their responsiveness during the documentation phase and corresponding statements in the subsequent interviews. However, if this is not the case, messaging apps allow researchers to talk with participants about their weariness or even adapt the data collection process to better reflect their needs. Another challenge for participants might be the sharing of their cellphone number and/or social media handles for the sake of data collection. Although this is largely a problem of recruiting prospective participants (and not of the approach itself), it should be considered when thinking about the use of messaging apps in a research project. Last, researchers need to regard participants’ basic messaging app literacy (i.e., their ability to independently operate the used app). Not every pool of participants may be able to use messaging apps as routinely and apt as the young adults studied here.6 Thus, researchers should carefully consider whether the advantages of using messaging apps can be fully realized with their desired sample.

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6 Of course, one also needs to consider the overall reach of specific messaging apps in a country when deciding for or against their use. In Germany, 64% of the population aged 14 and above use messaging apps such as WhatsApp on a daily basis (91% of 14- to 29-years old, see Beisch et al., 2019, p. 381), suggesting broad applicability of the approach.
Conclusion

Messaging apps are one of the most popular means of mobile communication and an important part of people’s lives. Yet, their potential as a tool for (qualitative) data collection has only recently received thorough scholarly attention (e.g., Kaufmann & Peil, 2020). This article set out to discuss an approach to study everyday information and news use practices with the help of established messaging apps such as WhatsApp. Starting from the goal of gaining access to people’s experiences with news and information—while at the same time creating a study setting that does not feel ‘science-y’ and allows for easy integration into daily routines—, the approach relies on participants documenting and reporting on defined instances of information/news use with messaging apps. The idea of letting participants keep a multimedia diary of their experiences with the help of WhatsApp was successfully implemented in two recent research projects with young adults. Although it would have been possible to realize both studies with (mobile) survey software or tailored app solutions, using established messaging apps had clear advantages: As participants were already using WhatsApp daily, they neither had to install an additional app nor get accustomed to yet another UI or data sharing functionality. Accordingly, the whole process was perceived as non-intrusive, familiar, and—most of all—convenient.

The convenience of a given data collection method is something we, as audience researchers, often ignore. However, if we want to get insights into participants’ experiences that are as authentic and complete as possible, the accessibility of our methods needs to be at the forefront of developing research designs. Studies show that messaging apps such as WhatsApp are regularly used to share pictures, videos, or locations (Church & de Oliveira, 2013) as well as real-time experiences about one’s media use (e.g., while watching TV, see Krämer et al., 2015).
Collecting data with these apps thus mirrors people’s typical information sharing behaviors instead of forcing them into a procedure that mainly serves the researchers’ needs. The two reported studies support the assumption that such an approach brings researchers closer to capturing information and news use in our current media ecology and that the use of messaging apps helps them to actually “go out into the world of their participants” (Boase & Humphreys, 2018, p. 154).
References


Figure 1

Exemplary Research Process for Using Messaging Apps in Audience Research

Choosing the right messaging app
- What is the research subject?
- Which features are needed?
- Which messaging app do the participants prefer?

Initial briefing of participants
- Outlining the study design and documentation process
- Providing examples and emphasizing interest in participants’ actual experiences

Study phase I: Documentation
- Participants provide data about their information/news use experiences via messaging apps

Study phase II: Discussion
- Participants are asked to (further) contextualize and comment on their information/news use experiences in semi-structured qualitative interviews

(First) Analysis of the provided data to customize interview guides

Prior: Developing research design
Selection of Messenger

After: Analyzing data
Figure 2

WhatsApp Reminder Message and Text Template (translated from German)

Hi! Here is the reminder for your news diary 😊. I am interested if and how you have come into contact with news until noon today (approx. 1pm). As discussed, please let me know about the following aspects:

🏠: Where were you mainly within the time frame? (e.g., at home, at work)
📺: In which channel(s) did you come in contact with news within the time frame? (e.g., TV, print, online – if online, please name the used device)
📰: Which specific content from which provider did you use? (e.g., Tagesschau in the TV, article in the print edition of Süddeutsche Zeitung, Spiegel Online post on Facebook, New York Times story on Instagram)
🔍: Have you accessed the channel(s) with the goal: “I want to inform myself now?”
👥: Were friends or acquaintances of you involved in your getting in contact with news? (e.g., tags on Facebook, receiving a link via WhatsApp)

To reply, you can simply copy this message and make your entries. You can also send me a voice message if that works better for you!