Producing In Situ Data From a Distance With Mobile Instant Messaging Interviews (MIMIs): Examples From the COVID-19 Pandemic

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Abstract
Researching people in their chaotic and complex everyday lives is challenging for researchers at any time but especially during the application of social distancing measures. In this article, we make the case for the methodical potential of mobile messengers such as WhatsApp for qualitative mobile in situ research. We exemplify the productive use of the Mobile Instant Messaging Interview (MIMI), a research method developed by Kaufmann and Peil in 2020, to study participants’ everyday life in real-time. Based on two case studies from geography and communication studies conducted during the COVID-19 pandemic, we expound our experiences in the practical application of the MIMI approach and give recommendations. We conclude that MIMIs are a low-cost, easily feasible and short-term implemented approach for research interests across disciplines and possessing great potential for exceptional circumstances like the COVID-19 pandemic. They allow direct access to the practices and experiences of people in situ and in real-time that would otherwise stay hidden and inaccessible to social sciences. The method is suitable for research projects of any size, and can be applied as part of multi- and mixed methods designs and as well for longitudinal designs. Nonetheless, the MIMIs have to be well prepared, demand smart ways of nudging participants into elaborating their responses and require careful coordination between larger teams of researchers.

Keywords
methods in qualitative inquiry, interpretive description, mixed methods, netnography, narrative research, case study

Introduction: Studying the Daily Lives of Participants Under Exceptional Circumstances
Accessing research participants in their daily lives can be challenging for researchers who conduct qualitative social research. This has become even more apparent in recent months when the COVID-19 pandemic rendered in-person research impossible due to social distancing measures and restrictions in travel. As a result, “‘socially distant’ method[s]” (Lobe et al., 2020, p. 1) became of wide interest across disciplines, and comprehensive lists of approaches for research “from home” (Goralska, 2020) were compiled (e.g., Goralska, 2020; LSE, 2020; Lupton, 2020). Indeed, the still ongoing COVID-19 pandemic makes the experience of lacking access to participants all too tangible for researchers. The acute need for ways to continue ongoing research projects during the global spread of COVID-19 as well as for new research on the social dimensions of the pandemic (Lobe et al., 2020; Teti et al., 2020) that are not necessarily accessible to retrospective assessment (Ohme et al., 2020, p. 2), means remotely conducted research methods are in high demand.

Meanwhile, the challenge of evasive empirical phenomena is neither novel nor limited to the exceptional circumstances, in which researchers currently find themselves. The question of how to access people and their everyday experiences in their increasingly mobile, complex, and chaotic lives across digital and physical spaces has been asked by qualitative researchers for some time.

Even digital methods designed for researching digital phenomena and data and thus perceived as being at the forefront of

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methodological advancement (e.g., Costa & Condie, 2018; Rogers, 2013), are hardly able to compensate for researchers’ lack of access to the socio-material lives of their research subjects. There is, therefore, particular value in methods that employ mobile messaging apps to connect researchers with participants in their intertwined and conflated “socio-material–technological spaces” (Bork-Hüffer et al., 2020, 2021). Yet, while an increasing variety of newly developed or adoptable online, digital, and mobile research methods are available, the potential of mobile messaging (also known as mobile instant messaging—MIM) for data collection is rarely acknowledged. Given the entrenchment of MIM among the world’s population and an estimated number of mobile messaging app users worldwide of 2.77 billion in 2020 (Statista, 2020a), this should come as a surprise. Apps for MIM have become for “broader segments of the population, […] simply the fabric in which people weave their everyday mobile-mediated social interactions” (Aguado & Martinez, 2020, p. 439; see also Ohme et al., 2020, p. 4).

In this article, we argue the case for using MIM for qualitative in situ research. We contend approaching people via MIM on their personal smartphones holds methodological advantages for mobile data collection methods. The use of MIM enables researchers to produce not only in situ data on situational contexts and momentary everyday experiences, but also insights into phenomena that are otherwise hard to research, inaccessible or lost in retrospective accounts. We present two paradigm case studies from the disciplines of geography as well as communication studies, in which we produced mobile in situ data despite social distancing and lockdown measures by employing Mobile Instant Messaging Interviews (MIMIs). This approach, developed earlier in a pilot study by Kaufmann and Peil (2020), builds on key characteristics of MIM and uses the private chat function of popular mobile messengers such as WhatsApp which people are already using in their daily lives to collect data in real time. Regular qualitative interviews conducted via MIM can be used to investigate variegated topics unrelated to the participant’s current situation. By contrast, a MIMI focuses on eliciting what people are doing where and how in real-time, while the researcher uses MIM to keep constantly connected with them in situ. In doing so, a MIMI enables the researcher to grasp the complexity of the socio-material and techno-social spaces and contexts that the participant is embedded in.

We begin by positioning MIM and in particular the MIMI approach in the methodological spectrum of online, digital and mobile methods. Then, we present the case studies with regard to the use of MIMIs as part of multi-method designs. Against the background of the paradigm case studies, we expound our experiences in the practical application of the MIMI approach and give recommendations, before concluding with the main take-away messages concerning the potentials and challenges of using MIMIs.

Hence, with this article, we aim to contribute to a more comprehensive understanding and appreciation of the potential of MIM that opens up affordable and creative ways of doing qualitative research with participants, as our own MIMI approach shows.

**Mobile Instant Messaging Interviews (MIMIs)—Capturing Situational Contexts and Everyday Experiences From a Distance**

While mobile instant messaging (MIM) as a new mode of communication has widely been researched (e.g., Cui, 2016; Yu et al., 2017), much less attention has been paid to its methodological potential for in situ research. This lack of attention seems to be based on the position of MIM at the intersection of digital and mobile technologies and the respective methodological traditions, as we will elaborate in the following section.

**The Use of Mobile Instant Messaging for Data Collection**

From a methodological perspective, MIM can be associated with two disparate strands of methodical thinking: first as a digital tool for employing classic qualitative methods and secondly as a mobile method.

First, MIM has a key role in the methodological efforts of moving classical qualitative methods, in particular interviews, to new modes of online communication, starting with email, videoconferencing, instant messaging on stationary computers and now mobile messaging. Accordingly, scholars review and evaluate the methodical potential of MIM as an “online method” for substituting in-person interviews in comparative studies with regard to quality of data, convenience or functionality, in contrast to the original method or to other alternative forms of application (e.g., Dawson et al., 2020; Maeng et al., 2016). In these cases, MIM proves to be a flexible and discrete mode of conducting interviews.

A common aspect to these approaches is that the interview setting is usually not discussed in the interview and plays only an indirect role for the participant’s response. Questions are intended to elicit reflection and retrospection on topics that are unrelated to the actual situation and space, which the participant is experiencing at the moment of being asked.

Similarly, MIM in the popular app WhatsApp has recently been tested as an alternative to classical in-person focus groups (e.g., Chen & Neo, 2019; Singer et al., 2020). Again, studies evaluated the implementation of the “online” version in WhatsApp in comparison with the application of the in-person approach and found significant potential for the production of well-elaborated responses and anonymous group interaction, even though in-person focus groups still seem to be superior with regard to quantity and richness of the conversation. Taken together, the methodological attention afforded to MIM is limited to the application of existing methods with new tools.

Second, MIM as a factual successor of the short message service (SMS) on mobile devices is employed as part of mobile methods. Indeed, mobile devices have been used in the application of mobile methods for some time (see Boase, 2020; Boase & Humphreys, 2018; Cresswell & Merriman, 2010; Merriman, 2014). Most methodological approaches in mobile
methods using mobile devices are quantitative in their orientation, of which a highly prominent one is the Mobile Experience Sampling Method (MESM) (Berkel et al., 2017; Gergle & Hargittai, 2018; Kaye et al., 2018; Schnauber-Stockmann & Karnowski, 2020). The focus of MESM lies on the accurate production of in situ self-report data on the current situation participants are experiencing. Participants are automatically prompted at fixed time intervals or at certain events to self-report their experiences. Most of these approaches have been developed and applied from a strictly quantitative, positivist perspective that emphasizes standardization and a minimization of researcher influence (Schnauber-Stockmann & Karnowski, 2020). A spontaneous exchange of mobile communication between participant and researcher is not intended, even though smartphones and in particular mobile messengers offer this potential, as Dawson (2020, p. 213) points out: “Research can be interactive and co-operative, working with participants rather than on participants. A fixed time and place for participation in the research project is not required, enabling participants to go about their daily lives while connecting with researchers.” Recently, the mobile messenger WhatsApp has been used in the context of MESM—but only to send participants the links to the standardized questionnaires (Dogruel & Schnauber-Stockmann, 2020).

Hence, the aspect these methodological approaches disregard is the potential of MIM for qualitative in situ research at the intersection of digital and physical spaces of everyday life. With MIMIs (Kaufmann & Peil, 2020), we tap into the deep embeddedness of mobile messaging apps in people’s everyday lives to research their lives in situ while retaining the flexibility and openness inherent to qualitative research.

**The Mobile Instant Messaging Interview (MIMI)**
Kaufmann and Peil (2020) proposed the MIMI as a qualitative approach that combines the advantages of mobile diaries and mobile experience sampling to capture “the fleeting moments of social behaviour within everyday life contexts and [explores] situations and experiences of media use in dialogue with the participants” (p. 231).

The idea is to accompany the participant as a co-present “researcher in the pocket” (Kaufmann, 2020, p. 170) throughout a whole day in their most commonly used mobile messaging app while they go about their daily mobile life. On an agreed day, the researcher repeatedly asks questions, depending on the focus, for example, “What are you doing right now?” “Where are you right now?” “What meaning does the situation/ space you are in have for you?” in a private messenger chat to start a conversation. Once the participant has replied, the researcher can dive deeper into the situation with further inquiries to learn more about the specificities of the participant’s momentary experience as well as their social, physical and affective-emotional situatedness and embeddedness. The researcher can also ask the participant for multimodal materials that elaborate the situation. Hence, MIMIs take advantage of the multimedia affordances of smartphones and messaging apps (see Aguado & Martinez, 2020; Chen & Neo, 2019; Sallo, 2011; Tang & Hew, 2019) that allow users to express their thoughts and emotions not only with words, but also with content such as pictures, voice messages, emojis, screenshots, hyperlinks, GIFs and videos. By using popular, well-developed mobile messengers for qualitative data collection, MIMIs benefit from the ease and routinized use of these digital spaces (see also Kaufmann, 2020; Mols & Pridmore, 2020, p. 3). Furthermore, the near-synchronicity that mobile messaging shares with SMS (Rettie, 2009), allows spontaneous (near-)synchronous interactions between participant and researcher while being comparatively unobtrusive (Dogruel & Schnauber-Stockmann, 2020, p. 2). Another advantage of using mobile messengers for data collection are the “contextual communication-related information, determining knowledge about key aspects of dialogic process” (Aguado & Martinez, 2020, p. 443), such as when a user was last online or whether a message was read (see also Kaufmann & Peil, 2020). The end-to-end encryption of chats, e.g. in WhatsApp, supports data security (Rösler et al., 2018) and is beneficial for a trusting relationship with research subjects (see also section “Selecting Participants and Building Trust”). In her study on Syrian refugees’ smartphone practices after arrival in their new city of Vienna, Kaufmann (2018; 2020) found that MIMIs held a particular potential for research with vulnerable groups as the approach enables the researcher to meet people in their own digital spaces where they feel comfortable. In the following sections, we will show that MIMIs are suited for diverse topics and in various research design combinations.

**Case Studies**
In this section, we present two paradigm case studies, in which MIMIs were used to collect data during the COVID-19 pandemic. While the case studies are grounded in two disciplines (geography and communication studies), both focus on participants’ situatedness during the COVID-19 related lockdowns. Both case studies were started at short notice in face of the methodological challenges produced by the first lockdown in Austria in spring 2020. The MIMIs were employed as part of qualitative multi-method designs. Despite the different research questions, a common interest, especially with regard to the outcome of the MIMIs, was to gain insights into the fleeting, routinized everyday practices that retrospective ex-post research—e.g. through traditional qualitative interviews—often fails to unveil. Here, the case studies illustrate how MIMIs can be beneficially integrated into qualitative research designs and, when carefully applied, can produce rich empirical material on a wide range of subjects.

**Case Study 1: Young Adults’ Everyday Spaces and Practices During COVID-19**
**Objectives and scope.** The first case study gives methodological insights into the research project COV-IDENTITIES, based at the University of Innsbruck, which studies from a geographical
perspective the everyday spaces and practices of young adults turned upside down by strict pandemic containment measures such as lockdown and social distancing (for first results of the study, see Bork-Hüffer et al., 2020, 2021; Kaufmann et al., 2020). It focuses on students enrolled in Universities in the Austrian state of Tyrol, which was initially subjected to the countrywide most strict lockdown measures in the first COVID-19 wave from March till April 2020. The project’s main research questions are: How does the pandemic change the everyday spaces and practices of young adults? How are young adults making and co-creating these spaces during the pandemic? How does this affect their identity formation process?

**Study design.** The COV-IDENTITIES project applied a qualitative and longitudinal multi-method design, which combined MIMIs with written narratives. Narratives are a participant-led method proven to unveil (potentially traumatic) experiences with and reflections on complex processes of change (Laughland-Boony et al., 2018). They provide space for an extended and reflected description of subjective experiences. In turn, MIMIs, conducted through the popular messenger WhatsApp, served the purpose of scrutinizing how a typical weekday during the various pandemic stages was structured and created by the participants. During each data collection day, participants were contacted about every 2 hours from 08.00 to 20.00 and were asked questions such as: What are you doing right now? What is different to how you did that in everyday life before the pandemic? Does the place where you conduct this activity influence your current activity? And if so, how? For their answers, participants were invited to use the whole range of multimedia options featured by WhatsApp—to send pictures, videos, screenshots, and make use of emojis, filters, and hashtags. As analysis strategy, first, content analysis was used, which allows the integrated analysis of all data formats collected (see e.g. Kaufmann, 2018; Vandebosch & Green, 2019) promoting a comparison and integration of results. Second, the narratives were additionally subjected to narrative analysis (Kohler Riessman, 2012; MacKian, 2010; Wiles et al., 2005), which aims to capture “intimate details of experiences, attitudes and reflections to the broader social and spatial relations of which they are a part” (Wiles et al., 2005, p. 98).

The data from the narratives1 and MIMIs was gathered from every participant concurrently during each data collection (DC) phase in 2020: DC1 (April 1–7) during the first lockdown; DC2 (April 20–27) in the period of the post-lockdown relaxations; DC3 (June 2–14) during the period of the suspension of the lockdown. The last data collection phase—DC4 (November 16–27)—occurred after a comparatively relaxed summer, when the second wave of COVID-19 in the autumn caused a second national lockdown. The MIMIs encompassed four single day collections, one during each DC. The initial number of participants (n = 13) had a balanced gender ratio of women (n = 7) and men (n = 6). All 13 participants took part in DC1. This figure dropped to 12 in DC2 and 8 in DC3 but rose to 11 in DC4 for the MIMIs2 (for comparison, the number of narratives: DC1: n = 98, DC2: 93, DC3: 82, DC4: 67). The data collection was supported by graduate student researchers. Ethical approval was applied for and granted by the “Board for Ethical Issues” at the University of Innsbruck prior to the project start in spring 2020. Written informed consent was requested from each participant prior to the first narrative writing exercise in DC1.

**Core results.** The multi-method design allowed valuable insights into the socio-material-technological entanglements, orderings and makings of everyday spaces of education, communication, interaction, work and leisure during the exceptional, psychologically demanding situation for the young adults during the pandemic. They were, at least during DC1 and DC4, and partially during DC2, often confined to a single room in their homes. As further elaborated in the discussion, MIMIs significantly added depth to the narratives by giving insights into the students’ more day-to-day, banal and routinized makings of everyday spaces. The collected multi-media material significantly deepened the insights. Especially the photos provided snapshots of students’ complex home spaces, which were frequently indescribable in the written form.

The multi-media allowed, for example, an insight into actual educational home spaces during the pandemic (see Figure 1). Educational spaces encompassed very different socio-material features that became particularly visible through the photos sent. The spaces varied from overtly informal learning places such as the floor, bed, or couch to work desks and complete apartments available for learning as was the case for Amelie3 (see Figure 1). They also encompass the availability (or lack thereof) of green or leisure spaces such as gardens or balconies. The learning spaces were also, by contrast, squeezed into one-room urban apartments or cramped family homes that lacked not only a quiet space for learning but also anywhere offering solitude. The multi-media material gave insight into the techno-social elements of educational spaces, i.e. the simultaneity of hardware and software used, sometimes for different learning tasks plus socializing or working at the same time as was also the case for Amelie who simultaneously took part in an online seminar and was also on Instagram. Multi-media material allowed us to dig deeper into concrete individual strategies chosen for distance learning tasks, which was of particular interest during the pandemic, during which much higher levels of self-organization were demanded from students. Emojis in particular, but also the use of GIFs to amend descriptions of tasks, spaces and media use, significantly supported the students’ needs to communicate their emotional status and satisfaction with these tasks. Hence, through Amelie’s addition of the emoji “😢” she takes the chance to signify her satisfaction and with the emoji “😭” shows her intention to focus on the online seminar and the experiment she does under the digital supervision of the teacher in her own material kitchen.

Overall, the MIMIs thus added decisively to a reconstruction of students’ everyday socio-material and techno-social
[19/11/20 14:13] Interviewer: [hour 7 and 8:] And what are you doing right now? 😊
[19/11/20 14:14] Amelie: I'm in the online seminar right now 😃
[19/11/20 14:15] Interviewer: Are there any other things you do on the side? 😊
[19/11/20 14:16] Amelie: Playing on my phone a little bit 😊 but we have to experiment there, so I'm mostly focused 🧑
[19/11/20 14:16] Interviewer: Most of the time 😊 What do you play around with on your phone? :)
[19/11/20 14:17] Amelie: Instagram 🌱
[19/11/20 14:19] Interviewer: Where are you sitting with it? 😊
[19/11/20 14:20] Amelie: At the desk in front of the PC or I stand in the kitchen experimenting 😃
[19/11/20 14:20] Image_4

[19/11/20 14:21] Interviewer: Looks interesting 😊 Do you need instructions or something for experimenting too? :)
[19/11/20 14:22] Amelie: Distance learning at its best 😊 Yes, we have the instructions in writing, but the professor explains what we need to do via Zoom 😃
[19/11/20 14:22] Interviewer: printed in writing or on mobile/laptop? 😊
[19/11/20 14:23] Amelie: Provided via OLAT [online learning platform], but I printed it out because it's finer for reading 📖
[19/11/20 14:52] Image_5 [laptop screen blurred for anonymization]

**Figure 1.** MIMI example from the COV-IDENTITIES project: The chat protocol, photos and emojis exemplify the complexity of Amelie’s material and techno-social educational space during the second lockdown (November 2020).
spaces and the course of their daily lives including their well-being under pandemic conditions.

**Case Study 2: Polymedia in Times of Crisis**

**Objectives and scope.** The project “Polymedia in times of crisis. Meanings of instant messaging during the first COVID-19 lockdown in Austria” was developed as a teaching research project with undergraduates of communication science at the University of Salzburg. As there was little or no warning of the COVID-19 pandemic occurring and the subsequent related containment measures such as social distancing and online teaching, an empirical project was set up with the students at short notice. Starting from a theoretical perspective of polymedia and its relational view on media and communication technologies (Madianou & Miller, 2012; Madianou, 2020) as well as mediatization theory (e.g., Hepp & Krotz, 2014), the project explored the meanings that users ascribed to digital media and apps during the imposed time at home, with particular attention to the reasons and contexts of media choice for shaping and negotiating social relations. The research questions were: To what extent is the use of media technologies suitable to compensate for limited freedom of movement? What role does instant messaging play, in particular, in maintaining relationships during social distancing? What challenges does media communication pose during the lockdown? Related, but more broadly, further implications of the lockdown for media use were explored, e.g. with regard to the emergence of new social inequalities and moments of exclusion.

**Study design.** The study followed a qualitative multi-method approach. In the first half of April 2020, students conducted 33 daylong MIMIs in WhatsApp with independently selected participants in order to explore and discuss their media-related decisions and experiences on a situational basis. The frequency of contacts made throughout the day ranged from six to 16. At the beginning of each contact, the question was posed whether any media were being used at that particular moment. If this was the case, it was followed by questions such as: Which device and application are you using and why? Whom are you communicating with and about what? What other media are you using in parallel? The respondents were invited to include emojis, photos, screenshots, voice messages etc. in their answers, given these were generally part of their WhatsApp communication. Through the WhatsApp dialogues, it was possible, among other things, to find out whether the described media activities were in any way related to the COVID-19 lockdown. This topic was also addressed in a short follow-up interview the next day, in which the participants were asked to describe their experiences in participating in MIMIs and to evaluate to what extent the day of the data collection had represented a typical day for them during the lockdown.

Since the study’s aim was to achieve a variation in terms of participants’ gender, age, professional background and housing situation, students were not given any selection criteria for the recruitment of respondents. As a result, participants ranged in age from 17 to 77 years, with just over half aged between 20 and 30 years (n = 18). Ninety percent of them were female (n = 30). While the majority of respondents were students, the sample also included retirees and professionals from various sectors such as education, tourism, healthcare and sales. With about half of the interviewees, qualitative guided interviews were held via video telephony software, telephone, or face-to-face, at a later point in time (May until July 2020), in which topics and chat records from the MIMIs were partly taken up again and proved valuable for elicitation and reflection. For further processing and evaluation, the chat transcripts—provided with timestamp and names of the dialogue partners—were copied from the desktop version of WhatsApp into a Microsoft Word file. Subsequently, the names of all participants were anonymized. Both the text produced in the MIMIs and the transcribed interviews were coded using the analysis software MAXQDA and were analyzed via a combination of inductive and deductive qualitative content analysis.

**Core results.** In combination with the guided interviews, the MIMIs provided in-depth insights into the sudden increase in use and relevance of digital media and communication technologies, especially for social cohesion and communicative connectivity, which other studies during the pandemic had also found (e.g., Ohme et al., 2020, p. 2). This upsurge in media communication was evident at various levels: temporally through a permanent presence of media communication in the everyday course of the day; content-wise through a wide range of activities performed from home via media; situationally through highly condensed media settings with second-screen and multiple-app use; and specifically through more intensive use of individual applications and functions. Various approaches to compensate for perceived deficits resulting from social distancing became apparent, such as temporary extensions of the personal media repertoire, in particular for staying in close contact with friends and relatives, or re-enactments of social gatherings with the help of digital media and specialized apps. The MIMIs not only helped to study mundane and fleeting moments of mediated communication in everyday life during the lockdown, which would be difficult to fully reconstruct in a face-to-face setting. The MIMIs also enabled the researchers to delve into situations characterized by multi-layered and dense forms of media use in the participants’ entangled social actions. While second screen use (i.e. the use of a second, usually handheld smartphone or tablet screen while watching television on a larger screen) is now well researched in media and communication studies (e.g., Buschow et al., 2014; Nee & Dozier, 2017; Stauff, 2015), the MIMIs offered insights into even more complex cross-device reception and use settings. This is vividly illustrated by the MIMI extract with Anna (see Figure 2). Anna’s media use is not only characterized by two screens open in parallel (notebook and smartphone), but also by different applications and platforms that she uses at the same time. While completing tasks for the university via the networked notebook, she simultaneously pursues her informational and social needs with the help of other media: on the
[06/04/20 11:35] Interviewer: I wanted to ask again what kind of media you are using at the moment? You can also answer with emojis, pictures, hashtags or other things 😊

[06/04/20 11:40] Anna: I sit at the table and use: 📽️, 📬, 📝, 📜
I watch the press conference in the news on 📽️

[06/04/20 11:41] Interviewer: What are you doing on all these devices? 😊 On which channel are you watching the conference?

[06/04/20 11:43] Anna:

[06/04/20 11:43] Anna: I am still working on my work assignments and have opened Moodle and Word here!

[06/04/20 11:43] Anna: From time to time I also need to print documents.

[06/04/20 11:43] Anna: I listen to the conference on ORF 2 [Austrian public broadcaster].

[06/04/20 11:44] Interviewer: What have you opened on your smartphone? Have you used all this in the last ten minutes?

[06/04/20 11:45] Interviewer: Are you doing this all by yourself or is someone close to you??

[06/04/20 11:46] Anna:

[06/04/20 11:46] Anna: I use Snapchat, Instagram, Facebook and WhatsApp on my smartphone.

Figure 2. MiMi example from the “Polymedia in times of crisis” project.
Experiences From the Practical Application of the MIMI Method

In this section, we discuss our experiences from the practical application of MIMIs in the two case studies and draw conclusions considering general challenges and opportunities of MIMIs.

By comparing the case studies, we emphasize differences in implementation in order to open up a reflection for the benefit of the readers on various ways of conducting MIMIs. It is important to bear in mind here the relatively small sample size of both projects and their explorative nature. The projects had to be planned and realized within a brief period in the face of the sudden unfolding of the COVID-19 pandemic in spring 2020. The projects necessarily involved some improvisations in order to collect much needed empirical data during the initial lockdown situation (see also Teti et al., 2020).

Furthermore, both projects used the help of student researchers and the research processes were characterized by mutual learning. The students did not have any prior experience with the method and received a training on the background of the method, its implementation and data analysis. In turn, we as teachers learned much from the outcomes of their assignments and their feedback on the research process. In this way, we also detected challenges that can arise in implementing MIMIs when larger research teams are involved. The following sections convey the key experiences we have drawn from this mutual learning process.

Integration of MIMIs in the Research Design

Both case studies presented in this article implemented MIMIs as part of larger qualitative multi-method research designs. Within each of the studies, the MIMIs held different positions in the research designs and were part of different implementation processes. The polymedia project (case study 2) applied a sequential design in which the MIMIs preceded the qualitative guided interviews. In this project, the MIMIs aimed at the explorative initiation of insights into polymedia usage during the pandemic, whereas the subsequent interviews aimed at gaining insights into the reasons, motives and meaning-making of media use (see also Figure 2). The implementation of the MIMIs in the exploratory phase of the study proved particularly suitable for identifying, capturing and classifying everyday practices—in this case media usage patterns in an exceptional situation—and using this knowledge for later elicitation. The MIMIs supported the designing of the interview guideline as questions could already refer to actual practices. In addition to the acquisition of usable prior knowledge, the MIMIs also offered a good opportunity to establish initial contact with the research subjects and to promote openness and trust.

In the COV-IDENTITIES project (case study 1), the MIMIs were applied concurrently with the written narratives, whereby the instruments (narrative’s prompts and selection of interview questions for the MIMIs) were attuned to each other and the analysis strategy. Following the standards of mixed methods research (MMR) with regard to integration of the research designs (Yin, 2006), the two methods were integrated at the conceptualization and analysis stages. Here, the objectives of the combination of methods were triangulation to gain new insights as well as complementarity as both methods produced distinct kinds of insights. A distinguishing feature of the COV-IDENTITIES project was the repeated implementation of the narratives and the MIMIs in a longitudinal design. The narratives produced a reflected account of the making of everyday spaces and practices, giving a general insight into how participants coped with the different stages of the pandemic. The MIMIs then gave deeper insight into how typical weekdays during the different phases of the pandemic were actually structured and how this changed. The MIMIs reflected the mundane parts of everyday practices and strategies under pandemic conditions, such as eating, studying, reading, watching TV, mingling with others, which were not covered in the more general descriptions of the narratives (see also Figure 1). In general, narratives, as we conducted them, were more participant-led, while data collection during the MIMIs was more researcher-guided—although, as Kaufmann (2020) points out, participants in MIMIs still have the leeway to decide whether and when they respond.

Implementation Process

For an overview of the data produced in the MIMIs, we provide information on the number of contacts, the responsiveness of interviewees as well as the length and modality of answers (see Table 1).

The team of case study 1 agreed upon an approximately two-hourly, interval, starting from 8 a.m. and ending with the last contact at 8 p.m., for all of the DCs in order to produce comparable sections of participants’ typical days. Case study 2 started data collection once participants had got out of bed in the morning and ended when they went back to bed at night. Valid response rates (calculated as response to contact attempts within 15 minutes) were high, supporting the feasibility of both approaches. For an impression of interaction intensity and communication exchange as well as of depth of responses, which were relatively similar in both case studies, the duration of separate dialogues and average number of words typed or said by respondents within a dialogue are presented in Table 1. In the longitudinal case study 1, a drop in the word count is notable in DC3. Among the reasons are that the lockdown had been revoked and students were no longer confined to their homes but involved in activities such as socializing or playing sports, in which they presumably did not have the time to give
detailed responses. Another interfering factor was that DC3 took place close to the examination period and interviewers struggled to keep participants involved during this stage. This points to an important factor in the outcomes of MIMIs: situational factors that interfere with participants’ ability and willingness to respond. In general, photos and screenshots were seldom used in both case studies but when they were, they revealed important insights into situational complexities. In contrast, emojis were more commonly used by participants of both studies—in most cases to both express and give important hints to feelings. Emojis replaced facial expressions and gestures due to the lack of bodily performativity in the chat format. Video recordings, GIFs, and memes were only (and very seldom) submitted in case study 1. The participants used them to emphasize feelings, similar to the use of emojis. Very few voice messages were submitted, by just one participant in each case study, neither of whom wanted or had time to compose and send text messages. Thus, in both cases, voice messages produced data that would have otherwise been lost. The voice messages were then transcribed for analysis.

Importance of Clear Methodological Guidelines and Thorough Interviewer Training

Even though MIMIs are a qualitative approach, it is important when working in a research team to agree on specific methodological guidelines so that the MIMIs are carried out in similar ways and intervals to ensure a general comparability and to collect comparative amounts of data per participant. This is particularly important for research projects that encompass groups of interviewers, including inexperienced student researchers. For these reasons, in our case studies we defined in advance the interview opening, the frequency of contact, the dimension and content of the questions asked, prompts for multi-media content and the handling of late answers. We pre-formulated prompts for efficient copy-pasting, with which interviewers started the MIMIs on each data collection day. Furthermore, at the beginning of each MIMI day, the research subjects were briefly reminded that they had agreed to participate and were informed on the ways and approximate frequencies of contact. They were encouraged to use full multimedia options to respond and to only answer when they were in a safe situation (e.g., not while driving a vehicle). This made sure that participants were prepared for what was ahead and that they responded more openly and quickly. We learned from the process that adjustments to the method should only be made by mutual agreement and coordination in a team, which can, however, sometimes be difficult to implement in practice. As for other methods, pre-tests are essential and particularly important in the process of interviewer trainings.

When working with our students, it became clear that interviewers need to be trained in phrasing questions suitable for chat formats and in a comparable way across MIMIs conducted by the team of interviewers. A major challenge of MIMIs is that the chat format prompts short conversations, whereas researchers are interested in the breadth and depth of research subjects’ experience of embeddedness in everyday spaces. Thus, questions need to be posed very carefully: They should be short, yet precise, and clear as there is no room for explaining vague wordings, especially given participants’ limited attention levels. Similar to qualitative interviews, only one question should be asked at a time to avoid receiving only partial answers. Concurrently, questions need to be posed in such a way that respondents explain and assess their individual practices and make explicit how they give meaning to their practices. If questions only scratch the surface, the interviewer misses the chance of working toward “thick descriptions” (Geertz, 1973) and does not fully exploit the potential of the method—to reach people in their mundane mobile lives and to immerse into their different life spheres in real time.

Then again, interviewers must not go too far when questioning the respondents. For example, pictures, screenshots, audio files and the like should not be demanded too vigorously, as such a request could put pressure on the respondents and overstretch their willingness to share information (see also Kaufmann & Peil, 2020). At times, the MIMIs went awry for the participants when the requests interrupted a meal, a workout, or their usual personal activities. In case study 2, the researchers struggled to keep participants involved during this stage. This took place close to the examination period and interviewers had to agree to switching from hourly to two-hourly inquiry intervals. This explains the higher number of valid responses in DC1.

| Case Study | Data collection phase | COV-IDENTITIES | Polymedia |
|------------|-----------------------|----------------|-----------|
|            | DC1 | DC2 | DC3 | DC4 |
| Average number of contacts per data collection day | 7.2 | 5.3 | 5.5 | 5.5 | 9.6 |
| Valid responses (reaction within 15 minutes after contact) | 89% | 84% | 86% | 81% | 93% |
| Average reaction time for valid responses (in minutes) | 2.8 | 3.4 | 2.0 | 3.0 | 3.6 |
| Average duration of interaction for valid responses (in minutes) | 12.0 | 14.6 | 17.8 | 27.6 | 19.1 |
| Average number of words in valid responses to a contact | 53 | 55 | 35 | 57 | 47 |
| Average number of emojis in valid responses to a contact | 2.2 | 1.8 | 2.0 | 3.2 | 1.7 |
| Average number of photos in valid responses to a contact | 0.2 | 0.1 | 0.1 | 0.4 | 0.2 |
| Average number of voice messages in valid responses to a contact | 0 | 0 | 0 | 0.04 | 0.02 |
| Average number of video recordings, memes or gifs in valid responses to a contact | 0.01 | 0.01 | 0.02 | 0.03 | 0 |

aAfter the first three MIMIs were conducted, the team agreed to switching from hourly to two-hourly inquiry intervals. This explains the higher number of valid responses in DC1.
a balancing act, in which the need to explore random situations through questions, and the consideration of the respondents’ individual willingness to provide information and documentation had to be carefully weighed against each other.

While mobile messengers have become a very common way of communication for many individuals (Chen & Neo, 2019), the colloquial atmosphere that is afforded can also be counter-productive when fostering non-professional everyday conversations. In addition, the interviewers have to consider the lack of contextual information in written communication, which needs to be compensated for either or both linguistically and visually. The interviewers’ flexibility is especially needed when respondents react in unexpected ways or not at all, when they are annoyed by questions or deviate strongly from the topic. One older respondent, for example, in the polymedia project drifted off into long monologues about politics and the national media landscape. The interviewers must be able to set themselves apart, especially given the challenge that context collapse poses to interviewers when working with their own mobile messaging accounts for the sake of a more personal connection (see also boyd, 2002; Truong, 2018; see also section “Research and Data Ethics”). In sum, the MIMI method requires communicative prudence, flexibility, and empathy on the part of the interviewers in continuous conversations with participants, as has become clear in the practical implementation of the data collection method.

Selecting Participants and Building Trust

As explained in more detail by Kaufmann and Peil (2020), it is essential to apply MIMIs only with research subjects who are known to be regular and habitual users of mobile messaging and who consider their smartphone as a constant “companion” (Thulin et al., 2020, p. 170). In this respect, the applicability of the method benefits from the awareness that many people today live in a state of permanent “mediatized connectivity” (Steinemaurer, 2014), being “permanently online, permanently connected” (Vorderer et al., 2018). Mobile messaging apps such as WhatsApp, Telegram or WeChat are among the most widely used applications for they represent an easy-to-use, cheap and flexible tool for communicating and organizing everyday life (Ling & Lai, 2016). WhatsApp alone has over 2 billion users worldwide (WhatsApp Blog, 2020) and is the most used mobile messenger in Austria (Statista, 2020b). Now that more and more older people use WhatsApp, too (Fernández-Ardévol & Rosales, 2018), the eligibility of a respondent is not necessarily a question of age, but rather of the app’s embeddedness in their everyday life (Kaufmann & Peil, 2020, p. 243). However, while older participants may have access to the technology and regularly use it, they may have a rather functional than expressive approach toward communicating through mobile messaging, which might be less conducive for generating rich, qualitative insights (Chen & Neo, 2019, p. 9). In the follow-up inquiry of the polymedia project (case study 2), irritations about the method were only expressed by those respondents who did not always have their smartphone with them. Those who used it constantly reported to have found the method pleasant because they perceived it as unobtrusive and time efficient. Here, the COVID-19 lockdown proved beneficial for using the MIMI approach as participants used media and communication technologies during the crisis situation even more frequently than usual (see also Ohme et al., 2020), and hence were probably even more available to participate in MIMIs. Due to the high level of commitment required from both the interviewer and the interviewee (Kaufmann & Peil, 2020), the method is still not suitable for data collection phases lasting several consecutive days, which was also pointed out by some of the participants. The COV-IDENTITIES project (case study 1) shows, however, that it is possible to implement MIMIs in longitudinal data collection, given there is a time lag between individual data collection stages (see section “The Potential of MIMIs for Longitudinal Research”).

Another aspect to be considered in the interviewee selection process is the importance of (establishing) trust. By participating in MIMIs, research subjects give researchers deep and concrete insights into their mundane lives, especially when they augment their written answers with photos, screenshots or videos. Thus, MIMIs must be carefully prepared and attentively moderated, to allow participants to open up and to prevent them from feeling their privacy is being invaded.

Discussion and Recommendations

In the following section, we sum up the core takeaways for the application of MIMIs.

Fields of Application of MIMIs

MIMIs are particularly suited to investigating the complexities and simultaneities (see Massey, 2005) of everyday microspaces, mundane practices and their contextualities.

In comparison to classical methods of qualitative social research, such as interviews and narratives, which are conducted at one point in time, be it in person or online, MIMIs build on continuous connection between the researcher and their research subjects. MIMIs investigate the actual merging of time-space matters very appropriately through researchers’ in situ outreach to study participants, capturing their mundane, routinized, less reflected practices that often get lost in ex-post data collection.

MIMIs as Part of Multi- or Mixed Methods Designs

MIMIs are a highly focused and specific method for researching fleeting moments yet are limited with regard to the larger context of situated practices. That is why they are best combined with more reflexive methods that provide further background to and augment data generated through MIMIs (see also Berkel et al., 2017, p. 937). As a qualitative approach, MIMIs are a valuable contribution both as part of qualitative multi-method research designs, as we have shown in the two case studies, and of MMR (qualitative combined with quantitative
methods). In MMR designs, e.g. in combination with a quantitative survey, MIMIs could be made fruitful by informing or enhancing the quantitative data with inside views of the complexities of everyday situations.

Criteria to distinguish research designs according to Teddlie and Tashakkori (2006) are, among others, the type of the implementation process, whereby methods can be applied in a concurrent, sequential, or combined manner as well as used for the purpose of conversion. Furthermore, they distinguish approaches according to the functions of the research study: triangulation, complementarity, development, initiation, expansion (Teddlie & Tashakkori, 2006, p. 14). Through our case studies we reflected upon the MIMIs’ usefulness for sequential designs and the explorative initiation of insights as well as their concurrent application for the purposes of triangulation and complementarity. In our view however, MIMIs are suitable to be integrated in all of these designs where they can contribute to all functions of multi-method and mixed methods research.

The Potential of MIMIs for Longitudinal Research

As case study 1 showed, MIMIs can also be applied in longitudinal research. The longitudinal application brings both advantages and challenges for the implementation of MIMIs. In the course of the four completed data collection stages of the COV-IDENTITIES project, only two participants dropped out, whereas three cases were lost in DC3 due to a student researcher interrupting their own participation in data collection. Based on our—comparatively small—study and sample, we would suggest that MIMIs have a major potential to be applied as part of longitudinal designs. This is most likely of interest if participants are accompanied through specific phases of change where other methods fail to follow participants (possible focuses could be transition phases after school life, in-between jobs, relationship phases, specific events including traumatic experiences).

Since the process of conducting MIMIs is much more time-consuming (for both participants and researchers) than a one-time qualitative or even quantitative data collection, it is advisable to conduct MIMIs with a time lag between individual data collection days as we did in the COV-IDENTITIES project.

Appropriate Data Analysis Strategies

MIMIs produce mainly written text, but may include—depending on the instructions and the freedom given to participants—photos and screenshots, specifically taken by participants for the purpose of the data collection or from the phone’s storage, voice messages, videos, GIFs, emojis, links, memes (see also Aguado & Martinez, 2020, p. 442; Chen & Neo, 2019, p. 3). Possible data analysis approaches include content analysis (see case studies 1 and 2; Kaufmann, 2018), where MIMIs are used to triangulate, complement and illustrate the results from the analysis of other forms of data. MIMIs could also be analyzed with a special focus on the visual aspect of data or with social media specific analysis approaches (e.g., Hand, 2017). As MIMIs lend themselves to implementation as part of mixed- or multi-method designs (see also section “MIMIs as Part of Multi- or Mixed Methods Designs”), it can also be reasonable to use integrated data analysis strategies that follow topics across various data sets (e.g., Moran-Ellis et al., 2006).

Research and Data Ethics

In the application of MIMIs, the research and data ethical issues connected to all digital and online methods need to be taken into account, e.g. how informed consent can be implemented appropriately, how confidentiality can be ensured in the digital sphere and how data can be collected and stored in a secure way (see Eynon et al., 2016; Hewson, 2016; Franzke et al., 2020). Case study 1 requested informed consent from the participants in the form of a MS Word document sent via email in line with requirements by the institutional review board at the University of Innsbruck. This procedure, however, complicated the otherwise smooth connection via WhatsApp with the participants. Ways of seeking consent via messenger, which might not be in line with expectations by institutional review boards, however, need further exploration in our view. In case study 2, this was the approach taken and consent to participate in the study was successfully and only obtained via WhatsApp. Furthermore, as MIMIs are conducted on smartphones owned by participants, researchers need to take into account ethical issues connected to new mobile media technologies. After all, while mobile digital devices bring new labor-saving, innovative, intuitive benefits to social science research, they also raise new ethical and moral questions (Ess, 2020; Holton & Harmer, 2019).

In a research project where MIMIs are applied, it might moreover prove useful to postpone deleting the chats and contact details until further after data collection. This opens the chance for researchers to keep the communication channel open for a continued exchange and the opportunity to give something back to participants even though data collection is completed (see also Kaufmann, 2020), e.g. in the form of useful information and contacts, event invitations, or updates on the overall research project’s progress. Still, at some point the social and technical connection with the participants does come to an end, so questions regarding data security and ethics need sufficient attention from the very beginning until the end of the engagement with participants.

In this regard, researchers also need to be responsive to the constantly changing platform policies and functionalities, e.g. when certain functions are remodeled or not serviced anymore or new ones are added, which is particularly relevant when privacy features are concerned (Chen & Neo, 2019, p. 9).

Finally, conducting MIMIs also has ethical research implications with regard to the researcher’s well-being. Limited resources for research usually do not allow smartphones to be provided for research studies, which is why private devices and phone numbers are likely to be used for MIMIs. This procedure might lead to a context collapse for researchers of their private
and field work spheres where researchers are in turn accessible for participants, potentially resulting in uncomfortable situations and continuous stress (see also Kaufmann, 2020).

**Conclusions**

Mobile messaging is indeed an overlooked, yet promising way to conduct qualitative research beyond classical interviews. The Mobile Instant Messaging Interview (MIMI) presented by the example of two case studies is a low-cost, easily feasible and short-term implemented approach for research interests from various disciplines. It is for this reason that the approach lends itself to doing research in exceptional circumstances, e.g. on and during the COVID-19 pandemic. By employing the digital connection that is already part of many people’s everyday lives, MIMIs allow direct access to the practices and experiences of people that would otherwise stay hidden and inaccessible to social sciences. It is when research subjects give us deeper and valuable insights into the mundane aspects of their everyday lives, that MIMIs can make their strongest contributions. Nonetheless, for MIMIs to be fruitful, they have to be well-prepared—this is particularly the case, if MIMIs are applied by larger teams with several researchers conducting them. The method also calls for smart ways of nudging participants to elaborate their responses on the part of the researchers. Furthermore, integrated data analysis strategies are necessary to reveal the benefits of the variegated textual, visual and audio data produced through them. With our article, we hope to inspire other researchers to take advantage of MIMIs and the wider methodological opportunities that smartphones offer.

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Katja Kaufmann, Corinna Peil, and Tabea Bork-Hüffer contributed equally to this publication.

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**Notes**

1. The story-telling prompts for the narratives were sent out to the respondents in an MS Word file via email and returned to us after completion.

2. The drop in MIMIs collected from DC2 to DC3 was due to one student researcher dropping out of data collection in DC3 and returning for DC4 due to time constraints.

3. All names listed in Figure 1 and Figure 2 are pseudonyms for the protection of the interviewees’ privacy. Likewise, the interviewers’ names were visible to the interviewees, but later anonymized for privacy reasons. The written WhatsApp dialogues were translated from German into English.

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