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**RESEARCHING DIGITAL SOCIALITY:  
USING WHATSAPP TO STUDY  
EDUCATIONAL CHANGE**Hany Zayed<sup>a</sup>**ABSTRACT**

Digital technologies have become deeply implicated in and constitutive of contemporary social life. They are reshaping who we are and how we associate with one another, and are profoundly reconfiguring social relations, processes, and practices in a host of social spheres, particularly education. With Covid-19 further entrenching this implication and accelerating those changes, we are forced to rethink what research is and how it is done. This article presents a step towards researching a changing sociality using social media. Drawing on fieldwork on the digital transformation of Egyptian education, it argues that and showcases how WhatsApp can be systematically used as a qualitative data collection instrument to examine educational change. This article also situates WhatsApp research within digital ethnographic traditions, unpacks emergent methodological challenges and ethical quandaries, and presents potential ways to manage them. In so doing, it problematizes extant methodological categories (such as participation), entrenched dichotomies (such as private/public space), and epistemological questions (such as research temporality). Using a unique case from the Global South at an exceptional time of (educational) change, this article can help researchers as they think about their questions, design their research, conduct their fieldwork, and maneuver an elusive digital landscape. It informs broader methodological discussions within digital sociology and anthropology (of education), digital ethnography, and social media research. It also informs research in other domains like healthcare, geographies beyond the Global South, and platforms with similar affordances like Telegram.

Keywords: WhatsApp; Research; Education.

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## 1 INTRODUCTION: UNDERSTANDING DIGITAL SOCIALITY

“We now live in a digital society.” With those words, Deborah Lupton (2015, p.2) captures how digital technologies, primarily the internet, digital devices and social media, have become intimately woven in the tapestry of society. As they become “embedded, embodied and everyday” (Hine, 2015), digital technologies are becoming unremarkable and invisible for billions tangled in an “‘always on’ culture of ubiquitous connectivity” (Madianou, 2017, p.105). This ‘ubiquitous connectivity’ has been further intensified and accelerated by Covid-19, with digital technologies framed as necessary and exulted as inevitable.

Digital technologies are becoming not only a part of who we are and how we operate but are also “transforming what it means to be social and human in the world” (Markham, 2018, p.1134). They are fundamentally penetrating social domains and activities from the most intimate to the most public, and are radically reconfiguring social relations, processes, interactions, practices, identities, institutions, and structures. For more than two decades, this reshaping of sociality – of how people associate with one another – has been at the crosshairs of scholarly theorizing. This includes Wittel’s (2001) network sociality, Postill and Pink’s (2012) hybrid sociality of social media, Van Dijck’s (2013) platformed sociality, Ellison and boyd’s (2013) social media platform sociality, and Miller and colleagues’ (2016) scalability sociality. Other scholars have also been exploring the methodological implications and empirical realities of those changing socialities such as Hjorth et al. (2017), Pink et al. (2016), and Miller et al. (2016).

This “coevolution of socialities and technologies” (Kozinets, 2021, p.115) has been especially true of social media. Boasting a global population of more than four billion *active* users as of January 2021 (Statista, 2021), social media platforms are becoming a “new online layer through which people organize their lives” (Van Dijck, 2013, p.4). And nowhere is this reorganization stark as in education. Following the Covid-19 education disruptions and school closures, social media platforms have been changing what education is, transforming cultures of learning, affecting the organization and function of schools, reshaping key relations and interactions in educational communities, and impacting student behaviors and teaching practices (for example, Matzat & Vrieling, 2016; Miller et al., 2016; Robson, 2016; Van Dijck et al., 2018).

This transformation of social organization and everyday social reality also prompts us to rethink what research is and how it is done. It pushes us to return to the foundations of qualitative research, to ask not just the *how* of research but also the *why*, and to rethink fundamental

methodological categories (like field) and dichotomies (like private/public) (Markham, 2013, p.437). It also implores us not just to revamp our methodological arsenal but come up with new ways to study this novel, contingent, and unruly sociality. This transformation prompts a continuously evolving methodological bricolage whereby “research methods evolve as a complicated mixture of the new and the old” (Sandvig & Hargittai, 2016, p.24).

This article presents a methodological intervention towards understanding a changing digital sociality in educational settings. Drawing on fifteen-months of fieldwork on the digital transformation of Egyptian secondary education, this article argues that and showcases how WhatsApp can be systematically used as an instrument of qualitative data collection to examine educational change. WhatsApp’s prominence, especially in the Global South, and its critical role in education, especially after Covid-19, render it a compelling methodological device. This article also situates WhatsApp research within digital ethnography and problematizes research temporality and what participation means. Ultimately, this article unpacks emergent methodological challenges and ethical dilemmas associated with WhatsApp research, and provides potential ways to manage them.

This article provides a timely intervention that helps (educational) researchers as they think about their questions, design their research, conduct their fieldwork, and maneuver an incessantly elusive digital landscape. Redressing oversights and imbalances in methodological and educational literatures, this article also informs broader discussions within digital social research, digital sociology and anthropology (of education), digital ethnography and (qualitative) social media research. Ultimately, this research can be instrumentalized in other domains such as healthcare, in different geographies beyond the Global South, and with different platforms with similar technological affordances such as Telegram.

This paper is organized in three sections. Section one introduces WhatsApp, outlines its key affordances, highlights its role as a ‘technology of life’ especially in the Global South, and underscores its prominence in Egyptian education, particularly after Covid-19. Section one also surveys existing literature, highlights its prominent gaps, and shows how this article addresses them. Showcasing how to study this changing sociality in education, section two introduces a systematic way of conducting qualitative research on WhatsApp. It situates this method within digital ethnographic traditions and in the process, complicates the notions of research temporality and participation. Finally, section three introduces several methodological challenges (including mercurial unpredictability, politics of invisibility, and personal and professional entanglement) and ethical problematics (including situated ethics and access) pertaining to WhatsApp research, and presents ways to manage them.

## 2 WHATSAPP, EGYPT, AND EDUCATION

WhatsApp is an instant messaging social media platform with more than two billion active monthly users in more than 180 countries (Statista, 2020, pp.2-3). WhatsApp allows (a)synchronous communication in individual conversations (one-to-one) and group chats (one-to-many/many-to-many) using phones, tablets, or computers. Communication on WhatsApp is conducted through text messages, media content (such as voice messages, photos, videos, and documents), and voice and video calls.

WhatsApp shares the technological affordances of persistence, replicability, scalability and searchability of information (boyd, 2011). Yet its appeal stems from its ease of use (it requires a smartphone, phone number, and an internet connection), convenience (it targets a broad class base with its free usage and minimal data consumption), functional versatility and feature richness (it can be used for personal, business, educational and political communications), relative privacy and perceived secrecy (with its end-to-end encryption and reduced censorship) and uniquely fast temporal structure (with its simultaneity and instantaneity) (Baulch et al., 2020; Bruns, 2015, p.1; Cruz & Harindranath, 2020; Dodds, 2019, pp.732, 740; Matassi et al., 2019, p.2184).

With those affordances, WhatsApp has become the leading mobile messaging platform in 112 countries (Bobrov, 2019). Specifically, it emerged as “the most important everyday technology in several parts of the Global South.” Moving beyond a mere social media platform, WhatsApp has come to embody a ‘technology of life’. That is, WhatsApp has been profoundly organizing people’s lives, and mediating and shaping a wide array of everyday social activities (Cruz & Harindranath, 2020) including education. WhatsApp, in other words, has been central to a changing digital sociality, particularly in the Global South.

This critical role of WhatsApp is particularly visible in Egypt. With users constituting almost three quarters of Egyptian internet users as of January 2021 (Datareportal, 2021), WhatsApp has been integral in an array of social domains and activities with different classes, geographies, and ages. Younger users, who comprise the bulk of WhatsApp’s users, have been using it primarily to communicate with individuals and groups, and to a lesser extent to get or share entertainment content (Middle East Monitor, 2019a; 2019b). As Covid-19 gained traction, WhatsApp’s prominence was further amplified. Between March and May 2020, there was a seventy percent jump in WhatsApp usage in Egypt and a considerable part of this increase can be attributed to education (NTRA, 2020a; 2020b). This trend has been observed not just in Egypt but in other low-and-middle-income countries such as India and Peru (Jordan & Mitchell, 2020).

Before Covid-19, WhatsApp played a limited role in (in)formal education, which depended mostly on face-to-face communication, yet this role has invariably proliferated with school closures. As education migrated to e-learning platforms and social media spaces, WhatsApp has played a key role in restructuring socio-educational processes and relations. Concretely, WhatsApp emerged as a critical, messy, and contradictory social space for collaborative learning as students and teachers shared, discussed and debated educational resources. Interestingly, this collaboration extended to using the platform for cheating during examinations. WhatsApp also served as a space for psychological support, technical troubleshooting, administrative help, and teacher professional development. It facilitated sharing official communications and (mis)information and acted as a barometer of public opinion. WhatsApp also functioned as a space for socializing, bonding and socialization, for forging solidarity, building community and forming shared identities, for practicing politics and resistance, and for the instantiation and exacerbation of class inequalities. This far-reaching reorganization of education in Egypt renders WhatsApp a *de facto* educational technology. One that embodies the messy realities of contemporary education in a moment of disruption.

Yet, despite its critical role, empirical wealth and edifying potential, there has been a general underfocus on WhatsApp in methodology literatures – at least compared to other social media platforms like Facebook. In major methodological discussions and with few exceptions (such as Burgess et al., 2018 and Hjorth et al., 2017), WhatsApp is cursorily mentioned as an example or case (for example, Costa & Condie, 2018; Fielding et al., 2017; Kozinets, 2021; Sloan & Quan-Haase, 2017; Snee et al., 2016; Van Dijck, 2013), an absence even starker in education literatures. This methodological imbalance results from a weaker salience of WhatsApp in the US compared to other countries. It also results from empirical constraints in studying WhatsApp such as the relative inaccessibility and invisibility of chat groups, which make it harder for researchers to see and research WhatsApp spaces, and which this article seeks to overcome (Barbosa & Milan, 2019, pp.49-50; Baulch et al., 2020; McCay-Peet & Quan-Haase, 2017, p.17; Pang & Woo, 2020).

Fortunately, there have been some exceptions. A number of scholars have recently been paying more attention to different methodological facets of WhatsApp, yet this effort has been fragmented, incomplete and disconnected from educational research. For example, Garimella and Tyson (2018, p.1) provide a (quantitative) “generalisable data collection methodology and a publicly available dataset for use by other researchers,” Resende et al. (2019, p.820) propose “a methodology to infer which identified publicly accessible groups are related to politics,” and Barbosa and Milan (2019) outline a robust discussion of WhatsApp ethics. Still, a

more comprehensive and systematic methodological account on the qualitative use of WhatsApp, particularly in educational research, is missing.

In more empirical discussions, WhatsApp has been studied in the context of healthcare (Kamel Boulos et al., 2016), spreading misinformation (Rossini et al., 2020), shaping journalism (Dodds, 2019), digital activism and political organization (Milan & Barbosa, 2020), and the everyday living experience (Brabham, 2015; Matassi et al., 2019). In education, researchers have been investigating the *impacts* of using WhatsApp on specific learning outcomes such as writing skills (for example, Fattah, 2015; Mingle et al., 2016; Zan, 2019) and the *role* of WhatsApp in education and how it is changing relations (for example, Abualrob & Nazzal, 2019; Bouhnik et al., 2014; Costa-Sánchez & Guerrero-Pico, 2020) using quantitative, qualitative, and mixed methods. Those accounts, nonetheless, provide largely formulaic methods, uncritically classify WhatsApp research as observation, content analysis or archival research, do not sufficiently situate WhatsApp research within broader methodological streams, and pay scant attention to methodological challenges and ethical issues that this kind of research urgently raises.

### 3 USING WHATSAPP TO STUDY EDUCATIONAL CHANGE

The following method emerges from fifteen months of research on the digital transformation of Egyptian secondary education, and is a product of multiple discussions, reflections, and workshops. My fieldwork included conducting in-depth interviews with educational communities, oral history interviews with policymakers, event and class observations, content analysis of policy documents and official communications, and more importantly, digital social research. The latter includes e-learning platform research as well as qualitative social media research – including WhatsApp, Facebook, Telegram and YouTube.

Particularly informing this methodological piece is my empirical research in and on educational WhatsApp groups. This includes more than fifty geographically dispersed groups for a period ranging between a few days to more than fifteen months. Those groups had between 20 and 257 members, included high school students, teachers and parents, and fulfilled different functions such as learning, socializing and cheating. Those (relatively public) groups ranged in interaction intensity, oscillated from the tightly controlled to the completely unruly, and had relatively anonymous and transitory interactions marked by relatively weak ties between members.

### 3.1 Doing WhatsApp Research in Educational Settings

WhatsApp spaces are empirically rich yet overwhelmingly unruly. On those spaces, researchers can examine a panoply of educational processes (such as learning), relations and interactions (such as between teachers and students), sentiments and opinions (such as what parents think about e-learning), or practices (such as online cheating). That is why prior to data collection, researchers need to have research questions to structure and guide the research process and force them to think about what and who it is they are researching. Those research questions will mostly be tentative, fluid and overlapping; developing as the research progresses and as new situations unfold. WhatsApp research is, in other words, part inductive and part deductive.

After developing research questions, the second step entails surveying. How can researchers *find* WhatsApp groups including the intended actors and embodying the examined educational processes and relations? As previously mentioned, one prominent empirical constraint is WhatsApp's relative invisibility and imperviousness to research. One cannot simply search for groups and request to join one like on Facebook. Instead, one needs a *link*. This link functions as the permission or invitation to access particular groups. To overcome this, the following are two ways to get group links, and those can represent different non-probability sampling techniques.

The first way can be considered a sort of *snowball sampling*. It entails using existing social connections to get group links or join groups. An informant, for example, can share with the researcher a group link or simply add them to the group. Furthermore, members in existing groups occasionally share links to other WhatsApp groups. The researcher can thus use those shared links to join those groups. The second way can be considered a sort of *convenience* or *purposive sampling*. It entails searching other social media platforms for educational WhatsApp group links. For example, Facebook has innumerable publicly accessible educational groups and oftentimes, members of those groups (usually students) promote their WhatsApp group links in posts and/or in comments to bolster their group membership. Researchers can find those shared links by having accounts in other searchable platforms, joining educational groups, and searching for WhatsApp links. Searching can be done by typing 'chat.whatsapp' or 'whatsapp' in the group's search box which will elicit results (in posts and comments) with WhatsApp group links that one can join.<sup>1</sup> The clear ethical issues pertaining to this will be discussed in section three.

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<sup>1</sup> Garimella and Tyson (2018) and Resende et al. (2019) provide a similar (quantitative) data collection method to find chat groups (that they designate as public) from Google, Twitter, and Facebook, albeit in politics.

Next comes accessing groups. After acquiring them, group links can be copied and pasted in a web browser (for desktops) or just clicked on (on cell phones), and researchers would then be prompted to ‘join chat’.<sup>2</sup> Having joined the groups, the next step becomes sampling: how can researchers select the groups to actually research? Sampling will depend on several factors including research questions, group size, composition and function, schoolyear phase, group link validity, interaction intensity, geographical location, and time constraints of the researcher. One point of caution is that researchers need to consistently keep track of groups (for example, through recording group information) as groups can become numerous, massive, and ephemeral. Many groups emerge, change, and die swiftly in response to situational factors, and thus can be easily confused and lost. For example, during examinations, several cheating WhatsApp groups changed their names and icons in response to perceived surveillance by the state, and so recording group information proved invaluable as it enabled me to keep track of those groups.

After settling on which groups to research, actual *data collection* can commence by organizing a document chronologically, thematically, or both, with themes potentially functioning as qualitative codes for future data analysis. Data collection can be conducted as interactions unfold or post-hoc. It can be done using WhatsApp Web (i.e., on computer) or phone, although the former is easier for copying, downloading, and organizing the material. It is also important to be mindful of the different media shared over WhatsApp (text, videos, photos, documents and voice notes) and how each can be collected differently. For example, textual interactions can be copied and pasted, photos could be screenshotted, and voice notes and videos could be downloaded.

Oftentimes, social media research oscillates between “periods of relative calm and periods of intense activity – even turbulence” (Postill & Pink, 2012, p.130). This is true for WhatsApp research. While on days interactions would be meager, on others, thousands of messages are shared in a span of hours. This requires anticipating when interactions might be intense, carefully planning data collection sessions and scheduling more sessions at critical times. This is crucial because the deluge of messages can overwhelm researchers, inundate important insights, and become practically unmanageable. It is also important to resist the “temptation to collect and archive everything, just in case” (Markham, 2013, p.439). In addition to sampling groups, sampling would thus be needed for messages. This can be done through picking only a few groups to research or picking particular times per day or a few days per week depending on the research

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<sup>2</sup> On several occasions, however, researchers might face broken or expired links that lead nowhere.



at hand (see for example, Kligler-Vilenchik & Tenenboim, 2020, pp.270-271; Milan & Barbosa, 2020), and researchers can ultimately stop when they reach saturation. At this point, it is important to contextualize WhatsApp research within broader methodological traditions.

### 3.2 WhatsApp Research as Digital Ethnography

While WhatsApp research can fall under different methodological streams, this paper argues that we need to approach WhatsApp with an ethnographic sensibility that provides a sustained, immersive and textured understanding of social phenomena. One that aims not for breadth, generalizability and thinness, but for depth, diversity and thickness. Ethnographic work, in short, is central to understanding a changing sociality, especially in education (Barbosa & Milan, 2019, pp.54-55; Cruz & Harindranath, 2020; Horst et al., 2012, pp.89-90; Madianou, 2015; Postill & Pink, 2012; Sinanan & McDonald, 2018, p.179). Yet, this can be a difficult endeavor with the proliferation of (overlapping but competing) web-based ethnographies such as ‘virtual ethnography’ (Hine, 2000), ‘netnography’ (Kozinets, 2010), ‘digital ethnography’ (Murthy, 2008), ‘ethnography of virtual worlds’ (Boellstorff et al., 2012), ‘social media ethnography’ (Postill & Pink, 2012), ‘appnography’ (Cousineau et al., 2019), and ‘chatnography’ (Käihkö, 2020).

From this methodological plurality, this article argues that WhatsApp research is most apt to be situated within *digital ethnography*. Although digital ethnography has been approached from different perspectives (for example, Born & Haworth, 2017, p.70; Caliandro, 2014; 2017; Hjorth et al., 2017; Murthy, 2008; Pink et al., 2016; Tunçalp & Lê, 2014, p.61), this article understands it in two complementing ways. First and more broadly, this article follows Abidin and de Seta’s (2020, p.8) designation of digital ethnography as “a methodological common ground for scholars doing ethnographic research on, through and about digital media.” This echoes Tunçalp and Lê’s (2014, p.61) general note that digital ethnography “encompasses all forms of ethnography mediated by digital technology.” Second and more specifically, this article follows Pink et al.’s (2016) conception of a digital ethnography that views the digital as multiple and thus integrates its different facets, understands how the digital is situated within the rhythms of everyday life and thus considers the non-digital topography, complements digital methods with more traditional methods, encourages disciplinary and methodological cross-fertilization, and is fluid, flexible and more importantly, reflexive.

Situating WhatsApp research within digital ethnography is consistent with how some researchers envision social media research in general and WhatsApp research in particular (for example, Barbosa & Milan, 2019;

Caliandro, 2014; Murthy, 2008). It is general enough to preserve a nimble ethnographic sensibility that studies swiftly changing (educational) socialities, to ensure that we are driven by what works best for our research, and to sidestep methodological debates and ethnographic siloing. In addition, given that WhatsApp is mostly used in conjunction with other social media and e-learning platforms and is embedded in non-digital processes, relations, and practices (Madianou & Miller, 2012; Miller et al., 2016), the specific facets of digital ethnography afford the versatility to examine digital and non-digital ecosystems. They also allow us to integrate more traditional, digitized or natively digital methods, to overcome methodological categorization (such as whether WhatsApp research is content analysis, archival research, or observation), and to examine the multiplicity of methodological practices (such as participation). Those last two points deserve to be further unpacked for they exemplify how the digital is unsettling *research temporality* and *modes of participation*.

### 3.3 Digital Ethnography, Research Temporality, and Participation Modes

As previously mentioned, WhatsApp research has been referred to as content analysis, archival research, and as a form of observation. At the heart of those distinctions, nonetheless, is an analytically problematic conception of time. As Markham (2018, p.1145) deftly puts it, “even the most subtle and sophisticated qualitative methods are not designed to grapple with the personalized experience of time and place...or the simultaneity of global and local in a single moment.” WhatsApp, Dodds (2019, p.732) argues, is causing a “transformation of both the rhythm and structures of time.” Traditional methodological categories assume a temporality that is not completely applicable to or compatible with digital sociality.

With the ephemerality of synchronous physical interactions, traditional ‘offline’ research (such as observations) depends on a collapsed notion of time where the present becomes shorter. For example, an interaction between two students at a school happens at a particular time and is gone. There is no way to retrieve it, intervene in or interact with it after the fact. The distinction between archival research, content analysis and observation makes sense in those forms of interactions as the past (precedence) and present (succession) are clearly demarcated.

With the persistence of asynchronous online interactions, digital social research (such as WhatsApp research) depends on a stretched notion of time where the present becomes longer. For example, an interaction between two students on WhatsApp happens in a ‘fixed’ present. It can be retrieved, intervened in and interacted with in real-time or ‘after’ the fact.

The distinction between archival research, content analysis and observation becomes untenable, as the past (precedence) and present (succession) are tightly tangled in a 'longer now'.

In other words, when we speak of observations, archival research or content analysis, we assume a particular notion of time that does not necessarily hold in digital sphere. In online spaces in general and WhatsApp in particular, interactions become "temporally suspended" and "omnipresent" (Akemu & Abdelnour, 2020, p.300). Adopting digital ethnography therefore gives us some breathing space to navigate this without being crippled by issues of categorization.

Another key issue remains unresolved: *participation*. Should researchers participate on WhatsApp groups? Some scholars argue that participation is integral to ethnographic research for it provides a deeper understanding, thicker description and meaning verification (Hine, 2017a, p.321; Hooley et al., 2012, p.81; Markham, 2013, p.439), yet others contend that covert research allows meanings to emerge in a natural state without being influenced by the researchers' presence, interests or bias (Burles & Bally, 2018, p.3; Kavanaugh & Maratea, 2020, p.6; Thompson et al., 2021, p.678). Some digital ethnographers have argued that direct and prolonged interactions are not applicable in digital spaces (Cousineau et al., 2019, p.101; Pink et al., 2016, p.3). Instead, the supposedly thin description symptomatic of covertness can be thickened through a sustained immersion in online spaces or triangulation with other methods (Janetzko, 2017, p.78).

Both overt and covert approaches are common and accepted ways of doing (digital) ethnographic research (Kavanaugh & Maratea, 2020, p.6; Markham, 2013, p.440). In fact, a survey of digital ethnographic scholarship shows that covert approaches have been significantly used vis-à-vis more overt approaches (Thompson et al., 2021, p.678). Nonetheless, this debate is couched in a narrow understanding of participation as interaction with or talking to participants. At its core, participation is a vehicle that "allows one to get *closer* to the experience" (Markham, 2013, p.440 – emphasis added). This closeness or proximity can be spatial (co-presence) or temporal (for an extended period). Social media platforms, and especially WhatsApp, afford a wide range of forms, layers and possibilities that go beyond this restricted notion of participation (de Seta, 2020, p.86). This includes talking to participants, watching stories, moving between groups, following links, consuming material, sending emojis, forwarding messages and merely listening (Crawford, 2009). This widening and layering of participation modes unsettles the overt/covert designation, and as researchers constantly slip in and out of different modes of participation, this dichotomy gets even more complicated.

Ultimately, the choice of participation mode is situation specific. It *depends on* the research topic and questions, the population one is

researching, and the processes, relations and practices one is exploring. Those factors, among others, will shape the form, level and length of participation. As researchers assume a more fluid research positionality, issues of participation, Markham (2013, p.440) argues are “negotiated...on a case-by-case basis.” Nonetheless, to get closer to the experience, be able to capture the richness associated with an ethnographic sensibility and avoid a cross-sectional perspective, participation needs *time* (Madianou, 2017; Miller et al., 2016, p.29). Joshua Bluteau (2021), for example, extended his fieldwork on Instagram from twelve to twenty-four months. Similarly, while my research was originally planned for six months, I extended it to fifteen to get a thicker description. Clearly, this will depend on the sort of engagement one is doing as well as the phase of research one is in.

As this discussion is beginning to show, conducting qualitative data collection using WhatsApp in educational settings unsettles existing, and raises novel, epistemological problematics, methodological challenges, and ethical quandaries that researchers must grapple with. The following paragraphs continue with an exploration of a number of those issues and outline potential ways to manage them.

## 4 MANAGING METHODOLOGICAL CHALLENGES AND ETHICAL QUANDARIES

### 4.1 Mercurial Unpredictability and Creative Flexibility

The internet has been described as unstable, unpredictable, fragmented, and multiple (Hine, 2015, p.88; Lindgren, 2018, p.446; Rogers, 2013, p.24). With its rapid, incessant, and unexpected pace of innovations, social media is a prime embodiment of those qualities (Ellison & boyd, 2013, p.17). As a social media platform, WhatsApp regularly changes its interface, features, policies and affordances, and users change their practices in response to those as well as to new situations unfolding. This protean nature of social media makes the process of digital inquiry ever more complicated, and requires equally responsive research focus, methods, and practices.

Faced with dynamic, impromptu, ephemeral, and uncontrollable situations, researchers need to be methodologically flexible, creative, nimble, and imaginative. They need to conceptualize methods “as a creative act” (Sandvig & Hargittai, 2016, p.2) and practice what Lindgren (2018, p.447) calls methodological bricolage. That is, “improvising and putting pre-existing things together in new and adaptive ways.” This methodological bricolage is not entirely thought out in advance, nonetheless, but “emerges as a patchwork of solutions – old or new – to problems faced while carrying out the research.” In educational research,

this might include, for example, following students as they migrate to new platforms, and learning not only how to use those platforms and access those spaces, but also how to research (with) them.

#### 4.2 Politics of (In)visibility and Triangulation

Social media's regime of visibility is another methodological challenge to be wrestled with. To begin with, not everyone has access to internet, and not everyone with internet has access to social media. On WhatsApp, not everyone is available on educational spaces and not everyone on educational spaces produces visible traces. Some users simply read and listen (Crawford, 2009), others drown in a sea of messages at times of intense interaction, and others are simply excluded by the platforms' algorithmic architectures.

In the face of this, researchers need to be mindful of WhatsApp's politics of (in)visibility and take active steps to improve the validity and reliability of the research. This can be accomplished through *triangulation* – a point which harks back to the choice of digital ethnography. To understand educational processes unfolding, meanings embodied, and practices enacted on (non)digital ecosystems, it is important to observe different WhatsApp groups at different points in time. In addition, WhatsApp should not be the sole 'site' studied. It should be complemented with other social media platforms as well as e-learning platforms. With no epistemic privilege given either to 'online' or 'offline' methods, it also becomes crucial to supplement WhatsApp research with more (traditional) research methods like interviews (boyd, 2016, pp.81-82, Hooley et al., 2012, p.7; Madianou, 2017, p.109; Murthy, 2008, p.837; Orgad, 2009).

#### 4.3 Personal and Professional (Dis)entanglement

The blending of personal and professional spheres emerges as yet another challenge of doing WhatsApp research (Dodds, 2019, p.733; Käihkö, 2020, p.85). WhatsApp is linked to one cell phone and one number. This means that if the researcher has one of each, their number and phone will be used both for research and personal activities. This blurring of the lines between researchers' personal and research activities has been captured in Mainsah and Prøitz's (2019, p.272) auto-ethnographic reflections on social media. The authors cogently show how researchers are consistently carrying the field with them and trying to manage "'being in the field' and 'being out of the field.'" This encroachment of research activities on personal life has been a common recurrence in my research. I was experiencing an always-on research state prompted by the unpredictability and eventfulness of

those social media spaces. For example, chatting with family members would frequently be interrupted by messages from cheating groups.

One step towards active disentanglement would be to get another phone with a new number exclusively for WhatsApp research. Yet, this solution is not always cheap or feasible. It also risks too much detachment from the 'field'. While I was 'always there' with one mobile number, getting another rendered me more disconnected from my fieldsites and my research participants. That is why before taking any remedial steps, it is crucial to *reflexively* examine this entanglement and how it affects both the researcher and the research process – a point that will be further developed in the conclusion.

In addition to those methodological issues, WhatsApp research (and qualitative social media research in general) raises a number of novel ethical quandaries. Those pertain to research categories such as harm, privacy, personhood, consent and access, as well as to research stages, from “defining field boundaries; accessing participants; raising a sample; collecting, organizing, analyzing, and archiving information; representing ourselves and others in writing; framing knowledge; and maintaining professional autonomy” (Tiidenberg, 2018, p.477). To address those, scholars have been providing important guidelines for digital research ethics both individually (for example, Burles & Bally, 2018; Hewson, 2017; Hooley et al., 2012; Snee et al., 2016) as well as institutionally (for example, the Association of Internet Researchers) (Franzke et al., 2019; Markham & Buchanan, 2012).

#### **4.4 Situated Ethics, Grounded Flexibility, and Informed Consent**

With the incessant changes, compounding complexity and dynamic unpredictability of social media, researchers are oftentimes confronted with impromptu ethical choices that they need to address immediately. Yet, those challenges cannot be met only with a rigid set of archaic rules that manages the research process (Barbosa & Milan, 2019). Those one-size-fits-all rules are becoming neither feasible nor useful. Instead, scholars have been calling for a “situated approach to online research ethics” (Hine, 2020, p.6) in which ethical decisions are not carved in stone, but flexible, context dependent and situation specific (Franzke et al., 2019; Hewson, 2016, p.215; Markham & Buchanan, 2012; Tiidenberg, 2018). This situatedness includes the immediate context of data collection (for example, the WhatsApp group dynamics, features and affordances), the broader research context (for example, the digital ecosystem examined), and the broader socio-cultural context of research (for example, the cultural understandings, perceptions, beliefs, and attitudes about those ethical issues).

This flexibility is not untethered, however. Rather, it needs to be rooted into some fundamental ethical precept. A golden rule that holds itself to a standard higher than ethics boards and signed forms (Eynon et al., 2018, p.27; Tiidenberg, 2018). The novelty, ambiguity and situatedness of ethical issues in the digital age thus prompts a return to the basic ethical tenet of *do no harm* (Barbosa & Milan, 2019, p.49; Kähkö, 2020, p.83). Except for some illegal activities, researchers should be careful to protect their participants, regardless of their participation overt-ness, consent granted and space publicness.

This issue can be exemplified through the case of *informed consent*. Upon entry to WhatsApp groups and before data collection, should researchers ask for informed consent? And would this consent be from all group members or just a select few (for example, group administrators)? Some researchers argue that informed consent ought to be taken from all members, while others contend that as long as a space is accessible, no consent is needed. boyd and Crawford (2012, p.672) capture this tension nicely, yet in the context of Twitter, arguing that while “it may be unreasonable to ask researchers to obtain consent from every person...it is problematic for researchers to justify their actions as ethical simply because the data is accessible.” In other words, having access does not always mean it is ethical.

With situated ethics, getting consent *depends* on the case and the context. Researchers need to consider factors such as group nature, function and size, interaction volume and speed, member turnover, anonymity, publicness of the space, topic sensitivity, the intended audience and how the data will be used (Burles & Bally, 2018, p.8; Eynon et al., 2018, p.25). In larger groups of (relatively anonymous) participants with fast/heavy interactions and high member turnover, getting consent from students (and their parents) would be next to impossible. In smaller groups with (relatively known) participants, slow/light interactions and low member turnover, getting consent would be more practical. For instance, in Barbosa and Milan’s (2019, p.53) digital ethnography on WhatsApp, the authors “posted a message to inform group members of the research” and sent out occasional reminders. They regarded the lack of opposition as a consent to continue their work. Yet, the authors contend that informed consent is “outdated” and “potentially dangerous,” and are ultimately skeptical of its viability in digital research (p.57).

Consent aside, how can researchers ‘do no harm’ to WhatsApp group members? One strategy is anonymity: assigning pseudonyms and making sure that no identifiable information (such as names, photos, and phone numbers) is available, and that the data is protected from leakage, hacking and stealing. This anonymity requirement becomes even more stringent for vulnerable participants such as high school students. Another strategy is

avoiding direct quotes either through paraphrasing (boyd, 2016, p.91) or by employing the fabrication method, the “creative, bricolage-style transfiguration of original data into composite accounts or representational interactions” that cannot be traced to the original participants (Markham, 2012, p.334).

#### 4.5 Access and Online Spaces

One thorny issue lurking within the discussion so far has been that of space. Are WhatsApp groups public or private spaces? WhatsApp has been described as a “semi-public” platform (Milan & Barbosa, 2020), a “semi-private space” (Costa-Sánchez & Guerrero-Pico, 2020, p.9) and a “(private) public sphere” (Barbosa & Milan, 2019, p.50). WhatsApp groups have been described as “public” (Garimella & Tyson, 2018) and “‘private’ (by invitation, run by administrators) or ‘public’ (joined via link)” (Barbosa & Milan, 2019, p.52). Most of those designations, however, are not unpacked, problematized, or defended.

Publicness of a space can be argued to entail visibility, co-presence, and restrictions to access. A purely public space is one where there are no restrictions to access, and one is visible to and co-present with others – what Hannerz (2016, p.151) calls ‘consociality’. As one places more restrictions and as one is less visible to and co-present with others, the space becomes more private. Publicness is thus not a binary designation, but a continuum with (online) spaces relationally situated against each other. An online space is more private than some and simultaneously more public than others, and one can be on several relatively public and private groups on the same platform at the same time. The digital is thereby forcing us to question our simple dichotomy of public and private (boyd, 2011, p.52). One illustration of this comes from Miller et al.’s (2016) scalability sociality, which overcomes those binaries by moving between the private and the public on different social media platforms.

Publicness of a space can also be argued to be a characteristic of the space itself as well as the *perceptions* and *expectations* of privacy by its members. As Hewson (2016, p.214) notes, knowledge about “privacy expectations of users...is fundamental to reaching conclusions on the public-private distinction debate” (see also Franzke et al., 2019, p.7; Nissenbaum, 1997). In relatively public spaces with fewer restrictions, there are expectations that people are co-present and that one is visible. Conversely, in relatively private spaces with more restrictions, there are expectations that people are not co-present, and that one is not visible. Importantly, those understandings, perceptions, expectations and attitudes towards space and privacy (and their violation) are shaped by and differ according to the broader socio-cultural contexts (see Miller et al., 2016, p.30;



Sinanan & McDonald 2018, p.186). For example, throughout my research on WhatsApp groups, there were rarely any discussions about privacy or its violation. In fact, many students were aware that parents, teachers, and even state actors were present on those groups as well. In short, publicness of an online space is tethered to expectations of co-presence, perceptions of visibility and actuality of restrictions to access.

How would this apply to WhatsApp? To have a WhatsApp account, one needs to have a digital device, internet access, a phone number and some technical literacy. Those are some of the preliminary restrictions to access. To enter a WhatsApp group, one needs to have the link or be added by an administrator. In this sense, the group link becomes the key to the publicness of the group for it restricts access, and shapes expectations and perceptions around visibility and co-presence and ultimately the group's publicness. As WhatsApp itself cautions, group administrators need to be mindful that "anyone with WhatsApp can follow this link to join this group," and implores them to "only share it with people you trust."

While relatively small/known groups with stronger ties among members (like families) do not publicly share links and police admission, other bigger/anonymous groups with weaker ties among members (like educational groups) share their links to friends or on more public social media platforms like Facebook. This practice of public sharing creates the perception and expectation that *anyone* can join the group. The process of link sharing thus renders the group more public; a perception that is further concretized as group members see others join and leave en masse. In other words, the link provides the permission, and if it is publicly shared, then this permission is granted for all. This takes us to the British Psychological Society's statement that online observation should take place when and where users "reasonably expect to be observed by strangers" (British Psychological Society, 2009, p.13).

## 5 CONCLUSION: A NOTE ON REFLEXIVITY

This article joins a growing conversation on digital social research in education at a critical time of change. Showcasing how social media can be used to study a changing digital sociality, this article argued that WhatsApp can be systematically used in qualitative data collection to yield thick and in-depth insights about educational change. This article also moved away from a decontextualized methodological discussion and connected WhatsApp research to digital ethnography, raised a number of key methodological challenges and ethical quandaries, and outlined potential ways to manage them. In the process, this article overcomes the relatively impervious nature of WhatsApp, problematizes fundamental research categories (such as participation), entrenched dichotomies (like

public/private space) and broader epistemological questions (such as research temporality), redresses various literature imbalances, and informs other research domains, geographies, and platforms.

One final note is in order. Digital ethnographic practice, Abidin and de Seta (2020, pp.9-10) argue, is strewn with “anxieties, challenges, concerns, dilemmas, doubts, problems, tensions and troubles.” This is true. But those can become sources of and opportunities for insight and enlightenment. “The most widely recommended remedy to assuage epistemological anxieties, participatory doubts and ethical dilemmas” the authors continue, “is self-reflexivity.” Reflexivity is a potent tool for rigorous ethnographic work, and its role has become even more critical with the swift changes, rife uncertainties, novel situations, and major implications of digital technologies (Davies, 2002, pp.3-4; Hine, 2017b, p.26; Lupton, 2015; Markham, 2013; Pousti et al., 2021). In fact, reflexive practice has been a critical component in digital social research, social media research, and as previously mentioned, in digital ethnography (Airoldi, 2018; Baym, 2009, p.186; boyd, 2016, pp.81-82; Hine, 2015; Kähkö, 2020, p.72; Lindgren, 2018, pp.447-448; Pink et al., 2016).

Although scholars speak of multiple reflexivities (Gough, 2003, p.22), some common threads could be discerned. Reflexivity is a skill, capacity or practice that examines how researchers’ “own experiences and contexts (which might be fluid and changing) inform the process and outcomes of inquiry” (Etherington, 2004, pp.31-32). Reflexivity involves understanding (and being explicit about) one’s (fluid) positionality, motivations, assumptions, biases, choices, doubts, reactions, decisions, and mistakes, as well as the broader socio-cultural context and the situation’s contingencies. Reflexivity can eventually bolster the research process, enrich research insights, enhance understanding, strengthen arguments, foster transparency, and most importantly, provide signposts for other researchers (Davies, 2002, p.5; Finlay, 2003, pp.16-17; Gough, 2017, p.311).

In WhatsApp research, reflexivity should be an iterative process that evolves with the changing circumstances of research and the fluid positionality of the researcher. It should be implicated in all research stages from design, practice to dissemination, and should include the abstract and theoretical (such as constructing the ‘field’) as well as the concrete and practical (such as obtaining informed consent). Finally, reflexivity should move between more private and individualistic practices (such as maintaining a journal) and more public and collective practices (such as discussions with other researchers). Reflexivity, in other words, should be thought of as a *social* process of “mutual reflection” (Sandvig & Hargittai, 2015, p.5), which in a way, is what this article has attempted to offer.

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