

Societal Challenges, Sustainability, Adjustment, and Ethical Issues during the Covid-19 Pandemic: A Brief Study of Digital Ethnography

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Abstract. This article reviews the potential of digital technology in ethnographic studies during a pandemic, examining key aspects requiring adjustments. Based on a systematic review of expert digital ethnographic studies regarding the COVID-19 pandemic, the research identifies areas needing adjustments, including methodological and logistical elements, field reformulation, the shift from location to theme, and ethical issues. This article contributes to the limited discussion on digital ethnography during the COVID-19 pandemic.

Keywords: The COVID-19, Social Sciences, Methodology, Ethnographer, Ethnography, Digital Ethnography

1. Introduction

The COVID-19 pandemic and other aspects of human life have brought crucial implications for academic research. It is argued that *"The COVID-19 pandemic has resulted in unprecedented research worldwide"* (p. 148)[1]. Furthermore, due to the health protocols placed on social distancing and travel restrictions, researchers faced numerous difficulties setting research agendas and completing ongoing studies before this pandemic. The pandemic has also made it impossible to conduct conventional social research related to visits, direct observation of sites, and encounters with information sources. Therefore, social scientists must perform activities related to how humans can adjust to digital technology.

The coronavirus (COVID-19) is a global health crisis and the most significant challenge ever since World War Two. This epidemic has led to several drastic changes that affect social research [2]. However, ethnographic studies appear to be at a crossroads due to their tremendous impact, and various fundamental scientific concerns associated with the condition affect social sciences directly [3].

The pandemic has led to uncertainties regarding research projects and health protocols, particularly social distancing, which has generated far-reaching implications for all ethnographers. Therefore, the fundamental question focuses on adopting social sciences, primarily ethnographic research, to re-examine and adjust the agenda to suit working activities during this period [4][5].

This study is based on the fundamental problems associated with all social research work. This study also considers challenging issues in other social studies. Furthermore, in this

article, the author also reflects on the struggles and efforts to improve the ability to apply information or digital technology to ethnographic social research. It also aims to discuss several important issues. These include the challenges and sustainability during the pandemic, possible adjustments, and a brief analysis of the elements of digital ethnography ethics [6].

Furthermore, the author organizes this article into several essential parts. After the introductory section (*section 1*), this article briefly introduces a critical literature review of this research methodology (*section 2*). Section three provides a conceptual discussion of digital ethnography. This article reviews the challenges of COVID-19 to social research, particularly ethnographic studies. This section also elaborated on the sustainability of social research during the pandemic and other similar crises in the future (*Section 3*). The following section (*section 4*) involves findings and discussion that analyze several essential aspects of digital ethnography study adaptation, including methodological and logistical adjustments, reformulating the reality of being on the field, and attention to the theme rather than the location. This article also elaborates explicitly on the ethical dimensions of digital ethnography. The author ends this article with a short implication and conclusion (*Section 4*).

2. Methodology

Today's extraordinary time under the COVID-19 pandemic challenge accelerates the production and reproduction of knowledge and skills in social research. Ethnographic researchers face these changing situations and significant challenges. They must keep up with contemporary developments to be successful in their research activities. This article discusses the literature review as a methodology for conducting this research. It offers an overview of the changes and shifts in ethnographic research due to technological and environmental changes [7].

This study applies a systematic and extensive literature review of research, studies, and publications on digital ethnography. In Snyder's opinion, "*a literature review is an excellent way of synthesizing research findings to show evidence on a meta-level and to uncover areas in which more research is needed, which is a critical component of creating theoretical frameworks and building conceptual models* [8]. This literature review focuses on two essential issues. First, this literature review refers to an abstract discussion of digital ethnography. Second, the literature review as a method in this article relates to the debate around digital ethnography during the Covid-19 pandemic. This second issue critically reviews the prospects for using digital technology in ethnographic research during a pandemic.

This systematic and extensive literature review method helps the author elaborate on some substantive aspects of digital ethnography [9]. This systematic study aims to understand many fundamental adjustments in digital ethnographic activities, including methodological elements, logistics, field reformulation, the transformation of location into themes, and ethical issues. This systematic literature review method helps this research understand the fluctuations in the views and perspectives of ethnographers due to technological shifts and fast-paced situations.

3. A Brief Conceptual Review

Digital ethnography is an essential and emerging discourse in today's research world. Digital ethnography, like ethnography in general, refers to studying people and their communities in a real-world environment. It is pointed out that "*Digital Ethnography outlines an approach to ethnography in a contemporary world. It invites researchers to consider how we live and research in a digital, material, and sensory environment. This is not a static world or environment (p. 1)*" [10]. Thus, researchers can observe their respondents' lives in their natural habitat through digital ethnography.

This method mainly brings the researcher to the participant, not vice versa. Researchers can observe people or a community in their natural environment through digital ethnography, similar to other ethnographic activities. *Ethnographic research on online practices and communications and offline practices shaped by digitalization has become increasingly popular in recent years with the growing influence and presence of the internet in people's everyday lives* [11]. They can paint a deeper picture of how they think and feel than simply asking their participants to fill out questionnaires.

Digital ethnography enthusiasts assert that this method is only one phase of the logical evolution of ethnographic methods. This new method opens up more opportunities and allows researchers to understand the behavior of their source persons in more ways and means than before. However, digital ethnography is part of a new century of technology influencing research activity. Markham [12] outlines this standpoint as follows.

Ethnographic research in the digital age has foregrounded the mediation of the internet on communication practice in specific contexts throughout these waves. Digital researchers in this domain label their research 'digital' not because they are using digital tools to collect or generate data, conducting interviews online rather than in person, or using automated software or digital tools to analyze data. However, they might additionally do these things. Instead, they orient toward the interweaving, entanglement, or impact of the digital in interactions and relationships (p. 8).

Researchers can develop and elaborate information resources effectively and productively using various tools based on digital technology. Advances in digital technology also affect both researchers and informants. Researchers can peer into respondents' lives through many channels without showing physical presence, which may require more time, effort, and money.

Digital ethnography shows changes and even major transformations in research knowledge and practice. While there are many different ways to conduct ethnographic research, this method encourages diversity in research. One of the most significant dimensions of this change is participant engagement. Because digital technology is part of the respondents' daily lives or sources of information, research is not foreign to them [13].

Thus, they will be involved in the research process. With this, researchers will also have an incredible opportunity to obtain much information. It fits with Talip et al.'s argument, "*A digital ethnography approach allows researchers to use online observations to follow the participants online and observe their behaviors and interactions on social media* (p. 3). Researchers can get better results from this research process. Researchers can also make research activities a part of participants' lives in society. Researchers can access deep insights more quickly. As a result, they can capture and assess behavior and reactions as they occur, providing real-life data faster and easier than ever before [14].

Furthermore, digital ethnography also displays strengths. This dimension refers to the aspect of independence in the practice of this method. Respondents may have complete control over their use of digital devices and their information with researchers. This condition will, of course, narrow the emergence of intervention from other parties. Respondents can maintain independence in providing information to researchers [15].

In addition to its strengths, digital ethnography also benefits ethnographic research. Locus and geographic dimensions will not limit the action of digital ethnographic research. Digital ethnography is much more flexible than traditional methods [16]. Thus, besides having flexibility in making many adjustments, researchers can also reach many settings and contexts from respondents. Researchers have a more significant opportunity to screen respondents who may provide information that fits the research needs. On the logistical side, digital ethnography offers substantial advantages for researchers. This method saves time and money.

However, digital ethnography faces challenges in its application. Researchers especially should understand the changes regarding his identity due to digital ethnography. Before researchers use digital techniques in ethnographic research, they must consider their ability to use digital technology and understand the technological culture [17]. Researchers should also carefully consider the privacy and security dimensions of the respondents and their information.

4. Findings and Discussion

The following findings and discussion mainly focus on digital ethnography during the pandemic. Ethnographic studies face challenges during the pandemic, making it impossible to carry out ethnography. This article also reports that the sustainability of ethnographic studies during this period is crucial. Social research needs to make drastic adjustments through the use of digital ethnography. The pandemic has encouraged digital technology, the primary media for investigative actions. There is a need to address several crucial and fundamental issues and adopt methodological and technological skills.

4.1 Challenges and Sustainability

Subsequently, due to the fundamental challenges of ethnographic studies and the various health and public policies, it was realized that the pandemic had a tremendous impact on the jobs of those involved in social research. This rapid change seems to persist for an indefinite period. Initially, their activities usually require occasional visits to the field, meetings, or interviews with informants.

However, the two elements reported are no longer applicable due to social and travel restriction protocols; this implies that COVID-19 has created challenges that question the sustainability of ethnographic investigatory projects [18][19]. Therefore, the following vital points need to be considered.

First, not all authorities, including the national governments and non-state institutions globally, can provide a convincing map to eradicate the issue of COVID-19 [20]. This situation directly challenges the world of social research, particularly ethnographic studies. According to Shah, Capra, and Hansen [21], the uncertainty of future studies due to this pandemic is directly related to ongoing projects during the pre-crisis phase of this disease. Moreover, this lurking epidemic also influences essential decisions concerning potential project plans, which is terrible news for scholars [22].

Second, ethnographic studies are seriously involved in various analyses concerning the completion of future investigations. They are faced with the fact that almost all unfinished projects from the pre-pandemic period are linked to field research, a form of study that mandates that participants or resource persons need to experience chaos at some point. Based on this situation, Annika Lems writes that *"lack of access to machines, specialized equipment, and material, makes it impossible for several experiments to be carried out and subsequently, it is feared, that the scholars are deprived of important scientific innovations which tend to be delayed or canceled due to the pandemic"* (2020). The epidemic led to several challenges that caused the restructuring of ethnographic studies to ensure sustainability. Furthermore, another crucial issue is the provision of funds, as this tends to either reduce or affect project budget allocation.

Third, it is impossible to conduct research that requires or involves closeness to subjects due to the social distancing protocols [24]. Ethnographic studies solely depend on interaction, and this situation has mounted pressure on the need to carry out such analyses. Irrespective that a vaccine is intended to be synthesized soon, social restrictions are bound not to be fully eased, meaning this pandemic is expected to affect the world of research for an unpredictable period. Meanwhile, researchers must enrich conventional ethnographic studies with digital techniques and methods.

Fourth, these studies are determined by health policy strategies and protocols prepared and issued by official institutions from the state government and globally [25]. Therefore, there is a need to comply with all official protocols to curb the spread of the virus when forced to visit research sites. However, these health policies tend to differ from one location to the other. It is essential to adhere to public health regulations and social distancing norms and subsequently modify their agendas and designs to suit the current situation [26].

4.2 Research Adjustment in Digital Ethnography

Ethnographers familiar with field activities are also directly involved with the respondents and face real-life challenges during this era. Therefore, their studies require a multidimensional adaptation. Leiden University provided a specific guideline that stated that *"they realized now more than ever that anthropologists are unable to cover an entire field; rather, it is important to establish a means of interacting with the research participants"* [25]. Furthermore, almost all social research, particularly those familiar with ethnographic studies, must completely embrace the view that information technology is the new basis for this type of analysis [27][28]. Some of the numerous fundamental aspects that require adaptation to a digital basis are described by Natalie Sappleton [29]. This adjustment targets all elements of this research form, including the methodological, logistical, and ethical aspects [30].

Methodological adjustment

Authenticity and multivocality are two basic principles of ethnographic research; therefore, it becomes absurd to audiences, academics, and other investigators when these principles are not demonstrated [31][32]. Irrespective of the fact that it is reported in some social research that digital studies encounter specific challenges in exhibiting these two principles, it is considered unreasonable when these aspects are not fully and actively stated.

Therefore, these situations must provoke scholars to re-examine methodological assumptions and digital ethnography principles [33].

Ethnographers continuously rely on observation and *face-to-face* interactions to achieve accurate field descriptions. However, they should also consider massive changes in disruptive situations like pandemic times. Murthy [34] supports this trend by writing, "*Conducting social research using new media technologies raises its challenges. As researchers become covert participant observers, they shape the digital field site in sometimes unfamiliar ways (p. 849)*". This also causes them to state two reasons digital media is inadequate to capture the vitality of life in locations. *First*, when this technology penetrates social life, the resource persons increasingly interact through digitally-mediated meetings, which are unacceptable by the encounters. *Second*, this medium allows these people to participate differently than face-to-face interactions reported in conventional research.

Therefore, the growing importance of digitally mediated interactions with resource persons inevitably challenges demonstrating the authenticity of other phenomena related to the study focus [35][36]. Conversely, this research is unlikely to provoke scholars to re-examine the assumptions that led to underestimating their work.

Logistical adjustment

The current global situation caused by the pandemic requires a contextual understanding of the changing practices, values, and politics that ethnographic study provides. Therefore, logistical adjustments are an essential element of digital ethnography [37][38], and one must familiarize oneself with the world of technology, which serves as a primary tool during the investigation process.

Several crucial factors regarding this aspect need consideration. First, it is essential to ensure digital devices that support these activities, and second, adequate knowledge of these tools is required. Third, the resource person's digital equipment and the data collection process must correspond [39][40][41].

Therefore, logistical adjustments are related to the availability of technological equipment and the ability of these studies and resource persons to adopt digital tools for investigative purposes [42][11].

Reformulating real feel and being in the field

Two substantial elements of conventional ethnographic research exist: *real feeling* and *being in the field*. The power of connectivity between the study and the field must be understood. This is why they struggle to discover information, negotiate ethical issues, and conduct interviews [43][44].

Ethnographers always desire to enjoy the nuances of the research field, and without this genuine feeling, the second fundamental aspect, which is being used in the area, is missed. Meanwhile, ongoing engagement with resource persons at research sites has been a valuable way of acquiring knowledge, even at funerals. This process is because the adoption of digital media inevitably eliminates the views of social context from interviews and conversations.

Therefore, digital ethnographers need to provide new ways of defining the two main aspects earlier reported. Reformulation is the feeling that being in the field is necessary, and both those involved in the research and their sources experience this process. This

reformulation is expected to challenge the distortion of information, the field substance, and the actual nuances of the investigation.

From location to the theme as a central concern

Several claims reported that location politics, concerned with the central question of where the study is bound to occur, is one of the dominant issues encountered in ethnographic research. It is not a matter of choice of site. Instead, it also involves being physically present in the location. This idea has become a primary concern amid the strengthening use of digital media in ethnographic studies during this pandemic [45].

Ethnographic research refers to the phenomena or issues that exist in a place that is the study's focus. However, the original orientation of digital investigations requires explaining how objects observed are found and collected in an independent location mechanism.

Instead of assuming that some phenomena occur in certain physical places, this new orientation seeks to acknowledge how the information is acquired in a manner that does not depend on a single point. Therefore, it is necessary to focus on the study theme, and these digital artifacts, either archives or processes, provide different ways of coexisting with the research participants.

4.3 Mapping the Ethical Issue in Performing Digital Ethnography

The ethical dimension of digital ethnography is an essential issue because when dealing with related data, these principles are usually taken seriously [46][47][48][49]. Therefore, this research combines three critical ethical issues in digital ethnography.

The researched relationships or boundaries

Handling absent interviewees or indulging in *face-to-face* relationships during meetings must be reconsidered [50]. It is usually emphasized that such interviews create specific difficulties in anticipating ethical problems following the flexible relationship exhibited, causing reflexive practices to be a concern throughout the process.

Furthermore, the ethnographers should note the power imbalance among their participants. This situation defines what Bampton, Cowton, & Downs state in their article, "*The subject of 'voice' has been much debated in the qualitative research literature, not least in the context of 'empowering' those participating in research to 'find their voice' and 'own' the narrative*" [29]. Katherine Carroll [51] reported three primary aspects of these imbalanced patterns: status, knowledge, and the relationship between the two parties. Meanwhile, a considerable gap exists between a resource person absent at the study site and its sources [52].

It is explicitly stated that there is no relationship between ethnographers and sources because they are in opposite directions or regions, which are the other side of the computers or cell phones used during the interview process [53]. Practically speaking, particular challenges tend to exist, as ethical action is an inherent part of that which bridges the boundary of the study [54].

Informed consent

Informed consent formatted, distributed, and usually filled before data collection does not permit an adequate assessment of problems that arise during the study [55][56]. Meanwhile, these issues are further complicated by the rapidly developing technology in ethnographic digital research. There is a need to consider that potential misuse also links various anonymized and aggregated data derived from digital apps and devices. Subsequently, there is a need to assess the potential risk from the technological aspect of this research [57]. Several visual dilemmas that emerge in specific contexts need not be resolved by referring to higher principles and codes [58].

In addition, obtaining fully informed consent with checklists and distributing paper forms before data collection is the standard procedure for most academic institutions [55][59]. In practice, this procedure discloses information detrimental to the source, and judging the outcome of the visual presentation or materials is often complex.

Furthermore, participants can review and download their films before submission, and they can share this information with third parties to ensure they are happy with the disclosed content. This is true for most investigations where the participants collect the data, such as storytelling using cameras [60] video tours [61], and self-recording with wearables [62]. Subsequently, in most ethnographic investigations, the level of control is either limited or voluntarily transferred to the participants.

Participant rights: anonymity, confidentiality, ownership, and data release

Although anonymity and confidentiality are long-standing principles in social research [63] visual material makes it a problem [58]. Requesting the sources to participate in digital ethnographic research is "*the same as asking them to share their insights and perspectives with the entire world*" [64].

Furthermore, video disclosure and other digital productions are sensitive issues as they tend to expose the sources, thereby leading to stigma, discrimination, and other forms of harm or risk [65]. The critical issue concerns the where, reason, and the person who released the visual material [55]. However, assuming no data is confidential, the individuals carrying out the research and informants must publish sensitive information regarding health, sexual preferences, and financial status [66].

Moreover, the context in which the material is published is essential because new technology makes it possible to easily capture, review, interpret, and share too much information. Often, resource persons agree to share their videos with the research team, although they refuse to give them to external factors. Following digital technology, these persons possess absolute control of the material, which implies it is easily viewed, copied, and shared by them.

5. Implication and Conclusion

This article raises opportunities for future research, both in terms of theory development and concept validation. First, more research will be needed to refine and further elaborate our analytical review of this article. This study offers an opportunity to refine and validate the concepts and constructs that emerged from the authors' analysis in this article.

Finally, there is a need to adopt this new model, which is related to both the study and all sources or participants in the research, and pay attention to the ethical issues reported in digital ethnography.

This article has discussed several essential elements of digital ethnography, especially concerning its application in changing research environments such as the COVID-19 pandemic. This article argues that digital ethnography can fill research gaps during a pandemic. Ethnographic researchers can still conduct their research activities by arranging adjustments while still paying attention to crucial aspects such as the ethical dimension of research.

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