Time, Temporality, and Technology in Remote Participatory Research: Implications for HCI Research in Forced Migration

Cansu E. Dedeoglu

Faculty of Information, University of Toronto, cansu.dedeoglu@mail.utoronto.ca

Negin Dahya

Institute of Communication, Culture, Information and Technology, University of Toronto Mississauga; Faculty of Information, University of Toronto negin.dahya@utoronto.ca

Laurie Decarpentrie

Département de psychologie, Université du Québec á Montréal, decarpentrie.laurie@courrier.uqam.ca

Olivier Arvisais

Département de didactique, Université du Québec á Montréal, arvisais.olivier@uqam.ca

Abstract

In this position paper, we reflect on our experience of conducting remote, digital research in collaboration with community researchers in Dzaleka Refugee Camp in Malawi. Our discussion addresses research process and distinctly considers the important role of *time* as it is mediated by technology in this research design. This project work can be described as incorporating slow, multimedia, flexible research team training and data collection, using a combination of synchronous and asynchronous tools. Relationship building, trust, and the naming of power dynamics where they stand in the thousands of miles between research team members all circulate, resonate, and transform through our digital participatory research design.

CCS CONCEPTS • Human-centered computing~Collaborative and social computing • Human computer interaction (HCI)~ Empirical studies in HCI

Additional Keywords and Phrases: forced migration, refugee camp, time and temporality, participatory research, remote research

ACM Reference Format:

Cansu E. Dedeoglu, Negin Dahya, Laurie Decarpentrie, and Olivier Arvisais. 2021. Time, Temporality, and Technology in Remote Participatory Research: Implications for HCI Research in Forced Migration. In Migration and Mobilities Workshop at CHI 2021, May 8, 2021.

1 INTRODUCTION

As the global COVID-19 pandemic persists, collecting qualitative research data in hard to reach settings remains fraught with challenges. Access to vulnerable communities at a close and engaged level is near impossible, certainly in a face-to-face context. Digital data collection and participatory research practices have

become essential methodological tools to conduct qualitative research in settings like the Dzaleka Refugee Camp in Malawi, where this study is based.

Based on community-based approach, the focus of this project is to understand the ways in which teaching, learning, and technology interact in the daily lives of refugee people in Dzaleka Refugee Camp at home, in the community, as well as in formal education programs. Methodologically, we employ a novel approach which integrates participatory research methods with the art and science of portraiture, and, in a digital data collection setting. These are of course interrelated, as the method of data collection – a rich, participatory, ethnographically informed digital inquiry – presents certain affordances and limitations to what kind of knowledge can be learned and created in relation to education and technology in Dzaleka.

Despite the major mobility across its borders, HCI research in East Africa has mostly concentrated on major cities and rural communities, with little attention paid to refugee contexts [1]. Our research explores a growing gap between varied and various types of technology that are present in the lives of forced migrants and throughout migration journeys, and, the contrasting dearth of access to formal education and digital literacy for refugees living in Dzaleka. This position paper is framed around the question: How has the adoption of this method in a global pandemic and across borders interacted with time as a complex and plural construct?

2 BACKGROUND

2.1 Education and Technology in Refugee Settings

In recent years, the integration of technology into resource deprived communities like refugee camps has become more prevalent. Most notably, of course, is the near ubiquitous distribution and use of mobile phones and related internet enabled applications and software. The United Nations High Commissioner for Refugees has identified the importance of mobile phones in the lives of refugee people [23]. However, barriers to connectivity include unstable network connections, lack of access to electricity to charge phones, and inadequate literacy and digital literacy levels. These challenges are further complicated with multiple intersecting inequalities of age, race, gender, ability, socioeconomic situation, access to education and training [3,18,25]. Important to note is that much of the content online is not available in local languages, making digital literacy additionally challenging.

Despite barriers and inconsistencies in access, studies have shown technology is prevalent in the context of migration, ranging from mobile phone usage to navigate the process of fleeing one country to seek asylum in another, to communicating with family and friends in diaspora, and using language learning apps in host countries [6,7,10]. This landscape presents critical questions about how people experiencing forced migration are teaching and learning about technology, and who is being left behind.

This focus on digital and mobile technology presents an educational paradox of sorts. Mobiles are critical tools to support teachers and learners seeking formal education, and are being used to promote important gender equity efforts [4,5]. At the higher education level, only 3% of refugees are enrolled in accredited programs although many of these programs include online learning, especially over the past year. However, only 77% of refugees access formal primary education and only 31% access secondary school (36% of boys are enrolled in secondary school and 27% of girls). There are some technology initiatives in classrooms [14], but teachers have also described restrictions on the use of tools like mobiles in the classroom as well [5].

2.2 Dzaleka Refugee Camp

Dzaleka Refugee Camp is located approximately 45km north of Lilongwe, the capital city of Malawi (see Figure 1). Originally a prison for political detainees, the area was transformed into a refugee camp in 1994 [12]. As of 31 January 2021, there are 48,547 refugees and asylum-seekers in the camp [24]. The majority of refugee population is from Democratic Republic of Congo (DRC) with the remaining population originating from Burundi,

Rwanda and others from the East and Horn of African countries. The camp is currently managed by the Malawi Government and the UNHCR along with the support of a variety of humanitarian aid organizations.

Figure 1: Dzaleka (WFP/Primo Luanda)

The legal restrictions imposed by the government's reservations to the 1951 Convention relating to the Status of Refugees on certain rights, including the freedom of movement, wage-earning employment, and public education, pose significant barriers to the possibility of reaching educational and livelihood opportunities for refugee communities in Dzaleka [9]. Existing research on Dzaleka has identified major problems due to this prolonged isolation, such as boredom, frustration, depression, and violence against women [12,19]. Several aid organizations are working to support and meet the diverse needs of communities through offering services and programs.

3 METHODOLOGY

We are building our research on Sarah Lawrence-Lightfoot's ethnographic methodology of *Portraiture* [11] and pairing it with participatory research practices and digital data collection methods. Our research presents "a systematic use of observation, interviews, and other forms of data collection" [16] to describe, express, and construct descriptive and rich portraits of how and what technology are being taught and learned, by whom.

Portraiture as a method of scientific inquiry aims to iteratively search for and construct a complex picture of human experience through language and visual art. The method can involve members of a community sketching, photographing, and describing the subject of study (e.g. teaching and learning with or about technology in refugee camps), in addition to more traditional scientific methods of inquiry such as interviews and documenting field notes. Portraiture as method involves constructing descriptive portraits through a process of textual and visual creation and analysis.

Community researchers involved in this study are using multimodal forms of data capture and data creation to interpret and co-construct learning portraits related to technology in their own lives. These might include pictures and videos captured on social media platforms like WhatsApp, or simple hand-drawn illustrations representing a practice or configuration of how learning with and around a particular technology happens. Learning portraits, as research outcomes, can also include visual art as a form of expression of research findings – for example identifying visual patterns and including illustrations or photographs as part of the "findings." Time surfaces as a relevant analytical frame from research design to data collection, with visual data capturing moments in time, and mobile messaging applications facilitating the transfer of that data in ways that are both instantaneous and also delayed from the moment of their capture.

Recent studies show that technology-based methods for collecting research data, such as using text messaging applications like WhatsApp, can present solutions to geographic barriers, amplify voices of vulnerable groups,

increase access to remote communities, and be cost-effective [22]. However, their application does not overcome qualitative obstacles such as the configuration of power dynamics in an interview. As such, these tools are best suited for work in conjunction with other more traditional approaches. Importantly, research using digital data collection does not yet reflect on the role of technology to mediate time in research settings, which we hope to surface for discussion here.

Our project began with the recruitment of community researchers through our non-profit partner and using WhatsApp, asking for video submissions from interested applicants in Spring of 2020. Due to the pandemic, it was October 2020 before we hired six community researchers, four men and two women. In Fall 2020, we began a five-month, online research training program through Zoom video-conferencing tool. Starting April 2021, the team of community researchers are beginning fieldwork in Dzaleka.

4 PRELIMINARY DISCUSSION AND IMPLICATIONS FOR HCI

In this section, we share some of our reflections drawing on our 7-months experience working with community researchers during pandemic, remotely and digitally. Our reflections in this position paper are focused on temporal aspects of community-based, participatory research with digital data collection method, and in relation to our interaction with our colleagues, all enabled and/or constrained by certain infrastructures and technologies. As an underexplored area in HCI research in migration, we believe that critical reflection on time and temporalities holds unique potentials for researchers to conduct remote research in refugee camps and other hard-to-reach fields.

4.1 Understanding time in Dzaleka

Refugee camps have unique temporal characteristics. While originally designed to be transit spaces for refugee people to stay for a limited time, camps are now seen as semi-permanent spaces as periods of waiting for resettlement possibilities or conflict resolutions have become increasingly protracted [2]. As Hage notes “waiting creates time” [8, p.7] as various modalities of waiting produce their own temporalities. For example, waiting is enacted in refugee camps in relation to access to services (see Figure 2). Refugee communities in Dzaleka are waiting for many things, e.g., food, water, doctor, and viable future.

Figure 2: Borehole in Dzaleka. Photo taken by Godeline Ndonji, community researcher in the project.

The COVID-19 pandemic has exacerbated the conditions of these waitings as access to critical resources are restricted, with schools and aid organizations in the camp being closed due to public health measures. Our own project asked the applicants from Dzaleka to wait, indefinitely, over months of the pandemic, before we were able to hire them. Relatedly, we/they all had to wait on our intermediary non-profit partner to be able to physically enter the camp to distribute phones, sign employment contracts, and later to distribute project ID cards and other materials.

4.2 Taking Time to Build Good Relations

During our "time" in this research, we have had several moments where we reflected on our positionalities and temporalities vis-à-vis our colleagues' in Dzaleka. As Sharma (2013) reminds us "a temporal perspective offers insight into inequality and recognizes the transecting multidimensionality of social differences" [17, p.138]. Similarly, Massey [13, p.64] points to the contested nature of time, space, and social interactions, and defined space not as a flat surface or dimension, but as a "spatio-temporal event", a network of power relations embodied in places.

These reflections have been possible partly because how the feminist and participatory design of this research prioritizes reflection, attention, and awareness to build good relationships with communities in Dzaleka. These principles are also embedded in the method of portraiture. Firstly, we have sought every opportunity to share and connect with our colleagues through digital tools. At times, these happen in our check-ins that occur one to three times in a week, while other times, we have connected during our scheduled times in weekly training sessions. As our conversations grow, we have intentionally allowed these moments take up space/time, if they do.

Secondly, we built our priority of building good relations into the design of our training program, which involves weekly training sessions on data collection methods, including observation, interview, and visual research. At the end of each module, community researchers conducted exercises to apply their learning into the practice. These exercises eventually involve several details and information about their everyday lives in Dzaleka. We also seized this opportunity to make ourselves open to our colleagues in Dzaleka. During pandemic, our lives become busier with working from home in competitive academic environments in North America, all of us have been occupied with different forms of caring responsibilities while dealing with different levels of precarity and anxiety. Sharing our stories (and how we experience our time) through the same exercises we conducted has also led to our relationships being open, genuine, and flexible, allowing them to grow.

Pschetz challenges the dominant narrative of single time and draws attention to local, situated, and hidden temporal practices: "Different cultures, groups, and individuals create their own temporal infrastructures to anticipate, delay, and negotiate time through everyday interactions" [15, p.58]. Our conversations with community researchers have been informing our understanding of complexity and multiplicity of temporal experiences of refugee communities in Dzaleka, which uncover multiple forms of oppression and power inequalities that are historically rooted in mainstream research practices. For example, during one of the training sessions the research team were discussing how to conduct sequential interviews with communities in Dzaleka. This interview style requires scheduling three sessions with research participants. While conversing some of the logistical elements, two of the community researchers oppose this idea by stating that people in the camp cannot make time for multiple sessions; instead, they would prefer having one at a time session, even if it was three or four hours long. What could this tell us about time in Dzaleka?

We understand this function of time as partly due to the fact that refugee communities in the camp have limited access to wage earning jobs, so they are constantly on the lookout for something that can sustain their livelihoods, making their "future time" difficult to anticipate. While this is true, we also believe that it reveals much about how refugee communities in Dzaleka perceive researchers based in western universities and the type of research they carry. Our conversations with community researchers about everyday life in the camp have informed us about the nature of past research activities in the camp. As they indicated, several previous research works operating in the camp fails to add value to the community, while occupying community members' time, asking questions, conducting surveys. Without immediate or long-term benefits from their commitments, communities in Dzaleka maintain their legitimate doubt to make time for research activities. In this case, we assured and agreed that the researchers have the authority to determine how to schedule the interview(s) in ways that work for them. Though this potentially compromises the "rigor" of the applied interview method, the situation depends that the rigidity of an academic method bends with the shifting structures of time demanded by the community.

4.3 Time and Technology

Our reflections also involve instances of how temporal tensions are mediated through diverse technologies and practices. Current internet infrastructure in Dzaleka poses challenges to have a seamless connection during our meetings. Therefore, we record all the training sessions and most of the meetings where research decisions are made to make sure that our colleagues can watch these videos in their own time. These are uploaded to a shared Google Drive folder for everyone's access. Sometimes calls drop all together because data plans run out before our expected deadline or because there is a heavy rain. Hereto, academic timelines and expectations have to be cast aside. We all have to wait.

When we can conduct training sessions, we attend to preparing instructive tools and materials that require less bandwidth. Some of these decisions are made as a result of several rounds of testing, exploring, and trial/error. For example, when Zoom does not work well, we switch to asynchronous tools, such as WhatsApp voice notes. These methods have emerged from careful planning around bandwidth and connectivity, which we have explored collectively over many months together. Our expected data usage kept running out sooner than we expected, meaning that we had to rebudget and reorganize the structure of phone plan renewals for the team. These various flexibilities are needed and, importantly, recognition that we do not understand the constraints and extractions on time and technologies in Dzaleka is a necessary standpoint to maintain respectful collaboration. Our decisions are also supported by the literature and service reviews we regularly conduct on available tools as well as their affordances and limitations.

5 CONCLUSION

There has been increasing calls to HCI researchers in migration field to reflect on their practices of working closely with people experiencing forced migration [1,17,21]. As our reflections suggest, remote/digital field work requires researchers working in refugee camps to rethink the pace of lives, here and there, and inequalities embedded in these settings. Our field experience shows that this rethinking also needs to be made about the pace of research. The nature of field works within HCI and related fields in international migration research tend to be fast pace due to field-specific constraints (i.e., meeting tight conference and publication deadlines), while researchers are increasingly calling for prolonged study timelines that allow them to have deeper comprehension of their field, and establish and sustain connection with their participants and collaborators [17].

We suggest that our research design which prioritizes reflection, reciprocity, attention, and awareness provides important insights for fellow researchers looking to sustain meaningful connections with collaborators and research participants in forced migration settings. Drawing on above discussions, we would like to have a discussion on the following topics:

1. How technology can support the experience of flexibility, slowness, and reflection in HCI research in forced migration settings?
2. What privileges do we hold as HCI researchers in refugee contexts in relation to time and temporalities? And how can we challenge our assumptions about our research participants' time and temporalities?
3. How can alternative research designs support us to make inequities and oppressions with distinct temporal characteristics visible and recognizable?

REFERENCES

1. Rachel Clarke and Cuthbert Tukundane. 2021. Mobility justice: working through cross-disciplinary perspectives on technology and refugee youth in Uganda during a pandemic. *Interactions* 28, 2: 28–33.

2. Deirdre Conlon. 2011. Waiting: feminist perspectives on the spacings/timings of migrant (im)mobility. *Gender, Place & Culture* 18, 3: 353–360.

3. Kristy Crabtree and Petronille Geara. 2018. Safety planning for technology: displaced women and girls' interactions with information and communication technology in Lebanon and harm reduction considerations for humanitarian settings. *Journal of International Humanitarian Action* 3, 1: 3.

4. Negin Dahya and Sarah Dryden-Peterson. 2017. Tracing pathways to higher education for refugees: the role of virtual support networks and mobile phones for women in refugee camps. *Comparative Education* 53, 2: 284–301.

5. Negin Dahya, Sarah Dryden-Peterson, Dacia Douhaibi, and Olivier Arvisais. 2019. Social support networks, instant messaging, and gender equity in refugee education. *Information, Communication & Society* 22, 6: 774–790.

6. Liesbeth De Paepe, Chang Zhu, and Koen Depryck. 2018. Online Dutch L2 learning in adult education: educators' and providers' viewpoints on needs, advantages and disadvantages. *Open Learning: The Journal of Open, Distance and e-Learning* 33, 1: 18–33.

7. Dana Diminescu. 2008. The connected migrant: an epistemological manifesto. *Social Science Information* 47, 4: 565–579.

8. Ghassan Hage, ed. 2009. *Waiting*. Melbourne University Publishing, Carlton, Vic.

9. Lauren Healy. 2012. Unable to see the future: refugee youth in Malawi speak out. *Forced Migration Review* 40.

10. Mark Latonero and Paula Kift. 2018. On Digital Passages and Borders: Refugees and the New Infrastructure for Movement and Control. *Social Media + Society* 4, 1: 205630511876443.

11. Sara Lawrence-Lightfoot and Jessica Hoffmann Davis. 1997. *The art and science of portraiture*. Jossey-Bass, San Francisco.

12. Catherine Makhumula. 2019. Re-imagining Dzaleka : The Tumaini Festival and Refugee Visibility. *Eastern African Literary and Cultural Studies* 5, 1: 1–18.

13. Doreen Massey. 2013. *Space, place and gender*. John Wiley & Sons.

14. ProFuturo. 2020. Education in emergencies: our model of refugees | ProFuturo. Retrieved April 11, 2021 from https://profuturo.education/en/news/education-emergencies-model-refugees/.

15. Larissa Pschetz. 2015. Isn't it time to change the way we think about time? *Interactions* 22, 5: 58–61.

16. Cassie Quigley, Amy Trauth-Nare, and Nicole Beeman-Cadwallader. 2015. The viability of portraiture for science education research: learning from portraits of two science classrooms. *International Journal of Qualitative Studies in Education* 28, 1: 21–49.

17. Dina Sabie, Cansu E. Dedeoglu, and Syed Ishtiaque Ahmed. 2021. A Decade of International Migration Research in HCI: Overview, Challenges, Ethics, Impact, and Future Directions. *ACM Transactions on Computer-Human Interaction (TOCHI) [Under Review]*.

18. Dina Sabie, Samar Sabie, Cansu E. Dedeoglu, et al. 2019. Exile Within Borders: Understanding the Limits of the Internally Displaced People (IDPs) in Iraq. *Proceedings of the Fifth Workshop on Computing within Limits - LIMITS '19*, ACM Press, 1–16.

19. Loveness H. Schafer. 2002. True Survivors: East African Refugee Women. *Africa Today* 49, 2: 29–48.

20. Sarah Sharma. 2013. *In the Meantime: Temporality and Cultural Politics*. Duke University Press.

21. Reem Talhouk, Ana Bustamante, Konstantin Aal, Anne Weibert, Koula Charitonos, and Vasilis Vlachokyriakos. 2018. HCI and refugees: experiences and reflections. *Interactions* 25, 4: 46–51.

22. Mary K. Twis, Vivian J. Miller, Courtney Cronley, and Noelle Fields. 2020. Collecting qualitative data through mobile applications: A multiple case study report. *Journal of Technology in Human Services* 38, 1: 38–53.

23. UNHCR. 2016. *Connectivity for Refugees*. .

24. UNHCR. 2021. Country - Malawi. Retrieved April 12, 2021 from https://data2.unhcr.org/en/country/mwi.

25. Melissa Wall, Madeline Otis Campbell, and Dana Janbek. 2019. Refugees, Information Precarity, and Social Inclusion: The Precarious Communication Practices of Syrians Fleeing War. In J. Retis and R. Tsagarousianou, eds., *The Handbook of Diasporas, Media, and Culture*. John Wiley & Sons, Inc., Hoboken, NJ, USA, 503–514.