
1.3 A Hurricane Lamp in a Dark Night: Exploring Smartphone Use for Acculturation by Refugees

*Alexander B. Merz, Mamadou Seone, Isabella Seeber, Ronald Maier
University of Innsbruck, Department of Information Systems, Production
and Logistics Management*

Abstract: Refugees arriving in Europe face numerous socio-cultural challenges towards being integrated members of their host society. While acculturation strategies and ICT use of refugees have been studied separately, we investigate refugees' smartphone use for acculturation by conducting qualitative interviews with 30 refugees. We contribute five practices related to acculturation that express refugees' intercultural exchange within the host society while preserving their original culture: seek information online; communicate with family and friends abroad; meet locals; meet peers and counteract boredom. Tied to these practices, we find the five consequences empowerment, connection to host society, distraction, sense of belonging and connection to origin, which give an account of the various acculturation issues and how refugees use smartphones in support thereof.

1 Introduction

In his 2015 global report, the United Nations High Commissioner for Refugees (UNHCR) has recognized 21.3 million individuals as refugees that were forcibly displaced worldwide [1]. As a consequence, Europe has recently experienced a refugee crisis with over 1 million refugees, displaced people and other migrants that arrived in the European Union in the year 2015 alone [2]. Even though the number of refugees newly arriving to the EU has decreased since then, the European Union continues to face the crisis' challenging effects [3]. As refugees become asylum seekers, not only do they have to switch from a short-term 'survival' to a longer-term 'living' mode, but they also need to cope with numerous socio-cultural challenges towards being a legitimate, integrated member of the host society. While the concept of integration is hard to define and highly sensitive to the context in which it is studied [4], we adopt the related concept of acculturation [5] to study how information and communication technologies (ICT), specifically mobile media and the mobile Internet connection accessed with smartphones, help refugees to engage in social and intercultural exchange in their host society. The challenge of acculturation is comprised of maintaining one's own cultural identity and concurrently becoming involved in the local culture [5]. Not only do refugees share the challenge of acculturation in their host country, but they can also become part of emergent communities of practice, in which situated learning and knowledge exchange take place related to this shared

challenge [6]. While immersing in the local culture, refugees can increasingly become members of existing communities within their host countries, both virtually and in “real life” [7].

Smartphones promise to support such access to information, knowledge and people everywhere and anytime [8] and thus are an integral part of everyday life [9] of the majority of the world population in general and of refugees in particular [10]. In this sense, it is hardly surprising that the combined data volume of Wi-Fi Internet use in an asylum home can be equal to that of a major commercial airport [11]. However, using ICT to engage in social interactions constitutes solitary and virtual acts that typically occur in private, allowing to communicate with absentees [12]. Yet, connecting with others virtually through ICT also enables refugees who share the same cultural origins, migration routes or refugee accommodations to form online communities, in support of maintaining one’s cultural identity [13]. While there exist insights into acculturation, ICT use and information practices by refugees, these concepts have been studied separately from each other. What is missing is a more holistic picture about how certain practices of ICT use can be understood when adopting the theoretical lens of acculturation. This work investigates the role that smartphones play for refugees in everyday life in their host countries by elucidating the research question: How do refugees use smartphones for acculturation? In order to answer this research question, we performed an exploratory qualitative study that draws on a sample of 30 semi-structured interviews, which we conducted with refugees in the state of Tyrol, Austria. Our study contributes five practices of refugee’s smartphone use, as well as the consequences these enacted practices have on acculturation [5].

2 Acculturation and the Role of ICT

Acculturation is concerned with how different cultural groups and individuals with different cultures interact in a plural society [14]. On the matter of how to acculturate, Berry [5] identifies two issues: first, *contact and participation*, which concerns the extent to which groups and individuals strive for relationships with the larger, hosting society; and second, *cultural maintenance*, which addresses the preservation of existing cultural identity and characteristics [5]. In the sense of acculturation, *integration* is a strategy that combines maintaining cultural identity with participating in the larger society [5]. The role information plays in the everyday lives of international migrants has been investigated and information practices have been found with regard to needs, sources, uses and barriers [4]. ICTs have been accounted for as providing access to significant sources of cultural information for refugees, as well as facilitating transnational practices by allowing easy and real time communication over long distances [4], [12]. Refugees have been observed to use the Internet and smartphones not only as ‘lifelines’ facilitating their journeys

[15], but also to maintain and promote their original culture and traditions after resettlement [16], [17]. As a study on Syrian refugees demonstrates, access to social media information originating from existing social ties is important for decision-making and to validate rumors -- not only during, but also before migration [18]. Likewise, refugees' access to digital technologies and their ability to retrieve relevant information play a supportive role for social inclusion [19], which has been shown in the case of information poverty and digital divide among refugee groups [20]–[22]. Beyond the discussion on digital divide among refugees, Díaz Andrade and Doolin [19] explored how ICT contributes to the social inclusion of refugees. The authors identify different capabilities of ICT, such as participating in an information society, communicating effectively, understanding a new society, being socially connected or expressing a cultural identity [19]. Similarly, the use of social networking sites has been associated with the integration of refugees in terms of getting to know the new language and culture and establishing new social relationships [23]. While the above-mentioned findings demonstrate what refugees are able to achieve through ICT, a link between the role of ICT and the issues of acculturation remains to be established. In this study, we focus on practices [24] of ICT use, specifically smartphone use, in the refugees' everyday life, to explore how refugees acculturate in terms of cultural maintenance as well as participation and contact within their host society [5].

3 Study Design and Analysis

We conducted 30 semi-structured interviews in spring and summer of 2016 with refugees living in the state of Tyrol, Austria, who were interviewed in their living areas at state-run accommodations. Sampling of interviewees was purposive, following a snowball strategy, i.e. starting from a small number of people and drawing on their connections to others, in order to gain access to participants who are able to provide information-rich insights [25]. We drew on gatekeepers [26] to contact the initial interviewees for this study. These gatekeepers provided us with access to interviewees based on their existing, trusted personal relationships with refugees. We used an interview guide with open-ended questions [25] to give the interviews a general structure focusing on the practices [24] of ICT, specifically smartphones, in the refugees' everyday life as well as on refugees' acculturation strategies. We asked standardized open-ended questions such as: "What is the role of ICT, such as your smartphone, in your life?", "what are the main applications you use?", "who are the persons you communicate with?" or "do you think using ICT helps you to socially integrate in the Austrian society?" We asked follow-up questions in order to encourage respondents to freely state their experience and to elicit in-depth narrations. One author conducted the interviews in English. In cases where it was difficult for interviewees to understand and speak English, questions were rephrased in simpler terms and some interviews were conducted in French, which is the native language of

some respondents and of the interviewing author. Interviews lasted between 10 and 20 minutes and were audio-recorded. The interviews were subsequently transcribed while pseudonymizing any personal information to assure interviewees' anonymity. Transcripts were translated to English when necessary.

About one third of respondents are refugees from Middle Eastern countries, whereas the rest originates from African countries. The average age of respondents was 30. We interviewed 6 women and 24 men. When asking further female refugees for their participation, those originating from Middle Eastern countries refused to participate due to religious considerations. All interviewees had lived in Tyrol for at least one year and they owned at least one smartphone; some additionally possessed another mobile phone and/or tablet or laptop computers. Most paid for their personal Internet connection, while only a few relied on just the Wi-Fi provided by the refugee accommodation.

One author, who also conducted the interviews, analyzed the 30 transcribed interviews and elicited thick descriptions of phenomena of interest relevant to this study [27]. Another author used ATLAS.ti as a software for qualitative data analysis for coding and analyzing the transcripts systematically [28]. Both authors engaged in discussions on their interpretations, while the remaining authors took a more distant and critical position for interpreting. Qualitative coding was performed iteratively in three major steps: open, axial and selective coding [29]. First, we structured the data inductively through open coding with codes on typical uses of smartphones with exemplary codes being "web browser", "get directions", "translate", "inform on new culture", "learn language" or "connect with family abroad". As the set of codes grew larger from one transcript to another, new and existing codes were revised, updated and merged. Second, we identified key patterns in axial coding, which express the pursued goals from using ICT, with axial codes such as "being independent" and "getting to know Austrians". Third, five major themes emerged across interviews during selective coding, which comprise the practices of smartphone use detailed subsequently.

4 Five Practices of Smartphone Use

In general terms, refugees are avid users of smartphones, which denote their primarily used category of ICT devices. Directly tied to smartphone use is accessing applications ('apps') and the Internet, as these devices come equipped with necessary networking hardware and software. Figure 1 provides a list of apps refugees reported to be using, sorted by their predominant use for either cultural maintenance or participation and contact with the host society.

This introduces a substantial change for refugees who did not use the Internet and/or ICT in their home country on a regular basis: *“In my country, I didn’t use Internet every day or everywhere like here. Here, [...] I cannot spend a day without check[ing] my different accounts. That is impossible!”* (R9) Respondents mostly express that they consider their use of ICT as essential and inevitable in order to manage the social and cultural gaps they experience in their host country. *“ICT are these windows which give us a worldview, a bridge between us and the others.”* (R8) This introduces a certain dependency: *“ICT is like ... My blind stick, or, my hurricane lamp [...] and this life of exile is like a dark night. So what can we do at night without light? Nothing, isn’t it?”* (R3)

Seek information online. Refugees learn about their host country on the web in order to gain a better understanding of the new culture they immerse in. Respondents express their desire to be as self-dependent as possible when searching for all sorts of information online concerning their lives in Austria. This desire is particularly emphasized concerning information on the legal system of the host country, especially asylum laws. When it comes to orienting oneself in an entirely new place and culture, getting directions through navigation apps is seen as very helpful. This also applies for information on the public transportation system, such as time schedules and bus routes. *“[...] I was marveled by this [maps] application. I promised to buy me a smartphone in order to no more ask my way. Our streets are not as numbered with names like here.”* (R5) Translation apps and online dictionaries further support refugees in being self-dependent when they encounter situations in which they necessarily need the German language to communicate. Learning the host countries’ language is a predominant concern expressed repeatedly by the interviewees. Refugees search for materials online that support learning German by self-study. They report that they use dedicated websites, video tutorials and Facebook pages to learn the language as well as Austrian radio broadcasts to familiarize themselves with the Austrian dialect. These materials found online also serve as a supplement for language courses provided to refugees. *“Learning German with ICT is my favorite way to learn.”* (R17) *“It is much easier to watch YouTube videos teaching German. I learn at my own rhythm without any kind of stress or eyes ready to judge me.”* (R9)

Communicate with family and friends abroad. To stay connected with their family and friends who live abroad, refugees use smartphone applications with Internet audio and video calling capabilities, as well as social networking sites and various messaging applications. This allows refugees to stay in touch with and to feel close to the significant others in their home countries: *“I have a wife and children in the country. I miss them. Just hearing their voices but also seeing them mitigated my suffering. [...] I can’t imagine a day without talking to them.”* (R12) The costs of

making video or audio calls over the Internet are considerably lower compared to traditional phone calls, which reduces the stress perceived while communicating. Refugees describe staying in touch and staying informed on their origin as their way of ‘virtually’ visiting: “[...] *through the ICT you can travel [there], see people and talk with them through video call, visit places, have the latest information.*” (R1)

Meet locals. Interviewees commonly agree that it is essential to get to know locals for being integrated into the host society. A first personal contact with Austrians can either be initialized and/or maintained through ICT after the initial meeting has taken place. Some refugees report that they were more successful establishing an initial contact to Austrians online rather than offline: “*It’s easy on Facebook to expand the circle of my friends. [...] Trust comes with time. There are people with whom I exchanged on Facebook long time before these people decide or agree that we meet in real life.*” (R5) Refugees also mention using dating apps such as Badoo to get to know new contacts, not necessarily looking for a relationship. Usually, a contact is established by combining several means of communication: “*The start point was Internet, through Badoo. And from Badoo to Facebook and from Facebook to phone and then we physically met.*” (R1)

Meet peers. Getting to know other refugees and peers from the same home country is commonly described as a less difficult endeavor: “*Everybody can refuse to be friend with me but not someone who is from the same country like me. We are like brothers.*” (R10) Refugees express that maintaining a frequent contact with their peers is supportive in their situation as this gives them a sense of belonging in an otherwise unfamiliar environment. As said a respondent: “*Maintaining the communication between us permits to recreate our original environment, so that we can feel not totally uprooted.*” (R13)

Counteract boredom. Refugees applying for asylum are usually not allowed to be gainfully employed. This creates the need the need to keep oneself occupied and often, interviewees say that they use their smartphones also as a way to entertain themselves, e.g. by watching movies. “*You know living in a refugee camp it is like living in a prison. You have not the right to do certain things. You are alone. You need this kind of device to keep you company.*” (R2)

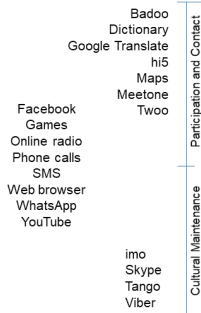


Figure 1: Smartphone apps mentioned by interviewees

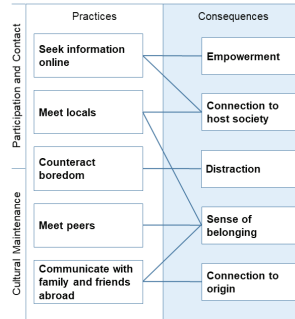


Figure 2: Practices and consequences of smartphone use by refugees

5 Consequences of Enacted Practices

In the following, we discuss how the five practices from above constitute consequences for refugees' acculturation in terms of *participation and contact within the host society as well as cultural maintenance* [5] (see Figure 2).

Empowerment. By *seeking information online*, refugees strive to be as independent as possible. This includes the search for accurate information online, especially with regard to information on asylum laws. As information obtained through Internet sources is trusted more than what is known from hearsay, refugees use online sources to verify information obtained by word-of-mouth. Using smartphone apps to navigate, to look up public transport schedules and to translate, refugees further empower themselves to become self-dependent.

Connection to host society. To *seek information online* also allows refugees to learn the host country's language and to understand its culture. This by itself allows refugees to establish a connection to the society they reside in and it further facilitates the contact with Austrians. To *meet locals*, the initial contact is either established online or offline. If initiated online, refugees typically combine several communication channels and eventually meet offline in person. If initiated offline, typically contact details for text messaging or social media are exchanged to remain connected. The forming of personal relationships through contacts with locals gives refugees a connection to the host society.

Distraction. By playing a game, watching a movie or using other smartphone apps for entertainment, refugees keep themselves occupied and *counteract boredom*. Given the otherwise limited occupational choices available to asylum applicants, refugees can at least enjoy freedom of choice with regard to how to fight solitude and to pass time.

Sense of belonging. While *meeting locals* supports refugees to anchor in their host society, *meeting peers* allows refugees to remain rooted in a local refugee community that shares cultural values, a common language and ethnicity. Perceiving familiarity in an otherwise alien society creates a sense of belonging, allows for mutual support in difficult situations and enables refugees to maintain their original culture. Being rooted to their original culture and strengthening family ties and values is sustained by *communicating with family and friends abroad*, which induces a sense of belonging even without physical contact.

Connection to origin. Being geographically separated from their significant others, refugees benefit from ubiquity – being here and there simultaneously – in terms of Internet audio and video calling, social media as well as messaging at low cost to *communicate with family and friends abroad*. By staying in touch, refugees remain informed about news from their home countries, which also fosters maintaining their cultural identities.

6 Implications, Limitations and Future Research

With these five consequences stemming from refugees' practices of smartphone use, we contribute a deepened understanding of the role of using smartphones for acculturation. By enacting the identified five practices, refugees are able to incorporate the resulting consequences in their acculturation strategies, which combine both, issues of *participation and contact* as well as *cultural maintenance* [5]. The results of this study could serve governmental bodies and policy makers regarding the design of asylum policy and refugee integration programs. Such programs should utilize the fundamental role of refugees' smartphone use to embrace their integration efforts. To offer smartphone apps and other mobile media containing information specific to their situation as asylum applicants might facilitate refugees' acculturation. Providing such offerings to support distinct practices could foster desired consequences of refugees' smartphone use that enable their integration in the host society. One of the first 'refugee apps' was created in Germany to help the initial orientation of refugees in the city of Dresden [30] and there exist an app issued by the German Federal Office for Migration and Refugees to guide refugees for the first weeks in Germany [31] plus a number of apps available for refugees in many European countries including Austria [32]. Apps are needed that go beyond information on initial orientation in the first couple of days and weeks after arrival and that provide country- and region-specific

information. For example, the Austrian online community ‘Josoor Answers’ strives to connect local volunteers with refugees across language barriers [33]. In addition, public awareness on the necessity of smartphones for refugees needs to be raised. Programs to recycle old mobile phones could be extended by asking for donations of second-hand smartphones to refugees. Since having access to mobile Internet is an integral part of smartphone use, cities and municipalities should continue to expand their open Wi-Fi spots at public places. This would not only allow refugees to have access to the Internet, but also to bring locals and refugees together in public places. In the wake of the refugee crisis in Europe, social media sites such as Facebook have been challenged with negative effects such as the spread of hate speech, fake news and alternative facts. Less attention has however been paid to the potentially integrative capabilities and tempering influence of social media. This study demonstrates the positive aspects of social media use in the context of the refugee crisis as we show that refugees draw on the capability of social media to connect with locals in the host society to support acculturation.

Some limitations apply to our study. We identified the practices and consequences of smartphone use from a qualitative sample of 30 refugees living in the state of Tyrol, Austria, at state-run accommodations. Our results are therefore bound to this context. There was some mistrust towards the interviewer as refugees expressed the concern that the data collected could be used against them to reject their applications for asylum and they might have been reluctant to report negative experiences, incidents, views or opinions in the interviews, which therefore might be underrepresented within our sample. We did not consider pre-existing ICT skills of refugees prior to their journeys to Austria or assess their present skills in the scope of this study. These difficulties could, to some extent, be remedied by the fact that the interviewer himself had a refugee background and was therefore able to relate to and empathize with the interviewees. When asking refugees to participate, we reemphasized and guaranteed that any data collected would be handled confidentially and could not be traced back to the interviewees. Finally, interviewees had varying levels of English language skills which limited their understanding of questions and the depth of their answers, but was sometimes alleviated by conducting interviews in the French native language of both interviewer and interviewees which then, however, had to be translated into English.

Future work is needed to follow up on the results of this exploratory study by empirically testing causal relationships between practices and consequences we identified. Such quantitative inquiry could extend to a pan-European context in order to investigate differences between individual European countries hosting refugees and the effects these differences have on how refugees use smartphones for their acculturation strategies.

In our study, we encountered only individuals who were avid smartphone users. Comparative studies could therefore extend our knowledge on the influence of smartphone use for acculturation, e.g. in experimental settings between novice and expert smartphone users. Moreover, further studies may examine the role of refugee's psychological health, e.g. coping with suffered trauma, in the context of ICT use and acculturation.

7 Conclusion

In this exploratory study, we investigated how refugees use smartphones within their host society for social and intercultural exchange and for preserving their original culture. We contribute the five practices of smartphone use a) seek information online, b) communicate with family and friends abroad, c) meet locals, d) meet peers and e) counteract boredom, and related these practices to the concept of acculturation [5]. We further contribute the consequences of empowerment, connection to origin and host society, sense of belonging and distraction, which we find to be tied to the practices of refugees' smartphone use. Doing so, we give an account of the integral part of smartphone use in the acculturation strategies of refugees, which deepens our understanding on how this technology enables refugees to integrate into society.

8 References

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