"Don't Call Me Refugee!" – The Role of Social Identity in the Adoption of Refugee-Specific Mobile Applications

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Abstract

In 2015, about 890,000 refugees arrived in Germany and an increasing number of mobile applications have been specifically developed to socially include newcomers by informing them about bureaucracy, customs, and language of the host country. Though such applications may be functional in terms of the potential value they deliver to refugees, they may also contribute to unexpected and overlooked forms of further exclusion because the very label "refugee" is associated with an excluded and disempowered population. In this paper, we draw on social identity theory to provide indications that applications specifically developed for refugees can trigger an identity threat and may lead to associations with stereotypical and undesirable aspects of one's identity. We propose a research design to compare the intention to use of two versions of a mobile language-learning application, a refugee-specific version in the identity threat condition and a neutral version in the control condition.

Keywords: Refugees, social identity theory, identity threat, social inclusion
Introduction

Refugees bear physical and mental hardships during displacement and face continuing burdens after arrival in the host country (Fazel et al. 2012). They often report an "inferiority complex" (Quinn 2014, p. 63) due to the feeling of living in a two-tier society in which refugees automatically have a lower ascribed social status than the host population. This feeling of stigma and structural discrimination is augmented by a tensioning political climate in many European countries, where anti-immigration parties are on the rise and the fear of refugees increasingly permeates society (Horn 2016). Thus, many refugees are at risk of being excluded from social interaction and full participation in their host country's society (Andrade and Doolin 2016). In 2015, about 890,000 refugees arrived in Germany (Noack 2016). On their journey to Europe, many refugees traveled with their mobile phone in hand, turning the devices into invaluable resources, for instance, to stay in contact with friends and family members or to coordinate the journey (Rutkin 2016). Therefore, even after arrival in the host country, information and communication technologies (ICTs) and particularly mobile applications represent important means to alleviate the stress of resettlement and for overcoming social exclusion (Warschauer 2004).

In this context, an increasing number of mobile applications has been specifically developed to inform and educate refugees. Applications offer translations for real-life situations (Ngan et al. 2016), disseminate information of the host country's culture and bureaucracy (Walter et al. 2017), and provide guidance to navigate the new environment (Schreieck et al. 2017). They are launched by profit and non-profit organizations (IT hilft gGmbH 2017) as well as through federal agencies (Federal Office for Migration and Refugees 2016). Though their adoption and use is entirely voluntary, the non-use of these mobile applications may yield negative consequences for refugees, such as missing out on job opportunities or apprenticeship positions (Federal Office for Migration and Refugees 2016). Likewise, the state has a vested interest to integrate some of the 975,000 people in Germany into the workforce who currently receive benefits for asylum seekers, which can be supported through efficient matching via mobile applications (Federal Statistical Office 2016). Furthermore, language learning applications for refugees may prepare for obligatory integration courses (Federal Office for Migration and Refugees 2017). They can differ from mainstream applications, for instance, by focusing on shorter sentences for real-life situations or including specific languages (Tigrinya, Bengali) (50languages 2017).

Today's refugees are the "most tech-savvy population of migrants in history" (Rutkin 2016, p. 22), with mobile phone penetration rates of up to 90% (Ngan et al. 2016). In a Syrian refugee camp, 73% of reported phones were smartphones and more than 50% accessed the Internet at least daily (Maitland and Xu 2015). Yet, given the number of incoming refugees and the proliferation of ICTs among them, the full potential of refugee-specific applications may not be leveraged, due to factors hindering their acceptance and use (Figure 1). Though such applications are functional in terms of the potential value they deliver, they may also contribute to unexpected and overlooked forms of further exclusion because the very label "refugee", which is used to categorize and target such applications, is associated with "the most excluded, disempowered, and disenfranchised populations in the world" (Malkki, 1997). For instance, an app labeled “Deutsch für Flüchtlinge” (German for refugees) sparked negative feedback because the name of the app was perceived as stigmatizing.

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<td>Guten tag</td>
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<tr>
<td>Please change the name of the app, i think no one will accept to have an App with a name as refugee, no matter who is he and how useful tis app.</td>
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<tr>
<td>Thanks for your efforts (: danke:)</td>
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<td>Deutsch für Flüchtlinge</td>
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Figure 1. Review of Refugee-Specific Application (l) and Examples of Refugee-Specific Applications (r)
Recent research provides indication that some refugees view the stigma of being a refugee as a concern (Colic-Peisker and Walker 2003; Darby 2015; Fazel et al. 2012). According to social identity theory (Tajfel and Turner 1979), people have multiple social identities (e.g., a woman, a German, a refugee), and the mere awareness that a social identity could cause one to be devalued can be perceived threatening (Sherman et al. 2013), also known as social identity threat (Steele et al. 2002). Thus, we argue that using an application specifically developed for refugees can be perceived as a threat because it may lead to an association with undesirable aspects of one’s social identity, such as being seen through stereotypes as vulnerable and needy (Al-Dali, 2015; Colic-Peisker, 2005), or - at worst - even as criminal (Horn 2016). The goal of social inclusion is likely to be thwarted if applications are rejected by their target user group for fear of devaluation (Figure 1). Furthermore, we propose that identity centrality, referring to how central a specific social identity is to the self (Quinn and Chaudoir, 2009; Sellers et al., 1998), mitigates this effect by maintaining positive associations with identity-linked artifacts, such as refugee-specific mobile applications, even when the identity is devalued (White and Argo, 2009).

There is a small but growing body of research in the IS field about refugees’ ICT adoption and use (Alam and Imran 2015; Andrade and Doolin 2016; Wilding 2009), most of which has looked at the broader implications of ICTs on the social inclusion of refugees, such as being socially connected (Andrade and Doolin 2016) or accessing information for daily activities (Alam and Imran 2015). While Wilding (2009) takes a critical standpoint on the inclusion of refugees through ICTs by pointing out that the perception of social exclusion is embedded in the very label "refugee", no existing study has looked at the potential negative implications evolving from refugee-specific ICTs. Yet, given the inclusion challenges faced by refugees as well as their host countries (Federal Statistical Office 2016), adoption and use of such ICTs may offer untapped potential. Therefore, we derive the following research questions:

RQ: How do refugees experience refugee-specific applications that aim to provide social inclusion in contrast to neutrally-labeled applications?

We plan to address our research question by engaging extensively in the context and capturing refugees’ feedback through a quantitative research design. Thereby, we plan to present mockup screenshots of two versions of the same mobile application, a refugee-specific and a neutrally-labeled, to two groups of refugees, in order to investigate potential differences in the intention to use between both designs. After conducting this project, we expect the following contributions to the information systems (IS) literature: First, we collect empirical evidence for the adoption of ICTs linked to an unfavorable aspect of someone’s social identity, thereby, expanding the current discourse on symbolic adoption determinants (Arbore et al. 2014). Second, we build on and expand current literature on refugees’ social inclusion through ICTs (Alam and Imran 2015; Andrade and Doolin 2016) by pointing to the specific challenges of integrating refugees by designing target-group-specific ICTs.

**Related Work and Theoretical Foundations**

**Social Inclusion of Marginalized Groups**

A number of studies in IS has turned to the social inclusion of marginalized groups (Trauth 2017), often subsumed under the term “digital divide” (Agarwal et al. 2009; Dewan and Riggins 2005; Wei et al. 2011). Early digital divide research has focused on the binary difference between “technology-haves” and “technology-have-nots” (i.e., primary divide), but recent work has shifted to differences in use and its social consequences (i.e., secondary divide) (van Deursen and van Dijk 2014; Trauth 2017; Venkatesh and Sykes 2013). It is acknowledged that people with limited resources or disadvantaged by age, gender, ethnicity, education, disability, and location are particularly vulnerable to negative social consequences resulting from ICT (non-)use (Weerakkody, Dwivedi, El-Haddadeh, Almuwil, & Ghoneim, 2012). While much prior research has focused on income and education as primary predictors of ICT use and non-use among disadvantaged user groups (e.g., Hsieh et al., 2011, 2008), more recently, other dimensions, such as cultural differences, have received attention (Andrade and Doolin 2016; Carter and Weerakkody 2008). Especially among refugee migrant groups, the digital divide can have severe consequences because access to and use of ICT can play a vital role for the social inclusion of this unique target group in the broader community (Alam and Imran 2015). Thus, in the following we will discuss benefits and determinants of refugees’ ICT use in the current literature.
Refugees’ ICT Use

Today’s refugees appear to be the most tech-savvy in history for a reason. Existent qualitative research offers a rich account of the capabilities that the use of ICT gives to refugees (Andrade and Doolin 2016). In everyday life, ICT empowers refugees to participate in the host country’s information society by accomplishing daily tasks such as communicating via email or messengers (Andrade and Doolin 2016; Ngan et al. 2016; Rutkin 2016) and interacting with governments, banks and shops via the e-services they offer (Alam and Imran 2015; Andrade and Doolin 2016). Refugees can also find jobs online (Alam and Imran 2015; Andrade and Doolin 2016) and engage in education (Alam and Imran 2015), for example by learning the host country’s language (Ngan et al. 2016). When applying what they have learned, asynchronous communication channels such as email, which do not require an instant response, avoid misunderstandings and refugees become more comfortable with using the new language (Andrade and Doolin 2016). From a societal perspective, ICT helps refugees towards a better understanding of the new society (Andrade and Doolin 2016). They can, for example, learn on the internet about the culture and history of the host country (Alam and Imran 2015; Andrade and Doolin 2016) and become familiar with local asylum rules (Rutkin 2016). The internet also helps refugees in maintaining social ties with their families and friends, even if they were separated following a crisis in their home country, and refugees can receive support from ethnocultural peers in online support networks (Alam and Imran 2015; Kabbar and Crump 2007; Rutkin 2016). Beyond situational support, reading online news and articles about their home country in their mother tongue helps refugees to reaffirm their identity and to resist assimilation pressures (Alam and Imran 2015; Andrade and Doolin 2016), yet, the use of ICT as a refugee in a new country can also spark the development of new identities (Siddiquee and Kagan 2006).

With respect to the necessary preconditions for refugees to benefit from ICT, existent research has identified - in predominantly qualitative studies - a number of concepts that determine the use of smartphones, laptops, and other ICT by refugees. A basic one is the access to ICT that is connected to the internet (Alam and Imran 2015; Maitland and Xu 2015), whereby smartphones are usually the most affordable ICT refugees can own (Alam and Imran 2015). Although usually less of a hurdle for younger refugees, digital literacy and English or host country language proficiency determine whether refugees use ICT (Alam and Imran 2015; Kabbar and Crump 2006). Elderly refugees often prefer to rely on alternative information sources and refrain from adopting ICT themselves (Goodall et al. 2010). In line with seminal research on adoption and diffusion, refugees’ perceptions of ICT like its ease of use (Alam and Imran 2015), its relative advantage to other options such as landline telephones, and social influence of family and friends (Kabbar and Crump 2006) influence refugees’ ICT use.

While some of the above presented determinants of refugees’ ICT use are consistent with the ones known from research on socio-economically disadvantaged users (e.g., Hsieh et al., 2011, 2008), the unique experiences of refugees are likely a source of further context-specific determinants (Wilding 2009). One particularly interesting concept is the aforementioned identity of refugees (Alam and Imran 2015; Andrade and Doolin 2016). Being confronted with the new culture of their host country, refugees undergo a process of acculturation (Williams and Berry 1991), during which existing identities can be threatened and challenged, with potential behavioral consequences for refugees. Wilding (2009) analyzes these challenges and examines the chances and risks for refugees with threatened identities to engage in ICTs to connect with the outside world. She acknowledges that identities often remain fixed in the minds of others and that ICT initiatives need to be well implemented and executed to break these mindsets and allow for a positive and sustained impact on refugees’ lives in their new environment. We thus review in the following literature on refugee identity, threats to this identity, and potentially moderating factors.

Social Identity and Stereotype-Based Identity Threats

As a general theory of group processes and intergroup relations, social identity theory (Tajfel 1981; Turner and Tajfel 1986) posits that each individual falls into and feels to belong to a variety of social categories or groups. Individuals identify with social groups like women, blacks, or the socio-economically advantaged to the extent they see themselves as one of its members, and the defining characteristics of a group offer its members in turn a sense of who they are. Social identities prescribe individuals the attributes they should possess based on their group memberships (Hogg et al. 1995).
However, social identities and the derived self-definitions do not exist unchallenged (Steele et al. 2002). When confronted with a negative stereotype about a group an individual identifies with, that is with an often inaccurate negative belief about the attributes of in-group members (Brauer et al. 2001), the individual becomes susceptible to a phenomenon known as stereotype threat (Steele 1997; Steele and Aronson 1995). A stereotype threat is an identity threat (Sherman et al. 2013) under which an individual senses the possibility to “be judged or treated in terms of the stereotype or [to] do something that would inadvertently confirm it” (Steele et al. 2002, p. 389). For example, when the stereotype about their underperformance in math is activated, women are increasingly worried about performing worse because of their gender (Marx et al. 2005).

This fear of conforming to a negative stereotype about one’s social group has profound behavioral consequences. In educational settings, for instance, negative ability stereotypes contribute to the underperformance of women on math tests (Spencer et al. 1999) and of blacks on verbal tests (Steele and Aronson 1995). Research further suggests that people wish to maintain positive social identities (Schmader 2002), meaning that they not only want to feel good about themselves as a person, but also about their memberships in social groups (Sherman et al. 2013; Steele et al. 2002). Thus, individuals show increased tendencies to avoid contexts in which a negative stereotype about their social group is made salient in order to protect their positive social self-view (Beasley and Fischer 2012; Davies et al. 2002, 2005). For example, when encountering stereotypes about their group, women show less interest in academic and professional domains in which they could be negatively stereotyped compared to domains in which they are not susceptible to stereotype threat (Davies et al. 2002). In a similar vein, it is expected that consumers are particularly motivated to avoid products linked to negatively-viewed social identities and stereotypes (White and Argo 2009). Such products could trigger identity threat from which individuals might specifically dissociate themselves, especially in a context where a specific identity is devalued by a stereotype that prevails in society.

**Hypotheses**

**Refugee Identity and Responses to Identity Threats**

Even after having been settled for years, refugees struggle to cope with "the 'Otherness' attributed [...] by the media, by politicians and by the majority population in general" (Fangen 2006, p. 81). Refugees are often depicted as welfare dependent (Colic-Peisker and Walker 2003), helpless (Addicks et al. 2012; Malkki 1996; Rajaram 2002), and needy (Al-Dali 2015), and are thereby stereotyped. The societal view of the helpless refugee who needs specialized aid triggers in turn a stereotype threat to the social identity of refugees (Steele et al. 2002). Thus, some refugees are assumed to avoid being labeled as refugees and to shun away from domains in which they are vulnerable to stereotype threat in order to restore and maintain their sense of self-worth (Davies et al. 2002, 2005).

Contextualizing this rational in the adoption of refugee-specific ICTs, we argue that some refugees will avoid or even reject mobile language-learning applications specifically designed for this devalued aspect of their social identity. These applications challenge the social identity of refugees because refugees might not be willing to readily accept ICTs where the symbolic value becomes negative (Arbore et al. 2014) and that mark them as helpless, needy, and excluded (Al-Dali 2015; Malkki 1996; Wilding 2006, p. 81). Refugees might not be willing to readily accept ICTs where the symbolic value becomes negative (Al-Dali 2015; Malkki 1996; Wilding 2009). The predicament of being offered help in the form of ICT but on the basis of a socially devalued aspect of one's identity triggers stereotype threat and its negative meaning is likely to lower refugees’ intentions to use the ICT. If they used the refugee-specific mobile language-learning applications on the other hand, refugees would confirm that the negative stereotype of being helpless, needy, and excluded is true of them. In consequence, they likely refrain from using these applications in order to protect their sense of self-worth. We propose that when present, stereotype threat acts as an inhibitor of ICT use (Cenfetelli 2004; Cenfetelli and Schwarz 2011). With respect to our first research question, we therefore hypothesize:

**H1:** Refugees will have higher intentions to use a neutrally-labeled application compared to a refugee-specific application.
Moderating Role of Identity Centrality

Identity centrality (in similar contexts called group identification) refers to the "extent to which a person normatively defines himself or herself with regard to [a social identity]" (Sellers et al. 1998). Consequently, a social identity with a high degree of centrality is important to the self-concept and influences to a large extent how an individual views himself or herself (Ellemers et al. 1997; Quinn and Chaudoir 2009; Sellers et al. 2003; Settles 2004). Research in social psychology (Sellers et al. 1998; Spears et al. 1997) has provided indications that not all members of a certain social group place the same importance on their social identity, for instance, African Americans may differ in the extent to which they view the ethnic identity as crucial to the self (Phinney and Alipuria 1990). Identity centrality is regarded as an individual difference, which is stable across situations and not linked to any particular event (Sellers et al. 1998). It is therefore crucial to incorporate identity centrality as a moderator of the relationship between identity and outcome (Sellers et al. 1998; Settles 2004).

The discussion whether a central identity is subject to psychological well-being or distress in case that social identity is threatened or linked to a negative event has yielded mixed results, raising the challenging question whether a highly central identity buffers or exacerbates negative effects (Martire et al. 2000; Quinn and Chaudoir 2009; Sellers et al. 1998; Settles 2004). A number of studies has related greater centrality of identity to higher levels of psychological well-being (Sellers et al. 2003; Yip et al. 2006). For instance, discrimination experiences were unrelated to the mental health of African Americans with highly central racial identities (Sellers et al. 2003). In contrast, other research has shown a positive relationship between centrality and psychological distress (Eccleston and Major 2006; Major et al. 2003).

Though research on refugee identity centrality is sparse up to nonexistent, we expect that individuals high in refugee identity centrality profit from its buffering effects because it provides a source of social support (Crocker and Major 1989; Quinn and Chaudoir 2009). This offers - especially shortly after arrival - a chance for those refugees with a high refugee identity centrality to maintain strong social networks with fellow refugees, who can be supportive and have often experienced similar situations. Additionally, when arriving in a country where the refugee identity is reflected by one's official status and where access to basic needs such as food and shelter is dependent upon this status, it is easier for individuals with a highly central refugee identity to embrace the support and help granted to them. Conversely, refugees who have a low refugee identity centrality will experience significant more struggle to accept help because it interferes with their perception of self, such as living independently and being able to manage their own lives (Al-Dali 2015; Colic-Peisker 2005; Colic-Peisker and Walker 2003). Thus, it is expected that a low refugee identity centrality may lead to increased levels of distress.

Advancing these findings from social psychology to the adoption of ICTs, we predict that mobile applications targeted at refugees will more likely be rejected by those who do not identify with the refugee identity and tend to protect themselves by avoiding association with negative stereotypes of the in-group (Settles 2004; Spears et al. 1997; White and Argo 2009). Consequently, those who are low in identity centrality would avoid refugee-linked artefacts, such as refugee-specific mobile applications, in order to distance themselves from the negatively stereotyped group and avoid negative consequences for self (Ellemers et al. 1997; White and Argo 2009). Through these actions, refugees can underline that they are not a stereotypical group member, who is, for instance, perceived as helpless and needy (Colic-Peisker and Walker 2003). On the contrary, refugee-specific mobile applications are more likely to be accepted by refugees high in identity centrality because the identity is critical to their self-definition, which means that they are less likely to reject ICTs related to an important part of the self (Ellemers et al. 1997; Spears et al. 1997; White and Argo 2009). In line with a rich body of research on the moderating effects of individual differences in IS adoption (e.g., Agarwal and Prasad 1998; Ahuja and Thatcher 2005; Morris and Venkatesh 2000), we hypothesize:

**H2:** Identity centrality will moderate the intention to use such that

(a) refugees with a low central refugee identity will have higher intentions to use the neutrally-labeled application compared to the refugee-specific application, and

(b) refugees with a highly central refugee identity will not have higher intentions to use the neutrally-labeled application compared to the refugee-specific application.
Planned Research Approach

We will conduct a study with refugees where we present mockups of two versions of a mobile application with the same functionalities, such that each participant will only get to see one version. The first version will be labeled as a language-learning application specifically developed for refugees (see Figure 2), whereas the second version will be labeled as a neutral language-learning application for anyone interested in learning the German language (see Figure 3). The two language applications have specifically the same functional benefits to ensure comparability. Both applications will be introduced as image recognition programs that provide the German translation for objects on photos that users are able to take with the camera of their mobile device. The envisioned ICT artifact appears particularly attractive to refugees because, as a form of mobile learning (Krotov 2015; Lehner and Nösekabel 2002), the application empowers refugees to learn the language of the host country at any time while on the move, helping to overcome the language barrier (Watkins et al. 2012). Furthermore, the image recognition mechanism does not presume any specific language proficiency and offers situation-sensitive assistance. Our decision to develop new mockups instead of using existing applications is rooted in the ambition to make the effects between both groups salient, without distorting the results by comparing applications with different functionalities.

The mockups of the applications include several elements to make the effects between both groups salient. The neutrally-labeled version depicts a heart, which is a "central image for describing those qualities that make us most human" (Amidon and Amidon 2011, p. XIII). In sharp contrast, the refugee-specific version reduces refugees to their stereotypical attributes to trigger a stereotype threat. For instance, the depicted refugees have their arms up in the air, in order to appear helpless and needy (Colic-Peisker and Walker 2003) and the label "for refugees" suggests that they need to be addressed in isolation from other German learners, such as tourists, thereby reinforcing their separation (see Figure 1). Similar to other studies in IS (e.g., Lowry et al., 2013), we build short scenarios around our mockups to guide participants through the functionalities of the language-learning application and to provide an impression of the usage experience. The mockups will be color-printed and handed out together with the questionnaires. At the beginning of the study, participants will be randomly assigned to either the refugee-specific application or the neutrally-labeled application (Wang and Dovidio 2011). Groups will first explore the mockups before turning to the questionnaire, which will include items regarding their intention to use the application, their identity centrality and several demographic variables, such as details about their journey, their refugee status and their language proficiency. Because we frame the study as part of a language learning experience, we do not want to allude to the main focus of the study on refugee-specific ICTs. Therefore, we plan to include all refugee-related questions after the main dependent variable to avoid the mitigation of our manipulation by having participants in the control condition think about their refugee identity (Wang and Dovidio 2011). By including identity centrality as the first refugee-related construct, we will also be able to assess the stability of this individual difference measure across both conditions. As expected, the scale means should not differ between participants in the refugee-specific condition and the control condition.

With respect to our main constructs, intention to use and identity centrality, we will rely on previously validated scales, which will be adjusted to the context of this study and measured on seven-point Likert scales. For our focal dependent variable, we chose intention to use (Davis et al. 1989; Venkatesh et al. 2003) because the construct is known to be a reliable predictor of future ICT adoption (Agarwal and Prasad 1999; Arbore et al. 2014). It will be measured on a 4-item scale, using items such as "I intend to use the app in the future" and "I plan to use the app in the future". For identity centrality, we will refer to the importance to identity subscale of the collective self-esteem scale (Luhtanen and Crocker 1992, which has been successfully applied across a number of different studies (Major et al. 2003; Quinn and Chaudoir 2009; Schmader 2002; Sellers et al. 1998). Sample items, from the 4-item scale, include "Being a refugee is an important reflection of who I am" and "Being a refugee has very little to do with how I feel about myself". We intend to recruit our participants mainly through accommodations for refugees in Germany. Due to the diverse backgrounds of refugees, we plan to conduct the survey in English. However, because we will administer the questionnaire personally, we can closely observe any difficulties that participants might face with the language of the questionnaire and act accordingly. We plan to control (1) for English skills to ensure that participants understood the correct meaning of the questions and (2) for German skills to ensure that the presented application will be of use to the target group. We consider the use of a two-sample t-test in order to test for the main effect. Furthermore, we consider the use of regression analysis to test the prime × identity centrality interaction term.

"Don't call me Refugee!"
Pre-Test Results

To assess the effectiveness of our material and to gain preliminary qualitative insights into how refugees perceive refugee-specific mobile applications compared to neutral applications, a pre-test was conducted. For this purpose, we distributed the printed mockups together with a questionnaire during a regular seminar organized by an academic association located in Germany, which supports the exchange between students and refugees. In total, 12 refugees participated in the pre-test survey and were randomly assigned to the two different conditions. Seven participants received the neutral mockup version and five the refugee-labelled one. Regarding their country of origin, five participants were from Ethiopia, three from Iran, two from Eritrea and two from Somalia and Syria. Their traveling time to Germany varied from one week to almost one year and, with the exception of one participant, all participants had lived in Germany for more than one year.
The pre-test yielded valuable insights for the refinement of our questionnaire. Based on the participants’ feedback, we identified questionnaire items that tried to capture complex concepts from social psychology but were hard to understand, thus needing refinement. However, in general, the results confirmed English as an appropriate language for the questionnaire. We further learned that we have to shorten the questionnaire in order to improve completion rate and response quality. After the questionnaire had been answered, we engaged in a lively discussion with the participants of the seminar and introduced them to both versions of the application. Several participants indicated that they generally felt less confident when being addressed as "refugee". One participant commented that he felt somehow confused when thinking about using the language application - on the one hand he recognized its functionality but on the other hand claimed that "technology should be for humans, not for refugees". These results provide first qualitative insights on the importance of social identity in refugees’ perception of refugee-specific ICT and indicate the ability of refugee-specific ICT to challenge associated social identities.

Challenges and Possible Limitations

We acknowledge that this research is a challenging endeavor for several reasons. First, the sample size of our pre-test is too small, in order to make assumptions with respect to the generalizability of our findings. Thus, there is some uncertainty whether we can prove the statistical difference between both conditions in a larger setup. Second, all of our pre-test participants were male, which points to the challenging quest of surveying female refugees, who are – due to their cultural background – often not visible in public. To mitigate this gender bias in the future, we intend to conduct the survey in seminars and groups targeting female refugees especially (see for example: www.womens-welcome-bridge.de). Third, the decision to conduct the first round of our study in English may present a bias toward more educated refugees. However, we seriously consider to expand the study to different languages, especially Arabic. Fourth, presenting mockups as a plastic representation can only be regarded as an approximation of using a real application. Yet, using storyboards and mockups has long been accepted as cost-effective means to engage the audience and work through proof of concepts, which can be easily altered (see Lowry et al. 2013 for a review).

Expected Contributions

Social inclusion refers to "the extent that individuals [...] are able to fully participate in society and control their own destinies" (Warschauer 2003, p. 8) and by leveraging the potential of modern smartphones individuals are more than ever able to engage in the world around them. However, when building mobile applications with the label "for refugees", we undermine this very intention because refugees are often - by definition - not able to control their own destinies as they have been forced out of their home country, which left many of them speechless (Malkki 1996). Thus, the perception of social exclusion is deeply ingrained in the label "refugee" and providing refugee-specific applications could even prohibit people from developing a more inclusive social identity (Wilding 2009). By studying the context of a culturally disadvantaged user group, we aim to contribute to the broader social inclusion literature in IS (Trauth 2017). So far, only limited research in IS has contributed toward an understanding of adoption and use of ICTs among refugees and the existing literature has studied the phenomenon predominantly through a qualitative lens (Alam and Imran 2015; Andrade and Doolin 2016). By trying to shed light on refugees’ experience with refugee-specific applications, we help to inform guidelines for building applications that are both relevant to and accepted by the target group. The results may also be generalizable to other disadvantaged target groups, such as people with disabilities who often struggle with disability-specific ICTs that communicate users’ disabilities rather than their abilities (Shinohara and Wobbrock 2016).

In sum, moving forward in solving the integration challenges, such as bridging the language barrier or faster integration into the workforce, ICTs can play a vital role. Yet, it is also important to consider the unexpected and overlooked forms of social exclusion. Thus, we expect that the theorizing using social identity theory is a useful step towards research on designing inclusive ICTs, especially by considering stereotype threats as threats to the self-worth that originate from societally rooted oversimplified pictures of the own social in-group and by deriving identity centrality as an important individual difference in case an identity-linked ICT challenges the own social identity. By providing indications that an ICT may be avoided because it is associated with undesirable aspects of one’s identity like stereotypical attributions, we also hope to contribute to a growing area of research in IS which focuses on the symbolic determinants of adoption decisions (Arbore et al. 2014; Brown and Venkatesh 2005; Pethig et al. 2016).
References


"Don't call me Refugee!"


