E-Learning as a Means of Social Inclusion: The Case of Syrian Refugees in Germany
Completed Research

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Abstract
In 2017, 65.6 million people were forcibly displaced from their homes according to UNHCR (2017). Member countries of the EU-28 received a record number of submitted asylum applications, reaching 1.20 million based on Eurostat (2016) database. Being the country with the highest number of asylum seekers in Europe (BAMF, 2015; BBC, 2016), Germany is the focus of our current. Due to the unprecedented dependency of refugees on ICT, we investigate in this research study to investigate how e-learning can be used to support refugees in the integration process and contributes to their social inclusion into the host country. We use qualitative research methods to gather deep insights into this issue. 28 face-face interviews were conducted with refugees in Germany, in the area of Berlin and Brandenburg. In this paper, we report on our findings, including; legal regulations, e-learning channels, learning formats, creativity using e-learning, challenges and obstacles.

Keywords
Social Inclusion, E-Learning, Refugees, ICT, Social Media.

Introduction
According to UNHCR (2017), 65.6 million people were forcibly displaced from their homes due to conflicts and persecution, among which 51% were children below the age of 18. On average, 20 people were forced to flee each minute due to wars, continuing violence, military conflicts, and sweeping poverty. The highest number of displaced people were hosted by developing regions, forming 84% of the total number (UNHCR, 2017). However, due to the high number of refugees and the limited resources in these developing regions, an increasing number of refugees have been moving to Europe seeking asylum there. According to Eurostat (2016), 1.20 million asylum applications were submitted to the EU-28. With Germany being the country with the highest number of asylum seekers in Europe (BAMF, 2015; BBC, 2016), it is the focus of our study. Germany was the world’s largest recipient of new individual asylum applications, with 722,000 in 2016 (35 % of the EU-28 total), from which 35,900 applications were submitted for unaccompanied or separated children (Eurostat, 2016).

The increasing number of newcomers to Germany and other hosting countries has raised the challenge of social inclusion. Wilson and Secker (2015) define social inclusion as “having the opportunities and resources to participate fully in economic, social and cultural life.” In the context of refugees, the notion of social inclusion “encompasses the goal of granting opportunities for people to settle in, integrate and participate in the new environment” (AbuJarour and Krasnova, 2017). As the current refugee crisis differs from any past crisis by the unprecedented reliance of refugees on Information and Communication Technology (ICT) (AbuJarour et al., 2016; Mason and Buchmann, 2017), it does not come as a surprise that ICT plays a crucial role in this crisis. Researchers have shown that refugees typically use ICT, in particular, smartphones and social media, during their journey to hosting countries, as well as after arriving in those countries for integration and social inclusion purposes (AbuJarour and Krasnova, 2017; Díaz Andrade and Doolin, 2016; Fitch, 2016; Mason and Buchmann, 2017; Ramadan, 2017).
In this paper, we tackle the use of e-learning by Syrian refugees in Germany to achieve social inclusion. Education, together with learning local languages, is one of the top three dimensions of social inclusion alongside social networking and employment. Researchers have shown that education and language enable social inclusion (Stanley et al., 2011). In the case of refugees, a good command of the local language is essential to a successful social inclusion process, which encourages enabling the refugees to attend language courses upon their arrival (Ager and Strang, 2008; Aumüller and Bretl, 2008; Yu et al., 2007). Refugees have to start a new journey in the host country by visiting several governmental offices to submit their asylum applications and clarify other formalities, including getting a residence permit, health insurance, accommodation, etc. This requires the refugees to communicate with different groups including local authorities, governmental offices, locals, and volunteers. Nevertheless, asylum seekers are typically not qualified to participate in education programs (including learning the language) until their lengthy asylum application processes have been completed (AbuJarour and Krasnova, 2017). Moreover, official statistics have shown that more than 83% of asylum seekers in Europe in 2015 were younger than 35 years old (Eurostat, 2016). This clearly indicates the importance of education for this young population group. This includes the need to learn the local language, participate in educational programs, and take part in professional training (AbuJarour and Krasnova, 2017). Here, ICT emerges as a means to alleviate this challenge, with Massive Open Online Courses (MOOCs) as a key tool. MOOCs have been growing in popularity and are attracting the attention of millions of online learners worldwide by providing easy and ready access to education (McAuley et al. 2010).

Despite this, researchers in the IS community have observed that existing research offers limited insights into the process by which ICT may contribute to a greater use of e-learning opportunities in the context of refugees (AbuJarour and Krasnova, 2017; Díaz Andrade and Doolin, 2016). To fill this gap and understand how ICT can promote the social inclusion of refugees in host countries, we use qualitative research by conducting face-to-face interviews with refugees in Berlin-Germany to investigate their use of ICT for e-learning purposes. We report on our findings and related discussion issues in this paper.

This paper is structured as follows. First, we summarize related work in Section 2. In Section 3, we explain our methodology and introduce our sampling for the study. Then, we introduce our findings in Section 4. In Section 5, we discuss the results of our research. We conclude our presented research in Section 6.

Related Work: Refugees, ICT, and Social Inclusion

Adapting to new environments is typically challenging and takes time, especially where cultural, language, and social differences are significant. Refugees are typically faced with this challenge exacerbated by the aforementioned factors. Yet, it has been observed that using ICT solutions, through which refugees can maintain social bonds with family members in the country of origin, can be vital in such cases. Brandtzæg 2012 concluded that the Internet “offers free and easy communication with family, friends and acquaintances regardless of time and place.” In particular, social network usage among refugees enhances communication with family and friends who are in the country of origin or in other regions of the world (Ogan and Ozakca, 2009). Moreover, refugees typically use ICT for other purposes towards making their lives easier in their new environments. For instance, learning the language; translating; finding job opportunities; and communicating with local authorities, volunteers, and locals (AbuJarour and Krasnova, 2017; Díaz Andrade and Doolin, 2016). Additionally, social media sites empower refugees with a voice as they create a space for them “to speak” about their experiences and allow them to present themselves to their community, friends, and the hosting country, thereby enhancing their feeling of inclusion (Nunn, 2010; Gifford and Wilding, 2013).

Syrian refugees in Germany have realized the importance of learning the German language for their social inclusion upon their arrival. Therefore, most of them have immediately started learning German through ICT due to limited spots at language schools or legal restrictions. Aligned with the fact that ICT can change the nature and raise the quality of teaching and learning (Reynolds et. al. 2003), the research by AbuJarour et al. (2016) revealed that refugees already learn German using ICT, mainly via their smartphones. Trauth and Howcroft (2006) argued that ICTs can contribute in bridging the gaps of social inclusion in the refugee context. Education and language is one of the main dimensions of social inclusion, which contains individual literacy and numeracy as well as language and dialect skills (Australian Social Inclusion Board, 2012; Chan et al., 2014).
Research has revealed that education and language skills are essential for successful integration and social inclusion (Ives, 2007; Stanley et al., 2011). Therefore, stakeholders across all political levels are calling for better access to educational opportunities for refugees (AbuJarour and Krasnova, 2017). An open education approach here seems relevant, because online modes of pedagogy are scalable and can empower learners with control over where, what, how, and with whom to study (Kop and Fournier 2010). In the research introduced by AbuJarour and Krasnova (2017), they revealed several reasons why open education can work better for refugees, for example, not being affected or distracted by other group members; the ability to repeat online lessons or certain parts as many times as needed to grasp the knowledge; having the flexibility to plan learning according to their schedules and family situations, especially as refugees frequently have official appointments that cannot be postponed; as well as the mobility of open education, as it can be pursued anytime and anywhere (AbuJarour and Krasnova, 2017).

Because the majority of asylum seekers in Europe are younger than 35 years (Eurostat, 2016), it is highly desirable to provide orientation and tools to enable this young and motivated group to join university programs and acquire additional educational knowledge. This can be handled, to a large extent, with the help of social media channels and online sites (AbuJarour and Krasnova, 2017). In Berlin, there are many examples of universities and educational institutions that offer special courses for refugees to get them engaged in the educational system and prepare them to enter traditional educational programs at later stages. Because refugees spend most of their time at language schools, which are obligatory after getting the residence permit, it is sometimes difficult to join these educational programs. Here comes the necessity of e-learning opportunities. For instance, Kiron Open Higher Education is an educational institution in Berlin that enables access to higher education and successful learning for refugees through digital solutions [https://kiron.ngo/]. It currently has 3,000 students and 55 partner universities, and facilitates flexible access to higher education from anywhere.

Another relevant e-learning tool is Massive Open Online Courses (MOOCs), which “have no prerequisites and fees and have been growing in popularity and are attracting attention of millions of online learners worldwide and give them easy and ready access to education” (McAuley et al. 2010). These MOOCs can be accessed through smartphones using applications or websites that offer free online courses, e.g., Coursera [www.coursera.org], edX [www.edx.org], etc. In Germany, there is already a wide range of websites and educational institutions that offer higher education possibilities, interactive language courses, and supervised online study preparation courses (Hochschulforum Digitalisierung. 2015).

When it comes to e-learning material consumption through ICT tools such as smartphones, refugees prefer video and audio recordings (Schreieck et al. 2017). For instance, Syrian refugees in Germany prefer to learn the German language through videos on a YouTube channel introduced by a Syrian refugee who learned the German language by himself and now teaches it to other refugees in an easy way in their mother language, Arabic (AbuJarour and Krasnova, 2017). This channel belongs to the Syrian refugee “Deiaa Abdullah,” who has 154,000 subscriptions, and has a particularly popular playlist: “German minutes with Deiaa,” that reaches hundreds of thousands of viewers.

Methodology and Sampling

Our qualitative study is based on a random sample of 28 participants from the area of Berlin and Brandenburg, whom we interviewed face-to-face for 54 minutes on average. The average age of the refugees we interviewed was 32, with seventeen male and eleven female participants. In our sample, four interviewees have done vocational training or started their university but were displaced before graduation. At the time of the interviews, almost half of our interviewees had been in Germany for 6-12 months and only one participant had been in Germany for 3-4 years. Also, almost half of our respondents already had a residence permit in Germany. Interestingly, all of our participants had family members back in Syria at the time of our study. A detailed overview of the demographics of our conducted interviews is presented in Table 1.
<table>
<thead>
<tr>
<th>Gender</th>
<th>Male</th>
<th>17</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<tr>
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<tr>
<td></td>
<td>25-30</td>
<td>8</td>
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<tr>
<td></td>
<td>31-40</td>
<td>9</td>
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<tr>
<td></td>
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<td>Education</td>
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<tr>
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<tr>
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<tr>
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<tr>
<td></td>
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<td></td>
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<td></td>
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</tr>
</tbody>
</table>

Table 1. Demographics
All interviews were conducted following a semi-structured approach in which we asked respondents questions related to their usage of ICT for educational purposes. For instance, they were asked whether they use ICT for e-learning, whether they visit language schools, and whether they are aware of open education opportunities that are available to them. All interviews were initially conducted in Arabic and were audio-recorded. Then, we transcribed the interview recordings before translating them carefully into English. Afterwards, we organized and coded the data using the constant comparison method (Strauss and Corbin, 1990). This was done in an iterative process.

Findings

Our analysis shows that refugees believe that learning the German language is valuable and necessary for their new lives in the host countries and that they spend significant time using e-learning offers to learn the German language. For instance, one of our interviewees indicated that even though he is still not obligated to visit the language school, he does it regardless because he finds it necessary:

“For three months, I have been visiting a language school voluntarily for three hours a day.”

Our interviews also reveal the importance of using e-learning to learn the language, despite visiting language schools:

“Open education helps me a lot. Whatever I don’t understand in class, I check using an app I have on my smartphone. I can’t catch everything the teacher tells us [in class], because he is German.”

In this section, we report on our findings, including analysis and quotes from our interviews on the following aspects: legal regulations, e-learning channels, learning formats, creativity using e-learning, challenges and obstacles.

Legal Regulations

Our interviewees indicate that one of the reasons of not starting to learn the language in language schools is the regulations that prevent refugees from joining language schools before completing the asylum processes. This is one of the reasons to consider e-learning offers:

“I started learning German on my own to adapt to the new place using open education through the Internet, because I have not received my residence permit yet and therefore officially I’m not allowed to join a language school. How can I live and go around in a place that I don’t speak its language?”

Several refugees prefer starting learning the German language immediately upon their arrival, because of its crucial role in their social inclusion process:

“I think that the government should have given us the chance to go to a language school to learn the German language upon our arrival.”

Therefore, it does not come as a surprise that newcomers spend more time learning the language in the beginning rather than in later stages. As one of our interviewees noted:

“In the beginning, I used to use my smartphone for translating a lot. Now, I learned more and I would use my smartphone for translation only in complex situations (where my language skills are not sufficient).”

E-learning Channels

There are several ICT channels used by refugees to access e-learning offers. These channels range from YouTube, Facebook, and WhatsApp to specialized apps.

“… I’ve created a WhatsApp group with my friends so that we can learn German together. Also, if someone needs a translation of a document, simply, we help each other.

Although refugees do visit language schools to learn German, but these are not the only source for learning the language, as one of our interviewees reported:
“I don’t take the lessons in the language school as the single source; but I go to YouTube to watch other teachers’ lessons.”

Other interviewees reported:

“I spend at least one hour on this learning app daily. Whenever I find the time, I start the app. It has phases similar to a quiz, where I go to the next phase if I provide the correct answers to the quiz.”

“It is extremely beneficial for me to learn the German language through my smartphone. I have an app that understands all languages. I set it to German, and use it whenever I have free time or on my way.”

**Learning Formats**

Interestingly, the opinions of our interviewees varied between preferring only e-learning education, only visiting language schools, or combining both options for the maximum benefits. For instance, these interviewees explained why e-learning is the best option in their cases:

“I prefer learning the (German) language online using my smartphone. First, because I have a daughter. Second, I can repeat the lesson or certain parts as many times as I need to grasp it.”

“I can’t go to the (language) school because of my three sons. I would love to join a school, but I can’t.”

Noted by other interviewees, they instead prefer visiting the language schools rather than using e-learning because of the following:

“I prefer going to the school, because I like the interaction, I can ask directly about anything I don’t understand, and there is a sort of commitment to attend the classes. In the case of online courses, I might be busy or less engaged.”

“Learning (the language) at the language school is better because there is interaction between the students (learners).”

“I prefer having the lessons at school daily rather than disconnecting from school and learning only through open education. When I go to school, I am committed to specific learning hours. In contrast, learning on the mobile does not have this commitment... Open education is important, but is not a replacement for (traditional) schools.”

Other interviewees prefer a mixed method of both e-learning and language schools:

“At the (language) school, we have not started learning the language from scratch. In contrast, on the smartphone, we can start from scratch. Even, we learn new terms that we didn’t learn at school.”

“In addition to the language school, I am learning German using YouTube and through Facebook groups. They post German classes and I download and watch them.”

“I prefer to have a mixed learning of both the school and the Internet, but more from the Internet. Because sometimes you have troublemakers in the class who keep distracting us, asking irrelevant questions, and making troubles. Also, you’re then at your home and you don’t have to stick to particular timings. Sometimes, we postpone some important appointments because they conflict with our classes. Many learners who go to language schools consider themselves prisoners or bound to the school. Therefore, open education lessons would be better.”

**Creativity Using E-learning**

It is interesting how refugees manage to creatively use e-learning in practice to overcome difficult situations in life. Revealed by one of our interviewees:

“I use the Internet all day long. For instance, when I go to a supermarket, I write what I want to say in Arabic into the translator app, and the app translates the text to German so that the supermarket’s staff know what I want to tell them.”

For refugees who are aware of available educational offers and programs, it is important to participate in such programs, as stated by one of our interviewees:
“Also, I installed several apps to learn German. But, the most important thing is deciding to join a Master’s program at Berlin University of Technology using my smartphone. I visited their website and I found a special program for refugees where they can join lectures as guests.”

**Challenges and Obstacles**

Many of our interviewees expressed their willingness to use e-learning to learn the German language. Yet, there are several obstacles that hinder this:

1. the lack of adequate technical infrastructure, including Internet connection and sufficient data volumes:
   - “I could not start learning German using my Smartphone because we don’t have WiFi at home.”
   - “In order to use open education, I need an open WiFi because 5 Gigabytes is not enough to watch enough videos to learn properly.”
   - “It is necessary for me, in order to start using e-learning, to have an internet connection in my room in the shelter so that I don’t have to leave my sons without supervision.”

2. limited quiet environments that are suitable for studying and concentration:
   - “Of course, having WiFi in my room (not only in the hall) is useful for me. Using the WiFi in the hall makes it difficult to focus on something because everyone around you is talking loudly. You don’t feel comfortable. When you want to read or watch a lesson, you can’t, because it is difficult to do in the middle of the crowd.”
   - “Here at the shelter, it is too noisy and learning requires a quiet place.”

3. the lack of information about available offers for language courses or educational programs:
   - “We installed apps to learn the German language because this was the best and fastest way to learn German, as we did not know anything and no one guided us or informed us about available courses or the procedure. Therefore, we installed such educational apps on the smartphone.”

**Discussion**

Despite the potential of e-learning in the context of refugees’ social inclusion, significant challenges remain unsolved (AbuJarour et al., 2016). First, digital literacy is a prerequisite for accessing online educational material. Second, most online courses are directed at adult learners. At the same time, the German educational system alone is faced with the prospect of absorbing 325,000 refugee children during 2014 and 2015 (Spiegel Online 2016). Third, general awareness of such educational offerings is typically absent. Fourth, Internet connectivity is a further issue, as noted by an interviewee:

- “There are many news and educational websites, but unfortunately, we can’t use them because we have limited Internet volumes.

The German educational system is also faced with a shortage of teachers with Germany reporting a shortfall of 20,000 new teachers relative to demand, which complicates current efforts (Spiegel Online, 2016). This limitation excludes women with children at home who have less opportunities to learn the German language and integrate in German society. Here, there is a clear potential for e-learning to include this group in offered German classes so that they can also be included in society.

Furthermore, e-learning is popular among refugees due to its typical simple presentation of information. In order to present information in an intuitive way for refugees, design elements and principles should be considered when designing mobile or web applications. For instance, these include: visualization, structure, usability, and credibility (Schreieck et al. 2017). Therefore, it is easier for refugees to use familiar apps for e-learning purposes, such as YouTube and WhatsApp.

It is worth mentioning that adopting e-learning to enable refugees to learn the German language can be viewed as a pilot project towards adopting a similar approach in other contexts in Germany. In particular, due to the shortfall of teachers in the German education system.
Conclusion

Our research showed a clear potential for e-learning as a means of social inclusion for Syrian refugees in Germany. Many refugees already use e-learning offers to learn the German language through YouTube, Facebook, WhatsApp, and specialized mobile apps. These offers give them advantages, such as more flexibility and freedom during the learning process, over traditional learning offers. Yet, several refugees emphasize the role of traditional classrooms and call for a mixed approach of both digital and physical classrooms.

Furthermore, our research showed that e-learning can be further adopted by more refugees if adequate technical infrastructure, e.g., robust Internet connections, are provided to refugees. Also, quiet environments that are suitable for studying are required to encourage refugees to utilize e-learning offers. Additionally, sufficient advertising is needed in order to inform refugees about available e-learning offers.

It is also worth mentioning that e-learning materials should be designed in an intuitive and simple way so that they can be consumed by a large group of refugees. Special materials should be also designed to target children, old people, and women with children.

Additional research is needed to identify design requirements for e-learning materials targeted towards refugees to learn German and other domain-specific training. Special groups, such as children, old people, and women with children need special attention during future research. Therefore, we plan to conduct focused interviews to tackle this important research to come up with best practices and recommendations for e-learning content providers.

Acknowledgements

his work was partially funded by the German Federal Ministry of Research and Education under the grant 16DII116-DII (Weizenbaum Institute for the Networked Society).

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