

See discussions, stats, and author profiles for this publication at: <https://www.researchgate.net/publication/311674704>

# Leveraging Technology for Refugee Integration: How Can We Help?

Conference Paper · December 2016

CITATIONS

12

READS

705

8 authors, including:



**Safa'A Abujarour**

Universität Potsdam

18 PUBLICATIONS 59 CITATIONS

SEE PROFILE



**Hanna Krasnova**

Universität Potsdam

76 PUBLICATIONS 2,244 CITATIONS

SEE PROFILE



**Helena Wenninger**

Lancaster University

9 PUBLICATIONS 371 CITATIONS

SEE PROFILE



**Jane Fedorowicz**

Bentley University

167 PUBLICATIONS 1,451 CITATIONS

SEE PROFILE

Some of the authors of this publication are also working on these related projects:



Expert Systems and Logic-based decision support [View project](#)



Zipf's law and Database design [View project](#)

# Leveraging Technology for Refugee Integration: How Can We Help?

Panel

## Introduction

Spurred by the war in Syria, continuing violence in Iraq and Afghanistan, military conflicts in Eritrea, and sweeping poverty in Kosovo, a growing refugees' crisis has gripped the European Region. Over 1.3 million asylum applications have been submitted across countries belonging to the European Union (BBC 2016), with Germany attracting the highest number of asylum seekers among its European neighbors. 476,649 refugees have reached Germany in 2015, from which around 117,000 were under the age of 16 (BAMF 2015). These developments pose unexpected challenges for both national and local authorities, as well as for the domestic populace. Challenges brought about by the refugee's crisis range from addressing urgent operational needs (e.g., fast registration of a large number of incoming asylum seekers upon entry, as well as providing access to initial medical support, transportation and housing) to rolling out more strategic long-term measures oriented towards integration. Yet, resolving the abovementioned challenges is often difficult to diverging cultural background of the newcomers. For instance, only a small fraction of the refugees speaks the native language of the host country. Diverging societal norms and communal practices further complicate the integration processes. In light of these challenges, refugees' integration has surfaced as a hot topic of debate within political and social spheres with numerous stakeholders urging for swift solutions to resolve the refugees' crisis. Not surprisingly, the effective deployment of Information and Communication Technology (ICT) is often mentioned in conjunction with refugee's integration as a means of facilitating and even expediting integrative efforts.

Indeed, beyond its sheer scale, the current refugees' crisis is distinct from previous ones in a very crucial aspect – the unprecedented reliance of refugees on technology. Particularly, smartphones have emerged as an instrumental piece of technology central for refugees, considering their reliance on mobile devices, Internet, and social networks in guiding refugees on their arduous journey to Europe and building new lives in their host country (Fitch 2016). Among others, refugees rely on smartphones to communicate with families and friends they have left behind; to access geo-location services; as well as to learn the language and societal norms of the host country. For many, smartphones represent the one and only information access point for information. Together with Apps and Internet access, smartphones allow refugees to navigate through the complexities of bureaucratic and socio-economic structure in their new homes. Considering the critical relevance of information access, it does not come as a surprise that Internet traffic of many refugee asylums exceeds that of major airports (WeltN24 2016).

Yet, the question of how ICT can be deployed for refugees' integration is difficult one to answer. Despite the urgency and the potential risks of this issue, there is not only little consensus among stakeholders as to the type of technological solutions to aid refugees' integration, but they are also divided over how such solutions could be deployed in an adaptive and culturally sensitive manner. Against this background, the goal of this panel is to initiate *discourse* and *deliberation by experts* (Safa'a AbuJarour, Jane Fedorowicz, Sebastain Olbrich, Chee-Wee Tan, Cathy Urquhart, and Viswanath Venkatesh) on how the knowledge accumulated by the IS community can be leveraged to design targeted technological solutions to tackle this crisis and avoid the potential risks associated with it. In this sense, the topic of our panel is situated within the domain of the Bright ICT Initiative – a set of concerted research directions promoted by the AIS to achieve greater impact of the IS discipline (Lee 2015).

## Structure of the Panel

In preparation for this panel, 15 face-to-face interviews with Syrian refugees have been conducted in Berlin, Germany in March 2016 (nine males and six females, ages ranged from 20 to 42 years). The length of the interviews was between 40 minutes and 2 hours. All interviews were conducted Arabic. The goal of the interviews was to elicit insights from refugees on how they have utilized various forms of ICT as well as their needs in terms of technological solutions. Preliminarily findings from our thematic analysis motivated the panel by providing key directions for structuring the panel discussion. Specifically, we found that the following four areas of ICT deployment are especially relevant to refugees' integration, but

at the same time, are often neglected or hard to get access to: (1) communication with the government; (2) social connectedness; (3) participation in educational programs, as well as, (4) integration and social inclusion. At the same time, these areas give direction how to support refugees through ICT and how ICT could be misused to jeopardize this vulnerable group. We will also discuss about the limits of ICT and ethical issues in the refugees' crisis. While broadly overlapping the refugee-relevant capabilities of ICTs identified by Andrade and Doolin (2015), our themes introduce the chances and challenges of ICT utilization by refugees at an operational level to spur a more productive panel discussion.

### **Communication with the Government**

Communication with local authorities is one of the focal tasks to be accomplished by refugees upon arrival. Typically, refugees are required to submit an asylum application, which in turn kick-starts their bureaucratic journey. Having received a record number of applications in 2015 (UNHCR 2015), public authorities across most EU countries have been clearly overwhelmed by the situation. For example, the central office for refugee admission (LAGeSo) in Berlin could only process around 200-300 applications per day, despite over 1,000 daily arrivals (Wedekind 2016). As one interviewee noted: *“The process at LAGeSo<sup>1</sup> is so slow. The staff here treats us badly. [...] We expected faster, easier, and more organized processes here.”* To a large extent, low responsiveness of local authorities is rooted in the lack of scalable IT infrastructure that could internally support such a massive inflow of applications. In fact, most administrative processes in this area still rely on paper-based procedures. There is a need to open communication channels between governmental institutions, and integrate the ICT in their processes. Furthermore, public information websites have not been designed to meet the needs of this new audience. As one interviewee noted: *“It is so useful to visit governmental websites and find the information also provided in Arabic. Unfortunately, this service does not exist so far. We hope it will be there in the future. This would be very helpful for us, and will save us time, efforts, and money.”* Indeed, despite an increasing amount of research as well as practical efforts to improve the quality of e-government services, the design of citizen-centric websites remains an elusive problem in many areas, argues Chee-Wee Tan – who is also one of our panelists (Tan et.al. 2013). Cultural adaptation of the governmental websites is almost non-existent. At the same time, cultural and social obstacles may stifle any attempt to transplant the technology onto other cultural contexts (e.g., Arab culture) (Rose and Straub 1998, Straub et al. 2001).

On the other side, governments can abuse technology to infringe on the rights of refugees. Although in many countries security checks of asylum seekers are already part of a standard procedure, information technology makes it easy to gather extensive and intrusive personal data on this vulnerable community. For example, on the pretext of national security, there are voices calling for the screening of social media profiles of asylum seekers before approving their application (Diehl and Meiritz 2016). Taken together, these challenges give rise to several questions for discussion among the panelists:

- How can we prepare governments for such crises? What steps can we take to relieve the situation at the current moment? Are there best practices that are applicable under existing circumstances?
- How can we ensure culture-sensitive design of public information portals, especially taking into account the needs and background of incoming refugees?
- Should ICT be developed to better track and control refugees – what are benefits and downsides?

### **Social Connectedness**

The sense of social connectedness plays a critical role in one's perceptions of well-being and serves as a buffer against stressful life events (Baumeister and Leary 1995). Forced to leave their homes and relocate to a new environment which is often hostile and stressful, refugees rely on their smartphones for social support, communicating with the families and friends whom they have left behind, as well as to organize social gathering and events offline. One of our interviewees noted: *“My daily call with my family in Syria is much more important to me than food and water. [...] My call is also important for them, because this is the only hope for them.”* To enable refugees to gain the required level of social connectedness, they need regular access to the Internet, which is one of the main technical challenges therein. With some exceptions, refugees have difficulties connecting to the Internet in their residences: *“In our shelter, there is an open WiFi only in one of the halls that is far from my room. Many people used to connect to that WiFi and, therefore, it was not usable and I could not use it because it was too slow”*, one refugee noted.

---

<sup>1</sup> LAGeSo - State Office for Health and Social Affairs in Berlin, Germany; the central place for refugee registration in Berlin.

Although, such connections are vital for the well-being of refugees, they might become a path for them to escape from the cultures of the societies they live in and thus hinder the integration process. For instance, living within small clusters of their fellows prevents them from practicing the language of the host country and gaining additional knowledge about the new culture. Such activities might help create a parallel society in the host country. Therefore, there is an urgent need to establish best practices to ensure that ICT enables an acceptable balance of social connectedness with families back home and the necessary level of interaction with the locals in the hosting society to foster the integration process.

One of the dark sides threatening the benefits of mobile social connected refugees is offensive posts on social media against the refugees. Dozens of Facebook pages and Twitter accounts regularly show Islamophobic content about the grown refugees' population in European countries. This hateful rhetoric clearly can menace the gained social connectedness of asylum seekers with the host country when engaging in Social Networking Sites. Not only hostile voices from the host countries spread in social media, but also news about the ongoing war in refugees' home countries are accessible. This information can seriously affect asylum seekers and depress them when reading about their home countries. These issues give rise to several questions for discussion among the panelists:

- Should hosting countries ensure better Internet connectivity for refugees? Should similar or even better policies be applied to the citizens as well?
- How can ICT support a balanced social connectedness with the home and the host community?
- What should be the role of platform providers in detecting and eliminating hate speech on Social Networking Sites? When is a strong regulation through political players necessary?

### **Participation in Educational Programs**

With education and language skills seen as a being vital to successful integration, stakeholders across all political levels are calling for better access to educational opportunities for refugees. A shortage of teachers, however, complicate current efforts with Germany reporting a shortfall of 20,000 new teachers relative to demand (Spiegel Online 2016). Here, an open education approach 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). For example, Massive Open Online Courses (MOOCs), which have no prerequisites and fees, 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). Aligned with the fact that ICT can change the nature and raise the quality of teaching and learning (Reynolds et. al. 2003), we observe in our interviews that many refugees have already started learning German using ICT: *“Without the German language, I can't move around or talk to anyone. That's why I installed apps that teach German language and I watch YouTube videos that teach German.”* Nonetheless, significant challenges remain. 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 prospect of absorbing 325,000 refugee children during 2014 and 2015 (Spiegel Online 2016). Third, general awareness of such educational offerings is often typically absent. For example, as one interviewee noted: *“If an open educational system is to be developed for refugees, I would suggest accompanying it with a marketing campaign. Because, a refugee is like a blind person, he does not know anything here. There should be someone who explains the available options to him.”* Fourth, Internet connectivity is another issue, noted another interviewee: *“There are many news and educational websites, but unfortunately, we can't use them because we have limited Internet volumes.”* These challenges open up many discussion points to be addressed by the panelists:

- What formats of open education and which ICT tools might be practically suitable for refugees?
- How can the “right” programs efficiently be advertised to prevent excessive demands, distraction and missing orientation of refugees?
- Would it necessary to provide the refugees with the required ICT to utilize open education in their shelters? What measures would be necessary to avoid misusing such infrastructures?

### **Integration and Social Inclusion**

Defined as “the extent that individuals [...] are able to fully participate in society and control their own destinies” (Andrade and Doolin 2015, Warschauer 2003), social inclusion of incoming refugees is the primary goal of governmental efforts and a major area of concern for participating stakeholders.

As such, the notion of social inclusion goes beyond a simple rejection of exclusion, and encompasses the goal of granting opportunities to people to settle in, integrate and prosper in the new environment. On many levels, social inclusion is a bilateral social process, in which newcomers secure their place in the social networks of the hosting society, while incumbents provide them with sample space and opportunity to do so. Hence, in the context of our panel, social inclusion is a two-way process placing demands on both the refugees and the hosting societies.

Undeniably, ICTs can play a significant role in facilitating these processes (Andrade and Doolin 2015). For instance, Social Networking Sites can be deployed to bring refugees and locals together. One of our interviewees noted: *“We joined Facebook groups that help us integrate into the German society and learn German. They include dialogs and language exchange so that we get to know the language, people, and the culture here. We agree on a time and we go to a dedicated location where we discuss things, learn German and exchange with them about cultures, languages, etc.”* However, it is also apparent that more opportunities to socialize and learn about one another should be created: *“I am ready to get integrated into the society, but I feel that the society is not willing to get me integrate into it”* noted one of our interviewees. So far, little is done in terms of offering refugees meaningful interaction points with the local population – a gap that could be filled by ICTs (e.g. mobile apps, matching platform, social start-ups, etc.). Against this background, the panelists will be encouraged to discuss the questions below:

- How can ICT deployed to support the social inclusion of refugees into the host societies?
- How does ICT utilization by refugees contribute to their social inclusion? Which forms of usage should be promoted and which ones should be discouraged?
- How can social organizations support the integration of refugees with the help of ICT?

### **Controversial and Ethical Issues in the Context of ICT and Refugees**

Ethics in ICT is referred to as cyberethics, which can be defined as “the field of applied ethics that examines moral, legal, and social issues in the development and use of cybertechnology” (Tavani 2004). These cyberethics should be protected and respected while using ICT. With the widespread of ICT, there has been a growing debate and concern about ethics in our society, in particular with respect to legal use of ICT and online crimes, etc., and there is an ethical gap that needs to be filled in this area (Hjerto 2006). As an example of Syrian refugees, seeking safe places for them and their families, refugees were displaced from Syria to Europe. Because no legal pathways have been established to enable them achieve this goal, they were forced to use illegal ways to carry out this journey, namely, with the help of smugglers (Alkousaa and Maximilian 2016). Our interviewees reported that they got introduced to and communicated with the smugglers using Social Networking Sites: *“We communicated with the smuggler, who helped us leave Turkey to Greece, using WhatsApp.”* It is foreseen, that an application such as “WhatsApp” is to be used for legal and acceptable purposes, as it is mentioned in its Term of Services: “You must access and use our Services only for legal, authorized, and acceptable purposes” (WhatsApp Inc. 2016). However, identifying potential illegal activities on WhatsApp is unlikely since it requires analyzing the messages exchanged through it, which – according to the policy of WhatsApp – is not done by WhatsApp. From one side, the refugees are forced to use ICT to save their lives, especially that most of them were forced to leave their homes and did not leave optionally. On the other hand, smuggling is illegal and such smugglers are considered as criminal networks (EUROPOL and INTERPOL. 2016). It is a key discussion point to which extent activities on ICT should be controlled and regulated and whether it would be acceptable to prevent such illegal activities on ICT, which might end up in miserable living conditions for Syrians in their own homeland or neighboring countries. Additionally, refugees’ usage behavior of ICT in the host countries can be an issue of cyberethics. For instance, there are several initiatives that call for providing free WiFi to the refugees in hosting countries to foster the integration process. However, there is a need to guarantee cyberethics-compliant Internet use by refugees, as well, in order to prevent violation cases to happen. For instance, one of our interviewees noted that he uses the provided free Internet connection for illegal hacking activities. Our panelists will discuss questions like:

- What should be the responsibility of the ICT platforms in the shaping and development of modern ICT services that could fill the ethical and legal gap?
- Do we expect our IT professionals to have the necessary ethical competence without having spent time understanding ethics and pondering specific ethical questions and dilemmas created by ICT?
- Should IT support be given to refugees when it is not freely provided to country’s own citizens?

## Panel Structure, Panelists' Biographies and Connection to the Topic

The panel will include one moderator and six panelists (see Table 1). The 1.5-hour panel is intended to be an open dialog between the panelists and the audience. The moderator will introduce the panelists and then shortly present the topic and the goals of the panel. The discussion with panelist starts afterwards. Throughout the discussion, panelists share their views on the topic. In the second half, the audience is invited to ask questions and share opinions. Finally, the moderator will summarize the key findings that have emerged in the panel discussion. Panelists have been carefully selected to fit the focus of the panel, including expertise in the area of e-government, social inclusion, ICT adoption, and refugees' integration. Table 1 summarizes the biographies of the panelists and their connection to the topic.

<b>Table 1. Panel Participants</b>
<p><b>Hanna Krasnova – Moderator:</b> Hanna is a full professor in Business informatics, especially Social Media and Data Sciences, at the University of Potsdam in Germany. She is the author of over 45 research articles published in the ISR, JIT and other peer-reviewed outlets. In her research she addresses the issues of social, individual and enterprise value of the emerging Social Media applications. Among others, her research is dedicated towards finding ways of mitigating harmful consequences and promoting beneficial uses of new ICTs by vulnerable population groups (e.g. adolescents, silver surfers, refugees).</p>
<p><b>Safa'a AbuJarour - Panelist:</b> Safa'a is a doctoral candidate at the department of Information Systems at the University of Potsdam, Germany. Her research revolves around the use of ICTs by refugees, with a specific focus on refugees' integration. She has been actively practically engaged in handling the refugees' crisis in Berlin as a volunteer since 2015, and a founder of the non-profit initiative "Place4Refugees". She has a deep understanding of the needs of refugees with regard to technology. She believes that ICT can play a crucial role in the refugees' integration process, and urges for innovative solutions in this area.</p>
<p><b>Jane Fedorowicz - Panelist:</b> Jane is a Professor of Accounting and Information Systems at Bentley University, USA. She is a member of the Bright ICT Task Force. She conducts research in the e-government space and examines how police uses social media to reach different publics. This project is able to inform communications between refugees and government agencies, as well as demonstrate how public safety relationships can be created and supported through mobile communication. Her work has been published in Government Information Quarterly, MISQ and many other venues.</p>
<p><b>Sebastian Olbrich - Panelist:</b> Sebastian is head of the Information Systems and Digital Business chair at the European Business School (EBS) in Östlich-Winkel, Germany. He published more than 50 peer-reviewed articles in IS conference and journals. His main interest is the knowledge transfer between IS theory and practice. He is currently involved in a consulting project of federal administration concerning the registration and integration of refugees. He will share insights of his project experience and argues that there is a big gap between the expectation of users in age of digitization and what is currently offered.</p>
<p><b>Chee-Wee Tan - Panelist:</b> Chee-Wee is an Associate Professor in the Department of IT Management at Copenhagen Business School, Denmark. He currently serves as an Associate Editor for MISQ. He has articles published in MISQ, ISR, JASIST, EJIS and DSS among others. His research focuses on design and innovation issues related to the delivery of digital services to streamline government-citizen interactions, which is of particular interest considering the issues refugees face. He has been doing research work on discovering how citizen-centric e-government services can be designed to benefit public stakeholders.</p>
<p><b>Cathy Urquhart - Panelist:</b> Cathy is a Professor at the Business School of the Manchester Metropolitan University, UK. She is an Associate Editor for Information Technology and Development. She has published in IS journals like JIT, EJIS, ISJ among others. Her research centers round the use of digital innovation for societal good. Her central thesis is that ICTs have a critical role to play in increasing human and social capital and lifting people out of poverty. We will discuss with her how social media and all forms of ICTs can help us meet societal challenges, such as individual well-being and social justice.</p>
<p><b>Viswanath Venkatesh - Panelist:</b> Viswanath is a Distinguished Professor in Information Systems at the Walton College of Business, University of Arkansas, USA. For over two decades, has rigorously studied real world phenomena. He is also widely regarded as one of the most influential scholars in business and economics. Since 2012, he is serving as a Senior Editor at MISQ. His research focuses on understanding the diffusion of technologies in organizations and society. His research project on tackling poverty in India with the help of technology-based initiatives is of particular importance for the sake of this panel.</p>

## References

- Alkousaa, R., and Maximilian, P. 2016. "European Purgatory: Migrant Smugglers Helping Refugees Return to Turkey," in *Der Spiegel*, <http://www.spiegel.de/international/europe/why-refugees-in-greece-are-trying-to-go-back-to-turkey-a-1100452.html>.
- Andrade, A. D., and Doolin, B. 2015. "Information and Communication Technology and the Social Inclusion of Refugees," *MIS Quarterly* (40:2), pp. 405-416.
- BAMF, Bundesamt für Migration und Flüchtlinge. 2015. "Das Bundesamt in Zahlen 2015: Asyl Report," <http://www.bamf.de/SharedDocs/Anlagen/DE/Publikationen/Broschueren/bundesamt-in-zahlen-2015-asyl.html?nn=1694460>.
- Baumeister, R. F., and Leary, M. R. 1995. "The Need to Belong: Desire for Interpersonal Attachments as a Fundamental Human Motivation," *Psychological bulletin*, 117(3), 497-529.
- BBC. 2016. "Migrant Crisis: Migration to Europe Explained in Seven Charts," *BBC News*, <http://www.bbc.com/news/world-europe-34131911>.
- Diehl, J., and Meiritz, A. 2016. "Anti-Terror-Konyept: De Maizières Überwachungsoffensive," *Spiegel Online Politik*, Retrieved on August, 30, 2016, <http://www.spiegel.de/politik/deutschland/thomas-de-maiziere-plant-ueberwachungsoffensive-a-1107223.html>.
- EUROPOL and INTERPOL. 2016. "Migrant Smuggling Network," *joint EUROPOL and INTERPOL report*, <http://www.interpol.int/News-and-media/News/2016/N2016-062>.
- Fitch, N. 2016. "Smartphone Use on the Refugee Trail," *Ars Technica*, <http://arstechnica.com/video/2016/04/smartphone-use-on-the-refugee-trail/>.
- Hjerto, G. 2006. "Ethics and Technology," *Research Report*, ISPN 82-7877-140-5.
- Kop, R., and Fournier, H. 2010. "New Dimensions to Self-Directed Learning in an Open Networked Learning Environment," *International Journal of Self-Directed Learning*, 7(2), 1-20. □
- Lee, J. K. 2015. "Guest Editorial: Research Framework for AIS Grand Vision of the Bright ICT Initiative," *MIS Quarterly*, (39: 2)
- McAuley, A., Stewart, B., Siemens, G., and Cormier, D. 2010. "The MOOC Model for Digital Practice," *University of Prince Edward Island, Canada*. □
- Reynolds, D., Treharne, D., and Tripp, H. 2003. "ICT—The Hopes and the Reality," *British Journal of Educational Technology*, 34: 151–167. doi:10.1111/1467-8535.00317.
- Rose, G., and Straub, D. 1998. "Predicting General IT Use: Applying Tam to the Arabic World," *Journal of Global Information Management* (6:3), pp. 39-46.
- Spiegel Online. 2016. "The Integration Puzzle: What a Million Refugees Mean for Everyday Life," *SPIEGEL ONLINE*, <http://www.spiegel.de/international/germany/22-germans-speak-about-challenges-of-integrating-refugees-a-1075661-11.html>.
- Straub, D. W., Loch, K. D., and Hill, C. E. 2001. "Transfer of Information Technology to the Arab World: A Test of Cultural Influence Modeling," *Journal of Global Information Management* (9:4), pp. 6-28.
- Tan, C.-W., Benbasat, I., and Cenfetelli, R. T. 2013. "IT-Mediated Customer Service Content and Delivery in Electronic Governments: An Empirical Investigation of the Antecedents of Service Quality," *MIS Quarterly* (37:1), pp. 77-109.
- Tavani, H. 2004. "Ethics and Technology: Ethical Issues in an Age of Information and Communication Technology," *Danvers Mass: Wiley & Sons*.
- UNHCR, The UN Refugee Agency. 2015. "Mid-Year Trends 2015," *UNHCR*, <http://www.unhcr.org/56701b969.html>. □
- Warschauer, M. 2003. "Technology and Social Inclusion: Rethinking the Digital Divide," *MIT Press*, Cambridge, MA, US.
- WhatsApp Inc. 2016. "WhatsApp Legal Info: Acceptable Use of Our Services," <https://www.whatsapp.com/legal/#terms-of-service>.
- Wedekind, O. 2016. "700 Flüchtlinge warten täglich am Lageso - und das umsonst," *Bz-berlin.de*, <http://www.bz-berlin.de/berlin/mitte/700-fluechtlinge-warten-taeglich-am-lageso-und-das-umsonst>.
- WeltN24. 2016. "Datenverbrauch von Flüchtlingen übersteigt den von Airports," *DIE WELT*, <http://www.welt.de/wirtschaft/article152422950/Datenverbrauch-von-Fluechtlingen-uebersteigt-den-von-Airports.html>.