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## Child-Computer Interaction SIG: Designing for Refugee Children

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## Child-Computer Interaction SIG: Designing for Refugee Children

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## EDUCATION CHALLENGES

Educational opportunities are extremely poor for a great many refugee children and young people, for instance those who are still in war-zones (e.g., Syria); or living as refugees in Turkey, Lebanon, Jordan, and Iraq; or are in transit camps in countries like Greece and Italy. Refugee children may struggle to learn basic literacy skills because they have been under stress for a long time or because they are taught in a language in which they are not fluent. These complexities underscore the need for innovative, scalable solutions that will help avoid long-term deleterious developmental effects for entire generations of young people.

## ABSTRACT

The global refugee crisis is a significant current challenge affecting millions of children. The process of refugee migration comes with major immediate as well as long-term risks to children's physical and mental health, education, and prospects. Despite the multiple dangers and challenges during migration, most refugee families have access to and make use of interactive technologies, prior to, during, and after migration. This SIG meeting is an opportunity to discuss novel potential roles for technologies to alleviate some of the challenges faced by child refugees.

## CCS CONCEPTS

• **Social and professional topics** → **Children**; • **Human-centered computing** → *Human computer interaction (HCI)*.

## KEYWORDS

Children; migration; refugees; trauma; mobile technologies.

## INTRODUCTION

According to UNICEF, in 2017, 10 million child refugees were forcibly displaced from their countries and an additional 17 million had to move within their own countries due to violence [9]. The challenges of child migration are not new, but recent developments have increased their worldwide visibility [5]. Something else that is new is the common reliance of migrants on interactive technologies before, during, and after their journey [1, 4]. The current context is ripe, then, for a discussion at the CHI conference on the current and potential role of technologies to help alleviate some of the difficulties associated with child refugees, while keeping in mind that the most significant challenges are systemic and unlikely to be solved by technologies.

Child migration is a complex problem with associated challenges at each stage of migration. Children's experiences differ at each stage depending on geography, age, gender, financial resources, and the presence or absence of caregivers, among other factors. In the sections below we describe the most common challenges at each stage of migration. We then describe potential roles for interactive technologies that we plan to use to bootstrap a discussion at our SIG meeting.

## MIGRATION EXPERIENCES

Situations in the home regions of child refugees are typically dismal, with a combination of violence, poverty, and lack of access to basic services [5]. These contexts mean that child migrants begin their journeys with disadvantages that will only accrue. Many child migrants come from war zones, for example, Syria, Afghanistan, and Somalia, where they likely witnessed gruesome violence and may

### USE OF TECHNOLOGY BY REFUGEES

Refugee children and their families often rely on smartphones and other computing platforms during their journey [1, 4]. They use them to communicate with family and friends, get help, navigate toward a destination, and obtain timely information [1, 4]. Experience with smartphones and technology can vary significantly as does the ability to purchase and safeguard technologies [4]. There are also practical problems, such as being in locations without Internet access or being unable to charge batteries. Refugees therefore have to be resourceful in their access to and use of technology, sometimes carrying only SIM cards and briefly borrowing phones to communicate, relying on computers at charity organizations, or making use of voice messages if unable to read [4]. This precarious access to technology can limit children's ability to communicate and connect with others (e.g. remote friends and family members) and to feel some agency in their situation. A concern with the use of social media is the quality of information used for decision-making [1]. Refugees, in particular caregivers and teenagers, are aware of data-quality concerns and pursue strategies to decide whether to trust information, typically evaluating the credibility of the source, trusting information if it came from people they trusted [1].

have lost family members [5]. Other child migrants come from regions with not too distant civil wars and very high crime rates, for example, El Salvador [5]. These kinds of violence often bring risks of recruitment into armed groups or criminal gangs for boys and sexual violence for girls [5]. In part due to violent contexts, most child migrants also come from regions with high poverty rates. Poverty is accompanied by lack of access to healthcare, education, and employment [5]. In addition, most of these children have suffered multiple layered traumas including physical, emotional and (de)attachment traumas, which, if left untreated, impact development, education, and employment [2], as well as physical, emotional and mental well-being [10].

The migration journey can take from weeks to years for refugee children [5]. Along the way they typically interact with a variety of people and organizations. These include smugglers, charities, NGOs, helpful and hostile locals, and other travelers [5]. The outcomes of relationships with these people and organizations can have a significant impact on children's risk levels. Children often do not have legal status as they migrate outside their home country, which puts them at greater risk for violence, and again often leaves them without access to healthcare and education [5]. Adding to financial hardship, their families often go into debt to finance their journey, adding pressure to successfully reach their destination, which often takes them to dangerous routes in order to avoid government controls [5]. During their migration, children may suffer attachment loss from significant caregivers, which adds another layer to the physical hardships they have undergone.

Even if the challenges of migration are overcome, post-migration is rarely easy. Child refugees often face screenings, detention, and court proceedings [5]. Detention centers in particular may be unsafe and unhealthy, with limited access to education or healthcare [5]. In some cases children may make it to their destination, but find themselves enrolled into human trafficking operations [5]. Even when children move successfully through refugee processes, they are often separated for lengthy periods from significant caregivers, resulting in (further) attachment trauma [7].

In the long term, if children manage to live among the general population in their destination country, other challenges emerge. These include cultural adaptation, language barriers, educational lag, poverty, and legal barriers to long-term integration [8]. The often subtle and invisible impacts of the multiple traumas suffered in their journey will continue to present challenges to their lifelong well-being [7]. In spite of these challenges, life is still much safer than back home, providing a continued incentive for further migration. Although often overlooked, migrant children may enrich their new communities with their experiences and cultural backgrounds.

### OPPORTUNITIES FOR RESEARCH

Technologies could be designed to support integration and adaptation, providing essential links to remaining family members left behind, cultural content from the original and adoptive contexts, and language learning, together with positive engagement with local peers [6]. However, few technologies

are currently adapted to the abilities, needs, and preferences of refugee children or their caregivers. Likewise, in dealing with mental health issues arising from the trauma of migration, it is critical to recognize indigenous and cultural variations of mental health [10].

There is also a need and an opportunity to better understand how to sensitize and build empathy in the populations that take in refugee children in ways that could positively impact the systemic challenges leading to and from traumatic migration. One possible area of research is in capturing and disseminating stories of migrant children so as to give them the ability to represent their own perspectives in a societal and political debate in which refugees are currently underrepresented. These stories could be combined with objective data about the context, size, and impact of migration, to help stakeholders reflect on children's experiences in a critical and informed manner.

A complementary approach is to focus on the underlying causes of child refugee migration. To do so we must think about the roles technology might play in addressing armed conflict, food and water insecurity, as well as natural disasters. Prior work has identified various such roles, including reducing social distance between enemies, de-incentivizing private motivation for conflict, preventing failures of the social contract, and promoting democracy and education [3].

## AGENDA

During the SIG, we will give an overview of the topic, ask those in attendance to introduce any additional views and perspectives, break up for smaller group discussion about challenges facing refugee children and opportunities for socio-technological interventions, and then report back to the entire group for whole-group discussion.

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