

# Migration and Mobility in HCI: Rethinking Boundaries, Methods, and Impact

Dina Sabie  
Department of Computer Science  
University of Toronto  
Toronto, Canada  
dsabie@cs.toronto.edu

Reem Talhouk  
School of Design  
Northumbria University  
Newcastle upon Tyne, UK  
reem.talhouk@northumbria.ac.uk

Cansu Ekmekcioglu  
Faculty of Information  
University of Toronto  
Toronto, Canada  
cansu.ekmekcioglu@mail.utoronto.ca

Carleen Maitland  
College of IST  
Penn State University  
State College, USA  
cmaitland@ist.psu.edu

Volker Wulf  
Information Systems and New Media  
University of Siegen  
Siegen, Germany  
volker.wulf@uni-siegen.de

Eiad Yafi  
Institute of Information Technology  
University Kuala Lumpur  
Kuala Lumpur, Malaysia  
eiad@unikl.edu.my

Samar Sabie  
Information Science  
Cornell University  
New York, USA  
sks286@cornell.edu

Asam Almohamed  
School of Computer Science  
Queensland University of Technology  
Brisbane, Australia  
asam.almohamed@hdr.qut.edu.au

Safa'a Abujarour  
Business Informatics  
University of Potsdam  
Potsdam, Germany  
safaa.abujarour@uni-potsdam.de

Kahina Le Louvier  
NorSC Lab  
Northumbria University  
Newcastle upon Tyne, UK  
kahina.le.louvier@northumbria.ac.uk

Faheem Hussain  
Sch. for Future of Innovation in Soc.  
Arizona State University  
Tempe, USA  
faheem.hussain@gmail.com

Syed Ishtiaque Ahmed  
Department of Computer Science  
University of Toronto  
Toronto, Canada  
ishtiaque@cs.toronto.edu

## ABSTRACT

Research on migration (both internal and external, voluntary and forced) has been an emergent domain in HCI and related disciplines over the past decade. However, as the number of migrants has been increasing over the last two decades, coupled with various growing global affairs, new challenges encountered by diverse types of migrants (e.g. international students, migrant workers) keep arising, and research on mobility gets entangled with many broader social and political issues. Hence, migration can no longer be considered as a 'special case' for some immigrant and refugee communities, but an everyday reality to hundreds of millions of people worldwide and across diverse socio-economic groups. Therefore, the objectives of this workshop are to (a) build a community with HCI researchers and practitioners involved in different domains, within and beyond migration, to share ideas and exchange expertise, (b) broaden the scope of HCI migration research and identify gaps within this field, and (c) provide a safe space for critical reflection on methodological approaches, research infrastructure, and space boundaries in relation with migration to achieve a better real-world impact.

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## CCS CONCEPTS

• **Human-centered computing** → **Human computer interaction (HCI)**; **Collaborative and social computing**.

## KEYWORDS

HCI, HCI4D, migrant, immigrant, refugee, asylum seeker, migrant worker, international students, internal migrant, internally displaced person, development

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## 1 BACKGROUND

As of late 2020, there have been over 317 million internal and external migrants according to the International Organization for Migration (IOM) and the United Nations High Commissioner for Refugees (UNHCR), of which 79.5 million are forcibly displaced (e.g. refugees, internally displaced populations (IDPs)) [17, 27]. The volume of voluntary and forced mobility has been on the rise over the past two decades due to various factors such as armed conflicts, natural disasters, educational needs, and economic situations [17].

The so-called “migration crisis” in Europe, during the mid-2010s, has made the research on migration increasingly more visible in HCI literature, with many studies attempting to understand the information behaviors of migrants in various contexts [9, 19], and address several challenges that migrants face in their new homes including those related to social inclusion [1, 4], community building [12, 29], emotional needs [20, 22], health [5, 25], education [3, 28], and language [6, 16].

However, a review of existing HCI literature about migration research conducted by some of the co-organizers reveals several gaps. For example, when discussing mobility in HCI, it is often assumed that migrants are from the Global South and come from lower socioeconomic backgrounds compared to where they migrate to, which is mainly presumed to be the Global North. Consequently, most work in HCI is about immigrants and refugees, while other migrant groups (e.g. internal migrants, migrant workers, international students) are studied at a much lesser capacity. Moreover, most HCI work in this domain focuses on the immediate practical needs of migrants, while less attention is directed towards persisting challenges of long-term integration such as mental health, cultural appropriation, and inter-generational adaptation. Furthermore, studies tend to be part of short-term projects, limiting the number of technology deployment and the real-world impact. These research gaps are perhaps due to the complex political, social, and economical dimensions that derive and shape migration and impose restrictions on the scholars regarding the types of research that can be conducted, who the studied migrants are, and how the research process is carried out. Few scholars in the field have started to draw attention to these issues, such as the geopolitical atmosphere that surround the context and the power dynamics and the ethical concerns for the various parties involved in the research process [13, 24].

CHI is a multidisciplinary research venue and has, especially over the past few years, supported the study of various types of marginalized groups in challenging settings (e.g. HCI Across Borders Symposium [14]) and forced mobility (e.g. Refugee and HCI Workshop and SIGCHI [23, 26]). However, while research on migration is usually discussed within these domains, it sometimes goes beyond them. For example, many IDPs live in constrained camps. Still, they are not refugees [2, 21], and many international students do not live in extremely critical environments but they face other issues related to their residency status [7]. Moreover, the complex political, social, and economic dimensions of mobility and how researchers situate themselves within such settings sometimes manifest unique challenges that are not present in non-migration domains. Therefore, we build on what others have started in previous workshops - about working in complex environments and some contexts of migration - and propose a workshop for the CHI community that can be beneficial to redefine and expand the lens through which migration is looked at and studied. We aim to enrich our collective knowledge and body of practice by fostering an interdisciplinary and international space for sharing ideas and community building. We strive to include HCI researchers whose work applies to mobility and is representative of geographic and cultural diversity within CHI around broad categories of migrants.

## 2 WORKSHOP GOALS AND THEMES

This workshop has three objectives. First, we want to bring together a community of HCI researchers and practitioners from different domains, within and outside the migration context, interested in mobility-related issues, make connections with other HCI groups, exchange ideas, and share experiences. Second, we aim to redefine the scope of migration and HCI research to identify further gaps in the field, especially since the current 2020 pandemic situation has forced us to re-evaluate the rights of large migrant groups who have not been adequately studied (e.g. IDPs, migrant workers, international students) in various contexts: in the Global North and the Global South, in urban areas and camps, before/during/after the mobility journey and resettlement. Lastly, we want to provide a safe space for critical reflection on methods and research infrastructure utilized when working within the migration context, especially issues rarely discussed in academic publications (e.g. political agendas, funding restrictions) to enhance real-world impact. Namely, we aim to explore the roles researchers take on when engaging with migrant communities and investigate the scholars’ capacity in balancing their research agendas with that of the migrants and the various stakeholders (e.g. the government, public institutions, non-profit organizations). Moreover, we want to unpack the validity of the current methods, the standards of ethical review boards, and the agendas of the stakeholders that can jeopardize real-world impact.

With these three objectives in place, we aim to bring together a wide audience of HCI scholars, who do not necessarily work in contexts of migration, to provide fertile soil for cross-learning because migration is no longer a ‘special condition’ but an overlaid reality that interplays with other HCI research domains. It is likely that HCI researchers in different domains (e.g. health, education) have worked (or want to engage) with some types of migrants but do not officially consider themselves ‘migration scholars’. This is where the workshop can be beneficial as researchers from non-migration domains can learn about pressing issues migrants face while migration researchers can learn about the various approaches in other HCI domains that can be useful in the context of mobility. We also want to bring together HCI and non-HCI researchers and various stakeholders engaging with migrants to formulate a research agenda around HCI research with migrants. This would entail researchers and stakeholders working together to identify areas in which technology can play a role in addressing pressing issues that face various types of migrants.

Based on HCI literature, our knowledge as researchers in migration and HCI, and our conversations with other scholars in the field over the past few years. The workshop will focus on three key themes that we believe are crucial to advance migration research in HCI:

### 2.1 [Re]defining the scope of migration in HCI research

As explained in the previous section, most HCI work in the mobility domain focuses on immigrants and refugees, while other groups of migrants (e.g. IDPs, migrant workers, international students) are not well explored in the literature. However, mobility is a route taken by people from diverse backgrounds (e.g. highly educated,

skilled workers, illiterate laborers) in various contexts (e.g. inside a country, within a region, across multiple regions), and for several purposes (e.g. resettlement, employment, education). Moreover, we cannot deny how the 2020 global pandemic situation has exacerbated the mobility situation, reinforced (and sometimes pushed for more) rights' limitations for migrants, and altered our understanding of migration where borders have become more visible (e.g. international students' vulnerability to deportation [7]). Therefore, we will invite the workshop participants to discuss rarely studied migration groups in HCI and what boundaries are used to identify migration groups. By being more critical of the current categorization of mobility in HCI and broadening the scope, we can be more inclusive in our research.

## 2.2 Methodological approaches

The concept of 'vulnerability' can be vague in this domain because every migrant group, culture, region, route of migration is different and produces distinct contexts or precariousness. For example, immigrants who migrate to countries through the "skilled workers" programs, such as in Canada and Australia, face issues related to accrediting their degrees which put them at an economic disadvantage [11]. International students, as seen with the current pandemic situation in 2020, could be deported and their funding could be discontinued [7]. Even though they have citizenship, IDPs can be exiled within their borders because they are not protected under international laws [21]. Migrant workers can be exploited because they are dependent usually on their sponsors [10]. Moreover, when talking about migrants, we cannot refrain from discussing the political infrastructures that some countries impose - especially on refugees, migrant workers, and IDPs - by some local governments. With these various representations of vulnerability and constraints in place, typical HCI research methods can be deemed inappropriate and issues related to accessing migrants, funding, power dynamics between the researchers and the various stakeholders (including the migrants themselves) become more apparent. Therefore, under this theme, we will invite the workshop participants to discuss the various challenges they face in the field and propose concrete examples of research approaches that should be explored in future work.

## 2.3 Real-world impact

The methodological challenges explored in theme two also pose a challenge for HCI research to work towards real-world impact. Because of the juvenility of the domain within HCI and the complex geo-socio-political atmosphere around it, publications up to this point are yet to have a visible real-life impact on the migrants. Therefore, the participants in this workshop will be invited to discuss approaches started by other scholars about achieving impactful research in challenging environments (e.g. [8, 15]) and suggest the best practices to achieve real-life impact in contexts of migration, either through altering some typical academic research timelines, developing research methodologies, partnership with local community bodies, or other novel approaches.

## 3 ORGANIZERS

The organizers of this workshop come from different backgrounds, practice in various contexts, and are at different academic career stages. All of them have worked on topics of migration, and some have also engaged with other vulnerable groups in challenging settings. We collectively have experience in organizing and facilitating CHI workshops (e.g. Refugee HCI Workshop [26], HCI Across Borders [14], IslamicHCI [18]).

**Dina Sabie** (primary contact) is a Ph.D. candidate in Computer Science at the University of Toronto. Her research explores the potential of design, digital technologies, and co-creative activities to support migrants' emotional needs and enhance their relationships with the hosting communities. She has engaged with immigrants, refugees, and IDPs, and her work is based across multiple sites around the globe, with a focus on Canada and Iraq.

**Reem Talhouk** is a Vice-Chancellor Research Fellow at Northumbria University. Her research focuses on designing humanitarian technologies to improve refugee and asylum seekers' resilience, health and wellbeing, and agency. She also conducts research exploring the role of design within humanitarian innovation. She has led several CHI workshops and SIGs.

**Cansu Ekmekcioglu** is a Ph.D. student in information science at the University of Toronto. Her research focuses on individual and organizational information activities and technology design in humanitarian and settlement contexts. Her work leverages data responsibility, inclusive policy, and community engagement approaches to improve humanitarian outcomes with refugees and immigrants.

**Carleen Maitland** is co-Director of the Institute for Information Policy and Associate Professor in the College of Information Sciences and Technology at Penn State University. Her expertise includes analyses of ICT use in international organizations, particularly those responding to refugee crises. Her work has been carried out in East Africa, the Middle East, and South America, working with organizations such as the UNHCR, the U.S. State Department, and HIAS.

**Volker Wulf** is a computer scientist with an interest in the area of IT system design in real-world contexts, and a special focus on flexible software architectures can be adapted by end-users and methods of user-oriented software development and introduction processes. He is head of the Institute for Information Systems and New Media at the University of Siegen.

**Eiad Yafi** is an Assistant Professor at the Malaysian Institute of Information Technology, University of Kuala Lumpur, Malaysia. Broadly, his research focuses on Knowledge Discovery using Data Mining and Process Mining techniques. He is also an active researcher in the areas of Information and Communication Technologies for Development and Human-Computer Interactions.

**Samar Sabie** is a Ph.D. student of Information Science at Cornell University and a doctoral fellow at the Cornell Tech Digital Life Initiative. Her work investigates the role design as a social practice can play in the spatial politics of intercultural, interclass, and intergenerational differences in urban contexts. She studied shelter and technology conditions in refugee and IDP camps in Iraq, but now focuses on migration issues in North American contexts.

**Asam Almoahmed** is a Ph.D. student in HCI at Queensland University of Technology (QUT). His current research focuses on the role of ICT in supporting refugees to integrate into the host community by promoting their social capital. He has worked with the school of public health and social work, QUT to understand how the use of social media affects intergenerational relationships within refugee families. He also worked as an assistant lecturer of computer science at the University of Kerbala, Iraq.

**Safa'a Abujarour** is a researcher and a faculty member in Business Informatics at the University of Potsdam. She is also an Executive Board Member of the AIS Women Network College and the founder of the "Place4Refugees" NGO in Germany that assists refugees and newcomers with their integration process. Her research relates to social inclusion and digital integration topics and has been published at top-tier venues.

**Kahina Le Louvier** is a Senior Research Assistant on the H2020 PERCEPTIONS project, which investigates the impact of perceptions of Europe on migration behaviors and policies. Her Ph.D. research focused on the information experience of people seeking asylum in the UK. She is particularly interested in information practices, heritage, belonging, participation, migration governance, and the role of the civil society.

**Faheem Hussain**'s latest research works focus on the intersection between ICTs and displaced populations. He is currently working as a Clinical Assistant Professor in the School for the Future of Innovation in Society at Arizona State University. He received his Ph.D. in Engineering and Public Policy from Carnegie Mellon University.

**Syed Ishtiaque Ahmed** is an Assistant Professor of Computer Science at the University of Toronto. He researches the intersection between HCI and ICTD, in the Indian subcontinent and North America. He has pursued ethnographic and design studies to explore privacy, security, and surveillance concerns among the marginalized populations including refugees, mobile phone repairers, and victims of sexual harassment.

## 4 LINK TO WEBSITE

The workshop website is:

<http://www.cs.toronto.edu/~dsabie/MigrationWorkshop/>. The webpage will be updated with the call for participation, information about attendance, and the workshop agenda.

## 5 PRE-WORKSHOP PLANS

We aim to reach out to a broad range of audiences who might be interested in participating in this workshop, from junior to established scholars and practitioners, inside and outside the HCI domain. Therefore, we will publicize the workshop and distribute the call for participation via relevant professional mailing lists, appropriate social media outlets, as well as personal connections with various research communities (e.g. ICTD). Participants will be asked to submit position papers relevant to the workshop themes. The organizing team will review all submissions in relation to their fit with the workshop goals and contribution to thematic discussions. Accepted position papers will be posted on the workshop website as open access before the workshop date. We aim to recruit 15-25 participants.

## 6 WORKSHOP STRUCTURE

### 6.1 Pre-workshop documents

We are aware that time zone differences may impact the ability of some participants in attending the full day, not to mention Internet connectivity issues. Therefore, we will ask all participants to record 3-minute videos of their presentations with closed captions (for accessibility) and send them to us prior to the workshop day. Moreover, a week before the workshop, we will send an email to the workshop participants asking them to complete three google documents: (1) Position statement of the presented paper, (2) issues/questions to be discussed in each activity (see below), and (3) a short participant profile. These documents will be available before/during/after the workshop for all participants to review and set the ground for a collective discussion during the workshop.

### 6.2 The workshop day

In this one-day, 4 hours workshop (9 AM to 1 PM EDT), researchers will engage in interactive activities that will be future-focused (Table 1). After the two keynotes speeches by some of the co-organizers about their experience in migration research in HCI, we will start with the first activity (Activity 1) where participants will be grouped (where each group is led by two organizers) and asked to identify the current progress of migration research within HCI, intersections, and parallels between different forms of migration, current migration and innovation trends, and future areas of research within that space. Moreover, a collective envisioning of a future of migration and how HCI can contribute will be formed through stories stemming from participants' research. After a short break, we will commence with our first group of participants' presentations where we play the presentation videos with the presenters available to answer questions. We then move to Activity 2 where participants will cluster again to characterize barriers, facilitators, and research infrastructures needed within their work plans. After a short break followed by the second group of participants' presentations, we have our last activity (Activity 3) where participants, in groups, will identify the next steps for how we can collectively put work plans into action and define the scope of a special issue proposal to be submitted to ToCHI that will aim to encapsulate discussions held throughout the workshop, more specifically current progress within the field and research towards the formulation and actioning of HCI and migration futures. After each activity, all the workshop attendees will be back in the main room to report on what each group has discussed in their breakout rooms.

We will use our institutional Zoom links for the workshop (if needed) and will utilize digital collaboration tools (e.g., Miro Boards, google docs) where each cluster will document their work and online attendees can interact with and provide their input. Moreover, a Slack channel will be also used as a virtual space to facilitate asynchronous and synchronous communication. Some of this workshop's co-organizers have experience in organizing and facilitating online conferences (e.g., mini-CHI HCI4D <https://www.dgp.toronto.edu/thirdspace-chi2020/>, CSCW20') and have attended several virtual conferences and workshops.

**Table 1: Workshop Schedule**

Time	Activity
9:00 - 9:15	Welcoming notes and opening keynote #1 by a co-organizer
9:15 - 9:35	Opening keynote #2 by a co-organizer
9:35 - 10:00	<b>Activity 1:</b> Mapping progress and future trends for HCI and migration research (breakout rooms)
10:00 - 10:10	Groups reporting on the topics discussed in the breakout rooms
10:10 - 10:20	Break
10:20 - 10:55	Participants' Presentations #1
10:55 - 11:20	<b>Activity 2:</b> Co-creating future plans for HCI and migration research (breakout rooms)
11:20 - 11:30	Groups reporting on the topics discussed in the breakout rooms
11:30 - 11:40	Break
11:40 - 12:15	Participants' Presentations #2
12:15 - 12:40	<b>Activity 3:</b> Next steps & formulating scope of a special issue (breakout rooms)
12:40 - 12:50	Groups reporting on the topics discussed in the breakout rooms
12:50-13:00	Closing remarks

## 7 POST-WORKSHOP PLANS

The discussions and outputs of the workshop will be communicated to the broader HCI community via an ACM Interactions article. In the Interactions piece, the organizers will provide an outline that entails a roadmap for the co-created future HCI agenda of research and design in the field of migration which was informed by discussions centered around the workshop's themes. Additionally, organizers plan to hold a call in a special issue of ToCHI journal and coordination of participation and collaboration for the submission will be arranged accordingly. After the workshop, a recap of the activities and artifacts will be posted on the website to inform interested participants along with the accepted participant submissions. Organizers will keep the website open and updated to act as a repository of resources and links for further research and practice in the community.

## 8 CALL FOR PARTICIPATION: CHI 2021 WORKSHOP ON MIGRATION

Research on migration (both internal and external, voluntary and forced) has been an emergent domain in HCI and related disciplines over the past decade. As the numbers of migrants are always on the rise, mobility can no longer be considered as a 'special case' for some immigrant and refugee communities, but an everyday reality to hundreds of millions of people worldwide and across diverse socio-economic groups (e.g. international students, migrant workers). The aims of this workshop are to (a) build a community with HCI researchers and practitioners involved in different domains, within and beyond migration, (b) broaden the scope of HCI migration research and identify field's gaps, and (c) provide a safe space for critical reflection on methodological approaches, research infrastructure, and space boundaries in the migration context to achieve a better real-world impact.

The workshop will be interactive in nature in which participants will be asked to work in thematic clusters to create a collective vision for future migration and HCI research, identify how to overcome research challenges and develop action plans, and establish the infrastructures needed to progress research in this area.

We invite researchers as well as practitioners interested in participating to submit position papers under the following themes, but we also welcome and are excited about all submissions that fall under other themes:

- **[Re]defining the scope of migration in HCI research:** discuss rarely studied migration groups in HCI and what boundaries are used to identify migration groups.
- **Methodological approaches:** examine the various challenges they face in the field and propose concrete examples of research approaches that should be explored in future work.
- **Real-world impact:** explore the best practices to achieve real-world impact in the context of migration, either through research methodologies, partnership with local community bodies, or other novel approaches.

### Submission Guidelines

Submitted position papers must not exceed four (4) pages in the ACM Master Article Templates format (can be found under 'Quick Links' at <https://chi2021.acm.org/for-authors/chi-publication-formats>) including references and should be sent in PDF format to [migrationchi@gmail.com](mailto:migrationchi@gmail.com) (please title the email "CHI2021 workshop submission"). Position papers will be selected based on the contribution to the workshop themes, quality of presentation, and the potential to stimulate discussions. Upon acceptance, at least one author must attend the workshop virtually, prepare a recorded 3-minute video of the presentation with closed captions, and register for both the workshop and for at least one day of the conference. All accepted papers will be archived on the workshop's website: <http://www.cs.toronto.edu/~dsabie/MigrationWorkshop/>

### Important Dates

- Early submission deadline: 22 January 2021
- Early Notification: 19 February 2021
- Final Submission Deadline: 26 February 2021
- Final Notification & Reviews Released: 19 March 2021
- Camera-Ready & Presentation Video Deadline: 9 April 2021
- Presentations at the Workshop: Saturday, 8 May 2021 (9:00 EDT - 13:00 EDT). Virtual.

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