

---

# Technology at/of the border: a workshop about stories and experiences

**Maximilian Krüger**  
**Konstantin Aal**  
**Volker Wulf**  
University of Siegen  
Siegen, Germany  
firstname.lastname@uni-siegen.de

**Franziska Maria Tachtler**  
HCI Group, TU Wien  
Vienna, Austria  
franziska.tachtler@tuwien.ac.at

**Reem Talhouk**  
Open Lab, Newcastle University  
Newcastle upon Tyne, UK  
R.R.Talhouk2@newcastle.ac.uk

**Ana María Bustamante Duarte**  
PGM Department / ITC  
University of Twente

**Karen E. Fisher**  
University of Washington  
Seattle, WA 98109, USA  
fisher@uw.edu

**Eiad Yafi**  
Universiti Kuala Lumpur  
Kuala Lumpur 50250, Malaysia  
eiad@unikl.edu.my

**Koula Charitonos**  
Institute of Educational Technology  
The Open University,  
Milton Keynes UK MK7 6AA  
koula.charitonos@open.ac.uk

## ABSTRACT

In a time of increased (forced) migration, the borders of many countries are not only experienced

---

Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honored. For all other uses, contact the owner/author(s).

*C&T 2019, June 3–7, 2019, Vienna, Austria*

© 2019 Copyright is held by the owner/author(s).

ACM ISBN 978-1-4503-7162-9/19/06.

<https://doi.org/10.1145/3328320.3328408>.

### **Author Keywords**

Migration; Refugees; Technology;  
Borders; Digital Humanitarianism

### **ACM Classification Keywords**

Human-centered computing → Human  
computer interaction (HCI) → Empirical  
studies in HCI

physically. We are witnessing new ways in which borders are being created, re-created and evolved.

In this workshop we are concerned about borders mediated by digital technologies. We aim to bring together researchers and local organisations working with migrants and refugees to investigate the interplay between borders and technology. We aim to explore how borders are defined within the digital age, how they are experienced, and discuss how technology is used to enforce, challenge and overcome borders.

### **Introduction**

At the beginning of 2019, 68.5 million people worldwide are considered refugees [20]. An additional 257 million people are migrants, a number that has been growing steadily for decades [14]. There are many reasons for leaving a home in search of a new one: war in Syria, Afghanistan and other states as well as poverty in West Africa remain amongst the biggest contributors to (forced) migration [21]. For most of migrating people borders are a key element of the experience of migration. However, borders occur not only at geographically defined state lines. Borders are as well mediated by digital technologies and the political will to control mobility of people. Thus, borders occur far from state lines or as Balibar (1998) puts it: "borders are everywhere" [4].

Increasingly we are witnessing ways where digital technologies are employed to enforce borders and control migration, e.g. through the collection of biometric data such as fingerprints [8], facial recognition data [10] or use of drones [19]. Yet at times they are also used to challenge borders and enable migration. Social media plays a crucial role both on migration routes to Europe from the east through the Balkan region as well from Africa, as people coordinate their travels with smart phones and social media [9, 11].

The field of border studies has investigated digitally-mediated borders for some time [see e.g. 3, 13]. Simultaneously, the field of Human-Computer Interaction (HCI) has turned to the issue of migration and refugees [17, 18, 1]. As such, several technological designs [6, 16], papers [7, 22] and workshops have taken place that explore the role of digital technologies play in (forced) migration. However, engaging with border studies and the interplay between technologies and borders have yet to be explored.

We propose a one-day workshop to gather scholars, designers, (forced) migrants and support organizations alike to discuss stories, cases, experiences and reflections of borders encountered along migration journeys. We aim to jointly sketch a holistic picture of the borders experienced. The workshop aims to not only bring together academics and practitioners, but also to begin bridge between the discourses of HCI and border studies.

## Organisers

*Max Krüger* is a research assistant and PhD candidate focusing on the role of IT in issues of migration and arriving.

*Konstantin Aal* is a PhD student at the Institute for Information Systems and New Media, University of Siegen. His main research focus is the use of technology during the Arab Spring

*Volker Wulf* is a computer scientist with an interest in the area of IT system design in real-world contexts and a professor at the University of Siegen.

*Franziska Tachtler* is a PhD student exploring the role of technologies in promoting resilience in unaccompanied migrant youth.

Reem Talhouk is a doctoral trainee exploring the role of technologies in building refugee community resilience.

## Related Works

Both the field of HCI as well as Border Studies have begun to investigate the impact of digital technologies on migration and mobility across borders. In a recent paper Latonero and Kift sketched out (forced) migrants' digital passage to Europe, concluding that digital technologies warrant "a fundamental reconsideration of the nature of borders" [13]. Indeed, borders now occur outside state lines, with drones used by European border agency Frontex surveilling borders of non-EU states [19]. The increased use of biometric data to surveil and control migration makes borders mobile: data is easily transferable and enables control of people at various locations, not just at the physical border, but creating "biometric borders" [2]. Similar surveillance technologies facilitate screening of public spaces [3] or individuals' social media accounts [13], thereby creating borders within state lines [3], aiming at the identification and deportation of irregular migrants [5].

Whereas border studies have investigated the use of technology to expand control of movement, the discourse within HCI has focused more strongly on the role of technology in facilitating migration, as well as settling into a new host society. Studies and technological designs have focused on the navigation of a new language [6], finding accommodation [15], access to health care [16] or integration in intercultural neighborhoods [22].

## Workshop Objectives

These differing perspectives of the field of HCI and border studies regarding the deployment of digital technology in migration, control vs facilitation, highlight the fact that technologies are not neutral. In fact, they are designed or deployed with specific intentions and political aims [12]. With this workshop we want to explore the intersection between HCI and border studies further by highlighting stories of encounters with digital borders. This allows us to discuss our own practice as HCI researchers and designers and position ourselves.

## Workshop Activities

### *Pre Workshop Plans*

To include multiple perspectives in our discussion, we will use different channels to reach out to different communities. We will use a subpage at [displaced-hci.info](http://displaced-hci.info) to promote the workshop and communicate the workshop aims, structure and call for submissions. We will spread the call for submissions through relevant academic mailing lists, via personal social media accounts and our networks of collaborators. A total of 15 participants will be invited to partake in the workshop based on the position papers submitted. We will also actively seek submissions from personal contacts, with a special focus on local, non-academic community organisations working with and for (forced) migrants. We will also reach out through our network of refugees, migrants and asylum seekers to partake and/or provide narratives of migration and experiences of borders.

## Organisers

*Ana Bustamante Duarte* is an urban researcher investigating participatory approaches for designing mobile geospatial services supporting forced migrants.

*Karen E. Fisher* is a professor at the University of Washington Information School and Adjunct Professor of Communication. She has been engaged as a field researcher with UNHCR Jordan since 2015.

*Eiad Yafi* is an Assistant Professor at Universiti Kuala Lumpur actively involved in ICTD research with focus on investigating role of technologies in Crisis Informatics in Conflict Zones.

*Koula Charitonos* is a Lecturer at the Open University UK with research interests in learning in low-resource settings.

## Workshop Structure

The workshop will provide a space for knowledge exchange and critical discussions that build on existing literature and narratives of borders and migration. Participants will define borders and explore how technologies have changed how we define borders. Participants would then break out and work in groups, based on the varying perspectives of borders to further engage in responding to how currently these borders are technologically enforced, navigated and challenged throughout journeys of migration. Participants would then present back their discussions to the other groups and engage in a wider discussion on how HCI research can increase our understanding of the interplay between technologies and borders.

### *Timetable*

09:00-09:30 Welcome

09:30-10:30 Participant Presentations

10:30-11:00 Coffee break

11:00-11:30 Defining Borders

11:30-12:00 Exploring how technologies are enforcing borders

12:00-13:30 Lunch

13:30-14:00 Exploring how technologies are challenging borders

14:00-15:00 Exploring how technologies are being used to navigate borders

15:00-15:15 Coffee Break

15:15-16:00 Groups presenting back

16:00-16:45 Exploring the role of HCI research in understanding of the interplay between technologies and borders

16:45-17:00 Wrap up & next steps

## Post-Workshop Plans

All the documentation of the activities and workshop outputs will be shared through the workshop website. Interested participants will be invited for further discussions on working towards a special issue in an HCI journal that will sketch a picture borders today, how they are experienced, enforced and challenged by technologies.

## Call for Participation

Within the growing contexts of migration, technology is playing a critical role in enforcing, navigating and challenging geographical borders as well borders formed through technologies themselves. This one-day workshop aims to facilitate discussions on the interplay between borders and technologies as well as discuss how HCI research can further our understanding of this field.

We invite researchers and practitioners interested in participating to submit 2-4 pages long papers (in an appropriate format). Submissions should explore and reflect on a specific case where borders were enforced, challenged or overcome through the use of digital technologies. Cases and stories can be based on personal experiences and/or experiences of witnessing others encounters with borders, participant statements, or even media.

Submissions should be sent to [maximilian.krueger@uni-siegen.de](mailto:maximilian.krueger@uni-siegen.de) in .pdf format. Position papers will be reviewed based on relevance to the workshop. At least one co-author of each accepted paper should attend the workshop.

### Important Dates:

Final Submission Deadline: April 20, 2019  
Final Notification: April 25, 2019  
Workshop Day: June 3 or 4, 2019

### References

- [1] Konstantin Aal, Anne Weibert, Reem Talhouk, Vasilis Vlachokyriakos, Karen Fisher, and Volker Wulf. 2018. Refugees & Technology: Determining the Role of HCI Research. In Proceedings of the 2018 ACM Conference on Supporting Groupwork (GROUP '18). ACM, New York, NY, USA, 362-364. DOI: <https://doi.org/10.1145/3148330.3152160>
- [2] Amoore, L. (2006). Biometric borders: Governing mobilities in the war on terror. *Political geography*, 25(3), 336-351.
- [3] Amoore, L., Marmura, S., & Salter, M. B. (2008). Smart borders and mobilities: Spaces, zones, enclosures. *Surveillance & Society*, 5(2).
- [4] Balibar, E. (1998). The borders of Europe. In P. Cheah, & B. Robbins (Eds.), *Cosmopolitics: Thinking and feeling beyond the nation*. Minneapolis: University of Minnesota Press
- [5] Broeders, D. (2007). The new digital borders of Europe: EU databases and the surveillance of irregular migrants. *International sociology*, 22(1), 71-92.
- [6] Deana Brown and Rebecca E Grinter. 2016. Designing for Transient Use: A Human-in-the-loop Translation Platform for Refugees. In Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems (CHI'16), 321-330. <http://doi.org/http://dx.doi.org/10.1145/2858036.2858230>

- [7] Bustamante Duarte, A. M., Degbelo, A., & Kray, C. (2018). Exploring Forced Migrants (Re) settlement & the Role of Digital Services. In *Proceedings of 16th European Conference on Computer-Supported Cooperative Work-Exploratory Papers*. European Society for Socially Embedded Technologies (EUSSET).
- [8] Council Regulation (EC) No 2725/2000 of 11 December 2000 concerning the establishment of “Eurodac” for the comparison of fingerprints for the effective application of the Dublin Convention.
- [9] Dekker, R., Engbersen, G., Klaver, J., & Vonk, H. (2018). Smart refugees: how Syrian asylum migrants use social media information in migration decision-making. *Social Media+ Society*, 4(1), 2056305118764439.
- [10] European Commission. (2016). Proposal for a regulation of the European parliament and of the council on the establishment of “Eurodac” for the comparison of fingerprints for the effective application of (Regulation [EU] No 604/2013 establishing the criteria and mechanisms for determining the member state responsible for examining an application for international protection lodged in one of the member states by a third country national or a stateless person), for identifying an illegally staying third-country national or stateless person and on requests for the comparison with Eurodac data by member states’ law enforcement authorities and Europol for law enforcement purposes (recast). Retrieved from <http://ec.europa.eu/transparency/regdoc/rep/1/2016/EN/1-2016-272-EN-F1-1.PDF>
- [11] Gillespie, M., Osseiran, S., & Cheesman, M. (2018). Syrian refugees and the digital passage to Europe: Smartphone infrastructures and affordances. *Social Media+ Society*, 4(1), 2056305118764440.
- [12] Jacobsen, K. L. (2015). *The politics of humanitarian technology: good intentions, unintended consequences and insecurity*. Routledge.
- [13] Latonero, M., & Kift, P. (2018). On digital passages and borders: Refugees and the new infrastructure for movement and control. *Social Media+ Society*, 4(1), 2056305118764432.
- [14] Migration Data Portal. [https://migrationdataportal.org/data?i=stock\\_abs\\_&t=2017](https://migrationdataportal.org/data?i=stock_abs_&t=2017)
- [15] Noyman, A., Holtz, T., Kröger, J., Noennig, J. R., & Larson, K. (2017). Finding places: HCI platform for public participation in refugees’ accommodation process. *Procedia computer science*, 112, 2463-2472.
- [16] Talhouk, R., Bartindale, T., Montague, K., Mesmar, S., Akik, C., Ghassani, A., ... & Balaam, M. (2017, June). Implications of synchronous IVR radio on Syrian refugee health and community dynamics. In *Proceedings of the 8th International Conference on Communities and Technologies* (pp. 193-202). ACM.
- [17] Reem Talhouk, Vasillis Vlachokyriakos, Anne Weibert, Konstantin Aal, Syed Ishtiaque Ahmed, Karen Fisher, and Volker Wulf. 2017. Refugees & HCI Workshop: The Role of HCI in Responding to the Refugee Crisis. In *Proceedings of the 2017 CHI Conference Extended Abstracts on Human Factors in Computing Systems (CHI EA '17)*. ACM, New York, NY, USA, 558-565. DOI: <https://doi.org/10.1145/3027063.3027076>

- [18] Reem Talhouk, Syed Ishtiaque Ahmed, Volker Wulf, Clara Crivellaro, Vasilis Vlachokyriakos, and Patrick Olivier. 2016. Refugees and HCI SIG: The Role of HCI in Responding to the Refugee Crisis. In Proceedings of the 2016 CHI Conference Extended Abstracts on Human Factors in Computing Systems (CHI EA '16). ACM, New York, NY, USA, 1073-1076. DOI: <https://doi.org/10.1145/2851581.2886427>
- [19] Regulation (EU) No. 1052/2013 of the European Parliament and the Council of 22 October 2013 establishing the European Border Surveillance System (Eurosur).
- [20] UNHCR. Figures at a Glance. <https://www.unhcr.org/figures-at-a-glance.html>
- [21] UNHCR. Global Trends – Forced Displacement in 2017. <https://www.unhcr.org/statistics/unhcrstats/5b27be547/unhcr-global-trends-2017.html>
- [22] Anne Weibert and Volker Wulf. 2010. "All of a sudden we had this dialogue...": intercultural computer clubs' contribution to sustainable integration. In Proceedings of the 3rd international conference on Intercultural collaboration (ICIC'10). ACM, New York, NY, USA, 93-102. DOI=<http://dx.doi.org/10.1145/1841853.1841868>