Refugee & Forced Migration Informatics: Call for a New CSCW Research Area?

Amirah M. Majid

University of Washington

Social Computing Systems Lab

Seattle, WA 98145, USA

amirah@uw.edu

Abstract

This position paper seeks to propose an expansion of current research methods, terminology, and possibly even a new area of research within CSCW and HCI. We propose approaches to what we are terming: 'Refugee & Forced Migration Informatics'.

Author Keywords

refugee; forced migration; conflict; crisis informatics; informatics; cross-cultural computing

ACM Classification Keywords

• Human-centered computing~Computer supported cooperative work
• *Human-centered computing~Ethnographic studies*

Introduction

My research interests lie in the interdisciplinary field of cross-cultural computing. This relatively new field explores areas such as; the exchange of cultural information, constructions of culturally relevant information resources, and core cultural qualities; within social computing spaces. I draw on literature, theories, and concepts from computer-mediated communication and my principal areas of focus are social signaling theory, refugee informatics, and ethics. Examples from my work include an exploratory

investigation of the impacts of grammatical gender on transgender Arabic and Hebrew speakers, and an ethnographic case study of an independent media project created by refugee youth in the Occupied Palestinian Territories. Currently with my advisor, Prof. David McDonald, we are using *social signaling theory* (SST) to unpack the production and consumption of cues and signals in social media by Arabic and English speakers. SST is a framework borrowed from theoretical biology which has been explored by other social computing researchers as a possible way to aid in more accurate sense-making in online spaces. We completed a pilot study which focused on using SST as a framework for understanding how, and to what degree, people see religiosity in Arabic and English Twitter texts.

My goals are to advance theoretical understandings of cross-cultural interpersonal communication in computer-mediated contexts, particularly where marginalized populations experience sociotechnical barriers. I employ qualitative and quantitative research methods such as interviewing, ethnographic observation, survey, and exploratory data analysis techniques. My preference is to use participatory research design strategies whenever possible and I am greatly concerned with ethical commitments in research. The populations I work with most often are conflict refugees at either the earliest stages of movement, or in situations of long-term displacement. Within that population I am concerned with the assisting the well-being of further marginalised sub-populations, principally LGBTQ peoples.

Existing tensions in Our Research Community

Historically the disciplines which informed the area of research variously referred to as 'Refugee Studies', 'Forced Migration Studies,' or some combination of those terms, has been political science, policy studies, and anthropology (Black, 2001; Chimni, 2009; Shami 1996). In the early 1980's research cohesed primarily around the study of international aid organizations. Today *refugee and forced migration studies* has grown dramatically and is seen as a legitimate, interdisciplinary field of study; despite continuing quarrels about naming conventions (Black, 2001; Fiddian-Qasmiyeh, 2014). Perhaps not surprisingly the field is still driven by studies of policy, legal implementation, and practicalities associated with large population movements.

Current figures from the United Nations High Commissioner for Refugees (UNHCR) report more than 65 million people as having been forcibly displaced, a figure which includes refugees, both within and outside UNHCR mandate, internally displaced persons (IDP's), and asylum seekers (UNHCR, 2016). In 2015 data an average of 24 individuals were forcibly displaced worldwide every minute (UNHCR, 2016).

That this is a problem of critical, global importance is not a question. However, in the areas of CSCW and HCI research there has yet to be a common effort to bring together refugee related studies within an understanding of our broader disciplinary context.

After carefully reviewing ACM literature I have found that while there are examples of research involving refugee populations without a disciplinary framing the work is diluted and disparate, often finding place more

in Science, Technology, and Society (STS) or perhaps sociology related journals. Defining a new area within CSCW and HCI research could provide the needed methodological, ethical, and design structures for this important research. We propose: *Refugee & Forced Migration Informatics*.

Why *Informatics*?

The most commonly applied identifier for research involving refugees and technology is 'refugee information systems' which is strongly identified with a narrow design focus. Examples include: chip systems to monitor refugee movements, debit card systems for food distribution, and computation registry programs for government agencies. *Refugee & Forced Migration Informatics* promotes a broader understanding of refugee research in the CSCW community. Informatics can be defined as, "the interdisciplinary study of the design, application, use and impact of information technology. The discipline of informatics is based on the recognition that the design of this technology is not solely a technical matter, but must focus on the relationship between the technology and its use in real-world settings" (Dourish, et al, 2008). An informatics lens easily accommodates a wider variety of research approaches than a design focused one with greater resiliency.

Refugee Studies in HCI Literature:

There is a an already growing body of work in CSCW which we can leverage to build a foundation for a Refugee & Forced Migration Informatics area. Much of this work has methodological, theoretical, and ethical issues. In 2016 a special interest group (SIG) on refugee was held at CHI in San Jose, CA. The SIG authors proposed that challenges HCI researchers could respond to included, "access to services; integration into host communities; and journeying to safety" (Talhouk, et al. 2016). In fact, after reviewing a set of publications catalogued in the ACM Digital Library we found that the bulk of HCI research can be coded into four broad categories which align with what the SIG authors suggest.

Table 1 shows results and examples from a small qualitative coding study of ACM literature on refugees. Using only the term 'refugee' as a key in the ACM Digital Library a set of only 40 items were returned. Of those 40, seven were removed due to inapplicability or duplication. The remaining 33 items included journal articles, conference papers, and poster abstracts, from 1999 - 2016, which were comprehensively reviewed and thematically coded using Atlas.ti. No items were cross coded. Of particular note few studies have addressed long term refugee and forced migration issues despite the reality that two-thirds of refugees and displaced persons wait for more than five years (Sigona, 2014) for redress, and some situations such as Afghanistan and Palestine have lasted for more than 20 years (UNCHR, 2016; Shami, 1996; Triandafyllidou, 2016). I am hoping that participation in the CSCW 2017 workshop, 'Reflections on Design for Underserved Populations', will help me connect with like minded scholars where we may be able to decide the directions, framings and boundaries of work with underserved populations within our research communities.

Table 1 Coding table with example ACM paper references. The first column lists the *codes* we derived from the publications, followed by the final number of examples we placed in each coding cetegorey. The second column attempts to flesh out the code with an abbreviated description of the *properties* underlying the relationships, and a short list of *concepts* which was derived from ACM keywords, disciplines the authors drew upon, and other important

Code & Item Count	Properties	Examples ACM Publications:
Assimilation, 6	design, construction, research of technologies which support integration into host communities. *concepts such as:* retraining translation information behaviors & practices	Brown, D., & Grinter, R. E. (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 (pp. 321–330). New York, NY, USA: ACM. Koo, J. H., Cho, Y. W., & Gross, M. (2011). Coping with Severe Traumatic Stress: Understanding the Role of Information-seeking Among Political Refugees. In Proceedings of the 2011 iConference (pp. 699–701). New York, NY, USA: ACM. Quirke, L. (2012). Information Practices in Newcomer Settlement: A Study of Afghan Immigrant and Refugee Youth in Toronto. In Proceedings of the 2012 iConference (pp. 535–537). New York, NY, USA: ACM.
Pragmatic, 11	emphasis on practical application, problem solving, and prediction. incorporates or recognizes interests of host countries, service providers, and associated official organizations. *concepts such as:* law security e-government	Christiernin, L. G., & Martin, A. (2010). A Multi-layered Aesthetical Web-portal Interface for Governmental Integration Issues. In Proceedings of the International Conference on Advanced Visual Interfaces (pp. 341–344). New York, NY, USA: ACM. Schmitt, P., Iland, D., Belding, E., Tomaszewski, B., Xu, Y., & Maitland, C. (2016). Community-Level Access Divides: A Refugee Camp Case Study. In Proceedings of the Eighth International Conference on Information and Communication Technologies and Development (p. 25:1–25:11). New York, NY, USA: ACM. Yearwood, J., & Stranieri, A. (1999). The Integration of Retrieval, Reasoning and Drafting for Refugee Law: A Third Generation Legal Knowledge Based System. In Proceedings of the 7th International Conference on Artificial Intelligence and Law (pp. 117–125). New York, NY, USA: ACM.
Speed, 3	design or study of quickly deployable technologies for temporary crisis situations. *concepts such as:* P2P crisis information systems development	Lablans, M., & Ückert, F. (2009). Carawan: A Clinical Documentation System for Use in Mobile Ad-hoc Networks. In *Proceedings of the 2009 International Conference on Wireless Communications and Mobile Computing: Connecting the World Wirelessly* (pp. 608–612). New York, NY, USA: ACM. Morelli, R., de Silva, C., de Lanerolle, T., Curzon, R., & Mao, X. S. (2010). A Global Collaboration to Deploy Help to China. *Commun. ACM, 53*(12), 142–149. Utani, A., Mizumoto, T., & Okumura, T. (2011). How Geeks Responded to a Catastrophic Disaster of a High-tech Country: Rapid Development of Counter-disaster Systems for the Great East Japan Earthquake of March 2011. In *Proceedings of the Special Workshop on Internet and Disasters* (p. 9:1–9:8). New York, NY, USA: ACM.
Transformative Learning, 13	Transformative learning: "[m]eaning is making sense of or giving coherence to our experiences" (Mezirow, 1991) *concepts such as:* creative activities meaning & sense making activities	Baranoff, J., Gonzales, R. I., Liu, J., Yang, H., & Zheng, J. (2015). Lantern: Empowering Refugees Through Community-Generated Guidance Using Near Field Communication. In Proceedings of the 33rd Annual ACM Conference Extended Abstracts on Human Factors in Computing Systems (pp. 7–12). New York, NY, USA: ACM. Fisher, K. E., Yefimova, K., & Yafi, E. (2016). Future's Butterflies: Co-Designing ICT Wayfaring Technology with Refugee Syrian Youth. In Proceedings of The 15th International Conference on Interaction Design and Children (pp. 25–36). New York, NY, USA: ACM. Sawhney, N. (2009). Voices Beyond Walls: The Role of Digital Storytelling for Empowering Marginalized Youth in Refugee Camps. In Proceedings of the 8th International Conference on Interaction Design and Children (pp. 302–305). New York, NY, USA: ACM.

It is my hope that participation in the CSCW 2017 workshop, 'Reflections on Design for Underserved Populations', will help me connect with like minded scholars where we may be able to decide the directions, framings and boundaries of work with underserved populations within our research communities.

References

1. Black, R. (2001). Fifty Years of Refugee Studies: From Theory to Policy. International Migration Review, 35(1), 57-78.
2. Chimni, B. (2009). The Birth of a "Discipline": From Refugee to Forced Migration Studies. Journal of Refugee Studies, 22(1), 11–29.
3. Dourish, P., Hayes, G. R., Irani, L., Lee, C. P., Lindtner, S., Nardi, B., … Tomlinson, B. (2008). Informatics at UC Irvine. In CHI'08 Extended Abstracts on Human Factors in Computing Systems (pp. 3651–3656). ACM. Retrieved from http://dl.acm.org/citation.cfm?id=1358907
4. Fiddian-Qasmiyeh, E., Loescher, Gil, Long, Katy, & Sigona, Nando. (2014). The Oxford handbook of refugee and forced migration studies (First ed.). Oxford, United Kingdom: Oxford University Press.
5. Martin-Jones, M., Blackledge, Adrian, & Creese, Angela. (2012). The Routledge handbook of multilingualism (Routledge handbooks in applied linguistics). London ; New York: Routledge.
6. Mason, E. (1999). Researching Refugee and Forced Migration Studies. Behavioral & Social Sciences Librarian, 18(1), 1-20.
7. McDowell, C. (2014). Development Created Population Displacement. In E. Fiddian-Qasmiyeh, G. Loescher, K. Long, N. Sigona, E. Fiddian-Qasmiyeh, G. Loescher, … N. Sigona (Eds.), The Oxford Handbook of Refugee and Forced Migration Studies. Oxford University Press.
8. Mezirow, J. (1991). Transformative dimensions of adult learning (1st ed., Jossey-Bass higher and adult education series). San Francisco: Jossey-Bass.
9. Philip, K., Irani, L., & Dourish, P. (2012). Postcolonial Computing. Science, Technology, & Human Values, 37(1), 3-29.
10. Shami, S. (1996). Transnationalism and Refugee Studies: Rethinking Forced Migration and Identity in the Middle East. Journal of Refugee Studies, 9(1), 3-26.
11. Sigona, N. (2014). Introduction: Refugee and Forced Migration Studies in Transition. In E. Fiddian-Qasmiyeh, G. Loescher, K. Long, & N. Sigona (Eds.), The Oxford Handbook of Refugee and Forced Migration Studies. Oxford University Press.
12. Talhouk, R., Ahmed, S. I., Wulf, V., Crivellaro, C., Vlachokyriakos, V., & Olivier, P. (2016). Refugees and HCI SIG: The Role of HCI in Responding to the Refugee Crisis (pp. 1073–1076). ACM Press. https://doi.org/10.1145/2851581.2886427
13. Taylor, A. (2011). Out there. Proceedings of the SIGCHI Conference on Human Factors in Computing Systems, 685-694.
14. Triandafyllidou, Anna (Ed.). (2016). Routledge Handbook of Immigration and Refugee Studies. Routledge.
15. United Nations High Commissioner for Refugees. (2016). Global Trends. United Nations High Commissioner for Refugees.