RESEARCH ARTICLE



People First, Data Second: A Humanitarian Research Framework for Fieldwork with Refugees by War Zones

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Abstract. War begets crises that are among the most urgent areas requiring help from the international HCI/CSCW community; yet too few scientists address it using context-based, participatory field methods and by engaging in country and regionally based, longitudinal partnerships. Drawing on the author's ongoing eight-year engagement as a design ethnographer with UNHCR Jordan and region for the Syrian War, this paper discusses Humanitarian Research as a framework for guiding HCI/CSCW research in conflict zones with displaced persons. Based on the principle of "People First, Data Second," Humanitarian Research is explained with illustrative examples along with the nature of war and UNHCR's protection mandate, the research challenges and ethical roles of HCI scientists in conflict zones and how these roles entwine with refugee stakeholders, NGOs, country actors, and university IRBs.

Keywords: Action research, Co-design, Colonialism, Conflict, Decoloniality, DEI, Design, Displacement, Ethics, Ethnography, Fieldwork, HCI, IRB, Islam, Jordan, Levant, Middle East, Muslim, Orientalism, Refugees, Socio-technical, Syria, Theory, Third Harm, UNHCR, War

Bismallah al-Rahman al-Rahim

In the name of God, the merciful and compassionate¹

1 Introduction

War begets war, seldom peace. World War I (1914–1918), with over 40 million civilian and military causalities, was considered the "war to end all wars." Twenty years on, World War II (1939–1945) led to the death of over 70–85

¹ In the Islamic world, it is custom to begin all undertakings, including academic papers, with a prayer to Allah. Thus, begins this paper in alignment with the values of Humanitarian Research and of the Syrian people who inspired it.

million people. In present-day ongoing conflicts include disastrous wars in Syria, Afghanistan, South Sudan, Myanmar, Somalia, Yemen, Libya, Mali, Burkina Faso, and Nigeria—to name the most prevalent, while old wars continue in Palestine and Iraq with well-documented war crimes, including chemical weapons, violence and torture, rape and other human rights violations of civilians. For mid-year 2021, the UN Refugee Agency (UNHCR) estimated over 84 million people displaced by conflict worldwide, with 48 million people internally displaced (UNHCR 2021). Refugees are defined as people who flee across borders "owing to a well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group or political opinion" (Martin et al. 2013). About 73% of refugees escape to border countries with 85% hosted by developing countries, and 40% (33.6 million) are minors under age 18. As war (and repressive regimes as in the cases of Iran and Eritrea, for example) brings death and destruction, weaponizing information and ICTs, it displaces people internally and drives refugees seeking safety in border countries and beyond. War also redraws power, allegiances and borders; changes in land ownership and resources; sparks increased surveillance and privacy loss along with generations-long vengeances; and marks human tolls in health, education, livelihoods, mobility, and social connectedness, destroying cultures, antiquities and the environment. War also spurs economies—creating jobs and advancing science, especially in military operations. In short, war creates vast destruction but also big business (Lakomaa 2017; Hartung 2021).

This paper aims to introduce a theoretical framework entitled "Humanitarian Research" for guiding in situ field work with populations affected by war. The intent is to assist researchers with the inherent messiness of fieldwork that derives from the conceptual complexities of actors, positionality, post-colonialism, geo-politics, history, culture, privacy, gender, identity and representation, and so forth. The framework is based on the author's ongoing engagement since January 2015 as a field ethnographer for the Syrian conflict and encompasses community and cultural norms of the Syrian people, UNHCR protection principles, and host country practices. With its guiding principle of "People First, Data Second" the Framework is intended to be universally relevant to all situations when working with refugees regardless of whether engaged with refugees through a UN agency, NGO, or if on your own or with a team—I have worked in all contexts many times. Humanitarian Research of course comprises elements similar to action research/field ethnography employed by the HCI community or research in general; however, at core it differs with its: 1) focus on refugees—people fleeing war atrocities with deep vulnerabilities, including prolonged sensitivities to privacy and trust-under the protection of the 1951 United Nations Geneva Convention that guides UNHCR, aid agencies and host countries, and 2) intent to design sociotechnical innovations. This core difference segue ways to indelible questions, concerns and strategies not typically found in other research settings though have transferrable implications for working with populations severely at-risk.

As my field of training is Information Science, I follow its tradition of structuring theory papers where conceptual background and the author's empirical evidence are explained as foundation to introducing the framework (e.g., Chatman 1999, 2000). Thus, as prelude to explaining the Humanitarian Research Framework, I begin by reviewing cognate HCI literature (State of the Art), then discussing UNHCR's protection mandate and the relationship of university IRBs, followed by an overview of life as a war refugee and my research with Syrian refugees in Za'atari Camp, Jordan.

2 State of the Art: War and Human Computer Interaction

How to address the human toll in war is one of the most pressing needs of science—one that the Human Computer Interaction (HCI) and Computer-Supported Cooperative Work (CSCW) community is uniquely positioned to assist for its multidisciplinary strengths, human-centered focus and agile rapid response to global needs. A nascent body of HCI/CSCW research is focusing on the ramifications of conflict, specifically for displacement, and the need for design ethnography and in situ field work that can lead to tangible outcomes for refugees and stakeholders. Such work emphasizes the importance of understanding context and insider knowledge that is difficult to obtain using brief one-off site visits, surveys, remote phone interviews and data science analysis of social media. Committing to a longitudinal in situ research program for conflict is challenging: it requires vast times away from home, understanding positionality and post-colonialism in both subtle and overt manifestations direct to the researcher and researcher's institution/country; awareness of history, ongoing geo-political events, both in-country and global regarding the population of study; host county laws and social and cultural norms; learning another culture and language; and often self-funding project needs because projects may not align with Western funding models due to agencies' domestic or nationalistic mandates, corporate and foundation fear that conflict research risks negative public perception, and university risk adversity to funding from foreign countries. Publishing about longitudinal war ethnography carries a different rhythm from traditional HCI/CSCW studies that typically are carried out quickly by labs or large teams, with small cases or "N," and can be written-up pro forma for swift accessibility to others and for building academic prestige. For war ethnography, methodology, findings and social media posts often have to be suppressed or carefully crafted to protect both participants and the research team from war mongers and trolls, to preserve relationships and confidences with agency partners and other stakeholders as well as being apolitical/neutral when crafting UN/NGO documents. In short, sometimes years of research can never be publicly shared (or only selectively disseminated) due to larger responsibilities and safety.

Other challenges pertain to academic paradigms with Western-focused IRB protocols that are incompatible with design ethnography, UN and humanitarian agencies' protection mandates, the roles of host countries and the everyday lived reality of refugees and supporting actors. Little precedence and guidance exist within HCI/ CSCW on how to carry-out fieldwork by conflict zones and with refugee populations. In short, while common tags in HCI/CSCW are "research for social good" and "do no harm," and conference acceptance requires evidence of IRB approvals and addressing of research ethics and researcher positionality—especially with vulnerable populations—little guidance exists for carrying out the day-to-day, often muddled nature of fieldwork by conflict zones. Insights from international relations, anthropology, political science, conflict studies and other cognate fields are helpful—discussing issues of access, emotionality, positionality and ethics, longitudinal engagement, trauma and PTSD, and participant and researcher safety (e.g., Aikins 2022; Altorki and El-Solh, 1988; Campbell 2017; Clark 2017; Dauphinee 2007; De Guevara and Morten 2020; Drozdzewski 2015; Karell 2017; Knott 2019; Mahmood et al. 1998; Malejacq and Mukhopadhyay 2016; Mazurana et al. 2013; Niveen et al. 2021; Nishat and Musmar 2020; Nordstrom and Robben 1995; Paasche 2016; Robben 2010; Rothe et al. 2020; Thorleifsson 2016; Trimble and Fisher 2006; Turner 2020; Wibben 2016; Williams et al. 2016; Wood 2006; Yasmine and Moughalian 2016); however, they focus less on participatory, community-based methods with outcomes aimed towards socio-technical innovations.

Many terms can be used to describe the approaches used in HCI/CSCW research relevant to forced displacement, such as action-oriented, engaged scholarship, collaborative inquiry, participatory, design ethnography, grounded design, etc. HCI/CSCW, along with much of the social sciences, borrowed from the German researcher Kurt Lewin (c.f., Adelman 1993; Hayes 2011; Huysman and Wulf 2004; Kock n.d.) who called for researchers to be involved throughout the research process and attuned to contextual factors with the aim of improving social conditions. Randall et al. (2007) seminal text "Fieldwork for Design: Theory and Practice" explains how to carry-out design ethnography in office/organizational and home settings. Spanning 25 years, Blomberg and Karasti (2013) examine the use of ethnography in CSCW research at-large. HCI/CSCW research focusing on war contexts has mostly been carried out in the past decade, with a few earlier studies of the Iraq War.

Action-oriented, design approaches to assist war refugees in western countries of resettlement, building on an extensive interdisciplinary literature, include Baranoff et al. (2015), who designed Lantern, a digital system to help new refugees in the U.S. navigate their new surroundings. Using Near Field Communication (NFC), a system of close-range wireless technologies that allows for communication between two electronic devices, Lantern places an NFC-enabled feature phone next to an NFC tag to transfer actionable information to refugees, such as instructions on how to ride a bus. Brown and Grinter (2012) designed Rivrtran to

mitigate the difficulties encountered by newly settled refugees from Myanmar in the United States. A messaging platform, Rivrtran provides 'human-in-the-loop' interpretation between individuals who don't share a common language, reporting that Rivrtran provided users access to information sources beyond their cultural group and reduced the effects of cultural barriers. In Georgia, USA, Irani et al. (2018) used an assets-based approach to conduct qualitative interviews with 10 women who were receiving training to sell handicrafts on Etsy; they offer several suggestions for design that emphasize facilitating fluency in language and information seeking. Pei and Crooks (2020) addressed digital divide inequities among refugees and migrant users of a community literacy center, critiquing the notion of technology as equalizer, noting costs users experience with regard to starting-up, maintenance and affect.

HCI/CSCW studies involving the challenges of resettled refugee integration into the receiving community have been mostly conducted in the EU, reflecting the 2015 arrival of over 1 million refugees along with German Chancellor Angela Merkel's suspension of the Dublin Agreement that refugees had to seek asylum in their first country of arrival, and the denial of asylum entry to the U.S., per the Trump Administration's 2017 Muslim Ban (Executive Order 13,769 Protecting the Nation from Foreign Terrorist Entry into the United States, replaced by Order 13,070). HCI/CSCW research includes Almohamed et al. (2021) comprehensive conceptual model for understanding the challenges of the refugee re-settlement experience based on an extensive literature review for informing the design of systems and services. Neuenhaus and Aly (2017), who designed EmpUP, a geolocation-based mobile game that enables Syrian refugees in Germany to connect with locals and builds empathy. Ertl et al. (2020) explored how self-help tools such as poetry writing support the psychosocial needs, particularly negative mental stresses of 5 refugees in Germany. Weibert et al. (2019) designed a language course wizard to assist migrants and refugees in Germany, emphasizing the importance of visualizing for reaching users with broad cultural and education backgrounds. Young migrants and refugees in Germany were studied by Duarte et al. (2018), exploring synergy between participatory design and participatory research techniques and the effects of creating safe spaces. Designing mobile technology for newcomers in Sweden was the focus of Coles-Kemp and colleagues (2018, 2019)—building upon an extensive literature of refugees' mobile use during the 2015 exodus to Europe (e.g., Borkert et al. 2018). In 2020, Jensen et al. (2020) worked with 89 refugees in Sweden to understand the effects of digital integration tools ("civic turn") for educating refugees about social and cultural norms, reporting that such trainings tend to amplify existing barriers.

In Finland, Kainat et al. (2021) used small worlds theory and ethnographic methods to understand the information worlds of Muslim female refugees in Finland, noting the differences in Finnish and Arab-Muslim cultures, specifically regarding gender. In Scotland, Martzoukou and Burnett (2018) used drawing

activities with Syrian refugees to understand their health, housing and other everyday life information needs and barriers to socio-cultural adaption in Scottish society. Oduntan and Ruthven (2021) drew upon Fisher's theories of Information Grounds (c.f., Fisher 2005) and ICT wayfaring (Fisher et al. 2016) to understand how refugees and asylum seekers navigate information systems and processes in the UK. Their findings highlighted the importance of place (e.g., mosques, schools, charities) and accessible interpersonal information sources. Le Louvier and Innocenti (2019) used participatory visual methods and Fisher's (c.f., 2005) Information Ground theory to design an information mapping board game with refugees and asylum seekers in northeast England. Their findings included that the game activity enabled the participants to break the game rules midway, taking over the game: "rather than indicating instances when they sought or shared information in the past, they started sharing information with their co-players directly during the game. They shared tips on where to find free food, courses, leisure activities, and cheap mobile phone companies. Thus, they transformed the game into an information ground."

In Australia, Almohamed and colleagues (2016a, b, 2017, 2018, 2020) experimented with designing inclusive social technologies to reduce the vulnerabilities of refugees and asylum seekers; their work builds on qualitative studies in Australia of refugees' information needs, technology use and digital divide, such as Alam and Imran (2015) and Lloyd et al. (2013). Also in Australia, Brown and Choi (2018) carried out co-design with new refugees to support trauma, emphasizing the need for creative activities. Rohingya refugees in Bangladesh were studied by Hossain et al. (2020) with data analyzed for themes of ICT use and solidarity.

A few HCI/CSCW studies have focused on NGOs serving refugees. Lee et al. (2019) developed Causeway, a platform to support novices' microlearning for developing refugee resettlement agency websites. In Vienna, Tachtler et al. (2020) interviewed 15 NGO staff and 5 minors about serving the psychosocial needs of unaccompanied minors, followed by co-design sessions to develop a social-ecological model of resilience that emphasizes supporting the technology needs of mentors. In Turkey, Turkay and Turkay (2019) interviewed staff from 8 NGOs to understand how they use ICTs in serving Syrian refugees, noting the importance of knowledge brokering. Working with the Norwegian Refugee Council (NRC), Andres et al. (2020) interviewed 19 NRC staff and refugees to create scenario-based XAI for humanitarian aid decision, supporting practices such as surfacing causality, multifaceted trust and lack of data quality, and balancing risky situations.

Fewer HCI/CSCW researchers have engaged in in situ field research near conflict zones. For the Iraq War, Gloria Mark and colleagues used phone interviews and blog analysis to understand Iraqi's use of technology and cultural practices in forging resilience (Mark et al. 2009, 2012). In Rwanda, Batya Friedman and colleagues conducted pioneering work to support the

Rwanda Truth Trials, creating a video depository of witnesses' stories as part of a larger research program on life-span and slow design (Friedman and Nathan 2010; Nathan et al. 2011; Yoo and Friedman 2017; Yoo et al. 2013). Also, in Rwanda, Xu and Maitland (2019) worked with urban refugees to create a data collection and management system, discussing how input by refugees generated different types and categories of information as well as locally relevant resolution of data privacy issues, and reporting that refugees perceived greater educational benefit than ICT self-efficacy in using the system.

In the Middle East progressive in situ design research is led by Reem Talhouk and colleagues in Lebanon, and by Volker Wulf and the Siegen School focusing on Palestine, Tunisia, and other countries. Talhouk and colleagues, based on several years of intensive fieldwork with Syrian refugee women living in small rural camps in Lebanon, share insights from studies about information seeking and technology use, health, and food security—in addition to reflecting on the nature of design ethnography with refugees and importance of human dignity (Talhouk et al. 2019; Talhouk et al. 2019; Talhouk et al. 2019). Talhouk et al. (2016) and Talhouk et al. (2017) collaborated with healthcare professionals serving Syrian refugees to improve antenatal healthcare using mobile technology. Using synchronous IVR, Citizen Radio is a mobile-based radio show that features refugee(s) interviewing health experts and allows listeners to ask questions. Community members can listen and participate in the show by calling in from their mobile devices without needing an Internet connection. Talhouk's team found that such radio shows influence community agency, community dynamics and healthcare provider/refugee relationships. Through improving mutual trust, healthcare provider understanding, commissioning and running community radio shows have the potential to improve healthcare access by refugees. Talhouk et al. (2020) address refugees' food insecurity, reflecting on how 13 women navigate, adapt and negotiate family food needs within the austere local environment with implications for community design.

The Siegen School's extensive research program of socio-technical appropriation and capacity building for conflict extends from the Middle East to Eastern Europe and Latin America. In Tunisia, they studied the role of the web and social media among people in Sidi Bouzid, Tunisian town where the Arab Spring began (Wulf et al. 2013), and years later interviewed young adults who had not participated in the Arab Spring about their use of Facebook and other social media for political and other information (Aal et al. 2019). In Palestine, they examined activists' use of social media within a West Bank village where people demonstrated weekly against Israel's settlement policy and the separation wall (Wulf et al. 2013). Across 28 months their fieldwork comprised 8 days of observation and interviewing along with monitoring of Internet communications. The study is particularly valuable for its examination of social media/ICTs, and activists' motivations and actions, as they self-organized under Israeli military occupation. Also

in Palestine, the Siegen School adopted the German club house approach with refugees, finding that understanding refugees' situational contexts and participant codesign enabled the computer club to facilitate social ties between camp residents and university student tutors (Aal et al. 2014; Yerousis et al. 2015). The Siegen School's research in Palestine builds on Sawhney (2009) and Boulus-Rødje and Bjørn (2021). Sawhney (2009) extended the MIT Media Lab's Computer Clubhouse model to Palestinian youth in the Shu'fat Refugee Camp in the West Bank and East Jerusalem, using LEGO and multimedia tools to facilitate digital storytelling. The program focuses on digital literacy and empowering teens storytelling. Boulus-Rødje and Bjørn (2021) drawn on 5 years of ethnography in Palestine to propose their concept of a "public of erosion" to characterise the Palestinian tech community and how "the entrepreneurial public has been produced and shaped by the attrition stemming from the interlinked infrastructures created by donor agencies, powerful billionaires, the government and the Israeli occupation."

For the Syrian War, the Siegen team conducted fieldwork with Syrian Free Syrian Army (FSA) fighters, activists, and refugees in Turkey, Jordan and Germany, reporting on the technical disparities inside Syria with regime-held areas having the best access, as well as the focal role of mobiles for video documenting events (Rohde et al. 2016). This valuable study provides context for the plethora of survey research about social media/ICT use in Syria, such as by Kozman and Melki (2018) as well as studies of Syrian social media (Twitter, YouTube) by Lynch et al. (2014), Klausen (2015), Starbird et al. (2018), Wilson and Starbird (2020), and others—which are susceptible to sampling bias, filtering weaknesses and low reliability (Parekh et al. 2018).

Exploratory fieldwork in 2019–20 in Iran examined the effects of Internet filtering on citizens' communications and how they counter-appropriate technology as part of daily life in Iran's highly monitored and censored society (Wulf et al. 2020). Meta-analysis of the Siegen School's fieldwork of how social media and ICTs are appropriated in conflict zones in Palestine, Syria and the Ukraine are discussed in Aal et al. (2019). The authors address such themes as the roles of different actors and social media/ICTs in instigating civil war, and the dangers of surveillance and other negative affordances of technology. For fuller understanding, they recommend researchers use embedded, longitudinal approaches. In extending their research program to Latin America, the Siegen School conducted fieldwork in Columbia about its civil conflict that began in 1964. Through conducting interviews with members of the guerrilla movement FARC—the Revolutionary Armed Forces of Colombia, People's Army (Spanish: Fuerzas Armadas Revolucionarias de Colombia-Ejército del Pueblo), the researchers examined how radio communications and local technology has been appropriated, with suggestions for counter-appropriation (Leal et al. 2019).

In addition to academic researchers, industry designers and technology professionals work in the refugee space. A chapter of the American Institute of Graphic

Arts, a professional organization for design, for example, focused on designing for refugees as part of its annual "design for social change" challenge. Google partnered with the UNHCR in 2017 to create searchingforsyria.org—an immersive website explaining the Syrian crisis. Translation Cards, an open-source Android app, was developed to help refugees communicate with fieldworkers by MercyCorps, ThoughtWorks, UNHCR Innovation, and Google.com. Tech Tribes gathers young Arab innovators and partners to design social innovations to benefit the region.

Workshops at several HCI/CSCW conferences such as CHI, ICTD, and Communities & Technology (e.g., Aal et al. 2018; Fisher et al. 2016; Mouratidis et al. 2021; Talhouk et al. 2016; Talhouk et al. 2019; Talhouk et al. 2018; Krüger et al. 2019) have convened researchers working with refugees, mostly in the Middle East and North Africa (MENA) region, creating a support community for sharing methodology and discussing research challenges. Discussion themes include field access, data collection methods, and trustworthiness, ethics, positionality and decolonizing, and safety. CHI workshops such as ArabHCI (Alabdulqader et al. 2019) and IslamicHCI (Mustafa et al. 2020) also include researchers focused on refugees through their focus is more general on designing for the Arab world and cultural/religious factors.

In summary, a nascent community is emerging within HCI/CSCW that focuses on refugees and war contexts using field design methods. The community is small and dispersed across a few key universities or labs, primarily in the EU/UK—possibly because funding is more readily available for the study of global displacement, especially given the mass influx of refugees to Europe in 2015. Signs of the research community's growth or establishment are its regular conference workshops and meetings, social media groups, and now journal special issues. Also needed for scholarly development are solidification of field-specific methods and theory for both guiding new work, designing technical artefacts, and explaining research phenomena. This paper's Humanitarian Research Framework aims to contribute to corpus building by explicating methods and concepts based on extended field ethnography.

3 UNHCR Protection Mandate, Community Norms and Western IRBs

What guidance is provided by universities to field researchers for working with vulnerable populations by war zones? Depending on the researcher's university and country, IRB/Human Subjects approval and certification may be required; however, when working in-country the two-fold standard is to comply with community/stakeholder norms and UN protection protocols. The focus of this section is to discuss UNHCR protection protocols and community norms—key underpinnings of the proposed Humanitarian Research Framework, and how they contrast with university IRBs.

Protection is the most frequent term heard when working with UNHCR and other agencies in refugee settings. What are UN agencies? What is protection and how does it fit with IRBs and, most importantly, reflect refugee community 246 K. E. Fisher

norms? The United Nations is an international government organization comprising a vast family of entities (centres, agencies, organizations, commissions, programmes, etc.) of different sizes, institutional and functional structures (United Nations Information Center 2019; Figure 1). The United Nations High Commissioner for Refugees, commonly known as the UN Refugee Agency (UNHCR) was established on December 14, 1950 by the UN General Assembly with a three-year mandate to complete its work and then disband. The following year, the legal foundation of helping refugees and the basic statute guiding UNHCR's work, the UN Convention relating to the Status of Refugees, was adopted; instead of disbanding, the UNHCR grew and in 2020 serves refugees in 134 countries in partnership with other UN agencies, humanitarian organizations and host country governments (UNHCR 2013).

UNHCR's primary mandate is the protection of refugees, safeguarding their legal rights such as for asylum and non-disclosure of personal identifiable information (PII); supporting refugees' basic needs for food security and nutrition, shelter, WASH (water, sanitation and hygiene), health and psychosocial support, education and livelihoods for external and internal displacement situations; and, coordinating settlement via host countries, immigration and repatriation (safe return) to home countries—all with dignity and respect for refugee cultural norms (UNHCR 2006). The UN has a vast library of documents pertaining to protection, including its Handbook (Nicholson and Kumin, 2017; UNHCR n.d. b, 2015, 2020) which includes legal rulings at the international level and by country for different situations such as asylum, legal rights, unaccompanied minors, trafficking, and refoulment (illegal return of refugees to their home countries against their will). An excellent source for researchers and amongst UNHCR's many vital services is data reporting for all UNHCR situations through operation portals, including dashboards, monthly fact sheets, and regular summary and issue reports (UNHCR, n.d. a). While all UN staff follow protection principles and practices, UNHCR also has dedicated protection officers—highly trained professionals whose primary responsibility is protection (see UNHCR, n.d. c for example of protection officer job advertisement). Non-UN humanitarian agencies also employ protection officers and follow the same international laws for refugee protection.

UNHCR's Protection Handbook is highly dense, containing vast sections on international legal rulings and how they pertain to different situations and countries. The most concise overview of protection and principled, rights-based humanitarian response is *The Sphere Handbook* (Sphere Association 2018b). Asserting fundamental respect for refugees' right to be fully involved in decisions regarding their recovery, its four foundation chapters outline the ethical, legal and practical basis for humanitarian response. The *Handbook* was built on the 1994 Code of Conduct for the International Red Cross and Red Crescent Movement and Non-Governmental Organisations (NGOs) in

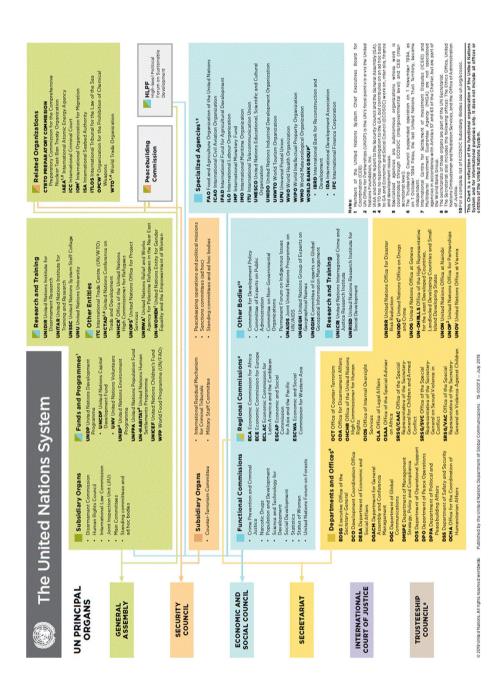


Figure 1. United Nations Structure UN Information Center (July 2019)

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Disaster Relief, and asserts that all people affected by crisis have a right to receive protection and assistance—the basic conditions for life with dignity. It is used for humanitarian advocacy to improve the quality and accountability of assistance and protection in line with humanitarian principles by governments, donors, military and private sector to guide their actions and enable coordinated, constructive response. Thus, the principal users are practitioners involved in planning, managing or implementing humanitarian response, including staff and volunteers of local, national and international humanitarian crisis organisations, as well as affected people themselves. The *Handbook* was first piloted in 1998, with revised editions in 2000, 2004, 2011 and 2018. The standards and guidance rely on sector-wide consultations with UN agencies, individuals, non-governmental organisations (NGOs), and governments. The fourth edition (Sphere Associtation 2018b) includes guidance for urban settings, addressing Minimum Standards in protracted crises, and delivering assistance through markets as a way to meet the standards.

The Sphere Handbook (Sphere Association 2018a) lists 4 protection principles for humanitarian actors and action:

- 1. Enhance the safety, dignity, and rights of people, and avoid exposing them to harm.
- 2. Ensure people's access to assistance according to need and without discrimination.
- 3. Assist people to recover from the physical and psychological effects of threatened or actual violence, coercion or deliberate deprivation.
- 4. Help people claim their rights.

These four principles support refugees' "right to life with dignity, right to humanitarian assistance and the right to protection and security" and are the foundation for The Sphere's Code of Conduct Principles (Figure 2).

Protection-related activities are explained by Sphere under four categories: Water Supply, Sanitation and Hygiene Promotion (WASH), Food Security and Nutrition, Shelter and Settlement, and Health, and are provided through a combination of four types of activities:

- 1. Preventive: preventing threats to safety, dignity, or rights from occurring, or reducing exposure or vulnerability to these threats.
- Responsive: stopping ongoing violations or abuse by immediate response to incidents of violence, coercion, and deprivation.
- Remedial: providing remedies for ongoing or past abuses by offering healthcare (including psychosocial support), legal assistance or other support, to help people restore their dignity.
- 4. Environment-building: contributing to a policy, social, cultural, institutional, and legal environment that supports the full respect of the rights of the affected population, including rights in accordance with international law.

UNHCR and NGOs strictly follow principles of protection, and staff are highly trained in preventing situations that would do harm, intervening in cases where

- 1. The humanitarian imperative comes first.
- 2. Aid is given regardless of the race, creed or nationality of the recipients and without adverse distinction of any kind. Aid priorities are calculated on the basis of need alone.
- 3. Aid will not be used to further a particular political or religious standpoint.
- 4. We shall endeavour not to act as instruments of government foreign policy.
- 5. We shall respect culture and custom.
- 6. We shall attempt to build disaster response on local capacities.
- 7. Ways shall be found to involve programme beneficiaries in the management of relief aid.
- 8. Relief aid must strive to reduce future vulnerabilities to disaster as well as meeting basic needs.
- 9. We hold ourselves accountable to both those we seek to assist and those from whom we accept resources.
- In our information, publicity and advertising activities, we shall recognise disaster victims as dignified human beings, not hopeless objects.

Figure 2. The Sphere's Code of Conduct Principles (2018a)

protection assistance is needed, etc. Such protection efforts require in-depth knowledge of refugees' experiences and situations, their cultural norms, refugees' country of origin, the laws and norms of the host country, and coordination with state authorities. Of key note, however, is that the protection roles and responsibilities of humanitarian actors are secondary to those of the state and other authorities, who hold legal responsibility for the welfare of people within their territory or control and for the safety of civilians in armed conflict. Ultimately, however, it is the duty of state authorities to ensure people's security and safety through action and restraint, which can limit the abilities of UN agencies and NGOs. Humanitarian actors can encourage these authorities to fulfil their responsibilities and, if absent, assist refugees in dealing with the consequences (Sphere Association 2018b). Tension exists between UN agencies and humanitarian actors' protection mandate and the reality on the ground—especially in conflict countries that disregard the UN Convention such as in Syria where the regime controls entry and distribution of aid and is highly problematic (Hall 2022). A corrupt country may charge higher tariffs for bringing in aid (used to support the regime/corruption) and politicize/weaponize entry of aid and its distribution to accomplish aims at the international level and to favour supporters in-country. Refugees are also weaponized by countries with regard to refoulement (illegal deportation). It is against UN Convention for host countries to deport refugees to their home countries while situations are unsafe and a person is at-risk of torture, persecution, or other ill-treatment; yet, these practices occur, sometimes to international outcry. Turkey, for example, received 6 billion in 2016 from the EU to host refugees and keep them from entering Europe and has been documented for refoulement by organizations such as Amnesty International. In 2021 public outcry halted Denmark, if temporarily, from returning Syrian refugees, holding them in deportation facilities.

Understanding UN/humanitarian protection mandates is imperative for researchers engaged with people affected by conflict. How do humanitarian protection principles align with western academic institutional review boards (IRBs) that oversee academic research? Created in response to early-mid twentieth century research that disregarded subjects' rights, creating liabilities for universities and funding agencies, IRBs focus on the role of human subjects in research studies. IRB sense of protection is two-prong: ensuring that researchers follow federal guidelines for engaging with human subjects, especially populations at-risk, and protecting universities and funders from legal liability, i.e., not being sued by a subject due to study design, implemented protocols and treatments, and management/disclosure of personally identifiable information (PII).

The HCI community has been vocal in discussing ethics in research (e.g., Bruckman 2014; Brown, et al. 2016; Frauenberger et al. 2017; Race et al. 2020). Abdelnour-Nocera and Densmore (2017) review ethical challenges with regard to international development and ICTs. Vines et al. (2017) reflect on ethical dilemmas with using Google Glass as a self-care technology for people with Parkinson's and how these challenges conflict with IRB standards and HCI publishing. Brown et al. (2016) critique ethics and IRB requirements from 5 perspectives, including informed consent, researcher positionality and disclosure, and benefits for marginalized communities. Munteanu et al. (2015) discuss the fit of traditional IRB processes for HCI research with vulnerable populations—calling for community-wide discussion to refine views and practices.

Considerable work outside HCI/CSCW has addressed ethics and research with victims of war. Both Fujii (2012) and Campbell (2017) discuss how IRB principles are ill-fitted because conflict settings have challenges to informed consent, confidentiality, risk—benefit analysis, researcher role; they argue for more nuanced guidelines and professional training. In "Stop Stealing Our Stories": The Ethics of Research with Vulnerable Groups," Pittaway et al. (2010, p. 236) share insights gathered from focus groups with refugee women in varied countries about their deep fears of exploitation by Western researchers; the women's fears include (verbatim from Pittaway et al.):

- exploitation by previous researchers and journalists, including unauthorized publication of names and photos, leading at times to situations of danger for those participating in the research;
- false expectations of assistance from researchers;
- lack of feedback from research, including promised reports and photos, after giving time for interviews and disclosing personal stories;
- fear of backlash from government authorities and military leaders within camps;
- mistrust of white researchers; class and ethnic distrust of local workers and researchers;
- distrust of research done by researchers who 'fly in and fly out' of camps and conflict zones without considering the local social, economic and political consequences;
- lack of consultation about recommendations and strategies;
- the inability of many researchers to cope with the absolute horror of the experiences of research participants;
- the potential for retraumatization, without any follow up support.

Refugee fears, as explained by Pittaway et al. are not well covered by IRBs. Indeed, IRB is perceived as a distrusted, insulting colonial invention—Western universities creating hoops of bureaucracy and time waste of local partners resulting in at-odds and dangerous processes for refugees. For a refugee population an IRB approved study typically requires providing formal documents written in academic language for subjects to read and often sign, especially if the subject is being compensated; and impose restrictions on methods and sample size as well as additional measures for at-risk populations such as minors, pregnant women, homeless people, incarcerated people, etc. IRB departments are often slow with approving study proposals due to required diligence and backloads. Thus, IRBs issue strict approvals for research protocols and types/number of subjects, making it difficult to seek modifications based on learning in the field. These IRB practices are incompatible with humanitarian protection mandates. For example: providing study information (on university letterhead) to a refugee and requesting that s/he sign a copy for the university violates the protection norm of respecting refugees' identities, can cause trauma for refugees who have had bad experiences with signing formal papers (including admissions of guilt to be released from prison, sell their home, etc.), and be shame inducing for people with low literacy, vision or motor disability. As a cultural norm, refugees would not be amenable to signing such institutional papers, especially written in English. Instead, consent is asked face-to-face upon explanation of the request and upon guarantee that the researcher will not violate cultural norms, especially with Arab women and girls (e.g., male researchers cannot work with women and girls but permission may be given if a male aid work or refugee is present). Researchers cannot take photographs without explicit permission from refugees; faces of Muslim women and girls cannot be photographed as it would be haram—illicit behaviour, against Islamic-cultural norms. IRB approvals also strictly limit the number and types of subjects by gender, age, at-risk factor, group size, etc., in research activities, which go against community norms and UNHCR protection that assert all people

are welcome to participate in an event—albeit, depending on the culture, activities with men and women, and boys and girls may be held separate. Many refugees may not know their age due to cultural practices of not observing birthdays, using different time system (such as the rainy season) or missing/unavailable documents, and hence why so many refugees are assigned the birth date January 1. IRBs are also aligned with western monochronic practices of starting events on precise time and focusing on one thing at a time, which is opposite of the polychronic time practices in Arab, Latin American, African, and Native American cultures for which time is fluid and several events may occur simultaneously (Duranti and Di Prata 2009). It would be unfathomable to refuse a refugee an opportunity to participate from a protection and cultural standpoint due to being late, reaching group size, ability, being outside the age requirement, etc.

Steeped in institutional bureaucracy, IRBs are typically slow to pivot on protocol changes; field research with refugees is inductive and organic, largely driven by daily opportunities and constraints, which makes it difficult to preplan and requiring flexibility and resourcefulness. On the other hand, while in the field, it is smart to pilot future ideas (proof of concept), by testing materials and technology to see what may work and what customization is needed—this is also part of codesign and relationship building with the community. Lastly, the positivist/western ethics ethos requires not leaving research equipment such as mobiles in the field as it could harm the population, upsetting the natural order and norms. Tech company partners are also often adverse to leaving their tech in the field unless their donation is credited as anonymous. In the Humanitarian Framework proposed here—like other noted HCI studies, all equipment and materials are always left behind with means of maintaining it as it would be unethical to expose refugees to opportunity and then take it away. Sometimes equipment and materials are in short supply—in these situations I would explain to participants such as men/boys that the materials are needed for women and girls and the men/boys would thus return the materials. In other situations, the participants devise a sharing arrangement amongst themselves for photography equipment, returning pages, etc. Engagement is a continuum and not easily predicted for IRB terms. In short, IRBs are not configured for the messy nature of fieldwork with all its highly impromptu, all-embracing tentative, experiential, and yet experimental nature.

4 Ash-sha'b Yourid Isqat Al-Nithaam (The People Want the Fall of the Regime)

Frequent questions from audiences and in small conversations are "how did you get involved working with Syrian refugees?" "What is Za'atari Camp like?" "How do the people live?" and "What do you do there?" In autumn 2014 I was invited with colleagues by UNHCR Jordan to Za'atari Camp to study how young people use mobiles and the Internet, contrasted with their use in Syria. Little did

I know that 10 days would stretch into 8 years and counting, such that now I live more in Jordan than Seattle and feel untethered if I don't hear the Adhan (Muslim call to prayer) throughout the day and partake in rituals of coffee, chai and conversation.

As background, Syria is part of the world's most ancient civilization (Mesopotamia), famous for its antiquities, culture, craftsmanship and natural beauty; its cuisine considered the best in the Arab world. Syria was part of the Ottoman Empire for four hundred years—the region of Greater Syria comprising modern-day Syria, Jordan, Palestine, Egypt, and parts of Turkey. With the dissolvement of the Ottoman Empire in WWI, Britain and France created the secret French Sykes-Picot Agreement of 1916, which divided Greater Syria into regions under their governance, creating new countries, borders, and rulers. Ethnographer Dawn Chatty has extensively documented Syria's history, cultures, and tribal structures with critical reflection on its economy, politics, and oppression (Chatty 2010, 2017).

The Syrian War began on 15 March 2011 when the people of Dara'a province protested peacefully against Bashar al-Assad's Alawite regime (begun in 1971 by his father, Hafez Al-Assad) for its decades of terror—detainment, torture, surveillance, corruption, lack of personal freedoms, and economic disparities. Located in southern Syria, bordering Jordan, Dara'a became known as the "Cradle of the Revolution" for its protests against the detainment and torture of teenage boys who, spurred by the Arab Spring in Tunisia, Egypt, Libya and Bahrain, wrote "Your turn next Doctor" on school walls, calling out Bashar al-Assad, who trained as an ophthalmologist in the UK prior to becoming president upon his father's death. Bashar was never expected to be president but was groomed after the death of his older brother; Bashar's wife Asma Akhras and her powerful Sunni family are considered equally, if not more insidious and crueler than him.

The Dara'a protests spread rapidly via social media to Damascus and across the country with chants such as "Ya Dara Henna ma'aki lalmoot" (Oh Daraa, we're in solidarity with you til death), sparking the Syrian civil war as the regime clamped down violently on protestors. On social media new street chants were heard for each city and region as people rose in solidarity. Initially between the regime's Syrian Armed Forces (SAF) and the opposition's Free Syrian Army (FSA with its 3-star flag), soon the conflict included pro-government militias; the Islamic group DAESH (ISIL or ISIS with many foreign involvements) who Assad had released from his prisons to fight against the revolutionaries, and shock international audiences and deflect attention from his army; other opposition groups and Kurds, with proxy wars involving Russia, Iran, Lebanon (Hezbollah), China, the U.S., Great Britain, France, Israel, Turkey, and Arab Gulf countries—all with differing economic, territorial, and religious interests. In its eleventh year, the war has seen, in conservative estimates, the internal and external displacement of 13 million Syrians (6.6 million externally) and over 500,000 deaths resulting in

Syria's decimation. The UN has documented the use of chemical weapons by the Regime and Russia in addition to vast other war crimes (United Nations Human Rights Council, Independent International Commission of Inquiry on the Syrian Arab Republic 2020; OPCW 2020). Layered amidst this destruction, is an ongoing vicious battle involving the weaponization of information and social media: constant surveillance, targeting of journalists and activists forcing them to flee Syria, destruction of cell towers that impedes communication, and malevolent disinformation campaigns, trolling and hacking (Abouzeid 2019; Dagher 2019; Yassin-Kassab and Al-Shami 2016). Syrian Arabic-English news agencies such as Enab Baladi and Syria Direct and displaced journalists report on the widespread, current-day fighting and protests throughout the country and the effects of the war, COVID-19, recent implementation of the Caesar Law by the US government, and recent efforts to sue Bashar al-Assad and high-ranking officials for war crimes in France and Germany.

5 Syrian Refugees

In 2022 Syrians continue, by far, to be the largest forcibly displaced population worldwide: 13.2 million, including more than 6 million displaced inside Syria known as internally displaced persons or IDPs (UNHCR 2021). Turkey, Jordan, and Lebanon share in hosting most Syrians, with over 3.7 million, 840,000 and 650,000 UNHCR registered respectively (Germany hosts the fourth largest Syrian refugee population at about 500,000). The living conditions in Lebanon and Turkey contrast greatly from Jordan, with more dire levels of poverty, vulnerability, and complex ethnic bias and xenophobic violence, and many Syrians sleeping rough and living in small encampments. Syrians from Homs and Aleppo areas fled to Lebanon and Turkey as the war spread, seeking refuge at the nearest borders, economically transforming a few border towns such as Kilis, building on its historical frequent interactions with Syrians from Aleppo, just 50 km away (Gall 2021). Ironically while the world watched and gasped in 2015 at the spectra of 1 million refugees seeking refuge in Europe, in truth over 83% of refugees sought safety in neighboring poor countries for reasons of cost, wanting to keep an eye on their homes, and hoping that the Syrian war would end shortly. Young Syrian males chosen to travel north as families' best chance of hope, were mostly single and at dire risk of being conscripted by the Syrian army or detainment (imprisonment) in Assad's notorious prisons such as Saydnaya, known as the "factory of death and enforced disappearance" and considered the world's worst (Wainwright 2016). Journeying families were beset by horrific trials leading to separation, predatory financial, physical, and sexual abuse by traffickers and journey country nationalists, and death. Despite success stories in European news, people who made the journey report difficulties with integration, loss of family ties, and surveillance by the regime, as well as co-presence of regime war criminals and pro-regimists who faked refugee status.

6 Refugee Futures

The world has forgotten the Syrian war, believing it is over and that Syrians can safely go home. Stories of the Regime controlling most territory—due to Russian and Iranian military intervention—fail to accurately describe the in-country experience. The absence of western news agencies inside Syria, destruction of telecommunications infrastructure, fleeing of Syrian journalists and activists during the war, and constant surveillance and threat means that the reality is known only to insiders and the Syrian e-diaspora, who must carefully tread communications, often using codes and counter appropriating technology—techniques honed through decades under the Assad regime dynasty. In short, information is tightly controlled and weaponized, which has led to an information void or vacuum, filled by widespread regime, Russian and Iranian propaganda on state TV, billboards, newspapers, and social media, directed at depicting a healthy, vibrant country to Syrians inside and the world at-large. In reality, Syrians are poverty stricken without food, fuel, schools and healthcare, especially in rural areas such as Dara'a (WFP 2020) and in the major capitols of Damascus and Aleppo, and much conflict, including kidnappings, continues countrywide among all actors. COVID19 has amplified the country's problems, though little is known as the regime is not accurately reporting cases to the World Health Organization (WHO). The Syrian pound has collapsed, trading on 2 February 2022 at 1 USD to 2,511 SYP, down from prewar exchange rate of 1 USD to 50 SYP (Al Shahid 2019). Inflation is exasperated by COVID-19 and the June 2020 U.S. implementation of the Caesar Law that levies economic sanctions against the Assad family and its enablers, stemming from thousands of death and torture photos smuggled out by a prison guard, known under the alias of "Caesar."

Syrians who fled the country are viewed by the regime as traitors and in truth, are not wanted back and at severe risk of detention, persecution, and death (Amnesty International 2021). People's homes, farms, and businesses, if not destroyed, have been appropriated by the regime for distribution (bounty) to supporters. Any male under age 50, despite physical condition, is subject to army conscription unless they are a family's only son, though this no guarantee. The Syrian army makes propaganda of people with war disabilities still serving in the army, saying they are true patriots. To avoid conscription costs \$800.00 USD though latter conscription may still occur. All voluntary returnees must register with Syrian security at the Syrian Embassy/Consulate in their host/departure country prior to return; approval is in no way a guarantee against detention and persecution.

With the dire economic situations worsened by Covid19 in Syria, Jordan, Lebanon and Turkey, in 2020–21 young Syrians continued attempting to reach the closed doors of Europe, paying traffickers thousands of euros and joined by refugees/migrants from other countries. Most were unsuccessful, trapped in the No Man's Land forests between Belarus and Poland, and returned to their countries of departure countries such as Turkey and Libya; or caught crossing the English Channel from France to the UK, landing in immigration facilities if they survived the dangerous boat ride. Refugees who voluntarily returned to Syria in recent years report they regret returning due to the lack of infrastructure and services, exorbitant cost of living, continuing violence, risk of detention and persecution, and lack of freedoms (Amnesty International 2021; Medina 2021).

7 Ahlan bik fee az-Zaatari Camp, (Welcome to Za'atari Camp)

Za'atari Camp arose in July 2012, 15 months after the Dara'a protests began, when a few families from Dara'a sought refuge in Jordan's northern desert. As more homes and communities were destroyed by the war with vast casualties and people suffering war atrocities flooding across the desert border, the Kingdom of Jordan, UNHCR and the UN World Food Programme (WFP) started Zaatari Camp. The early days were unpredictable and dangerous—as recounted by Killian Kleinschmidt, Camp Manager 2012–14 and known as the "Mayor of Za'atari" (Johnson 2013; Rudoren 2013) when UNHCR and WFP staff worked 24/7 to provide people with shelter and food. The camp struggled with violence and trafficking, especially with the infiltration of Assad militants and spies, DAESH, and other factions. By January 2015, when we arrived, the camp had settled into about 7 square kilometers (over 1500 acres), divided into 12 districts or sectors with community centers, schools, and hospitals; surrounded by the Ring Road (known as "the curtain") with desert beyond and Basecamp comprising UNHCR and NGO offices and security. In 2021, Zaatari Camp continues under the joint administration of the Jordanian Syrian Refugee Affairs Directorate (SRAD) and UNHCR, and is a collaborative effort between the donor community, UN agencies, international and national NGOs, community-based organizations, refugees, and Jordanian host communities. Refugees are provided with protection and services in coordination with 40 partner organizations. While significant progress has been made in facilitating refugees' access to legal employment, enabling partial self-sustainability, the situation remains challenging, especially with the COVID19 pandemic. In over a decade of exile, most refugees are ground down, with their savings exhausted, challenged by reductions to free key services, and loss of hope for the war ending and safe return home. As the lead agency for refugees in Jordan, UNHCR covers Camp Coordination, including overall strategic and operational coordination and chairs five (of eight) humanitarian action sectors: Basic Needs, Livelihoods, Health, Protection, and Shelter (UNICEF chairs WASH and Education sectors; WFP chairs the Food sector). UNHCR uses a range of pragmatic and sustainable approaches that combine creativity, innovation, and new technologies with the protection principles, values, and passion that underpin humanitarian work (UNHCR Jordan 2020). Za'atari in 2022 is much different from Za'atari 2019, 2018, 2015 and certainly, 2012. Za'atari progresses with each day. A frustration I feel when I read research reports, especially by researchers who drop in for 1–2 weeks at Zaatari Camp, in Amman, and elsewhere is the lack of contextualization of when their data were collected—reports published in 2021 about some interviews in 2014 all too often suggest the findings represent current day.

Since 2012 over 800,000 people have passed through Za'atari Camp. Today, it is home to over 80,400 people, 80% of whom are from Daraa (Azrag Camp by contrast has 39,060 refugees with large populations from major centers across Syria). Across Za'atari's 12 districts are 32 schools, 5 inclusive playgrounds, a few hospitals, 58 community centers (where one of my long-term missions, Syrian-run libraries are located), and about 1500 Syrian-run, microbusinesses. The population trends young with 18.3% under age 5, 55.1% under age 18, boosted by 80 births per week, and just 2.6% over age 60 (UNHCR Jordan 2022). One in 3 households are headed by women. Of the 27,163 school age children, 76% are enrolled in school; however, truancy is caused by weather (sandstorms, heat, floods, and snow), child labor, early marriage, bullying, and learning disabilities. Za'atari's youth are among Syria's Lost Generation who lost years of schooling due to war trauma, playing catch-up with their education. A generation has been born in Za'atari: a few years ago, if you asked a child where they were from, they would shout "Syria." Now they proudly answer "Za'atari Camp."

Za'atari is a low resource, high constraint environment. For example, people have little income—there are few jobs inside Za'atari (which are shared through rotation with limits on number of people employed per family at NGOs); outside camp, people are restricted to working in specific sectors, mainly agriculture, manufacturing, construction, and hospitality. Women find it easier to work in home-based businesses, e.g., handicrafts/textiles and food. Jordan, like neighboring countries supporting refugees, has a struggling economy worsened by COVID-19 and youth unemployment is at 50%. As a desert region, Jordan has scarce water, and electricity is rationed inside Za'atari (timed to people's daily rhythms and needs), supplemented by solar energy. All resources are valued with emphasis on recycling and repurposing. People rely greatly on each other, on community. For security reasons, all items entering camp require SRAD approval and some have restrictions. Books and magazines, for example, require approval for political, religious, and cultural content—a norm across Arab countries. Of the 1500 micro businesses, there is not a single bookstore or newspaper. Until January

2019, mobile Internet services were restricted for security reasons and available only at community centers and base camp, affecting everyone—Syrians and aid staff. In 2020, Wi-Fi is available in select programs at community centers but signal strength is variable. Cultural norms and economic realities also affect access to information: women and especially girls are less likely to own mobile phones creating media and information literacy vulnerabilities; they also have less social mobility as they do not ride bicycles (the main transportation in camp). Girls, however, are more likely than boys to graduate from school and attend university with aspirations as human rights lawyers, surgeons, scientists and engineers. Despite Syrian society's high levels of censorship and curtailment of information seeking, pre-war Syrian schools and universities were considered among the best in the Arab world and the Syrian people the best bright and innovative. This creativity is witnessed at Za'atari through its art and design, businesses, libraries, and other innovations such as hydroponics and geographic mapping services. Many Syrians who moved outside Za'atari, who returned to Syria, or were accepted for resettlement abroad say/write they miss camp, they miss its strong sense of community, prompting many within Jordan to return.

8 An Embedded Design Ethnographer: Notes from the Field and Positionality

Our research team, known informally as the "Syria Group" comprises Arab academics from the Levant (Syria, Jordan, Lebanon), the Gulf, and the Maghreb in HCI/CSCW, computer science, education, architecture, and public health/epidemiology. We collaborate with North American and European colleagues in information science, data science, librarianship, global health, and art and design. Our partners include industry, foundations and both international and local NGOs as well as journalists/activists in the Middle East and in the west. We don't have a website or post on social media to safeguard our research participants and the team from trolling and deadly repercussions to family inside and outside Syria.

We play different roles in our Syria research program with focus on information-related phenomena at Za'atari or for Syria in general across the diaspora. Some studies exclude Za'atari due to security rules against discussing the war and politics—conversations that could lead to a refugee's deportation to another camp inside Jordan or other difficulties as well as impact researcher access. Our group also conducts extensive fieldwork outside Za'atari in Jordan and other Arab countries that is not discussed in this paper. For communication, we rely on online tools, and conferences and in-country meetings when possible. Because of their Syrian citizenship, some team members are denied travel visas and possibly return entry. Work schedules and cost impede members' ability to work in situ for prolonged periods. My specific role is as design

field ethnographer, able to spend long periods in the field because of sabbatical leave and my teaching at the University of Washington is online, building on a career of using naturalistic methods.

At Za'atari I am an embedded field ethnographer and work closely with UNHCR, its implementation iNGO partner and other UN agencies and NGOs across camp. My primary interaction is working inside camp with the community or neighbouring villages outside. Pre-Covid19, most days, Sunday thru Thursday, involve taking the iNGO bus at 7:30 am to camp, arriving around 8:45, then meeting with staff at base camp about logistics for about 30 min before heading inside camp to work with the community at centers, in their homes or other spaces. Inside camp, I usually walk or take UN/NGO transport if I need to be somewhere quickly or have a lot of gear. We return to Amman at 4 pm, arriving around 6 pm. It is against SRAD regulations to overnight in the camp, except for emergency support staff. Permission can be received to be at camp on weekends and holidays for special events. Some days I spend in Amman or at another site for fieldwork, meetings, and logistics.

My field methods vary from co-cooking in homes to co-design and making workshops, participant observation, surveys, diaries, time sheets, participant-taken photography, interviews, focus groups, and digital ethnography comprising SM engagement and analysis. Specific techniques and tools are developed according to community norms and constraints, always privileging participant language, and including activity costs, participant incentives and hiring refugees as project managers, research assistants, and for jobs such as photography, graphics design, art and painting, woodwork, catering, etc.

Our first project in January 2015 focused on youth mobile use and ICT way-faring. Little did I know then that one brief visit would develop into a research programme with each field visit stretching longer into months, garnering notes about other information-related phenomena that sometimes wouldn't make sense until months later. That is the nature of fieldwork: carrying out a core project with others on the backburners or in prep—waiting to come to the fore. In the meantime, my researcher's notebook has expanded into volumes, filled with contact information, notes and drawings by Syrians and other informants along with years of my own observations.

There is no magic textbook on how to conduct fieldwork and design sociotechnical interventions and innovations with vulnerable populations by warzones, leading Wulf et al. (2013) concluded that "rigorous investigations 'on the ground' are extremely difficult" in investigating the Arab Spring in Tunisia. Hence this paper and proposed Framework. I learned as I went, drawing on ethnographies and qualitative research by Arab researchers in the Arab region, especially for war settings (e.g., Abu-Lughod 1989; Al-Masri 2017; Altorki 2015; Altorki and El-Solh 1988; Kanafani et al. 2017; Kelly 2008; Niveen et al. 2021), and the HCI/CSCW literature. I created techniques

and tools using cultural probes (Gaver et al. 1999) such as Instamax cameras, diaries, spec sheets, timesheets, and more, learning from successes and more from mistakes, grateful for the kindnesses and generosity of the Syrian people, and UNHCR and NGO staff. Today as I reflect on how my positionality changed from January 2015 to today, I am struck by the postcolonial, white privilege and naivete of western researchers, of how ill-prepared I (and royal "we") was to carry out fieldwork for the Syrian war with little in-depth knowledge of the Levant and Middle East's long history of Orientalism, Ottoman and European colonialism and Western intervention, and what it meant for me to be Western (Canadian), white, female, affluent and educated, divorced with children, non-Muslim (at the time), and more. In most humanitarian settings the aid workers and researchers are predominantly white and western or from the host country, except for UNHCR, which employs professionals, often former refugees themselves, from conflict and low-income countries in addition to host country staff. Regardless of employ or nationality, anyone who is not a refugee is regarded as having power, information, and assets. Within refugee communities, distinct lines of power exist that are known and understood by the border country host community and local aid workers but invisible to visiting researchers. White privilege and epistemicide—the "systematically undermin[ing] of knowledge systems falling outside of Western traditions" manifests in the research community in other subtle ways, described by Patin et al. (2021) as the persistent "killing, silencing, annihilation or devaluing of a knowledge system" through primary, secondary, and third harms. Non-western academics, for example, though they have benefits of language and cultural knowledge, describe more difficulty with carrying out local fieldwork (e.g., access, respect) despite degrees from/ affiliations with Western universities. Expounding on this theme in "Academic Tourists Sight-seeing the Arab Spring" the Egyptian sociologist Mona Abaza (2011) wrote, "I am indeed speaking of frustrations because "we" [Arab academics] as "locals" have been experiencing a situation, time and again, of being reduced to becoming at best "service providers" for visiting scholars," adding "we cater [to] the service of Western expert colleagues who typically make out of no more than a week's stay in Cairo, a few shots and a tour around Tahrir, the ticket to tag themselves with the legitimacy and expertise of firsthand knowledge." In her blog post, Yolande Bouka (2018) discusses other third harms—the erasure of the intellectual input of academics in the global south by western scholars, asserting that "failure to acknowledge the intellectual property of non-Western scholars during collaborative research is not only unethical, but in itself constitutes a violent act." Disrupting Western privilege and amplifying incountry academics demands vast reading outside HCI/CSCW, building trusted local relationships, co-grant writing, co-authoring, and more that require significant time investment and awareness of history and culture, micro-aggressions, and other ways of countering epistemicide through increasing DEI (diversity, equity, and inclusion). In short, it suggests a radical re-thinking of how we ethically frame and conduct research (including IRB oversight) to counter primary, secondary and third harms.

Change in positionality comes with time and occurs in subtle ways through learning language, culture, and history, developing friendships, working together and being present. It's about evolving from outsider to insider and each researcher's situation will differ. For me, friending people from camp on social media was easy (Arab-Western and local Arab researchers have different experiences due to positionality and norms), but I was conscious of not posting ostentatious images of my Western life. For camp photos that Syrians wanted shared on Facebook—after I confirmed with a lot of "sah's and "tmam's" (yes) and head nodding by everyone present that they wanted the photo posted and with who was tagged, a Syrian would type the caption above my English with everyone reading and again giving thumbs up—a practice I soon implemented for all my Arabrelated posts: writing captions in Arabic with English below. The route to insider was indelibly in such small rituals as always accepting people's invitations to their homes and enjoying all the foods offered and shisha, holding babies, attending events and sitting together, shopping at the many souks and craft centers, bringing small items from America, accepting gifts of homemade soap, olives and makdous, and talking online. As weeks in the field stretch into months and years, wardrobe needs also change. My Seattle street clothes became abayas, shemaghs, and farwas. I tell time by the Adhan. In Amman where Syrians and Arab colleagues visit my home, I have carpets, Syrian furniture and camp artwork, and songbirds. At Za'atari, I'm no longer surprised when elders or children ask, "where is your caravan?" or "what is your district?" It means they assume I live there and I say "sector 2." We joke about my Syrian family name.

In the following I trace our primary studies at Za'atari Camp and further discuss how my positionality evolved as prelude to introducing the Humanitarian Research Framework. Some projects are larger than others (in participant size, duration, funding) and many run concurrently owing to the nature of naturalistic research. In-depth discussion of the studies is found in the referenced papers.

9 Youth Mobile Use and ICT Wayfaring

Our work at Zaatari Camp in 2015 on young people's use of mobiles and social media involved multiple methods—an in-person survey, GIS mapping, and field ethnography. Of note is that the youth target population, unlike western IRB guidelines, covered people age 15–24, which is based on social age. The rationale is that people's lives and education are disrupted by conflict and they miss years of schooling. Thus, a person age 24 may not have completed high school, while a 17 year-old may have the education of a middle-schooler; however, the same people could be married with children. Many youth of the Syrian war, the "lost generation," suffered years of disrupted education. For the people of Dara'a, like

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many rural regions in Syria, their agrarian background already comprised many adults with low/no literacy or formal education.

Our 2015 research revealed insights on the community's use of mobiles and social media, contrasted with their usage years in Syria (Maitland, et al. 2015). In addition to survey design and field data collection and analysis, my specific focus was using design methods to understand the situations in which young people serve as information and communication technology (ICT) way-farers on behalf of family and community (Fisher and Yafi, 2018), building on my earlier survey and fieldwork in the U.S., which showed that 2:3 immigrant and refugee youth serve as ICT wayfarers (Becker et al. 2010), as well as co-design workshops (Teen Design Days) that I conducted with refugee and immigrant youth from East Africa, Myanmar, and Latin America about ICT wayfaring (Fisher et al. 2016). Expanding on my global work with youth, the 2015 Za'atari study found a majority of surveyed Syrian youth frequently helped family and friends, and camp/NGO staff, specifically with online education, information search (e.g., health, legal topics), news, employment, and mapping.

To further understand how youth help others as ICT wayfarers, I conducted workshops where youth created narrative-drawings (n=50) using LEGO mini-figures and blocks donated by the LEGO Foundation. Youth were asked to recount, using spec sheets in Arabic, recent situations in which they helped another person through information and technology. Spec sheets are a tool (boundary object) that my team adapted from our Teen Design Day Methodology that enables data collection about a concept (e.g., help giving or seeking, social media use) from a broad range of participants as individuals or in teams accommodating different communication styles; cognitive, linguistic and physical ability; age; and experience. In these workshops, the spec sheet depictions were hand-drawn with annotations (short stories) and demographic details. As explained in Fisher and Yafi (2018) and Fisher (2018), the drawings depicted situations focused primarily on providing instrumental and emotional assistance-mostly events in Syria, with fewer representations of informational and technological help. For example, people recounted situations in Syria—such as helping someone with the bombing of their masjid (mosque) or home, helping war orphans and the elderly, to situations at Za'atari involving caravan fires, WASH, and financial relief such as helping cover funeral costs. In 2015 the recounted situations were very dire. Segregated workshops with women and men at the Norwegian Refugee Council (NRC), Finn Church and Blumont community centers were often highly emotional, revealing people's trauma levels. Women often cried, in mutual empathy, as they recounted their situations in stories and drawings. I learned quickly that emotionally sharing their situations was a key form of communication for women. Sometimes a woman would submit her spec sheet multiple times, like I was touchstone, to ensure she was heard. Workshops with women, continuing to this day, always involve the presence of many children as women are the primary caregivers; workshops with men are most business-like and of shorter duration but also trauma ridden. One man in 2015 spent an hour intently drawing a beautiful tree, without a word spoken to anyone. I have since come to learn how much Syrians miss the greenness of Dara'a, of Syria, as well as water, often symbolized by the famous Hama water wheels (norias). The bleak desert landscape, with its scorching sun and sandstorms, are constant reminders of people's loss and their former lives.

Key take-aways in 2015 were recognizing that all people, no matter their literacy, education, age or ability, have vital insights and that an intrinsic part of the research process is allowing people to communicate their situations according to cultural norms with dignity and empathy: how you treat one person is how you treat all. Upmost, I also learned that data need time to breathe, that one cannot rush analysis and impose judgement, that time gifts intrinsic understanding. I did not publish about my first study until 2018, three years later. Though I worked daily with UNHCR Protection Officers—experts trained in war trauma, sought their feedback on the drawings; and consulted psychologists and physicians at my university and other institutions who were also experts in war trauma in addition to reading widely about the Syrian war—it was only then in 2018 that I felt a solid, triangulated grasp of what I observed in 2015 understanding teenage girls' action of baking cakes for orphans, teens helping widows and the elderly with crossing roads destroyed by war and other problems; or young men, casualties of war, who drew only picture of trees or water. I learned in January 2015 also to count as data everything that anyone shared, no matter whether it was explicitly tied to the workshop topic. This observation has led to many spec sheets of unclear stories or scribbles, known only to the minds of their creators and yet so valuable. I also learned how everything is a commodity to participants—every pencil, every sheet of paper and LEGO piece. A 2015 departure observation focused on dignity and the art of leaving belongings behind for people in need: on our last day we left clothing, towels and camel milk with our camp interpreters; we had little magnitude then for understanding the value of such items but intuited that "breaking camp and leaving unneeded items for others" was the Bedouin or desert way of coexisting, showing respect, and preserving dignity. This ethos continues for all my work where mobiles, Kindle readers, and materials are given to participants as it would be unethical to take back tools that had opened doorways of opportunity, especially for girls who are least likely to have access to technology and creative materials. For every project I bring the best quality materials I can find, materials that are beautiful to work with and also capable of enduring Za'atari's harsh climate.

10 Magic Genius Devices

To understand youths' blue sky thinking of how they would create tools to aid their roles as ICT wayfarers, I conducted Magic Genius envisioning workshops with youth at the International Medical Corp (IMC), Relief International (RI) and other NGOs. Discussed in Fisher (2018) and Fisher et al. (2016), 144 young people created paper prototypes of visionary devices for helping their community, which were analyzed qualitatively with a few designs selected for pilot implementation. The designs provided additional multi-context for the community's challenges, including for information and education. Youth designed over 80 devices such as magic caravan heaters with Internet and social media access, magic eye glasses diagnose disease and prescribe treatment, magic carpets and vehicles for sparing girls from Zaatari's muddy and flooded winter roads to attend school, and could return people to a peaceful Syria. Along with an array of robots, watches, and other devices to support education, social media, search, GIS, archives, future-gazing, wish-making and more, while safe-guarding against dis-information. Findings confirmed that Syrian refugee youth play important roles in helping others, and that support is needed to help youth with school. The Za'atari research suggests that young people's instinct to help others through ICT wayfaring is universal and that youth play powerful roles in war and displacement.

11 Al Osool

In 2016 UNHCR asked us to study community assets and work with Syrians to create an asset database that could support the community in solving their own problems. Collaboration with UNHCR and camp-based non-governmental organizations (NGOs) on the ground, our team used mixed methods including GIS to develop an information-enabled community engagement approach for addressing the everyday challenges of camp life (Fisher et al. 2019). The goals were to help refugees and aid workers gain awareness of personal and community assets, provide techniques for utilizing these assets, and build capacity. Approaches and tools are adaptable to other refugee communities. Deliverables included the community asset database known as Al Osool, (Arabic for "assets"), defined as any resource or capability that contributes to the delivery of services. Skills, knowledge, social connections and culture are all examples of community assets. As displaced persons, refugees experience social disruption: loss of family, tribal and community ties. Information sharing can be a basis for interactions that strengthen ties among community members (Diminescu and Loveluck 2014; Hu et al. 2013; Huysman and Wulf 2004).

Again, the research involved a multi-investigator crafted response, focusing on people's everyday life information sharing, GIS, and role of UNHCR and NGOs.

My role as a design ethnographer was to identify Syrians' everyday information needs and sharing behaviors, specifically across times of day and week. Sundays through Thursdays, UNHCR and NGOs started in camp at 9am and returned to basecamp around 3 pm. I created spec sheets in Arabic for people of all ability to describe their information sharing channels and venues along with a timebased questionnaire to understand activities, especially women's. Za'atari follows conservative Islamic norms regarding gender roles and little was known about the daily rhythms of women's work, especially as electricity and water are timerationed, caravans lack modern conveniences and the disruption of social fabric suggests women's traditional gender-based roles were changing—as documented in an Oxford University report on Syrian refugee women in Lebanon (El-Masri et al. 2013). Additional tools were personal diaries with shared-use Fuji Instamax cameras for 20 people to record their daily activities, and story booklets in which children drew pictures of specified scenarios. The diaries were highly successful—people wanted to continue writing with other family members and neighbours also asking for "little books." Alaa, who was paralyzed from a bullet to his spine (a common injury for men, who are unable to obtain prompt medical treatment), is a regular diarist. Over chai a few months ago I asked him to include an item of conversation in his diary. Amidst laughter, he shared that he was illiterate and that it was his brother who wrote in the book, followed by further revelations that it was his sister-in-law penning his thoughts. Another diary contained multiple voices, drawings captioned with "I am hear." I learned again over chai that the second voice was the diarist's wife, and that she wanted to keep her own book. Through the years, some diarists returned to Syria (by choice or deportation, before refoulment was implemented) or to another camp such as Azrak; Whatsapp and social media enable us to stay in touch.

The story booklets grew from the Magic Genius Devices project in 2015 as a way of providing young children with creativity and communication outlets. Each page has a caption such as "this is my house," "this is in family," and "this is my favourite place." Each child was given 2 booklets, one for themselves and one for me, along with color pens. Poignant was a girl's drawing of "Peace Robots": two robots holding hands and flowers for peace. As a design ethnographer who worked with refugee and non-majority youth children in the U.S., for many years I received numerous designs for robots that could do homework and housework; only at Za'atari did a child design for robots for bringing peace.

12 Young Hackers

A beauty of extended ethnography is identifying bottom-up or inductive themes, counter examples, and anomalies. Such observations do not emerge during one field visit but instead as threads over time. One example is differences between boys and girls as ICT wayfarers. For many months, I observed boys congregating

by bicycle at the basecamp fence, shemaghs (scarves) providing shade for their mobiles, because of the strong signal strength and wifi for which they had learned or guessed the password. Girls were noticeably absent. It was not culturally permissible for girls to be in public with boys who are not family or to ride bicycles. In Yafi et al. (2018) we discuss the gender differences in youths' access to technology, how it affects their roles in families and communities, and perceptions/social norms towards girls. While girls are disadvantaged by less access to mobiles and technology, their fluency and innovation using technology differs from boys'. For example, in another Magic Genius Device pilot to create a digital archive on You-Tube to preserve family and cultural knowledge, all the boys had mobiles but the girls did not. I gave the girls old mobiles donated from an American company, which I've done for many missions; however, the mobile interface was only in English and the power charger was for the U.S. The girls figured out in minutes how to use the mobiles and surpassed boys with their creativity, video-recording themselves singing favourite Eid songs for families in Syria and careful to exclude faces from all images. To anyone unfamiliar with Islamic culture, one might think that the girls were poor photographers; in actuality, they were experts, ensuring that the images were halal (permissible), protecting their PII for cultural and surveillance reasons. The project failed miserably however, due to the overwhelming hurdle of poor wifi and low bandwidth—even at the community center we were unable to upload short clips, and then YouTube wouldn't allow multiple people to upload to the same account because it assumed it was being hacked.

13 Za'atari Camp Libraries

Two long-term missions, in UNHCR vernacular, emerged from persistent insights particularly about women and girls. As discussed in Fisher (2018) and Fisher and Falioun (2020) and specifically documented through the Al Asool mission, women and girls have fewer public spaces and access to technology, and do not commonly interact with non-family males. While cultural norms and privacy preservation due to the war dictate that photography of refugees is haram, it is especially so for women and girls. Thus most camp photography comprises images of men and boys. As an ethnographer, I've been keen to find and understand female voices from their perspective and to undertake missions to support them.

One of my proudest missions is Za'atari Camp Libraries. In Syria, people had little or no access to public libraries and were accustomed to an information poor, highly censored environment under the regime. *Marshallah* (with God's blessing) somehow library caravans began with Syrians self-taught about library operations. These small libraries, lacking collections and connectivity, morphed through co-design, to become the world's first refugee-run, camp-wide library system, comprising 12 locations with 6 NGO partners (Blumont, RI, NRC, Questscope, Noor Hussein Foundation, and Lutheran World)

with more to onboard. Offering a broad range of reading and writing clubs to provide psychosocial support and creative outlet, and literacy programs, the library system also supports 10 Society Boxes containing free books and household items placed by us and the community that people can use anonymously. The boxes are positioned in remote locations such as a masjid, Blumont service stations (the old communal kitchens), and UNHCR registration and protection areas at basecamp. Wall murals and Surat 92 from the Quran painted by a camp artist provide backdrop (Fisher and the Za'atari Camp Librarians, 2019, 2020). Zaatari Camp Libraries won the 2021 International Joy of Reading Award, announced at Next Library in Aarhus, Denmark. The award carries a \$10,000 USD prize and co-design is being used to identify spending priorities, including purchasing books at the Amman Book Fair and inshallah, a central branch library.

Our libraries are severely under-funded for books, materials, services including digital, and professional development with everything requiring SRAD approval. With a public Facebook page and private Whatsapp group (for the librarians), vital library services in development include extending services to Syrians and Jordanians outside camp, such as training in media and information literacy based on Islamic and cultural norms—especially for women and girls (Fisher et al. 2020); a cloud-based automated catalogue of all the library caravans' holdings, and online services to promote livelihoods and education. Professional training and development of Za'atari's librarians is high priority but challenged by few programs in Arabic available online. For our papers about Za'atari Libraries accepted at academic conferences, the librarians are unable to attend due to visa restrictions in the U.S. and Schengen countries as well as Jordan, which may not allow Syrians re-entry. For the 2019 CoLIS Conference in Slovenia we participated from Za'atari by Skype video, outside a falafel shop.

14 ZA'ATARI: Food and Stories from the Syrian People of Za'atari Camp

The second long-term mission is the Za'atari Camp book, "ZA'ATARI: Food and Stories from the Syrian People of Za'atari Camp" forthcoming as a trade book with Goose Lane Publishers in English, French and Arabic editions and royalties returning to the community (Fisher, 2022; Fisher and the People of Za'atari Camp 2020). The book was created over 6 years through design ethnography, including daily co-cooking, with over 2000 Syrians of all ages and abilities, based on early observations from 2015 onward of the socio-cultural role of food in people's lives (Fisher et al. 2017). With the aim of preserving indigenous knowledge, resilience and capacity building and strengthening global support for refugees, the book's narrative follows the daily and cultural rhythms, highlighting the lives of women and girls. Many field insights were gained through the cookbook including how trust, insider positionality and commitment pivotally enable

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Figure 3. Co-design Workshop for the book "ZAATARI: Food and Stories from the Syrian People of Za'atari Camp"



success. The book stands out for honouring but also breaking cultural norms. Initially a cookbook that arose organically from earlier work identifying food as valued women's activity (e.g., through the 2015 narratives and 2016 diaries), involving co-cooking and co-design workshops, the project went viral across Za'atari. Soon, co-design workshops involved 140 participants—men and women in 45 Celsius under canvas tents—unprecedented at Za'atari where norms maintain gendered separate gatherings, and workshops rarely top 40 people, especially in summer (Figures 3 and 4). Towards the end, smaller workshops were held by expert cooks to hone each section and page.

Co-cooking in people's caravans (homes) revealed private moments where men helped their wives in their kitchens—again busting gender norms. But through cocooking and spending hours in women's kitchens, much was shared about their lives and dreams. Umm Khaleed, for example, recounted while making Kibbeh (lamb meatballs wrapped in bulger pastry) how she came to Za'atari as a single parent with 4 children in 2012. Her oldest son, Khaleed was 12 and unhappy about leaving Syria and being in Za'atari. One day she came home to learn that Khaleed returned to Syria that morning by bus (the border was open in those days). She frantically called family and neighbours in Dara'a, finally locating Khaleed, who then tried returning to Za'atari but failed because of the shelling. Um Khaleed has not seen her son since, living for their sporadic phone calls. Umm Mohamad, from Shams (Damascus), lamented while making Oozie about how she missed the City of Jasmine and its more liberal norms for women and girls to ride bicycles and play cards with like-minded women. While making knafeh (sweets), Anseh Lubna struggled with optimism in sharing her poverty and isolation, being a single woman with no children whose husband had stayed in Syria with his second wife; Lubna later returned to Syria to join him.

An impromptu Best Chef Contest, co-designed with the community radically had men compete side-by-side with women and placing among the

Figure 4. Syrians' Ideas for the book "ZAATARI: Food and Stories from the Syrian People of Zaatari Camp" during a Codesign Workshop



winners. To-date over 2000 Syrians have participated in co-designing the book with recipes, Arab medicine, traditions, stories, poetry, art and photography by people of all ages and ability. Together we are preserving indigenous knowledge, documenting war, life, hope, and resilience. The hallmark success, like my other missions, centers around relationship-building with the Syrian, UNHCR and NGO community—evident from being accepted into people's homes and daily lives, being invited to camp for new missions identified with the community, and being in regular contact with people on social media and messaging tools.

15 Community Mental Health - Fabrication Pilot

Audiences often ask how missions arise. An example is the Spring 2019 pilot of a fabrication project with women expert in sewing to create interventions for children with autism. Co-design ideas were initially obtained by war mental

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health experts in Seattle, Za'atari and Amman. While mental health problems are very high among refugee populations, there is little local understanding and support. The project involved collaborating with camp social workers to work with 2 families whose young children had different autism characteristics. Based on the family interviews and observation, the women created hand-held interventions as well as weighted lap pillows designed to each child's preferences and needs. All supplies were purchased inside camp, including the lentils for stuffing the pillows with extra lentils as food for the seamstresses. The premise for the project was highly received by families, mental health workers and the seamstresses. In future months, we hope to obtain funding to launch the program on a professional scale such that the seamstresses can fabricate and sell mental health aids for Autism, PTSD and other trauma outside camp under the guidance of mental health experts.

16 Seeking the Syrian Stitch: Supporting Syrian Women and UN SDGS through Codesign & Decolonial Semiotics

"Seeking the Syrian Stitch" arose from observations during the Zaatari book project. For millennia Syria was world famous for textiles—Aleppo, Damascus and Homs artisans made silks, ikats, velvets and brocades, embroidered in gold and silver; rural and village Bedouin women made clothing and household items using local stitches and tribal patterns, dyes, and materials. In the Syrian war, textile production ceased, artisans fled the country or were killed, and textiles were lost/destroyed. Today Syrian women in Jordan make pale textile imitations using cheap materials from China donated by Western NGOs. While much research has studied women's textiles in Native American cultures, South America, Europe, Palestine and Arab Gulf, virtually no research focuses on Syria aside from cross-stitch as art therapy for refugees in Canada/Germany.

Using codesign and decolonized semiotics, this project asks "how are indigenous stories, symbols and knowledge embedded in Syrian textiles?" and "how can refugee women disruptively create heritage embroidery products for upscale international markets?" In collaboration with the women of Zaatari, UNHCR and colleagues at the University of Arts London, College of Fashion, as well as Vogue Arabia (Dubai) and Tiraz House of Arab Dress (Amman), this project addresses disruption through information: Syrian women reclaiming their heritage from a decolonized position of power, telling their stories, and selling their products to upscale markets at fair exchange.

The project was piloted in November 2021: 28 women (age 18–64, including with disabilities) were chosen from 150 applicants based on submitted embroidery samples to participate in a 5-day workshop. Tiraz House of Arab Dress hosted the kick-off with guided exhibits and training in the Houran (Dara'a)

stitch. In addition to design-embroidery materials, each day included an experiential activity, camp artists, and catered lunch. After hours, women chatted in a Whatsapp group; in February 2022 the group has 30+daily posts about embroidery and camp life. Summative evaluation shows women highly valued the Tiraz visit, and want more embroidery training, samples of heritage Syrian textile pieces in camp, high-end embroidery materials, artist collaboration, business training, and access to market opportunities. A panel (Tiraz, Vogue Arabia, UNHCR, Helen Storey, Nabil El-Nayal, myself) blind assessed the women's 60+textile designs, identifying 10 highly creative embroiderers to lead the 2022 project as (1) a Product Group and as Trainers of Trainers (ToTs) to lead an at-large (2) Training Group. Pilot insights included: 1) women are visual/ tactile/experiential learners—countering language barriers and the copying/rote learning techniques of Syrian education; 2) camp artists foster creativity, sketch embroidery designs, and prepare base fabric; 3) women for Product Group/ToTs require business and ToT training; and 4) all participants need culturally-sensitive, digital literacy training to support entrepreneurship. Project goals in 2022 include launching the product and training groups, and working with business consultants to package and market embroidery products for upscale markets (Figures 5, 6, 7, 8).

Figure. 5 Syrian Stitch Pilot Sample "My story is about the commas, the paused in between stages of my Syrian life: 1) the time before war, 2) the time of blood, & 3) the time of sunrise, the hope of a new dawn" (Umm Mohammad)



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Figure 6. Syrian Stitch Pilot Sample "The fabric was painted for me by our artist and I imagined a storm or whirlpool, representing the cycle of life we live in. I chose dirt colors, metallics, as these are all around us in the camp and desert" (Umm Ahmed)



Figure 7. Syrian Stitch Pilot Sample "I express our time and life in the camp. The West forgets that their numbers are ours, Arabic numerals and that time is the most important thing in life—many people don't commit to time. I put 9:00 at the top—the hour work begins. Black indicates night; silver is dawn: this is our succession of days" (Umm Hassan)



Figure 8. Syrian Stitch Pilot Sample "In this work, I imagine a girl carrying a Damascene rose, blowing her dreams and ideas through the petals and their beautiful scent to people everywhere." (Umm Hamza)



17 People First, Data Second: The Humanitarian Research Framework for HCI Fieldwork by War Zones

Humanitarian Research is a framework underscored by dignity and resilience for guiding HCI researchers in the messiness of field research with vulnerable populations affected by conflict, specifically for prolonged in-country engagement regardless of whether working independently or with a UN body or NGO. Humanitarian Research emphasizes researcher situation-awareness and sensitizing from participant-perspective and UN protection principles, challenging blind spots to see history, gender, culture, religion, language, wealth, privilege, organization, and more. Foremost, Humanitarian Research focuses on learning: it premises that the researcher is always the student, the outsider leaning in, especially at the outset, no matter their academic standing. Through years of embedded engagement, gaining trust and knowledge, this status evolves to informed insider.

The lived experience of war refugees is characterized by physical, emotional, sexual, financial, and other trauma. They maybe stateless, without advantageous social ties, support hampered by host country restrictions, face host country prejudice, traumatized and under threat from warring factions with no future assurances. The principle "People First, Data Second" guides all aspects of Humanitarian Research, including research foci, the techniques, who participates in fieldwork, how long engagements last, what they entail, etc., Fieldwork is

organic, based on UNHCR protection mandate, forging human dignity and resilience, and aligned with refugee and stakeholder norms, including host country. Often this is at odds with IRB/Human Subjects requirements that require participant signatures, sample demographic and size limits, and preapproved instruments as well as constraints on payments and reciprocity. The "People First, Data Second" principle also requires recognizing and assisting people's needs for tangible and psychosocial help; sensitivities to facilitating resources (such as large-scale donations of girls' underwear, wheel chairs or baby carriers) and reciprocating in refugee settings, knowing when to maintain privacies and when to seek help, ensuring confidentiality and protection of PII, and mitigating the capriciousness of war and time. But in practicalities, what does it mean to carry out Humanitarian Research? What are examples of the "People First, Data Second" principle in action?

Most simply, "People First, Data Second" means prioritizing refugees and often other actors over your need to collect data. It is a golden rule for guiding all engagement and opening all doors, aligning with Winschiers-Theophilus, et al.'s (2010) view of using the African Nguni Bantu concept of *Ubuntu*, i.e., "I am because we are," focusing on humanity and compassion. It also aligns with the Islamic term Mashallah (God willed it) where there is no distinction between good or negative outcomes, in other words, bad or good outcomes are always good in the big picture. "People First, Data Second" also reflects "Inshallah" (God willing)— the most frequent term heard in the Arab world and at camp upon expression of any planned endeavor or wish, along with "Yallah" (let's go), followed by "Khallas" (enough, stop) as time is a fluid concept and many contextual factors affect plans. Life at Za'atari is unpredictable due to visiting delegation schedules, protection needs, weather, and resource rationing. Activities with girls are scheduled after 1 pm as girls attend school in the morning and vice-versa activities with boys in the mornings as they attend school in the afternoons. The sweet spot for scheduling activities with women is between breakfast and lunch. During Ramadan and holy days, life has a different rhythm that affects research. The People First, Data Second principle deeply reflects the Arab world's sense of time, actions, and outcomes. To the war ethnographer, everything is data and people's needs, resilience and dignity are priority #1.

In practice, the principle is enacted by following cultural rituals for coffee and chai, chatting about family and daily life; and about following up on commitments, giving and receiving, becoming a part of families and tribes. Using a feminist-ethnography lens to study architecture, Musmar (2021) captures this principle of "People First, Data Second" well in "Madafah: Who Is Hosting Whom? The Everyday of Za'atri Refugee Camp and the Architectural Encounter" based on her work experiences as Zaatari with an iNGO. Musmar reflects on the cultural differences between the Syrian community and the camp's iNGOs/UNHCR, and how these differences play out in, sometimes conflicting, in daily

interactions, public and private spaces. In addition to Musmar's paper, Seethaler-Wari et al. (2021) edited volume on architecture and refugees features several chapters that highlight a "People First" perspective to working with refugees.

Like the principles of an Unconference, "People First, Data Second" means that whenever an event happens and ends is perfect, along with whoever shows and what transpires is what was meant to happen and is most valuable. This fuzziness of fieldwork is a reason why time is necessary to reflect and understand phenomena, deepened by dervish-like activity when events ramp up and are carried out. The Za'atari Cooking Contest, for example, was proposed on one day and carried out a few days later, after co-designing everything with the community, agencies such as UN Women, Blumont, and UNHCR with shopping for prizes (recommended by the community) by myself and colleagues at night in Amman. During a workshop for the Zaatari book, the UN Women manager (my translator) was called to an emergency, leaving me with 80 women and men, the agenda awash. The solution? I asked about food at camp and Syrians began sharing their favourite foody photos on their phones, scenes from birthdays, Friday ghada' (lunch and main meal of the day), and Ramadan. When the seamstresses were making weighted lap pads for children with Autism and we needed 20 kilos of lentils and the sewing machine needles had broken, "wallah" a woman called her husband to deliver lentils, while another headed to the souk to get needles—days later the leftover lentils were used for cooking. People First, Data Second, in short, guides every moment of fieldwork and makes decisionmaking very easy. Of course, I bring hearing aid batteries from Seattle to Za'atari for a woman whose children are hearing impaired and repeat with every visit; I turn a blind eye to book clubs photocopying books as only one copy is available; I facilitate connections between Za'atari artists and buyers in Amman and internationally; I am happy to chill with people at a community center or around basecamp when high level needs or other logistics require delaying an activity. When your stance is "People First, Data Second," all decision making is easy, and anything becomes possible. A fond example is making a prototype for Za'atari Camp Libraries' society boxes. We were inside an NGO caravan when the Syrian carpenter arrived by bicycle with the box shell and proceeded to use an electric saw and blow torch to cut and append the door from plexiglass that I brought from Amman to everyone's vast approval over coffee and fatayer. This would not happen in Seattle or western settings—years ago we hired a Mexican taco truck owned by parents of a Seattle teen in our Teen Design Days. Within minutes of firing up the gas stove inside the library to prepare the tortillas, we were shut down by library security due to fire regulations and resorted to having our lunch prepared in the parking lot.

Trust is also key to "People First, Data Second," blanket trust in the community, synergy and abilities to problem-solve creatively together. When our librarians came to Amman for a training workshop at the Shoman Library,

transportation was logistically problematic for an NGO; the librarians resolved it in minutes by organizing an outside bus. Survivors of the Syrian War living in spaces like Za'atari have already been tasked far beyond normal existence. A Syrian diaspora joke is "We are Syrian..." meaning they have already survived under Assad and the war, and can endure anything. Trust is also evident in everyday conduct: camp police have strict safety rules on engagement and interactions; yet, I have never felt unsafe at camp, leaving my laptop and belongings strewn about while engaged. Same with walking around camp. My Arabi is "shwey, shwey," meaning "a little" despite efforts to improve with Za'atari tutors online and in-person; the challenge is that everyone wants to speak English with me and learning Arabic is not so easy when you're older. Walking Za'atari's roads in my abaya (Arab robe) or farwa (Arab winter coat) to meet someone or to a center is hands-down safer than walking many Seattle streets. Trust is evident when someone shares private information with you, tells you they are returning to Syria as they post neutrally on social media and then go silent for months upon crossing the border. You worry if they are safe, if they have been conscripted by the army or worse, as you scan local Syrian news.

Trust and protection continue when meeting refugees outside of camp, when they code switch dialect and behavior to hide their nationality and status from locals perceived as biased against refugees or share confidences and photos from their lives in Syria. "People First, Data Second" also means adhering to UN protection protocols by referring at-risk cases to protection officers such as a tween boy spending time in a library's stacks, despite being illiterate, because the library is a safe place and he was being neglected and abused at home. Ditto with the elderly such as Umm Ahmad, who shared death photos of her only son, a martyr for the opposition, and living in poverty—shared through a narrative drawing of her daily life. Her mobile—like many refugees'—with a broken screen and no SIM card, was used as a digital archive. For the hundreds of thousands of Syrians missing since 2011, sharing death photos over social media or Whatsapp is a primary way of learning about family members. The June 2020 U.S. Caesar Bill was prompted by the release of thousands of photos of Syrians killed in Assad's prisons, smuggled out by a former prison guard. Shared widely on social media especially Facebook, these death photos provide families with some closure and ability to finally mourn; others, however, are purposefully blunting the archive, preferring to keep hope of a loved one's survival or preserve kinder images in their minds. Finally, trust occurs as you transition from newbie requiring dedicated support by UNHCR officers or NGO staff to that of insider, entrusted to act by protection protocols and SRAD regulations, free to engage and walk camp by oneself, and organize and host delegations related to your mission. Such vagueness does not fit easily with the western model of research and IRB protocols. University colleagues and visitors to camp are puzzled, frustrated, about the open nature of design ethnography where missions and their objectives can appear haphazard and unplanned, but this is the nature of war design ethnography. IRB protocols requiring signatures, population limits, etc., tainting of colonialism are replaced with UNHCR protection protocols and community norms.

Tenets of the Humanitarian Research Framework are summarized as: (1) the disruption of social fabric, (2) trust, privacy and data protection, (3) closed, low-resource environments, (4) building capacity for all, (5) nuances of concepts, differing ubiquity of time, place, and gender, (6) positionality, power, and long-term, social engagement, (7) universal design archetypes, (8) youth investment and connected learning, and (9) innovating futures. While aimed at guiding HCI/CSCW researchers in conducting fieldwork with people displaced by war, either internally (IDPs) or in neighboring countries and the west, these tenets are broadly written to assist researchers from any field. Further insights in Fisher and Falioun (2020) focus specifically on ethics, positionality, and the role of fixers (local helpers). The tenets are explained as follows.

- 1. Disruption of Social Fabric: Knowing the political and historical contexts is vital, how war is inter-generational and involves many actors of whom refugees have perspectives that differ from Western media portrayals. At the outset of war, wealthy families flee to safer lands where they may have investments and properties, young males, take dangerous routes flee to escape conscription and detainment. However, 73% of refugees live in countries neighbouring their homeland, and families are highly dispersed with immediate family and tribal members imprisoned, missing, deceased or engaged in the conflict. Refugees' social networks, actor roles and behaviors change due to conflict, often counter to cultural norms. Women and girls have increased workloads due to daily living constraints and few household conveniences, water and energy rationing and more family to support with trauma and increased health needs. Women and girls' situations are exasperated by fewer relatives to assist with childcare and daily tasks; fewer male relatives to carry out traditional male responsibilities such as heavy chores and negotiate male-gendered spaces; dispersion of tribes which offer safety, protection and guide social structure and traditions; and less home-based, employment opportunities. For researchers, understanding the region's history and culture, and changes in social fabric are vital to gauge how refugees' lives and selfperceptions have been affected in terms of responsibilities, war trauma, and daily stresses.
- 2. Trust, Privacy and Data Protection: Wars are typically long rooted (decades, centuries), in flux and protracted for sectarian, political and economic reasons, involving many alliances, proxy conflict, and factions weaponizing information and channels to target people. Refugees could be targeted because of information revealed about themselves or a family/ tribal member for an event that happened in the past, even decades ago, and current events have dangerous implications for families inside their country and for decades to come. PII is easily revealed by knowing a person's village or city, neighbourhood, and their tribal and family names. Documents and images, old and new, are analyzed for identity, in addition through metadata. Exiles are spied upon by the regime while war criminals claim refugee status from the regime in host countries. A Syrian in Europe declined to share their expertise at Za'atari through any documents from fear of being marked by the regime and prevented from seeing his family again in Syria. In exchange for refugees' trust, it is upmost to protect their PII by maintaining confidences, suppressing sensitive findings/insights (as author, you would be identified as a pathway to refugees and possibly also at risk for being

targeted—hacked or trolled by varied actors), and adhering to protection protocols and cultural norms. Syrians (and Arabs) since birth are told "the walls have ears" and do not openly discuss topics on communication apps and by mobile in conflict and host countries due to security listening apparatus and hacking; this extends to limiting conversations and appearances in F2F settings as other people could be spying for an agency. Refugees caught communicating about political issues or aiding combatants could be deported to their home country, despite international refoulment laws, or a higher security camp incountry, Researchers who engage in political communication—with others or through their publications—could be refused visitors permits, banned from the country or worse case, imprisoned (e.g., Egypt, Iran). Use pseudonyms, e.g., Um Mohammed, Abu Ahmed, Anseh Raghad, and omit PII that can be weaponized, including personal, hometowns, locations, health status, etc., in stories, photographs, social media posts, etc. Other reasons for omitting PII involve dignity—a person may not want to acknowledge being a refugee, living in a camp, etc., and Islamic/cultural norms—it is haram for girls and women, for examples, to be photographed. However, sometimes refugees want to be publicly acknowledged, which is also their right. In the Za'atari Camp book, several Syrians chose to list their real names as authors of stories and poetry, and as artists or owners of shops in the souks. For our articles about libraries, we use "Za'atari Camp Librarians" as co-author moniker, which is a way to acknowledge their contributions—including for resumes if they like—without revealing identities. Trust also involves other types of protection measures, which researchers learn from protection officers—following their lead is imperative, especially if you suspect a protection case, such as involving a person at-risk, and must share with a protection officer for their follow-up. Also related is the protection of the research team and their families who could be targeted by regimes or other factions, hence you may decide to publish using pseudonyms, to suppress findings, or not to publish at all.

3. Closed, Low-Resource Environments: Refugees have few savings, especially after protracted exile: low income and employment opportunities due to host country restrictions, weak economies and stigma; and scant resources as few items are taken when fleeing from one home or location to another while pursued by bombs and attacks. All items inside a refugee space—whether it's a camp, rural or urban setting—are valuable and repurposed/ recycled: clothes are remade, tents are used for painting canvases and making household items, and plastic is repurposed as storage containers and for growing plants, etc. Camps and other living areas tend to be in harsh landscapes inconducive to living with punitive weather including sandstorms, floods, and both extreme heat and cold where uninsulated, unplumbed homes are vulnerable, requiring years of development to overcome, and housing needs to be repaired/replaced. Fire is a great fear due to highly flammable house coverings, reliance on gas heating and stoves, poor electrical wiring, and less support for supervision of children and vulnerable people, exasperated by lack of water, poor roads, and firefighting capabilities. Refugee settlements may be under high security, requiring permits for everyone—including refugees—to enter and leave. Visitor permits are highly vetted by intelligence and if issued, for safety reasons (refugees, staff, and visitors) require mandatory presence of aid staff, strict compliance rules, and monitored constraints on movement and interactions. Depending on the development phase of a camp, items entering may be restricted such as flour (highly combustible), concrete (enables permanent infrastructure), weapons of any sort (including cooking knives and toy guns), technology such as smart phones and 3D printers (can be weaponized), as well as quantities of any general items as it could create disharmony or facilitate the black market, and books and newspapers, which require weeks for approval to ensure they do not contain political content especially about

- the war, or anything haram, i.e., against Islam or public morals. Not surprisingly, Internet and radio can be restricted and monitored (some countries do not allow Skype or Whatsapp phone calls, which are encrypted and for which work-arounds include exchanging recorded voice messages), while communications in remote areas are further impeded by weak cell tower strength. The low resource environment throws design challenges such as uploading data for Youtube archival projects or accessing wifi to download books, create websites or engage with learning communities. Rationed electricity causes challenges and activities need to be timed around it as well as hacks for electrical outlets.
- Building Capacity for All: When working with refugees, the onus is to help all people of all age, ability, race and gender—recognizing and valuing all people's abilities and contributions. Foremost is understanding that all refugees have experienced trauma, some more visibly than others. Healing from war atrocities is common as is post-traumatic stress disorder (PTSD). Every person has a story. People may have seemingly invisible disabilities, such as implanted metal rods or psychiatric damage from experiencing rape and torture (Assad's prisons are the world's most notorious), bombing, mortar shelling, and sniper attacks. War trauma engulfs generations, according to war ethnographer Muzna Al-Masri (2017, p. 37), "the lived experience of war is cumulative; it etches its marks on its subjects' souls and bodies, its impact varying as its subjects go through different life stages. It is also intergenerational as the individual experience of violence is often closely tied to the experiences of past generations and expectations for future generations." People's age is also difficult to discern due to war trauma and people may not know their age. Of key is that everyone is welcome to all activities. Take cues from the community and aid staff about how to facilitate people's participation through arranging transport or holding activities at multiple times and in different locations. Ensure activities enable participation for people of different abilities, e.g., stories and responses can be written, drawn or made using materials, and can be completed by individuals or groups. Be prepared for activities to be conducted in adverse, low settings without electricity and internet access, tables and chairs. Bring high quality materials to increase people's joy in participating and quantities for people to make duplicates (for the researcher, themselves) or other creations. Privilege Arabic (i.e., refugee language) as the leading text with your language in small font underneath as analysis cues. Always bring food and drink, and Instamax cameras with extra film and batteries—refugees treasure photos of their children and themselves as few have photographs at home or that they can send to relatives. Women especially will appreciate this and like photos privately taken of themselves. If activities involve effort in the home, supply camping lanterns and batteries as homes may not have electricity at night—a lesson from our library project with Kindle readers that did not have lights for night reading. Leave left-over materials for the community to use as they wish and ensure participants get to keep any tools, such as mobiles, that are used.
- 5. Nuance of Concepts: Every culture has differing ubiquity for concepts such as time, place, gender, love, information, privacy, law, etc. Time, for example, has cultural rhythms—weekends may run Friday—Saturday; camp time can differ from rural and urban based on actor presence and organization hours; time may be approximate instead of precise due to being cultural versus clock-based culture where holidays are timed last-minute based on astronomy; culture may dictate daily rhythms and interactions such as welcome coffee and prayers preceding (and ending) all interactions and activities; weather, the availability of electricity, and religious practices such as Ramadan may prompt people to sleep at different times and affect rhythms of eating and movement, and cultures may be gender-based and dictate practices of greetings, conversation, dress and movement—especially in conserva-

tive communities. Handshaking and cheek kissing rhythms vary; handholding and seating may be only for same gender. It may not be appropriate for women to carry large or heavy items or walk distances. All cultures have traditions of dress and successful researchers abide to fit in. Women and girls may have fewer spaces (primarily home, school, and community centers) than men and boys, who ride bicycles, work in shops, have full range movement and are more likely to own mobiles and have social media accounts. Female-run businesses may be hidden and unadvertised, with private female-only rooms for beauty salons and other work (most haram for a male to enter a female-only space and punishable by the community). Women may hack their social media presence by sharing accounts with family members or having a page/profile in their son's name, never posting their photo or hometown symbol to prevent identification and harassment. Homes may also have female and male spaces. While male researchers will not likely be able enter female spaces, female researchers, conversely can operate in both. Information, love, space, privacy, laws and other concepts are also multi-layered, sensory experiences communicated differently by demographic. War causes major disruption in education and tribal structures; war trauma damages health, brings early marriage and child labor. Laws are complex, involving Sharia law, state law, and tribal/cultural norms. Researching concepts with refugee populations requires refugee-centered definitions and approaches, especially against the destroyed informational landscape of libraries, family archives and communities.

Positionality, Power and Long-Term, Social Engagement: Working with refugees and carrying out research requires constant reflection in researcher positionality and relationships with multiple stakeholders through long-term engagement. Whether one is conducting design ethnography or other methods, transitioning from outsider to insider is key. It takes roughly 1-2 years of prolonged engagement with repeat, long visits to gain acceptance by actors and establish working knowledge of the field. Every visit will differ due to changes in the country and refugee community. Refugees communities, especially places like Za'atari Camp, are accustomed to floods of daily visitors—from humanitarian aid workers to high level diplomats, heads of state and royalty, sports and entertainment celebrities, and media. Zaatari Camp has become a researcher petri dish with many western academics visiting for a short one-off spurt to return home and write "ethnographies" based on field time of a few days or short weeks with limited camp access and strict engagement rules. For stakeholders, you're just another onlooker or do-gooder, often from a Western-power, postcolonial country, awkwardly naive of history, politics, allegiances, orientalism, language, and culture, who is kindly intent on using western insights to solve their problems. Working in refugee settings requires commitment, humility, and self-awareness that you are the outsider, the student, the person learning from everyone else. Foremost is not to be a burden to staff delivering essential aid—time spent ushering you around and assisting your needs is time not spent at key elements of their jobs as well as refugees' time, which is also at premium. Understand and be prepared for different scenarios of resource availability, especially technology and electricity, be prepared for last minute changes and cancellations, carry your own stuff, have a local phone, dress to fit in, eat everything you're served—as able—with relish, hold babies, play with children, follow cultural sense of time, and take detailed field notes of who you meet, contact details, observations, etc. Such preparation, flexibility and engagement reflect willingness to learn and trust of participants and stakeholders—decisions I made early in the field as part of meaningful embeddedness and situational positionality; other settings may require researchers assume differing stances in the same aim of achieving cultural sensitivity and ethical behaviour. Know that staff, whether in-country or internationals, change positions and employers frequently—you will

meet the same people again as you build your social network, everyone knows everyone. Same with refugees—everyone is connected and you will be too, upon active, longitudinal demonstration of your commitment to fitting in and being an asset, not a burden. Refugees' time is also valuable—women are particularly busy running households; if refugees are employed by an NGO, the NGO may have strict rules governing what they can do and their interactions with visitors. Refugees are generous with the time and will welcome you into their lives and home; be a good guest and be mindful of people's situations; if others take their coffee or chai without sugar, do the same as the family may not afford sugar, and always bring a house gift, something from home or useful to the family such as olive oil, dates, sweets, or toys for the children. With time, you will be invited to family celebrations and occasions—if you're lucky, and asked "Where is your caravan? What is your district?" a sign you're perceived as living in the community. Of upmost importance is keeping promises, having a strong sense of humour, and being genuine. You will frequently be asked for personal details—what is your job, are you married, number of children and of course, nationality. Information and social contacts are vital commodities. I fully disclose that I am from Canada, a choice immigration destination, and reply to questions about how to immigrate by saying "I'd like to go to Canada too" as I am currently living in the USA. Never provide information on which you are not an authority, such as immigration or make commitments to assist with immigration or other concerns. Unless you work for UNHCR, are an immigration specialist or are with an embassy, you have no abilities to affect immigration and are being harmful in offering unofficial information or promoting false hope. Instead, listen to everyone, empathize, learn, and field questions with experts. Field engagement does not end when you leave the field. In addition to evenings spent fleshing out notes, digitizing and backing up data, charging mobiles and batteries, and preparing for the next day, upon return home you will stay in regular contact with refugees and stakeholders using social media and messaging groups to ensure awareness of the field and continuity of your projects. Researcher positionality on social media requires self-reflection on posting behaviors and content: it is inappropriate to share content unaligned with protection protocols, considered haram, or reflecting ostentatious lifestyles. Positionality and reciprocity will also comprise assisting people with daily needs, such as facilitating aid donations—from financial to household items—and bringing items that are unavailable in the country. Learn first about what can be imported and how donations are handled: for protection reasons, camps typically require large scale quantities to minimize inequalities and donations must be timed for optimal delivery such as coats and boots for winter in autumn.

- 7. Universal Design Archetypes: People are the same everywhere, across time with the same needs for human dignity and flourishing—what differs is their contexts and situations that spur innovation and creativity. Children everywhere, for example, design robots, but their designs vary greatly based on youth experiences—only a Syrian girl designs two robots holding hands with flowers for peace, magic glasses that will diagnose illness and proscribe treatment or transportation capable of whisking you quickly across camp or home to Syria. HCI/CSCW fieldwork will reveal such design archetypes for many categories, whether it's healthcare, livelihoods, education, shelter, WASH, or transportation. Through prolonged engagement, requisite understanding of refugees' contexts will aid in understanding innovation co-design and how they can be developed through wire frames, prototyping and deployment.
- 8. Youth Investment and Connected Learning: Refugee communities typically have large youth populations, greatly in need of support for education, especially as their schooling

has been disrupted by the war. While male youth desire to help their families through finding employment (hence child labour), it may also be culturally specific for young males to work as apprentices in family trades and businesses—this is very typical Syrian. Girls, on the other hand, contend with assisting in the home through looking after siblings and carrying out housework and cooking, and are susceptible to early marriage, which may be culturally based and as a way of securing their futures for low-income families in addition to strengthening family and tribal ties. In all cases, youth from a very early age serve as information guides or ICT wayfarers, helping through technology and information assistance, such as helping others (especially people with disabilities) with their mobiles, searching for information, and sending messages to family. Another example of global design archetype, youth ICT wayfaring is especially valid in refugee populations where girls and boys play significant albeit gender-specific roles based on their access and fluency in technology, and community norms. While boys may play stronger roles in assisting family with social media and messaging, girls innovate ways at home to assist the elderly and people with disabilities. Working with youth to understand their lifestyles and ambitions through improving educational and vocational/professional opportunities requires staunch support and prolonged engagement, most evident through connected learning. Indicators of the most successful learning and community resilience occur where people feel safe and welcome in coming together, and where mentors regularly gather to facilitate interaction and creativity, remove barriers, and promote accomplishments.

Innovating Futures and Gender Sensitivities: Working with refugees is not for academic exercise but about changing lives, creating futures through leveraging community initiatives, supporting livelihoods, lifespan education, and committing to individuals. It requires assessing risk and ensuring protection for refugees, stakeholders, and the research team. While academic projects reveal empirical and theoretical insights, they should also serve as humanitarian missions aimed at creating social good through the process itself of developing refugees' skills, expertise and networks, as well as final outcomes that yield benefits to broad stakeholders. The Za'atari Camp book, for example, aims to preserve indigenous knowledge about Syrian food and culture and increase global awareness of refugees, but the community itself created and designed the book such that all content is 100% Za'atari Camp, including food and camp photography and food styling props, and royalties return to camp. Za'atari Camp Libraries is also 100% camp designed and run, making it the world's first camp-wide, refugee-run library system, and requiring innovations to meet community needs against Za'atari's high constraint, low-affordance environment. Creating projects that might yield returns are highly challenging, especially for at-risk demographics such as women and girls, who have extra needs for training, support and protection that benefit from participatory methods and working with Protection Officers to understand cultural dynamics.

18 Conclusion

Bakewell (2021) argues that "much social scientific research [on refugees] is intrinsically dehumanizing, as it simplifies and reduces human experience to categories and models that are amenable to analysis," adding that that "the work of social science can be seen by its very nature to be dehumanizing because it is

impossible to analyze the full human experience. Instead, [social scientists] work with models and simplifications that amplify some aspects and play down others." The Humanitarian Research Framework with its lead principle of "People First, Data Second" is in counter to Bakewell's observation. Grounding in UN protection mandate with nine tenets, Humanitarian Research offers HCI/CSCW researchers with guidance on longitudinal fieldwork with vulnerable populations affected by war. By focusing on concepts of culture, positionality, ethics, gender, geo-politics and post-colonialism, relationships and intent, the Framework offers niche insights into the sensitivities of working with war refugees, aid workers, and other stakeholders include having to prioritize participants', informants', partners', and team members' needs over data collection, and sometimes the suppression of findings and entire studies to protect people. Action Research for war contexts is very messy: it requires compromise, patience, humility, and willingness to suppress findings, and sometimes not publish. The Framework contributes a vital piece to the nascent HCI/CSCW literature on ethical design fieldwork exemplified by Race et al. (2020), and more specifically research with populations marginalized by conflict such as by Reem Talhouk and colleagues, Volker Wulf and colleagues at Siegen University, and Batya Friedman and colleagues at the University of Washington. Humanitarian Research for designing with war refugees contributes to this corpus by narrating the research insights and reflecting on decision-making from over eight years working by the Syrian border, specifically as an embedded field ethnographer with UNHCR Jordan and its NGO and country partners at Za'atari Camp—the world's largest camp for Syrian refugees. A hallmark contribution to HCI/CSCW is highlighting the importance of following participants' perceptions, beliefs, and behaviours in shaping your own, your positionality, ethics, and boundaries; in short, considering yourself the student and everyone your teacher.

In iterations of this paper, a reviewer asked "to what extent do you want to change the refugees' living conditions? What does 'design' mean? What is your normative framework to legitimate such interventions?" My ambitions are to increase the quality of life through literacy, education, information and digital access, jobs, and cultural preservation. Frankly, this is highly challenging: it is difficult to measure outcomes and I am unable to directly change refugees' living conditions—at camp I am only one person with extremely limited resources—I cannot arrange for immigration, purchase houses, pay for university tuition for hundreds of students, establish businesses for hundreds of women, nor purchase 100,000 books—which is what we need to fully establish Za'atari Camp Libraries. As an HCI design ethnographer, I can, however, play a role in having an impact on refugees' lives, the aid workers who serve them, the lives of people in host country, etc., through the interdisciplinary expertise of our Syria Research Group, which has a global network and steadfast commitment to increasing public awareness of war and supporting its victims through community-based,

socio-technical innovations. Through co-design with camp demographics, we have blueprints and plans, we've done pilots and rollouts, we've set-up services and tech to the best of our capability—we have a good sense of what will work. We do it the Za'atari way, through community, ingenuity, and resilience.

Aside from cost, implementation can be affected or impeded by such factors as protection needs, weather/climate, technical problems, security, and politics. For example, higher order needs in camp may require Protection Officers' attention than a project you're working on, or the planning phases of a new project may uncover protection concerns that need to be addressed, which invariably happens. Our current project to codesign social media and mobile tools with Syrian women to support them as entrepreneurs shows that women require education in business fundamentals and assistance from protection officers as a project by an un-related NGO in a neighbouring city resulted in male family members sending women to a women's start-up initiative to receive money and then the men absconding with it. Other examples involve girls being given mobiles and then difficulties in the home with male family members, or girls dropping out of community programs due to early marriage, etc. Weather/climate also impedes implementation—Za'atari is subject to harsh summer heat, winter cold and floods, sandstorms (haboobs), all of which cause activities to be cancelled, camp closed, materials destroyed, and buildings damaged, including people's caravans (homes). The Covid19 pandemic resulted in Za'atari being closed from March 2020-Fall 2021—we received a 2020 Google Inclusion Research Award and a 2021 Facebook Research Award to codesign culturally sensitive social media features and digital literacy tools with Syrian women and girls based on the Quran and Arab culture but were delayed in starting the fieldwork because of the Covid closure, reliant on digital tools for outset (Falioun and Fisher 2021; Fisher et al. 2020; Fisher et al. 2021). Technical problems abound due to the poor connectivity at camp. In 2015 there was an Internet (Facebook) ban at camp for security reasons that affected everyone. Communication was only possible through wifi at community centers and using mobile calling and text messaging. In 2020, social media resumed but the Internet strength is weak. Security, operated by the Government of Jordan, has tight restrictions on materials allowed into camp, communications, and controls entry—permits are required for all people to enter and leave. These restrictions affect projects from obtaining entry permits for team members to tech equipment and project materials, especially books and magazines which are probably the most difficult items to bring into camp. Finally, geopolitics affects the implementation of design projects. Over the years I have seen conversation threads for large-scale industry donations of mobiles and other tech for refugees in different countries (not Jordan) only for the donations to be stopped due to in-country rules regarding shipping customs, politics, and security.

The Framework is intended to assist researchers regardless of whether they are working independently, or in partnership with UN agencies and/or NGOs to assist people displaced by war. There is great benefit to partnering with UN agencies and established NGOs, namely access to sites/populations, assistance with logistics (translation, transportation, sites, materials, etc.), opportunity to build on existing programs and most importantly work with protection officers and field mobilizers. It is foremost for researcher positionality to not present oneself as staff of the partner agency to refugees in the field, in other words not to give the perception that you can influence immigration cases, housing, jobs, access to medical care, and protection, etc. This is challenging in the early phases of field research until you learn how to react, the appropriate responses, and how to pass on information. Egregious behaviors in the field include a researcher wearing an NGO-style vest and sunglasses with large Canadian flags—Syrians assume the researcher is from Canada, a choice destination for immigration and try to engage highly with them (the researcher is not Canadian, knows nothing about immigration but enjoys the fun reaction from the glasses). Highly successful examples of positionality and deep impact include Helen Storey, long-term Artist/Designer in Residence at Za'atari from the University of Arts London, College of Fashion, later bringing in her team in hydroponics and making from Sheffield University. Storey began at Za'atari in 2016, working closely with Syrian women and camp artists to develop cultural assets and livelihoods by building on community strengths. Storey forged a unique identity inside Za'atari based on her years of working side-by-side with the community as an embedded designer. Recent discussion at CHI conferences is addressing decolonizing research, which is tied to research agendas, collaborations and partnerships, researcher positionality and methods, design interventions, representation, and findings (e.g., Garcia et al. 2021; Lazem et al. 2021). Decolonizing how we do fieldwork and design—to avoid disasters indicative of the "One Laptop per Child" project (Ames, 2019) is challenging—rooted in decades, centuries of events and power structures that few HCI researchers are well-versed in and manifested in ongoing geo-political events and cultural norms that require insider knowledge and linguistic abilities; to effectively decolonize how we do HCI design, especially with war refugees, requires long-term engagement and becoming a trusted insider.

To further build the HCI/CSCW subfield war design ethnography, methodology courses are needed that address the items in this paper, design courses that focus specifically on refugees and working with industry and UN partners, as well as programs that promote taking courses on political science, international relations, and humanitarian sectors. Substantive work has been undertaken in cognate fields which HCI can both benefit from and contribute to through its emerging research, but interdisciplinary connections are needed. Collaborations that avoid the primary, secondary and third harms of epistemicide (Patin et al., 2021) are needed with local universities as Co-PIs and as partners, and

connections are needed in the political and private spheres—I spend much time sharing my work with industry groups, foundations, and think tanks in the U.S., and with staff at embassies in Amman. I would recommend changes to university IRB processes to reflect the cultural milieus of refugee and non-western settings, to provide researchers with greater flexibility, and to support DEI engagement with local researchers.

Disseminating findings from war design ethnography also needs consideration: greater calls for "slow research," publishing rhythms that acknowledges the multiyears required for field work, analysis and contextualized report writing; co-publishing with refugee participants—using pseudonyms as needed for safety; and the necessity of suppressing details about methodology and select findings for participant and researcher safety. Here, a key question for the CHI/CSCW community to address is how can important research be published anonymously—author names withheld for participant and researcher safety? How to ethically and authentically present refugee voices is also challenging—it requires review from members of the refugee community, and pensive, critical reflection to ensure that research papers do not generalize findings, reinforce tropes, from one sub-population to a region at-large and present mistaken images to readers. A prime example is the Middle East which is a highly diverse region across countries, and within countries and cities. The plethora of papers across the Academy about poor, conservative Muslim Arab women negates the millions of Arab women from different backgrounds who are championing women's rights and education (and often joined by poor, conservative Muslim women), and who are leaders in industry and other fields. Another example involves refugees themselves and the too often dehumanization of refugees in the media and research—depiction of refugee porn and orientalism tropes, whether textual or visual, for effect of shock, empathy, etc., and to promote social media sharing (Darling 2021; Parkinson 2015). Beyond giving consent to have their photos taken, refugee participants should have ownership, opportunity to approve the use of specific photos and digital assets bearing their contextual identity. As discussed by Daley (2021), Bakewell (2021), many people displaced by war do not want to be known as refugees, for "refugee" to be a stereotype identity or label that stays with them for life; instead, they want to create new identities and leave the past behind. Other refugees may want the world at-large to know of their situations and status and want to participate in the crafting of prideful refugee identities and messaging. Another vital perspective involving authenticity for Muslim refugee populations is how to consider Islam in HCI design. Our current industry-funded projects directly address this: codesigning social media features and digital literacy training based on the Holy Quran and Arab culture with focus on privacy protection—aligned with Ibtasam (2021), who calls for consideration of Islamic religious beliefs in HCI research. The Zaatari community codesigned the Zaatari Camp book with Islam as a central thread throughout, with chapters on Ramadan, Aqeeqah, weddings, funerals, Quran recital, and the adhan (call to prayer). In between representation perspectives, lies a large spectrum of opinions and needs that fluctuates with changes in the war. For HCI/CSCW researchers, designing interventions that enable refugees to choose their own external representations and means for self-efficacy is a critical challenge.

Working with people displaced by war provides opportunity for HCI/CSCW researchers to have profound impact in the world. Integrating the UN protection mandate, community norms, and refugee ownership, the "People First, Data Second" Humanitarian Research Framework can guide HCI/CSCW research, specifically socio-technical innovations to have tangible impacts on refugee populations, mitigating the effects of war and assisting with solutions towards peace.

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