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# Za’atari Refugee Cookbook: Relevance, Challenges and Design Considerations

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**Abstract**

With 83,000 Syrian refugees, Za’atari camp in Jordan has become the second largest home for displaced people. Engagements with refugees residing in the camp and stakeholders within the United Nations High Commissioner for Refugees (UNHCR) indicated that food is an integral part of communicating refugee identities and may play a role in meeting UNHCR project mandates, including wellbeing and capacity building. We present preliminary findings of ethnographic research exploring (1) the role of food within UNHCR project mandates, (2) motives for the creation of a Za’atari refugee cookbook and (3) the spatial, temporal and infrastructural challenges that need to be considered when designing the cookbook.

**Author Keywords**

Refugees; Za’atari Camp; Food; Identity; Design

**ACM Classification Keywords**

H.5.3 Group and Organization Interfaces

**Introduction**

Human displacement is a global crisis, and has begun to be explored within HCI in terms of working with refugees on crisis and humanitarian response, capacity



Image 1: Freshly made Syrian treats are displayed on the shelves of a sweet shop at Za'atari Syrian Refugee Camp in Jordan.



Image 2: A Syrian woman prepares a meal in her caravan at Za'atari camp.

building, and other ICT needs [7,8,19,20]. In this paper, we outline our initial investigations into the implications of displacement for refugees with relation to food and information technology. Specifically, we are concerned with the ways in which we, as HCI and design researchers, can be involved in the preservation of the physical, social and cultural health of individuals and communities experiencing displacement through supporting and documenting human-food interaction.

### Displacement, Disruption and Food

The social and material changes associated with displacement have deep implications for the wellbeing of individuals and communities as connected to food, relating both to their physical health and social wellbeing. For example, chronic malnutrition among children at Za'atari camp was almost double that of children in the host Jordanian community outside the camp (17% vs. 9%). Children at Za'atari camp on average were slightly more overweight than children outside the camp, and both groups were above the WHO standard population mean [23]. This may be a feature of what is known as nutrition transition [17], whereby the consumption practices of refugees acclimatize to local food availability and food (in)security toward a diet high in saturated fats [18], driven by the availability of low-cost, highly processed foods, as well as the lack of availability of familiar food stuffs. Further, the close links between food and culture [4] suggest that with these changes in food practices come changes in cultural practices and identity. Outside of HCI, this acclimatization, and interventions in opposition to potential negative implications, mainly focus on the nutritional perspective.

### Food and HCI

Existing work on food in HCI can be understood from three non-exclusive perspectives. First, researchers have been concerned with providing digital systems that support healthy and sustainable food practices, typically framed as 'corrective' technologies. These systems and studies utilize models of individual behavior change to provide additional information and to overcome deficits in knowledge, skill or ability. Challenges to this approach have suggested models that leverage community-wide knowledge [11,16] and which underscore the habitual, and consequently non-rational performance of practices such as food waste [9]. Second, following Grimes and Harper's [11] call for celebratory approaches, researchers have explored the possibilities for technology to extend food practices with an emphasis on topics such as family, fun, and the aesthetic experiences associated with food. In this vein, work has looked to examine the configuration of technologies at mealtime [1,6,15], in communities and cities, and to support progressive practices, such as urban agriculture and farming [2]. Finally, HCI researchers have extended existing social scientific research to understand food practices as digital mediated and situated within a material and digital context. For instance, Hupfeld and Rodden [12] examined the role of digital technologies as one part of the material configuration of meal times. Comber and colleagues [3] have further argued for an understanding of the contingent, dynamic and relational performances of food practices. In this work, we draw inspiration from the latter to provide context for the design of information systems to support and foster both 'celebratory' and 'eking out' food practices in recognition of the context of displacement and food/tool scarcity.



Image 3: Falafel stand at Za'atari Syrian Refugee Camp.



Image 4: Za'atari man sells vegetables from a donkey cart.

That is, we aim to understand the practices of refugees in the specific social, material and political context.

### Study Context

As of January 2017, the UNHCR had registered more than 4.8 million Syrian refugees in the Middle East [24]. The Za'atari Syrian Refugee Camp, population 83,000, lies a few miles from the Syrian border in Jordan and encompasses just over two square miles. The camp is run jointly by the UNHCR and the Jordanian government. It has grown to be the second largest displaced persons camp in the world [13]. Za'atari economic development surpassed in six months what many camps see in 20 years. The camp has two commercial districts, The Champs Elysees and Souk Street, as well as many smaller shops and mobile donkey food carts spread throughout the camp. Food is obtained in multiple ways. In addition to coupons/rations provided by UNHCR, refugees purchase ingredients from shops to prepare food in their caravans and some grow herbs, such as mint, and raise chickens for self-sustenance or to sell. Because of restrictions on caravan configuration and materials permitted in the camp, many traditional ways of life have been adapted.

### Data Collection

Over the course of two years, data were collected by the first author through a wide variety of methods, including design spec sheet drawings and narratives, design paper prototypes [8], videos, interviews, home visits, researcher observational notes, diaries with refugees of all demographics, and data from engagements with other stakeholders. Building on the ethnographic work carried out since January 2015, recipe spec sheets were collected from 96 individuals across the camp in August 2016. The spec sheet asks

questions about people's favorite food, how they learned to cook it, what is the most enjoyable part, how did they learn to make it, basic instructions, and the responder's demographics. Across the study, data consistently reveal the powerful role of food in the Za'atari camp community. Here we outline initial themes, which include memories of home, sustenance and nutrition, communication, education and literacy, caring and love, normalcy and peace.

### Findings

Our initial engagements with stakeholders within the UNHCR team managing the camp indicated that all projects should adhere to the UNHCR project mandates, which include (1) health and wellbeing, (2) social cohesion, (3) representation and preservation of heritage, (4) education and capacity building. These mandates further guided the analysis of data collected.

#### *Health and Wellbeing*

Analysis of recipe spec sheets revealed a broad swath of dishes from foods from stuffed vegetables, meat and fruit, to breads, sweets and remedies. However, availability and quality of food is a commonly occurring theme in discussions with community members as they reflect on their food security and its relationship to other forms of security. Discussions instigated based on researcher observation of high consumption of foods high in saturated fats, such as chips, sugary drinks, and candy, highlighted that parents dislike refusing their children such foods to compensate for the restrictive living conditions their children are in. This indicated a tension between *nutrition and sustenance* and food as a path to regain *normalcy and peace*. Adaptation to current contexts to achieve a form of normalcy was further evident in home visits. Visits often featured



Image 5: A Syrian baker makes savory breads at Za'atari Syrian Refugee Camp in Jordan.



Image 6: Breads cook in an oven in a Za'atari shop. Baking has become specialized as ovens are available in few caravans.

tours of women's kitchens to highlight innovations with stoves, cooking methods and décor, or with gardens outside, all aiming to achieve, within the constraints of a caravan, cooking practices resembling those of home. Several participants indicated that the practice of cooking, including the smelling and handling of food, distracted them from the stresses of being a refugee and contributed to their wellbeing.

#### *Social Cohesion*

The data indicated that some food practices are considered as ways to express *care* for other community members. Narrative drawings by refugees of how they help others through ICTs frequently depicted baking and/or sharing a cake to make another person feel happy. Additionally, several respondents indicated in the recipe spec sheets that the most enjoyable part of cooking was associated with plating, serving and sharing food. Discussion with women's groups revealed broad interest in bringing back a form of communal kitchens where women prepare, cook and deliver food for the less fortunate in the camp, including the disabled, the elderly, or working single mothers. Based on these findings, further engagements with UNHCR stakeholders highlighted that activities around food present opportunities for facilitating community discussions and building. Food may even play a role in increasing social cohesion between refugee community members and other stakeholders visiting the camp. Indeed, food is an integral part of communicating with others from outside the camp. Each engagement with community members was accompanied by the practiced art of serving Arab coffee or chai. The communication of culture to others through food was also important: At a camp NGO, Syrian women proficient in preparing traditional dishes

serve food to visiting dignitaries. As a field researcher visiting the camp, time was given to appreciate homemade kibbeh, pickled eggplants and many other delicacies as part of the engagement.

#### *Representation and Preservation of Heritage*

Walkabouts along Souk Street or Champs Elysees reveal small restaurants where artisans practice making breads, sweets, savories, and falafel replicated in ways from Syria and with young apprentices on hand. People's longitudinal diaries, collected from participants of all ages, were filled with stories, photos, and drawings of food—their mothers' best dishes, favorite recipes, how they felt happy and reminisced about being in Syria. However, these are not homogenous memories or food stuffs or practices. In fact, the association of localized specialties or adaptations, both spatial (i.e. from one town to the next) and social (i.e. 'grandma's') with *memories of home* was evident. Additionally, the names of food varied widely. The same dish, for example, stuffed vine leaves, was termed 'warak aanab' by some and 'yabraq' by others, depending on their region in Syria.

#### *Education and Capacity Building*

Most participants indicated that remedies and recipes are passed from mother to daughter as forms of embodied knowledge. Arising from this is ambiguity, not due to language but because of imprecision and lack of formal recipes. Participants described calling for 'spices,' and being unable to describe resources or quantities. Despite the importance of food in maintaining culture and identity, a large portion of the population has low literacy, and virtually no cookbooks or personal recipe files exist at Za'atari Camp. The practice of

narration as a form of *education* is on its own a part of the community's cultural traditions. Thus, the destruction of landmarks, communities, and homes in Syria along with the displacement of people, especially loss of older generations, has contributed to significant loss of indigenous knowledge about culture and way of life, including food preparation and Arab medicine. However, as mentioned, apprenticeship in camp restaurants and community activities centered around food can create spaces for the communication of embodied knowledge, capacity building and education.

### **Design considerations**

The emergent findings, showing the potential for food in building broad multiplex capacity and support of UNHCR project mandates have led to the upcoming Za'atari Camp Cookbook project. Furthermore, when coupled with understandings of space, time and infrastructure within the camp, the findings allow us to extrapolate considerations needed to guide the future design of the cookbook. The cookbook builds on the celebratory [11] notion of designing for food by creating a digital experience and a print version of Za'atari recipes by engaging all stakeholders in capturing the power of food to support communication, care, and knowledge, while preserving the memories and practices of home. To achieve this, we consider significant spatial, temporal and infrastructural challenges for the design of interfaces for data collection and the cookbook itself.

#### *Spatial Considerations*

When designing a cookbook to meet the previously stated UNHCR mandates, we should consider the physical space both at the stage of collecting data in the form of recipes, narratives and media, and at the stage of cookbook production.

Cultures and experiences around food and refugee identities are closely tied with the region, city, town or village refugees originated from in Syria, their lifestyle (such as Bedouin) and the journey they took to reach and settle in Za'atari camp. Representation on the camp and country-of-origin levels will result in richer data with a variance of terms used for different foods, dialects, stories and cultural meanings and understandings of food. While this richness will bring to the cookbook several layers representing the experience of being a refugee, it will entail further complexities to be considered in the production stage. How can we reconcile the presentation and collection of data in a cookbook and still reflect on the multiplicities of refugee and food experiences? This challenge may be addressed through the co-production of the cookbook with the refugee community. Design probes and data collection tools can be made to be passed on from participants [5], thus accumulating narratives and even allowing for reiteration of narratives to represent different experiences and cultural nuances around the same foods. This complexity in representation also extends to the food itself. The example of instigating memories of home indicates that a cookbook design should account not only for indigenous foods but also for non-indigenous foods adapted by the community back in Syria and in the camp.

Furthermore, the physical space of the camp should be taken in to account. Its 12-district layout requires that our data collection process be mobile and reflect the varying access, gender and experiences of food practices in difference locales, for instance among the restaurants of Souk Street as well as in caravans. Data collection tools should aim at capturing the dynamic and relational performances of food practices [3] that make



food so integral to the refugee community. This can be done through crowdsourcing the data collection process to youth as part of UNHCR’s capacity-building initiatives. This represents an opportunity to capitalize on the mobility of youth, and to provide capabilities in media literacy and food production.

#### *Temporal Considerations*

The interlink between a refugee’s journey and food is complex in terms of dietary changes and food security [10]. Changes in resources for cooking—water, oven, gas—accompanied by limited finances led to changes in cooking techniques. For example, since ovens are in few caravans, making bread/pita is a practice of people with high resources; no longer a common practice. Capturing such changes is important from a cultural preservation and a health and wellbeing perspective. The link, identified in our findings, between food and regaining a sense of normalcy further highlights the need to capture the changes in the value of food throughout the transition beyond nutrition and sustenance. Thus, the design process and the cookbook requires a temporal layer that captures and reflects on changes over time, as the identity of the community transitions from being Syrian to being a Syrian residing in a refugee camp.

Another temporal layer is that of the researcher and the project itself. Access to the camp requires security checks and permissions, which must be culturally and seasonally timed, making data collection more difficult. This challenge can best be addressed by relying on community members with key liaisons to proceed with the data collection and co-production process in the absence of the research team. This requires careful consideration of [22] and interplay

between the current roles of participants within their community and the roles required of them in the creation of the cookbook. The process would entail group activities that span across the districts and therefore contribute to social cohesion.

#### *Infrastructural Considerations*

Za’atari camp is a digitally restricted landscape with a myriad of limitations on resources. In terms of infrastructure, the households of the camp only have access to electricity 11 hours per day [21]. Internet connectivity is limited to connectivity at community centers during opening hours; cellular networks are unreliable and offer slow internet connection speeds [14]. These limitations would entail further innovation and configuration of digital data collection activities and co-design and co-production activities.

#### **Implications for CHI Communications and Recommendations for Future Work**

The role of food in maintaining cultural heritage and identity, and building capacity in education, livelihoods and social cohesion with all demographics is paramount to this community as evident by our preliminary findings. Furthermore, the documentation of cultural change surrounding food and the nutritional transition at Za’atari is important from the perspectives of cultural heritage, reflecting on refugee experiences, and the health and wellbeing of the community. Challenges call for the utilization of diverse methods to fully capture refugees’ interactions and experiences centered around food. Design ethnography and co-design/co-production may document the experiences and create a bilingual cookbook that has an interactive digital component and a print component.

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