
With an Eye to the Future: HCI Practice and Research in the Arab World

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ABSTRACT

ArabHCI initiative was inaugurated in a CHI17 SIG Meeting that brought together 45+ HCI Arab/non-Arab researchers/practitioners who are conducting/interested in HCI within Arab communities. The meeting started an ongoing dialogue that recognizes the fact that HCI is still in its infancy in the Arab world and explores challenges and opportunities for shaping the future of HCI in the region.

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CCS CONCEPTS

Human-centered computing > Human computer interaction (HCI)

KEYWORDS

Arab; Community; Design; HCI

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The meeting was further followed by three successful meetings in SIGCHI sponsored events that included general discussions about the state of HCI research in Arab countries, and a thematic discussion on exploring participatory design practices with Arab communities. In this workshop, we build on the momentum generated by our previous meetings, and attempt to draw a roadmap for HCI research and practice in Arab world. Our goal is to bring together researchers and practitioners to discuss case studies from their own work, share experiences and lessons learned, and envision the future of the field in this area. We plan to share the results of our discussions and research agenda with the wider CHI community through various social and scholarly channels.

1 INTRODUCTION

The Arab World is a group of 22 countries that share the same language and a strong history dominated by the early colonialism era. Another dominant feature of this region is symbolized in adherence to cultural values that vary from conservative (e.g. Saudi Arabia) to modern and more secular (e.g. Lebanon). Further, economic activities and growth influenced the extent of technology adoption. Since the Arab Spring, there has been a growing interest in the use of technology in the Arab world demonstrated by the role of social media in the Arab uprising. The region came to the forefront once more with the refugee crisis. Many of these studies addressed Arabs as users of technologies designed in Western countries. In September 2016, we as a group of Arab HCI researchers started the ArabHCI initiative [4] to express our concern that the majority of research addressing Arab users is conducted from outside the region (i.e., non-Arab countries) and/or is conducted by researchers who are not familiar with its special context. The initiative asserted the need to address the cultural gap between technology designers and users by the locally growing HCI research and practice communities in the Arab countries. We were clear about adopting an inclusive vision that sees the integration of international (non-Arab) and local expertise significant to advancing HCI in the Arab region. The first formal ArabHCI meeting was held at CHI 2017 SIG Meeting [3] that was attended by 45+ participants from Arab and non-Arab countries. In the same year, ArabHCI organized a DIS workshop [2,5] with 17+ Arab and non-Arab participants. Additionally, the success of our former events, and their potential to re-shape the HCI in the Arab countries were recently recognized by SIGCHI, who organized a regional meeting for Arab HCI researchers in January 2018 [17]. Another successful workshop was organized at CHI 2018 [18] with 27 attendees featuring 18 case studies that focused on participatory design practices.

The previous ArabHCI meetings aimed broadly at establishing local HCI research and practice communities by bringing people together to discuss and review the challenges and opportunities in HCI education, research, and practice in the Arab context. In the following sections, we summarise the central themes for the community discussions.

2 THEMES OF DISCUSSION

2.1 HCI in the Arab institutions

The culture of Higher Education establishes strong boundaries between the disciplines of engineering and science and of humanities, which result in engineering and science students underrating humanities courses [9], making HCI research homeless. More work is needed to establish partnerships with local anthropologists and sociologists. In contrast to the Engineering field where English is the primary language of instruction, Humanities research in the Arab world is mainly conducted in Arabic and not necessarily archived online. Research agendas are top-down imposed by different institutes and not necessarily reflecting the researchers' interests or supporting for broader engagement with users and communities. Finally, funds are scarce when it comes to HCI projects.

2.2 Arab Researchers and Inclusion

CHI metrics have shown the limited number of Arab participation in the CHI conferences in the past years [7]. This is including the percentage of publication from Arab affiliated researchers and the participation of Arab researchers in the program committees and/or as reviewers. In some countries, many universities do not provide fund for conference publications, since journals are the common appreciated venues for publishing even with a rigorous review process like CHI's. The ACM new hybrid journal conference submissions would hopefully encourage Arab researchers to submit to the venues adopting them. Some do not reimburse its staff for ACM or SIGCHI memberships. Though this is also the case in UK and many European countries, these low fees are pretty expensive in local currencies for some Arab countries. Graduate students or post-docs are likely to engage with CHI community when they are abroad. The rise of islamophobia is another concern for Arabs that might discourage them from engaging with Western research community.

2.3 Arab Context Uniqueness

There is a growing body of research that attempts to address the culture peculiarities in Saudi Arabia [1,11], and study the Arabic users' preferences using Hofstede dimensions [8,10,13]. The participants in the ArabHCI workshops raised the issues of addressing user groups culturally marginalized in the Arab region such as users with disabilities or LGBT [12,15].

2.4 Beyond UX and Usability

HCI in ICT industry has been focused on addressing usability and more recently user experience. It mostly aims at creating pleasant graphics design as an afterthought in the software design process. Discussions showed the need for more user involvement in the design process starting from the early design process stages.

2.5 Participatory Design Practices

There are many institutional, cultural, and methodological challenges for engaging users in design research. For instance, the lack of centralised ethics committees and the absence of guarantees for securing collected data along with the concerns that gathered data might be interpreted as culturally or politically inappropriate. Institutional challenges require a change from inside. Several studies based on the Arab context showed the importance of value sensitive design practices and explored some barriers to involve specific groups of Arab participants [1,6,11,14,16]. For instance, culture considerations in recruiting female participants and cross-culture communication with a male researcher have been explored in [11]. The effect of Islamic values on Arabs' use of online romantic relationships and match-making technologies have been researched in [1,6]. Design methods that rely on tangible artifacts and digital storytelling were explored and reconfigured to work with women migrants in order to better understand their experiences as refugees [16]. Cultural beliefs and hierarchical structures in refugee families have been studied to identify factors that could inform the design of digital health technologies [14]. We believe more studies are needed to address the appropriateness of Western HCI practices in Arab context. Issues such as the power dynamics if the research team includes non-Arab researchers working with vulnerable communities such as refugees are yet to be fully explored.

3 WORKSHOP AIMS AND OUTCOMES

This half-day workshop is organized to bring HCI scholars (Arab and non-Arab) to discuss the future of HCI research and practice in the region through reflections on submitted case studies. We aim to envision a research and practice agenda for the community. The agenda will address characterizing, evaluating, and/or devising HCI methods and research topics appropriate to the very contextual challenges of the region. Central to this agenda is exploring ways by which Arab HCI researchers in computing science schools could establish partnerships with local anthropologists and sociologists as well as industry sectors.

Lastly, the workshop will serve a bi-directional goal: to strengthen the community and empower the HCI research in the Arab context, as well as increasing the viability of the Arab researchers and facilitate collaborations. We will ensure a diverse set of attendees including the presence of well-established international HCI research labs in academia and industry to exchange expertise with the Arab researchers and at the same time facilitate future collaboration among HCI researchers, practitioners, and postgraduate students interested in HCI research within the Arab region.

4 ORGANIZERS

Ebtisam Alabdulqader (main contact) is a Saudi PhD candidate based in Open Lab at Newcastle University, and a lecturer in the Information Technology Department at King Saud University (KSU).

Ebtisam's current research focuses on HCI aspects of social computing, health informatics, accessibility and mHealth. Her current work is investigating strategies to promote the adoption of digital technologies to augment the current healthcare system and introduce new relational healthcare models. She also led STEM initiative to promote computer science careers in Saudi Arabia. Ebtisam has been honored with Teaching and Advising Excellence Award (three times) and the Excellence in Research Award. She is the founder and leader of the ArabHCI initiative and the vice chair for the ACM SIGCHI chapter for Riyadh Saudi Arabia.

Shaimaa Lazem is an academic researcher at the City of Scientific Research and Technology Applications (SRTA-City), a research institute in Alexandria, Egypt. At SRTA-City she established a research program in human-computer interaction (HCI). Her research interests include participatory design, cross-cultural collaborations, post-colonial computing, and decolonizing HCI. Her previous projects included designing low-cost education and health technologies and applying learner-centered and flexible learning pedagogies for teaching computer science and HCI. Lazem has experience working with rural communities. She is the Egyptian lead of a UK-Egypt project to engage Egyptian Bedouins in self-documenting their intangible heritage using mobile phones. She was recently awarded the Leaders in Innovation Fellowship with the Royal Academy of Engineering in London to design an archival platform for marginalized communities to self-document their indigenous knowledge. Lazem is the Chair of the Cairo ACM SIGCHI Professional Chapter in Egypt (CairoCHI) and the Co-founder of the ArabHCI community.

Soud Nassir is a Saudi PhD candidate at the University of Technology Sydney, Australia. His research aims to design information and communication technologies to support older people in Saudi Arabia age-well. Soud's work seeks to expand current understandings of ageing beyond western context, while at the same time exploring ways to conduct qualitative fieldwork in Saudi Arabia in light of cultural considerations and methodological challenges.

Mennatallah Saleh is an Egyptian PhD student in the Technical University of Berlin and Hamm-Lippstadt University of Applied Sciences. She has completed her masters in cross-cultural HCI and is now pursuing her PhD in the same field. Her main research interest is understanding privacy needs in Arab cultures and comparing it to the West. She is interested in working and designing with marginalized communities. She aims to advocate for Arab communities and represent their design needs internationally. She is the Vice Chair of the Cairo SIGCHI chapter and is an active member of the ArabHCI community.

Sarah Armoush is a Lebanese PhD student in Digital Civics at Open Lab at Newcastle University and holds a BS in Nutrition and Dietetics, and a Master's degree in Public Health. Her research interests revolve around identifying opportunities and challenges in existing structures of youth civic engagement in Lebanon. Her research aims to understand digital experiences of civically engaged youth in both formal and informal groups which operate under the umbrella of the SDGs.

By relying on existing participatory action research and participatory design frameworks, another aim is to create a contextualized framework for participatory design in Lebanon in particular and the Middle East and North Africa region in general.

Susan Dray is President of Dray & Associates, Inc., where she provides contextual and ethnographic user research, usability evaluation, and interface design consultation for a wide range of products systems, and applications. She contributed to the founding of ACM SIGCHI, was the 2006 recipient of the SIGCHI Lifetime Service Award, the 2015 recipient of the SIGCHI Lifetime Achievement in Practice Award and the 2016 recipient of the UXPA's Lifetime Achievement Award. She is also a Fulbright Scholar, an ACM Distinguished Engineer, and a Fellow of the Human Factors and Ergonomics Society.

There is also a **Reviewing Committee** established to review submitted position papers. Members of the committee are experienced HCI researchers, either based in or familiar with the Arab context. The committee and the workshop organizers will be reviewing the submissions and arranging for the workshop half day.

5 WEBSITE AND MEDIA STRATEGY

An ArabHCI website has been established to promote the community and maximize the presence of the relevant events. Similar to previous events, the workshop's content will be documented in the website, which will include background information, call for participation, accepted position papers, and reporting the workshop outcomes after the workshop. The website will be maintained after the workshop as a focal point for the growing community. Additionally, a social media account has been created on Twitter to encourage community discussions between workshop participants. The website along with social networking accounts will help to publicize the workshop.

→ **Twitter:** [@arabhci](#)

→ **Website:** [arabhci.org](#)

→ **Workshop Page:** <https://arabhci.org/chi19-workshop>

6 PRE-WORKSHOP PLANS

The organizers will try to reach out to a broad audience that might be interested in participating in this workshop. They will publicize the workshop and distribute the call for participation via appropriate professional mailing lists, workshop website, relevant social media accounts, and the existing research communities. Participants will be asked to submit position papers fitting with the workshop goals.

Accepted position papers will be posted on the workshop website as open access before the workshop. We aim to recruit 15-20 participants.

Workshop Schedule

08:00 – 09:00 Welcome, ice-breaker,
and Introduction of discussion
themes

09:00 – 10:00 Round table discussions

10:00 – 10:30 Coffee Break

10:30 – 12:00 Draft future agendas and
action plans

12:00 – 13:00 Lunch Break

13:00 – 14:00 Peer feedback on proposed
agendas

Important Dates

- Early submission deadline: 15 January 2019
- Early Notification: 31 January 2019
- Final submission deadline: 12 February 2019
- Final Notification: 1 March 2019
- Reviews Released: 15 March 2019
- Camera-Ready Deadline: 30 March 2019

Similar to our CHI 2018 workshop [19], experienced senior researchers will be identified and personally invited to join and reflect on the workshop discussions. We aim to invite experienced researchers from both academic and industry backgrounds, who have either conducted or interested in research in Arab context.

7 WORKSHOP STRUCTURE

The workshop will be conducted over a half-day. In the introduction, we will organize an ice-breaking activity so that participants have a chance to share their personal profiles and expertise. Next, three chosen themes will be in discussed round tables, where workshop participants will share their thoughts and come up with a draft for a future research and/or practice agenda. These themes derive from workshop submissions to contextualize the discussions. Established HCI researchers will be invited to join the discussions and activities. At the end of the workshop, each group will share their agenda for future research in the Arab world while they receive feedback from invited experts and peers. Following the workshop, we will share these suggested agendas as well as a group action plan for future research on the workshop website.

8 POST WORKSHOP PLANS

The workshop discussions will result in the development of a report reflecting the action plans and agendas proposed by the workshop participants. In addition, to publishing these outcomes and the conducted activities in the workshop website, we aim to publish the workshop outcomes and research agenda in the ACM Interactions magazine as well as a special issue of a leading HCI journal to share workshop participants' research. HCI Arab researchers will be encouraged to discuss the workshop findings, and share it in their local institutions and with their students and relevant research labs. The website and social media account will be maintained as a central channel for communication to spread our outcomes for the larger HCI community there is an opportunity to learn about the Arab communities. Our aim extends well beyond the workshop setting to include the long-term goal of establishing and empowering a community of HCI researchers conducting research in this context. Furthermore, we will organise a series of events and workshops, announced through our website, in order to promote on-going dialogues among HCI researchers in Arab countries.

9 CALL FOR PARTICIPATION (CfP): CHI 2019 WORKSHOP ON HCI RESEARCH AND PRACTICE IN ARAB WORLD

This half-day workshop will be organized as part of the CHI 2019, held in Glasgow, UK between 4 and 5 May 2019.

ArabHCI is an initiative inaugurated in CHI17 SIG Meeting that brought together HCI researchers/practitioners from the Arab World with those who are conducting/interested in research in this context.

The goal was to start a community that explores challenges and unique opportunities for future research in Arab countries and with Arab participants. This workshop aims at draw a roadmap for future HCI research and practice in the Arab region. We invite researchers/practitioners to envision an agenda for the future reflecting on their own practice, or synthesizing published research. The workshop will result in developing a research and/ or practice agenda specific to the Arab world.

Submitted position papers must not exceed four pages in the CHI Extended Abstract Format including references. The submissions should be sent in PDF format to (submit@arabhci.org). Position papers will be selected based on the contribution to the workshop theme, quality of presentation, and potential to stimulate discussions. Upon acceptance, at least one of the authors must register for both the workshop and for at least one day of the main conference. For details, please visit: ArabHCI.org

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