Human-Computer Interaction Across the Arab World

Ebtisam Alabdulqader

Open Lab, Newcastle University

Newcastle upon Tyne, UK

E.Abdulqader1@newcastle.ac.uk

Norah Abokhodair

Information School

University of Washington

Seattle, USA

noraha@uw.edu

Shaimaa Lazem

City for Scientific Research and

Technology Applications (SRTA-city)

Alexandria, Egypt

slazem@srtacity.sci.eg

Abstract

Since the Arab Spring, there has been a global interest in the use of technology in the Arab world. In particular, there is a growing interest in social media and its impact on democratic practices. The region came to the forefront once more with the refugee crisis as many of these studies address Arabs as users of Western technologies. Our experience working/researching HCI motivates us to assert that the current research on Arab HCI mostly deals with this population in a superficial way and is yet to reflect the diverse socio-political and economic facets of the region. This meeting aims to bring together HCI researchers and practitioners from the Arab World with those who are conducting/interested in research in this context. The goal is to start a dialog that leverages our "insider" understanding of HCI research in the Arab context to explore the challenges and unique opportunities for future research.

Author Keywords

Arab; Community; HCI; Women in Computing

ACM Classification Keywords

H.5.m. Information interfaces and presentation (e.g., HCI): Miscellaneous.

Introduction

The Arab world consists of 22 countries stretched across two contents (Asia and Africa) making it one of the world's most strategic territories; is stretches across the area from the Atlantic coast of northern Africa in the west to the Arabian Sea in the east, and from the Mediterranean Sea in the north to Central Africa in the south (Figure 1). Arab nationalism (i.e. nationalist ideology) was initiated with the formation of the Arab League in 1945 with the goals of celebrating the Arabic-speaking civilizations and to centralize and unionize the help provided to grow culturally and economically.

Figure 1: Map of the Arab World in Green.

The Arab World is rich in diversity with various religious, ethnic, and linguistic groups sharing the same region. Besides sharing the same language, Arab countries share a strong history dominated by the early colonialism era. Another dominant feature of this region is symbolised in adherence to cultural values that vary from conservative (e.g. Saudi Arabia) to modern and more secular (e.g. Lebanon). Lastly, economic activities and growth influenced the rates and ratio of technology adoption in the region. Consider, for example, that

Saudi Arabia ranks seventh in the world for per-capita social media accounts [11].

We are a group of three HCI researchers who collectively span a total of 15 years of experience in conducting HCI-related research in the region, and come from different backgrounds within the Arab world. While we commend the growing body of research in this context, we identify two limitations. First, in terms of research, the majority is conducted from outside the region (i.e., foreign countries) and/or is conducted by foreign researchers who are not familiar with its special context. Second, in terms of technology design, there is a clear disconnect between those who build the technology used by Arabs and those who study and understand the Arab culture. Cognisant of these shortcomings, our goal is twofold: to bridge the gap between those who design and build the technology and those who use the technology (namely, bridge the gap between Western technology makers and non-Western technology users) and to identify the bidirectional effect of technology by understanding the social shaping and social impact of these technologies adopted in the Arab context.

For the larger HCI community there is an opportunity to learn from the appropriations of adoption done by Arab users. From our research to date, we identify a couple of distinct aspects: (1) the collectivistic nature of the region that influences aspects of interaction with technology (e.g. [1]); (2) the strong influence of religion and cultural norms on adoption and use (e.g. [2]).

HCI Research about the Arab World

Studies of social media use among Arabs have largely focused on the political impact of these technologies, such as in the various uprisings associated with the Arab Spring (e.g. [4]). Although it is true that social media have provided Arabs, especially young Arabs, a means for political expression and engagement, the use of social media extends well beyond politics into the more mundane interactions of everyday life (e.g. [3]).

HCI Research in the Arab World

With the increased interest of Arab youth in computing fields, there is still an apparent lack of presence in the HCI field. Arab countries have been slow in recognizing HCI as a computing discipline. Within the organizers' home countries, our own experiences indicate that several universities incorporated HCI modules as part of the undergraduate curriculum in the computing science field over the past 3-7 years. A smattering of dedicated HCI research groups was established in the Arab region to support specialized research and technology development. Governments and industrial sectors started inviting HCI consultants to provide training, which mostly focuses on usability issues. Moreover, there is a clear absence of technical reports that describe and investigate the current state of HCI in the Arab world in terms of education, research and industry. Further investigation is required to identify the adopted HCI paradigms (e.g. [5]) compared to the West, where HCI is more established. CHI metrics have shown the limited number of Arab attendees in the CHI conferences in the past 4 years. 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 CHI conferences, research originating from Arab countries is limited to 5 publications in the last 2 years, and with collaboration with international research labs [9,10].

The low Arab presence in HCI research could be attributed to the various challenges surrounding HCI education. This includes the rigid boundaries established between the disciplines of engineering and science and of humanities in the culture of higher education, which result in engineering and science students underrating humanities courses. From the perspective of HCI research, the over-centralized institutional structures imposing top-down research agendas, the lack of ethics committees, and the underappreciated value of citizen engagement and participation are all challenges facing researchers who want to apply well-known participatory approaches.

While we recognize the attempts from Arab HCI researchers to address societal challenges [6–8], we believe that the potential for HCI research in Arab countries has not been explored to its fullest. In CHI'16, these issues have been discussed briefly in social events between some of the Arab researchers working aboard. This initial discussion led one of the researchers to create "Arab HCI" page on Facebook to promote these discussions, but not much progress has accrued. With these challenges and with the clear interest, we argue that further investigation of the contextual challenges and research opportunities is needed to empower Arab HCI researchers.

SIG Meeting

This SIG meeting is the first of its kind in the SIGCHI conference to bring scholars together to discuss the issues of HCI in the Arab context. The meeting aims to: (i) create a sustainable community focusing on Arab

HCI to promote HCI research in the Arab countries by empowering Arab HCI researchers, (ii) facilitate collaboration among HCI researchers, practitioners, and postgraduate students in the Arab community, (iii) facilitate collaboration with well-established international HCI research labs in academia and industry to grow the presence of HCI in the Arab world.

In the SIG meeting, participants will break out into groups, which will explore the challenges and opportunities for HCI research in Arab countries. They will then present the results of their discussions. Following that, together we will set-up plan for future work on each topic. Our overall goal is to: (i) characterize the current state of HCI research about the Arab World, (ii) discuss the contextual challenges facing HCI research in the Arab world, (iii) identify multiple research opportunities from the Arab culture/region. Lastly, the SIG meeting will facilitate community-building by establishing and maintaining a website for collaboration between HCI researchers interested in Arab HCI to serve our bi-directional goal: to increase HCI research in the Arab context and the involvement of the Arab researchers as collaborators, reviewers and publishers in high ranked venues.

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