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# Culturally Sensitive Design for Privacy: A case study of the Arabian Gulf

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## **Abstract**

Theories of privacy and how it relates to the use of Information Communication Technology (ICT) have been a topic of research for decades. However, little attention has been paid to the perception of privacy from the perspective of technology users in the Middle East. Privacy in the context of the Arab is highly influenced by the Islamic religion and cultural traditions. In the past two years, I have been conducting qualitative research in the Arab Gulf to enrich the understanding of privacy with regards to social media in an Arab Context. My goal is to offer culturally sensitive design principles that incorporate previously unexplored characteristics of privacy. In this position paper, I provide a summary of my research approach and motivation, along with a brief discussion on the importance of accounting for human values in the process of technical design inspired by the Value Sensitive Design (VSD) methodology.

## **Author Keywords**

Privacy; Saudi Arabia; Islam; Social Media; Design Principles; Values; Value Sensitive Design

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### **Introduction**

HCI researchers have long discussed, researched, and debated definitions of privacy and how it should be considered and incorporated into technology design. More recently, scholars have questioned the notion of a universal definition of privacy, suggesting instead that it is a socially constructed and culturally bound concept [1,7,8]. While various outcomes and applications have arisen from the studies to date, limited pieces of research approach privacy from a point of view that does not focus on interpersonal boundaries [2], but allows for alternative interpretations of "privacy."

Privacy is often viewed as a concept of the self as an individual, apart from a group [2]. While this is true in many previously studied user groups, I note that in the Arab Gulf the basic idea of *the self* and *the group* is conceptualized such that asserting one's individuality is viewed in a negative light. Membership in a family and tribe are of the utmost importance; there is no individual separate from a family [4, 6]. To elaborate, privacy is a high stake-value in collectivist and honor-based societies, a privacy violation "leads to shame and loss of face" [6] comparable to individualist societies where shame follows the individual not their entire family.

For technology users from the Arab Gulf, the Arabic language, religious affiliation, and cultural traditions and expectations are factors that play a critical role in technology adoption and use. In particular, understandings of privacy are tied to expectations and norms that have foundations in Muslim religious

practice. The importance of privacy is borne out of the responsibility to maintain the sanctity of one's body, and one's home, in addition to upholding the honor and good name of one's extended family.

Various conceptions of privacy exist across cultures, but when it comes to commonly used tools such as social networking sites (SNS) and microblogging services, the assumptions around privacy that are embedded in technology design do not necessarily make it easy for those who adhere to Islamic interpretations of privacy to easily use them. In so many cases, users have been underserved by not having their privacy expectations met. Reports have discussed the many unexpected ways SNS have undermined users' right to privacy by assuming that one setting fits all regions. In other words, a culturally hegemonic form of privacy is being inscribed in the technology people all over the world are using [1, 8].

### **Privacy in Design**

In technology design, it's a fundamental principle to keep the user in mind throughout the design process. Still, "designers cannot escape being biased culturally" [7]. For many years, Western cultures have been the focal point of the vast majority of research on privacy expectations on SNS. This is due, first and foremost, to the fact that the headquarters of many of the SNS companies are in the USA or Europe, which enables easy access to Western users compared to participants from other countries. An additional issue is the limited amount of contextually grounded research being conducted outside of Western cultures.

However, while many have thoughtfully analyzed and theorized about privacy and technology use, there has

been little research that brings Gulf Arab notions of privacy into the conversation. There is a big risk in continuing to undermine these tensions and allowing for these misconceptions to guide our technology design and our understanding of other cultures. I strongly support the idea that “a first step towards designing for privacy (and other values) entails understanding what privacy means to those who will use and be affected by the use of technology” [3].

As a result, I believe that my research will expose many new findings and aid in constructing a better understanding of the influence of Arab cultural traditions and religion on ICT usage. Moreover, it will provide new insight from a new user group to address some of the problematic models in SNS design. Most importantly, it will extend the studies of human values, technology appropriation and SNS to include Arab v. Western cultures, and clarify the bidirectional effects of technology, privacy, and cultures: social shaping of technology and social impact.

### **Research Statement**

I am a fifth year Ph.D. candidate at the University of Washington Information School. Building on my undergraduate degree in computer science, I am an information privacy researcher. My research examines pervasive technologies, privacy tensions, and cross-cultural information system design.

In my current research, I use a case study of one of the most conservative countries in the Arab world, Saudi Arabia. My aim is to contribute to the literature on privacy in two ways. First, introduce and explain privacy vis-à-vis social media use, with an eye toward Arab Gulf understandings and enactments of privacy.

Second, provide evidence regarding how privacy is enacted in digital environments through analysis of face-to-face interviews. Combined, these serve as a foundation for design implications that take a more encompassing view of privacy into consideration. In this study, the term ‘value’ is associated with the definition provided in VSD literature that is, “what a person or a group of people consider important in life” [5].

When I first started this research, I asked myself the following question: what are the methods appropriate to document this experience and capture the meaning of privacy? What are the design insights and principles needed to guide the technical design of privacy aware and culturally sensitive technologies? And how will I be able to move from research findings to design principles?

After much research and 2 pilot studies on the targeted population and the problem space, I designed a study that will help me in answering my research questions and aid me in achieving my research goals. My research agenda includes the commitments of VSD, that is, the commitment to human values, in this case the values of my study population. I designed my data collection and analysis procedure with a mixed approach using qualitative and visual methods (e.g. collage construction).

### *Method*

I am conducting an exploratory cross-sectional study with mixed method approach to investigate how Saudi Arabian males and females engage with specific social media platforms. For the past 6 months I have been conducting my fieldwork in 3 different cities in Saudi Arabia interviewing men and women aged 19-30 on

their use of social media and how --this technology designed with a different user group in mind-- it sometimes challenges privacy and promotes it in other cases. In my research, I weave in the relevant VSD methods and theories together with available theories on privacy to form my overarching framework to explain my findings.

#### *Value Sensitive Design Method and Theory*

VSD is one of the well-known approaches to incorporate values in the process of designing artifacts and was introduced by Batya Friedman among others [3, 5]. It employs a tripartite approach by iterating on three types of investigations: conceptual, empirical, and technical. VSD is a "theoretically grounded approach to the design of technology that accounts for human values in a principled and comprehensive manner throughout the design process." It aims to "[create] computer technologies that - from an ethical position - we can and want to live with" [3, 5].

#### **Early findings**

After conducting around 25 interviews with men and women from Saudi Arabia in the past couple of years I learned a good deal about their privacy behaviors in regards to social media. In the following I will present couple of points: 1) The need for privacy is often supported by Quranic texts, with much advice on how to protect privacy. In these texts the privacy discussed is usually related to the protection of one's body from exposure; 2) Privacy is framed as a *communal* attribute, including not only individual, but also the behavior of those around them; 3) Lastly, there is a huge weight on cultural identity and the protection of it through the use of social media.

#### **Conclusion**

This is the first contextually grounded study that explores how privacy is understood and enacted by Gulf Arab Muslims in a social media environment. My aim is to recognize the consequences that can occur when designing technologies with a limited view of how *privacy* is understood and enacted throughout the world. I am undertaking research that looks at "what privacy is" from a wider spectrum of users and investigates the various foundations of this concept. I anticipate this vein of research will lead to value driven (and culturally-sensitive) design principles that will better guide designers and researchers going forward.

With the provided summery and my personal experience perusing this research, my goal of attending the workshop is threefold:

- 1) Through my experience, I seek to enrich the workshop conversation regarding culturally sensitive privacy design by providing the insights I gained from my study.
- 2) I also come prepared to discuss my approach to bridging the gap between privacy research and actual design from the work I have been conducting for my PhD dissertation in the Arab Gulf and my experience working at the Value Sensitive Design Lab on other projects.
- 3) Lastly, I aim to seek answers to some of the questions regarding transforming theory to practice, as I am still working on my dissertation, and discussing this aspect with like-minded people will help me better approach my research.

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