Understanding Culture with a Transnational Population: A Value-Sensitive Approach

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ABSTRACT

It is widely acknowledged in design that culture is embodied in many aspects of an individual's identity. Many design methods operationalize this understanding through the use of cultural markers or predefined cultural dimensions. Here, we take a first step to distil the culturally specific values of the Saudi culture. We adopt a bottom-up approach that allows for values to emerge from the data by reflecting on two studies of a *transnational* population: a form of identity where the choice of cultural values is conscious and deliberate. Despite their different goals, the two studies yield common overarching core cultural values. Using a value-sensitive approach, we propose a process for designers to identify culturally specific values, illustrating this in our context of interest: Saudi culture

INTRODUCTION

With the global increase in Internet and smartphone use, there has been a growing interest in the study of cultures within the design of technology, namely cross-cultural design [53][62]. The requirement to localize digital products and services, to adapt them to meet the cultural expectations of different target groups [53], has highlighted the need for processes by which designers can gain awareness of culture-specific values [20,70,73]. However, culture remains a complex and vague concept [44]. The difficulty of studying culture comes both from its abstract, complex and multidimensional nature [53,62] and the problem that cultural information is not readily accessible [35].

In response, a series of models have been developed to reduce the abstractness and complexity of culture [53][62] including Hofstede's [69] widely adopted approach. While these models have proved to be helpful for high-level analysis [69], to make possible comparisons across cultures, they are not sufficient for understanding the specificity of cultures (or indigenous cultures). In this respect they have been criticized for their overly simplistic and static view of culture [69,70]. As a result, localizing the design of technology for different cultures remains a significant challenge, in large part due to the lack of methods for operationalizing the implications of abstract cultural theories as concrete design decisions [53]. Such a challenge can be observed in much of the work in cross cultural design which has adopted these cultural models, and thus focused on either visual level issues [20] (e.g. colors, languages, images and cultural markers) or predefined cultural dimensions in value-

oriented cultural models [69,71]. To address this problem, Sun [70] suggests there is a need to develop a rhetorical approach to guide the design process based on thorough context analysis; an approach with a richer and more dynamic view of culture [69]. Likewise, Amant [20] attributes the complexity of culture to two concepts: information and approaches. Thus, he suggests designers have to focus on gaining more knowledge about cultural context, and to adopt a strategic approach to learn about the multifaced concept of culture beyond a simple literature review of cultural studies.

While top-down methods use predefined values or dimensions for cross cultural comparison, in this paper we tackle the specificity of culture by allowing cultural dimensions (values) to emerge from field data [78]. By doing so, we encourage designers to adopt such an approach for culturally specific investigations. We demonstrate how this was made possible by the virtue of two features in our method: (i) working with a transnational population (culturally fluent population that can more readily articulate national/transnational values); and (ii) conducting a joint secondary analysis of two independently conducted studies to provide validation and rigor to the identified cultural values. In contrast to Hofstede's deterministic use of dimensions whereby specific scores for each dimension are used to describe a specific country, we characterize culture in terms of core influential values with unspecified *intensity* or *direction* [39]. We leave testing their intensity and direction for designers to explore for each new Saudi context they are designing for. That is, we propose cultural values, but acknowledge nuances, and encourage investigation of their impact on the design context. Thus, they are intended to guide the scope and learning process about a given Saudi context and are not to be taken as absolute values. We finally illustrate the operationalization of these values in the form of a framework consisting of five questions intended to guide designers in the exploration of the *intensity* and *direction* of these values, and to help them ask better and more relevant questions while seeking a culturally sensitive understanding of their users. Although the questions are specific to Saudi contexts, the mechanism by which this framework is developed is intended to be applicable across cultures.

BACKGROUND

The Concept of Culture

Scholars have provided many different definitions of culture [23,44,52]. We adopt Hofstede's definition [39] - widely used in design- which explicitly captures two key elements: of culture, collectiveness and distinctiveness: "*the collective programming of the human mind that distinguishes the members of one human group from those of another*". Implied in this definition is that culture has two facets: (i) *collectiveness* which refers to the shared meanings, norms, values, and practices in a cultural group [53,69]; and (ii) *distinctiveness* is what separates one culture from others.

These concept of culture has been the topic of much debates and critique [23,27,39], including being argued to impose homogeneity, rigidity, *superiority* [23,27,44], *stereotyping* [25] and *cultural essentialism* [39]. However, we adopt the view that these are negative connotations and fallouts of certain usages and misapplications of the term 'culture', rather than being inherent traits of the concept itself [27]. Moreover, denying the concept of culture implies denying the social nature of humans. Culture and individuals' behavior are inseparable and, thus, all human behavior is cultural with respect to some context [23]. The collective nature of culture is above and beyond the individual person [23] and is more than the sum of its parts [55]. Therefore, we view culture as the collective identity of a group that is ever changing; however, culture is not a monolithic entity, rather has nuances and subcultures within it [20]. While it is important to acknowledge the nuances of culture, we also recognize that understanding the higher-level granularity of a culture is still a valuable endeavor for designers.

Cultural Design in Saudi Arabia

The accommodation of users' cultural backgrounds in the design process has been widely considered in the field of HCI [19,51]; many approaches have been adopted to account for users' values and contexts [32,37,47,63]. In general, Arab countries have received little attention in cross-cultural design studies [59]. To date, few studies of the region have been configured as theoretically grounded [41] investigations [40] of specificity and nuances of Arab cultures. Studies to date have primarily undertaken content analysis of media, without significant involvement of target users to understand their values or needs [51]. Yet, since the recent Arab upheaval, many different platforms have been utilized as mediums to express opinion and to call for equal rights [6]. For instance, it has been found that Facebook enhanced the ability of activists and protesters to coordinate peaceful protests, while allowing larger segments of the public to share witness accounts, images and videos [50].

Yet little research has been undertaken into users' daily interactions and experiences with these technologies and services, or the opportunities and challenges they bring in terms of managing personal identity, privacy and safety. Al Omoush et al. [59] introduced a model for the relationship between cultural values, motivations, and usage patterns on

Facebook in the Arab world. Their study revealed a major influence of Arab values (e.g. cultural traditions, religion) on Arab Facebook users and their motivations to be members of social media. In this line of enquiry, many researchers treat the "Arab world" as a single monolithic unit of analysis, which is a misrepresentative generalization. Critiquing Al Omoush et al.'s study, Ur and Wang [76] state that "[the authors] used snowball sampling to gather survey responses from 749 Arab users of Facebook, where the exact meaning of Arab is left ambiguous". Similarly, a study by Alsheikh et. al. [19] explored how Arab individuals conceptualize and employ technologies in their romantic relationships. The participants came from six Arab countries and had different religious backgrounds. While Alsheikh et. al.'s study provided high-level insights into the values and beliefs of the region; it demonstrated a very limited understanding of the actual diversity of the participants. Another study [51] found that Jordanian users preferred locally designed websites over other Arab websites, suggesting that Hofstede's model for Arab countries lacks sufficient specificity. Taking a broader view, other works have explored the notion of Eastern values versus Western values (e.g. [34] and [61]) and a number of studies have explored cultural values in specific countries in the Arab world, such as Kuwait [36], Morocco [73] and Qatar ([1,64,75]).

With respect to Saudi Arabia, Hofstede's model has mostly been utilized to explore cultural values in the context of business, government and organizational e-services (e.g. [10,17,18,43]). Based on Hofstede's dimensions, Saudi Arabia, is characterized by *high power distance*, *uncertainty avoidance*, *masculinity*, *indulgence*, *short term orientation* and *collectivism* [45]. However, as discussed earlier, Hofstede's model was originally devised for cross cultural comparison and not for unpacking the specificity and nuances within a given culture. This is particularly relevant in the Saudi context, where there is a distinctive mix of cultural features such as religious nationalism, tribalism, Bedouin culture and the absence of anti-colonial struggle or secular movements [15]. A number of qualitative studies have placed sought to elaborate specific cultural aspects, such as the importance of religion in Saudi Arabia and the influence of Islamic values and cultural traditions on perceptions of privacy [4], and cultural factors influencing perceptions and use of matchmaking technologies [9]. However, each such study has had a specific focus (e.g. privacy, matchmaking, etc.) and are not designed to capture core cultural values – the goal of our work here. This was made possible by our work with a transnational population, the members of which are uniquely placed to identify core cultural values related to both their origin and host cultures. As such they provide a retrospective lens on cultural values.

Transnationalism

Population migration is widely recognized phenomenon which has increased significantly in the past decade [8,74]. A particular important aspect here is the acculturation process in the new environment is dealt with by adopting a

number of different strategies [21]. This is evident where individuals come from contexts that differ significantly from the culture of the host country [8]. These distinctions between individuals' origins and their acquired identity have been characterized as a new form of identification referred to as *transnationalism* [28]. In Vertovec's definition [74], transnationalism is the dual identifications, ties and interactions connecting people across the borders of nations.

Transnationals undergo the acculturation process at different levels maintaining several identities simultaneously [8,74]. It is most typical though for transnationals to develop a dual identity rather than a conflicting one [28]. In the construction of this dualism, different facets of culture are often self-consciously selected and secreted from more than one cultural heritage [74]. This is a process by which individuals make conscious decisions about what values to change (or not). These decisions involve the loss of the familiar, including language, attitudes, values and social structures [24]. Bhugra and Becker [24] summarized this process as "understanding of the similarities and differences between their home cultures and the new culture, so that they have clearer ideas about what they like and dislike in each ... mov[ing] in the direction of becoming 'bicultural'"

However, "*people's core values are harder to change than their habits and artifacts*" [13]. When transnationals make a deliberate choice of which values to maintain, this involves a conscious identification of their core cultural values. In acquiring this ability to make cultural change themselves, transnationals are also considered to be agents of cultural changes within their origin communities when they return home [28]. As such, transnational migrants are believed to have a central role in effecting cultural change in their families, societies, populations, surrounding transnational networks and post-migration generations [28,74].

In summary, transnationals can be characterized in terms of (i) the dualism which results from a self-conscious decision, and (ii) ability to influence cultural change. The former refers to how they learn to distinguish between core values to retain and other values to reshape or abandon; the latter to how they are an influential factor in the cultural change process. As such, transnationals are a distinctive and potentially highly valuable source of insight for cross-cultural designers.

Transnational Saudis

Perhaps the biggest factor creating transnational Saudis is King Abdullah Scholarship program (KASP), for which the government invests over \$2 billion annually [7]. KASP was created to bring about higher levels of academics and professionals to drive the 'moderation' movement [56,80]. It also aims at pursuing cultural exchange with other countries [80]; and opening the minds of young Saudis by exposing them to other cultures [56]. KASP initially aimed to send 50,000 students [7] but the number has jumped to almost 200,000 students in the academic year of 2012-2013 [7,72]. Additionally, until recently (August 2019) Saudi women were required to have an relative male companion, which

means more citizens were sent abroad as companions to female students [80]. Although there is not much work done to rigorously capture socioeconomic backgrounds of Saudi students abroad, it can be estimated that they reflect different socioeconomic classes. The majority of them, almost 83% are funded by the Saudi scholarship program (KASP) [7,56], and the rest are self-funded. [72]. In (KASP), the merits are based on academic qualifications, not socioeconomic status (not the elites) [80].

Overall, the social and cultural impact of this movement is evident among residents in Saudi Arabia [7]. Although there is some published work looking at the benefits of studying abroad in general [80], the gains and socio-economic impacts from this program are hard to track [72]. Some expect no to minor changes to be made and cited the strong conservative nature of the Saudi society and the lack of seriousness of many students abroad as some of the main reasons [56]. On the other hand, there are concerns about the students abroad upon their return what political and social attitudes will they have and whether they will fold back to their conformist conservative society or they will sow seed of cultural, economic and political change [57]. Thus, it is uncertain how Saudi students abroad will have cultural impacts upon their return [56]. For this, with their acculturation process and dual identity, they represent a remarkable opportunity for researchers to investigate a timely phenomenon.

STUDY DESIGN

Background

Our contribution derives from a joint reanalysis of data of two independent studies 'transnational Saudis':

Study 1: Cultural Perceptions of Women's Achievements and their Visibility in Digital Media. The first author's research (focus groups) was a qualitative exploration of perceptions and attitudes of transnational Saudis towards the concept of women's achievements and the visibility of women in digital media. Through reflection on the overarching themes she observed significant cultural traits shared among participants that suggested a need for further analysis. Indeed, one of the main advantages of employing qualitative methods for data collection and analysis lays in its capacity to benefit from aspects of serendipity at different stages of the research process [30].

Study 2: Transnational Saudi Arabian Youth and Social Media: Enacting Privacy and Identity. The second author's research (interviews) was a qualitative exploration of transnational Saudi youth's experience of social media and their understandings and practices in relation to privacy and identity. Despite the fact she was investigating a different phenomenon (to Study 1), nonetheless, her reflections on her own work revealed commonalities between the two studies that were readily apparent, that is, overarching themes related to cultural values and transnational identity.

Recognizing that “courting serendipity involves planned insight married to unplanned events” [30], the authors consequential discussions focused on the commonalities between the two studies, which yielded the discovery of a set of recurring cultural values underpinning much of our participants’ perceptions. This motivated our decision to conduct a secondary analysis of our separate studies to synthesize unified themes from our data. The differences in the original goals of each study lends significant weight to the validity of our unified findings, especially in the cases where we were able to trace participant recognition of distinctions in cultural values to similar trigger events [60]. Furthermore, the differences in configuration of the two studies, both in participant recruitment and method (focus groups and interviews), furnished us with a three-level inquiry: a mixed-gender focus group (study 1), two gender-specific focus groups (one exclusively female, and one exclusively male) (study 1), and (34) in-depth face-to-face interviews (study 2). This triangulation was a key element of the rigor and validation of our analysis.

Population and Sampling

Our participants were transnational Saudis; that is, Saudi nationals who had experienced life in Saudi and abroad (in our case, either in the US or the UK). They were abroad primarily for educational purposes and were undertaking a range of undergraduate and graduate courses. Participants varied in both their ages (18 to 40 years), and in the time they had spent abroad (1 month to 11 years). The total number of participants in the two studies was 55 (29 females, 26 males). Most participants were sponsored by the national scholarship program KASP, and through we did not collect socio-economic data, our impression was of a group of people from diverse social backgrounds, rather than an “elite”. As discussed, transnationals have the ability to articulate both their national and transnational values. As a result of living in two different cultures, this they are culturally fluent, and this enables them to articulate essential and core cultural values they have acquired from their home culture.

This allows researchers to gain access to an understanding of core cultural (national) values that individuals often would adhere to (or account for) even after being exposed to other cultures [13]. As theories of transnationalism [42] describe, despite their experience abroad and being subject to western influence, they are more likely to “forge and sustain multi-stranded social relations that link together their societies of origin and settlement”. This is not necessarily by holding or believing in these values, as we will demonstrate in the findings, but being affected by them and having social ties with milieus who still hold these values. This is the reason we use ‘adherence to’ and ‘accounting for’ to capture the nuances in participants attitudes towards core cultural values.

Study 1: Focus Groups (Cultural Perceptions of Women’s Achievements & Visibility in Digital Media)

This study aimed at engaging participants in the early stages of the design process to establish empathy with users, understand their cultural contexts and formulate the research

problem. The overall goal of the study was to explore the design space of the cultural perceptions of women and the role of designing technology that support better societal perception of women. To understand how participants conceptualize women’s achievements, semi-structured focus groups [31] were conducted to allow individuals to express their thoughts the way they usually do among their peers in the same cultural context.

The study was conducted with three focus groups with 21 Saudi Arabian participants who were in the UK mostly for education purposes. The participants were recruited mainly through word of mouth and a Twitter advertisement. They ranged in age from 21 to 40, and education levels from bachelor’s degree students (or holders) to PhD students. We initially aimed to conduct mixed gender workshops to reflect the shared understanding between men and women in addition to other different groups within the Saudi society. The following workshops were gender segregated, one with five females and the other with eight males. Each session lasted for approximately two hours. The sessions were conducted between March and May 2016.

Study 2: Interviews (Transnational Saudi Arabian Youth and Social Media: Enacting Privacy & Identity)

The second author’s study [2] examined the use of social media, by 34 (M=15, F=19) transnational Saudi Arabian young adults (ages 18-35;). The study demonstrates how privacy is required and experienced by a Muslim population going through the transnational journey of privacy across two cultural contexts vis-à-vis social media. The cross-sectional aspect of her study required to recruit balanced gender samples in two field sites, Saudi Arabia and in the USA using snowballing and purposeful sampling techniques.

To gain an in-depth understanding of the participants’ use of social media, ethnographically informed semi-structured interviews were employed [58]. The interviews lasted for 1.5 hours each and were conducted between August 2014 and February 2016. Interviews were conducted in Arabic and English. During the interviews, participants were asked about their general use of social media, any incidents that led to private information being exposed, moments of surprise, negative and positive experiences. They were also asked to share scenarios and accounts of discomfort or challenge they faced when posting certain content and when using the same platform in two extremely different contexts (i.e. Saudi Arabia and the US). The researcher transcribed the interviews in Arabic and used open and axial coding, following the protocol described in Seidman [67].

Unified Analysis

We adopted a Value-Sensitive approach to conduct a conceptual investigation that draws on the joint empirical findings of two studies which both fall under the purview of cross-cultural design. The unified goal in this secondary analysis is to define core cultural values shared among participants. Before the unified analysis, all sessions of both studies had been audio recorded, transcribed and analyzed

thematically [26] for their primary purposes (study 1: perceptions of women and visibility in digital media; study 2: online privacy and identity practices).

After deciding to conduct the unified analysis, each study was re-analyzed separately with the unified focus of identifying dominant shared cultural values. Common overarching themes were identified to guide a collaborative iterative process: *the autonomous self*, *the collective self* and *the others*. These generated more specific themes and subthemes of dominant values and stakeholders. Following an iterative process, the final themes were formulated as a set of values and stakeholders (in the findings section).

Positionality

Both researchers identify as female, Saudi nationals, HCI researchers and currently embarking on their own journeys as transnationals. During the period of conducting the research, they both exhibited less than typical conformity to some Saudi norms such as cultural attire and attitudes (e.g. neither researcher dressed in Saudi/Islamic female attire). At the same time, by being cultural insiders, not ‘westerners/outsideers’, both researchers represented a more neutral stance to the participants which we believe played a major role in facilitating participants open expressions and reducing social desirability [68].

Working from a value-sensitive stance, we took it upon us to allow the data to “speak” without any preconceived notions of how this population should interact with, or perceive, values. Instead, our responsibility is to offer a window into the practice as it is articulated and experienced by a lesser-studied population of users—in this case, transnational Saudis with the goal of creating meaningful change. De La Bellacasa’s work [18] on the “*situated character of knowledge*” offered us the bases to present our conclusions as intersubjectively-created “*layers of meaning*” derived from the empirical-based data analysis. We produced rigorous research that, we hope, enabled our participants to voice and communicate their values, which we have translated into meaningful contributions for system design.

Since we are both advocates of value sensitive, this is also reflected in our personal philosophies on social change which are driven by understanding people and compassion to their values and culture rather than fighting their realities. Thus, we believe there is a value in unpacking these cultural values, whether or not we conform to them, as they provide invaluable insights for social change and successful designs.

FINDINGS

Overall, in both studies, participants’ accounts of their perceptions and attitudes towards expressing their values revealed a juggling process between their own selves, their *in-group* and *out-group* [66]. Below we illustrate the value associated with each of these facets.

Concealing the Autonomous Self (Me)

The autonomous-self [3] refers to the facet of individuals whereby they think for themselves in an independent

manner. With our participants, we found that the revealing their autonomous-selves was challenging in three respects, in that it can be: (i) difficult to express, (ii) perceived as immoral, or (iii) considered risky (socially or politically).

Difficult to Express

The data revealed that participants found it hard to access their deeper level of the self. For instance, when participants were asked to express their perceptions of ‘achievements’, participant [AB-M3] jokingly said: “*give me something like math, I would understand, but this, philosophy, I don’t*”

For this participant, accessing a deeper part of his identity is, in his opinion, a philosophical practice and deemed more difficult than doing math. This issue is illustrated in making judgments as in [AB-F2]’s case when asked to evaluate women’s achievements she explicitly expressed difficulties in achieving a full autonomous-self: “*now we reached a point where I separate myself from my culture and religion and then evaluate her [a Saudi model], if I evaluate her like that, being separate and neutral, I’d say she has achieved something, but I can’t*”. The participant’s difficulty to be fully neutral and separate herself from her background indicates difficulty in accessing her deeper self.

Immoral Acts

We found that the Islamic religion (faith) is an ultimate value in and of itself. For example, when discussing “achievements”, despite being an academic, a PhD student in a STEM area and a mother, [AF-F4] expressed how she feels like a low achiever compared to those who are “*Quran memorizers*”, saying: “*I feel that no matter how much I do in science, I would never reach their level ... they only completed college and some of them are still jobless, but I would still wish to be like them*”.

More interestingly, religion provides as a scale by which morality of all acts are measured. For example, when participants were asked about the criteria for evaluating women’s achievements, the following responses came up:

[AB-F3] answered: “*my criteria are my society and religion’s criteria*”

[AB-F2] responded: “*religion is the most important thing*”.

Likewise, commenting on a female Saudi scientist, [AM-M3] said: “*To me, I would’ve been even more proud of her if she was wearing the Hijab*”.

In this excerpt, [AM-M3] is looking at the whole picture: for him the scientist’s achievement is incomplete because she did not adhere to the Islamic modest appearance. Therefore, this can create a barrier to express one’s autonomous self. Although in many cases is it an autonomous decision to abide by religions’ morality, nonetheless this can be in conflict with one’s deepest values. An example from our participants is [PF16] who expressed despite enjoying sharing photos online, she is afraid of accumulating sins from every users watching her photos, and thus puts religion first before her own choices: “*Recently, I deleted most of my photos from Instagram. Mostly because I was afraid of God. I am*

exposing so much of myself, my face and parts of my body to men that are not related to me and I started thinking what If I died and these photos stayed”.

This seems to be more accentuated when it comes to women. For instance, Samira, attributed her privacy practices as woman to be mostly in adherence to Islam: *“It is mostly Islamic views and traditions here in Saudi Arabia and my town... Especially that I am from [a small town], for girls it is not common to post our pictures”.*

Interestingly, considering morality extends to one’s interest to contribute to creating a more moral society. In the following quote, it is illustrated that even when one can access and express their autonomous-self case, such an act can be associated with being selfish or mindless towards others. [AB-M1] expressed a sense of social responsibility he has to exhibit when making judgements: *“if I consider what she [a Saudi model] is doing as an achievement, it’s like I’m cultivating a bad culture for the country, and this is a responsibility. So, in my opinion, I don’t see what she’s doing as a pride for the country, it’s the opposite”.*

[AB-M1] considers that his evaluation of others’ achievements is not solely representing his opinion, but rather a representation of the whole society: *“cultivating a bad culture for the country”.* Therefore, to maintain a moral society one has to avoid evaluating things based on an autonomous view. Social and political risks are highly likely to arise when individuals expresses their views in an autonomous manner. These are associated with different entities we unpack under the ‘collective self’.

Concealing is the Answer

For the reasons listed above (and more next) our participant value “concealing” of their autonomous self. This was explicitly stated by [PF8]: *“Here in Saudi privacy is forced on you. You have to be private...it is not a choice to be secluded...it is society telling you as a woman to be private...because of religion, culture, society”.*

In fact, participants’ sense of seclusion positively correlates with proximity to their collective: namely, in the presence of others from the same culture. For instance, [AF-F3] a female participant, stated she cannot be herself when interacting with male colleagues abroad who are coming from her country: *“I don’t feel comfortable around Saudi guys”.* This sentiment was echoed by another female participant, [PF1]: *“I have 2 [Saudi]colleagues on SnapChat and that for me was like ‘arugh’ pushing my comfort zone”*

Similarly, a male participant, [PM9] explicitly stated he hides ‘this side’, referring to his autonomous self, from his family: *“I have a special account for the US that excludes my family. It is only for my US audience, because I’m having the best time here and I take photos of everything and I share them. I’m not conservative at all but I have a conservative family. I don’t want them to see this side of me”.*

Whereas, [PF4], finds this strategy of creating multiple accounts a form of ‘paranoia’, nevertheless, she also secludes her autonomous self yet through a different strategy: *“I*

deleted a lot of people when I went to Canada because I don’t like this sense of paranoia...I don’t like to create lists or multiple accounts”. We can infer that accessing, expressing and exhibiting the autonomous-self has limitations which gave rise to ‘concealing’ the autonomous self as highly valued protection mechanism. These limitations are imposed by other entities, we unpack these under the concept of the collective self.

Embracing the Collective-Self (Us)

The collective-self [3] refers to the facet of an individual where they think as a member or a part of a larger collective rather than an independent manner. With our participants, collective-self overpowers the autonomous-self and it shapes it by two powerful entities: State and Society. These are not easily separated from one another and have many interconnections, but we discuss each separately below.

State: Fear and Revere

Because the Saudi legal system is based on Sharia Law, state and religion are broadly inseparable. Hence, religion, together with other values (e.g. safety and state image), has contributed greatly to the participants’ sense of duty towards the state (i.e. the government). [AB-F2] explicitly expressed this in a discussion about activist women who drove their cars in 2012 (before the lifting of the ban in 2018): *“The place where you do your ‘achievements’, you should follow its rules. It would be a jungle otherwise. As Muslims, we’ll always belong to the place where we are from, we express our identity with our morals no matter how much we don’t like these rules ... There is a way to changing the laws within the rules ... like through the Shura Council”.*

Here, she touched upon another value in addition to religion: national safety. In using the metaphor of the “jungle”, she referred to “anarchy” as a dangerous state. Likewise, in the interviews, [PF9] echoed this: *“I’m against the Women2Drive campaign. I don’t support the way the movement was established and tried to push change by force, but I am supportive of the goal”.*

To maintain national safety, participants expressed another correlated value: the promotion of the positive image of the state. For instance, [PM5] explained his sharing behavior on social media: *“I share shocking news like gun shootings in [the US]. But I don’t share any negative news about Saudi on Facebook. I only share good news”.* Sharing such content can cause harm to the state’s reputation as described by [AM-M8] who compared an activist to another, preferring the one causing less damage to the image of Saudi Arabia: *“Loujain is nothing like Manal...Loujain in the West has tarnished the reputation of Saudi Arabia but Manal didn’t”.*

Alongside these concerns about the state image and safety, there is also a sense of fear of authority which forces people to self-censor their behaviors as expressed by [PF6]: *“the reason why my Facebook Wall is kept to my friends only is because I don’t have trust ... I don’t trust the government ... I have to always censor my opinion on stuff”.* This was also

stated by [PM8]: *“Do you know that if you post about being at a club you could risk your opportunity to get a job in Saudi? One of my friends told me that and I am not very careful. I have another friend that also lost a job offer because of a political post. After that, I went to my account and I deleted two posts from my Facebook that involved Saudi political figures. I try to move away from political news and posts because Facebook, and social media in general, is heavily monitored in Saudi”*.

Thus, our participants tend to avoid indulging in political discussions, even while living abroad, as they are trained coming from Saudi Arabia, where the internet is censored by an extremely centralized internet infrastructure. This was experienced by [PM11] who stated: *“I am not keen on visiting home because of the nature of the content I post online. The last time I had to visit I left my name with a Human’s Right Watch lawyer to help me in case I am captured”*.

Therefore, we learnt from these examples that considering the state as an influential entity does not only stem from fear of political repercussions but also from a desire to protect the national safety and the country’s image against external threats, discussed in ‘The Others’ section.

Society: Mutual Support

Participants expressed a strong sense of social ties with other societal groups. We found that in many cases, familial ties constitute the first and foremost social duty. For instance, [PF2] expressed her conception of ‘what’s right and what’s wrong’ as something mainly learned from what her family ‘permits’: *“Families clarify this from childhood. We are raised with an understanding of what’s right and what’s wrong. It might not be explicitly about not posting pictures, but with growing up what is permitted and what is not”*.

Furthermore, family provides the primal support even in cases where one’s actions are against societal rules, as expressed by [AF-F4]: *“what matters to me is who are those who are not accepting what I want to do. If they were my family I would not proceed ... otherwise if my family my mom and dad are proud of it, honestly I don’t care about the rest of the society”*.

Interestingly, the expected (future) family is equally important, as stated by [AF-F3]: *“my sister has always dreamt of being a doctor then he [dad] told her: later, you’ll get married and have kids, you’ll either be [dedicated] for home and children or to your job”*. Whereas Majed, referred to the overall culture as an influential factor: *“The culture you live in has an influence on what you post and what you don’t. For me, living here I can’t post everything, even though I would like to, but because of the people and the culture you are restricted”*.

In other cases, the extended family and tribe are also of a significant value. [AM-M1] pointed to tribal support: *“some societies [tribes] support when they know your wife is studying and you are staying with the kids ... and then there*

is the opposite, even if she works as a teacher, they would say oh she leaves the house and doesn’t cook for you ... he fights and his wife fights too”.

Whereas, in cases where one is adhering to the cultural norms, they would still take them in considerations regularly to pay respect to their social circles as stated by Salam: *“Whenever I am taking photos for a public sphere I am wearing [a] hijab...because I want to pay respect to my cultural traditions”*.

For Salam, despite the fact she does not cover her hair abroad, she would still make sure that she is wearing a hijab in the photos shared with her circle just to pay respect. Furthermore, in other cases where one is not adhering to the norms, they would still take them in considerations to protect those adhering to the norms as in Mona’s example, as she does not wear hijab yet she protects the photos of her friends who wear hijab by not showing them to her public or male audience: *“On Snapchat, I block some people from my story. For example, my male family members ... I hide my feed from them because of my other female friends who wear the hijab”*

For women, particularly, there are ongoing concern for protecting their personal reputation, social status and that of their families. These concerns do not only arise from being involved in controversial behavior, but as [AF-F1] explained, everything is prone to criticism and negative judgement in her society: *“the society would always have some people who are actually against the whole idea of you going to study abroad, so you can’t really satisfy everyone”*.

This emphasizes the importance of considering the social norms whether or not one is adhering to them, to maintain respectful social ties. The price for having these social ties, as we illustrated was to adhere the societal values or to be prone to negative judgements and exclusion, which could make them perceived as members of ‘the others’ group, discussed next.

Withstanding the Others

Participants revealed a clear predilection for social harmony and “oneness” through the articulation of “others”. The use of “othering” was not only limited to hostile classification of those perceived as enemies (e.g. activists and the West who seek to discredit Islam and the laws and culture in Saudi Arabia); it also encompasses a more innocent classification of those who do not identify with the traditional values of Saudi culture. For example, when discussing the scientist’s achievements, [AB-F4] questioned: *“I don’t know to what extent? As a Saudi woman who left Saudi, if your achievements are done outside, how much should we consider you one of us?”*

Additionally, when discussing a Saudi actress—for many Saudis, acting is a highly stigmatized profession—[AF-F3] asked: *“is she a Saudi Saudi?”* (meaning, is she originally Saudi?). To this, [AF-F4] replied: *“surely she has some other origins”*. Interestingly, it is expected that those who deviate from the norm should “other” themselves. When discussing

the activist Manal Alsherif, who gave a TED talk on women's rights, [AF-F4] said: *"she talked on our behalf and used 'we' when she should've said 'I' and talked about herself. Those who do not like it here should just leave for another nationality, go abroad and live the free life that you wish. But do not represent Saudi Arabia and say I am a Saudi and I ask for these rights"*.

Moreover, another participant raised the point that some people would intentionally 'other' themselves to avoid being condemned by society. When discussing a Saudi model, — [AF-F2] said: *"I see her account, I don't follow her it's shameful if someone sees me following her, she provokes me, there is a clear body show, and she pretends she is abroad so she doesn't know this is a vice, but she does know"* In her use of 'she pretends', she refers to the strategy this model is using to avoid being ashamed for violating social norms. Such a strategy indeed confirms the proximity aspect discussed earlier, which correlate with criticism. From this, it becomes evident that "oneness" and social harmony are crucial values to which individuals are expected to adhere to, to avoid the social abandonment and exclusion that result from being classified as the "others".

DISCUSSION

Building on Hofstede's classification of Saudi culture as collectivist (the "what") [46], and Abokhodair et al's [3] exposition of how that collectivist nature is played out (the "how") by individuals through the expression of two facets of the self – autonomous and collective – in this work, we tackle the specificity of culture by taking a deeper look into the values associated with each facet of the self ("the why") and attempt to explain these values and relevant stakeholders; and illustrate their implications for design in the form of a framework of questions.

Values and Value Tensions

Islam:

Saudi Arabia is an Islamic theocracy which views its version of Islamic law as the only legal code [79]. As such, religion (i.e. Islam) is a fundamental component of Saudi cultural values and is believed to be the only legitimate source of morality as expressed by our participants (e.g. [AB-F2]: *"religion is the most important thing"*). We found that religion is not only the ultimate sacred value in and of itself: it is also the yardstick for all other values. This is perhaps due to the fact that religious authorities have influenced people's private and public lives that there is no aspect remains outside the expertise of religious scholars [16]. Hence, HCI literature in Saudi contexts, has acknowledged and explored the significance of this value in many aspects, such as photo sharing [3], privacy and social media [5], and dating and marriage [9,19]. As demonstrated in the findings, in some cases tension can arise between one's deepest desire and their conception of religious moralities. Even from a collective perspective, Islam and culture can collide at one level and enforce each other at another [16]. These tensions create nuances among individuals in terms of intensity (how influential this value on their decisions dealing with

conflict), and in terms of direction (whether or not they are highly religious). Nevertheless, the influence of religion as a cultural value was expressed by participants from different religious positions. For example, one could express being less religious yet would still take religion in consideration *"to pay respect to [their] cultural tradition"* (PM?). In turn, this demonstrates the manifestation of this value on individual's collective-self. Whereas on the autonomous-self level, as demonstrated, religion drives people's daily judgements upon their actions. For instance, even with someone who is less of a conformist would still express being internal struggle such as being *"afraid of god"* (PF16) when not practicing.

Positive Image of the State:

One unique aspect about Saudi Arabia is the long historical association between the state and the religion [16]. The Saudi monarchical system derives legitimacy mainly from religion [54]. Hence, individuals have a sense of revere to the state and a sense of duty to promote a positive image of it. This means, any critique of the state can be perceived as an attack on Saudi society and its Islamic religion. Since most of this critique originates in Western media, the West is perceived as the *"orientalist"* [65] and *"Islamophobic"* [29] or as we described in our findings *"the others"*. However, despite the significance of this value and strong connection with other core cultural values, there is a lack of literature in HCI literature exploring its impacts on user behavior. Tension can arise here is between the state and religion since the state has gradually been perceived as losing its Islamic identity. Indeed, the state is increasingly eager to appear modern, albeit rather within Islam framework, yet this modernization movement sometimes conflicts with the public religious perceptions [16]. Despite this potential conflict, any public opposition to the government is decreed as strictly prohibited by religious authorities [57]. Hence, the opening of public dialogues regarding internal (Saudi) issues and indulging in political discussions (i.e. political reform), not only avoided to maintain a positive image of the state and not to *"tarnish the reputation of Saudi Arabia ... in the West"* (AM-M8) but also to abide by Islamic morality (as exemplified in [AB-F2] statement *"As Muslims, we... belong to the place where we are from, [even if] we don't like [its] rules"*). This perhaps the reason why the majority of Saudi Arabians, identify with their nation rather than their religion [72]. On the one hand, the state is an essential part the entities constituting individual's collective self. On the other hand, the moral resource of individual's autonomous self, i.e. religion, dictates expressing to reverence to the rulers.

Political Safety:

The state, as part of its aggressive counter-terrorism law, has been spreading its entities and monitoring online and offline spaces [57,81]. Moreover, as discussed above, religion is an influential factor on the stability of the regime in Saudi Arabia [16,38,57]. This makes it binding for an individual to

self-monitor their actions and words and be concerned for their (and their family's) safety. As such, political values differ from religious values in that the religious values shape how individuals perceive the world, whereas the political values guide how they articulate their perceptions.

This means even in cases where individuals do not subscribe to the state's views and practice, either those perceived as too strict or too modernized, individuals would still prioritize safety (as exemplified by [PM8] who *"deleted posts [online] involved Saudi political figures [and tries] to move away from political news and posts"*). As such, political safety is manifested in two levels: an individual's safety from political authorities and collective safety (national stability) from potential political turmoil (which was described as "a jungle" by [AB-F2]). It is notable that due to the risks associated with this aspect, there is a lack of research on political safety as a value and its impact on user behavior. Indeed, Clark [49] suggested that the greatest challenges for qualitative researchers in the Middle East are those related to political concerns, as participants tend to have suspicions of researchers as having some form of political power.

Social Harmony and uniformity

Saudi society overall is characterized by conformity conservativeness [16,56,57]. This has created a value for preservation of social harmony [48] in contrast to cultural and religious diversity (i.e. *pluralism*) [22], and maintaining strong social ties in contrast to being *'othered'* [33]. By "their societies", we mean the groups identified in our analysis: family (and expected family), tribe, gender groups and the Saudi society. Social ties with these groups heavily preserved by individuals maintaining social harmony; these ties are prone to be broken in the state of pluralism. This is in line with Hofstede's classification for Saudi culture as collectivist which indicates a high level of interdependence among its members [46]. Moreover, cultural "oneness" or "uniformity", and the previously list, fall in line with the work of the Saudi anthropologist, Al-Rasheed [16], in which she listed main values of the Saudi society including: piety, purity, uniformity, conformity, racism, xenophobia, patriarchy and exclusiveness. This means, to preserve their social harmony, individuals are expected to conform to their groups' values. Indeed, many would prefer to please their parents by following some traditions even if they no longer fully believe in them [56]. Due to some differences between these groups and how they are prioritized by different individuals, tension can arise with individuals juggling different loyalties. Many cultural values are derived from Islam (or misinterpretations of it) and tribalism [16]. In fact, the religious police have been established as a mechanism to homogenize culture and moral codes [16]. Thus, religion, overall, is seen as a homogenizing factor in Saudi Arabia [54]. Although the young generation is more liberated than their elders in their views of society and authority [72], however, views are manifestations of their autonomous self, whereas in practice, conformity is the norm as a manifestation of their collective-self.

Concealing the auto-self & Embracing the collective self

According to Hofstede's model, Saudi culture is classified as collectivist, which means individuals' self-image is defined more in terms "We" rather than of "I", and they belong to 'in groups' for support in exchange for loyalty [46].

Concealing oneself from others is practiced by individuals as a protection mechanism. In an authoritarian state and a judgmental society, to avoid risks, individuals prefer to overprotect their privacy by maintaining a position of invisibility [3]. However, there is a tension here with other values associated with embracing the self, such as social recognition. Thus, individuals negotiate between protecting their individuality and presenting their conformity.

Literature in HCI has explored the nature of this collectivism and how the notion of concealing the self are manifested if some user practices online such as privacy, self-disclosure and participating in matchmaking services [5,9,14]. Contrary to our finding of 'concealing the self', Almakrami [14], in his comparative study on self-disclosure, stated that Saudi participants were more open to self-disclosure online than Australian participants. He attributed this to potential lack of awareness of risks associated with disclosing personal information. However, the outcome of our study does not particularly support this view. We would argue that this inclination to be "open" is only associated with the collective facet of the self where users value social recognition. Whereas in terms of autonomous self, 'concealing' is the dominant value. Indeed, this is in line with Almakrami's [14] discussion on anonymity where he stated that *"the majority of Saudi Participants ... assumed full anonymity on Facebook"*, which supports our finding of 'concealing the self'. Thus, we build on Almakrami's study by addressing the conflict in his findings (i.e. 'open to self-disclosure' and 'anonymous') and attributing it to the representations of two facets of the selves we unpacked in this study.

Stakeholders

We identified stakeholders associated with the values above.

(1) The autonomous-self is heavily shaped by the perception of Allah (God). Allah is a critical stakeholder for our participants in every aspect of their lives. The sense of being monitored and living by the presence of Allah has become represented in self-censure practices. However, because conventionally in VSD stakeholders are people, we situated this 'God' as an internal aspect of the *autonomous self*.

(2) The collective-self is enforced by three entities: (i) the state, by being highly respected in Saudi society for being intertwined with religion, and by being intolerant of counter-discourse [12]; (ii) the religious establishment, which predominates religious and moral discourse [12] shaping public's perception of Islamic values; and (iii) society in general, and its expectation for conformity in exchange for social ties support and inclusion.

The others are perceived as either hostile or non-hostile. For instance, non-Saudi friends, are often treated differently by Saudis and perceived as judgment-free. In contrast, the West and their allies (e.g. liberal Saudis, local activists) represent

a hostile group whose agenda is to destroy religious, political and cultural values. Individuals cannot trust this group; thus, they defend their groups by conforming to the values and behaviors of their collective-selves.

REFLECTION: DEFINING CORE CULTURAL VALUES

We argued in the introduction that for a truly value-sensitive approach, cultural values have to be defined in a bottom up with people. This is in line with what Weaver [77] referred to as ‘culturally competency’ which means working with indigenous people requires accurate information which can best be obtained from the people themselves. On reflection, we found that our defined core cultural values do not only meet a criterion of being emergent (i.e. bottom-up approach), but also they meet two other criteria: strong connection to the other core values and strong influence on individuals regardless of the value’s intensity or direction (i.e. regardless whether the individual believes in that value).

With regard to transnational population, we discussed how their cultural fluency makes them suitable subjects for identifying core cultural values. On reflection, we found that another characteristic they possess is that they provide a wide range of *intensities* and *directions* of the cultural values (i.e. wider diversity) which makes identifying a core cultural value as such, more rigorous.

IMPLICATIONS FOR CROSS CULTURAL DESIGN

Our remaining task is to bridge the divide between our nuanced understanding of cultural values, and the design implications that might arise from this understanding. Thus, we propose a reflexive approach to incorporating our findings into the design process to help designers ask relevant questions in any new study within this context. To this end we have operationalized our findings in the form of five questions for designers of digital services and platforms that engage with Saudi cultural values.

Q1: The self. To what extent will the user present their autonomous- or collective-self in your system design? How a design imposes on users the requirement to disclose each facet of the self (autonomous & collective)? For conducting user research, how to facilitate expression of autonomous self and mitigate cultural barriers.

Q2: Religion. How is your design situated in the dominant religious discourse? How do different religious schools and *fatwas* [16] view the primary concepts of your design? If your design does not necessarily have to reflect religious values, how is it formulated within a wider understanding of these values and within Islam framework.

Q3: The State. What image of the state does your design project? What political risks can arise from it? Does your design promote *defying the writs* [57]? How does it consider people’s aspiration to maintain and contribute to national unity [11].

Q4: Society. Could your design be perceived as reinforcing or undermining social harmony? What are the social norms that your design conforms to/violate? If a design allows or

encourages users to deviate from prevailing social norms, what are (or the perceived to be) social consequences?

Q5: Opponents: Does your design validate institutions or groups that are perceived as opponents of Saudi Arabia? The question is not about whether a design is associated with the “West” (indeed, many global products and services are very popular in Saudi Arabia). Rather, it is a question of whether a product or service is a vehicle for the promotion of a Western agenda that is perceived as being intended to undermine Saudi values.

Collectively, our questions aim to support the goal of designing safe spaces for self-expression within a culturally sensitive approach. We do not claim that answering the five questions offers a direct line to a “safe system”, but rather that they are touchpoints that can assist designers who are seeking a culturally sensitive understanding of their users.

CONCLUSION

The approach we propose to understanding culture aims to guide designers and enhance their value sensitive processes. Our approach can also inform the selection of methods, tools and strategies when engaging in culturally sensitive user research. By understanding the relevant stakeholders, and the values identified, researchers can utilize these to guide the empirical research regardless of the topic under investigation. This helps us to “speak the user’s language”, ask relevant questions and examine the effect of relevant cultural values. Therefore, this also poses a challenge and an opportunity for design researchers, to explore empirical methods that are suitable for this context. While we do not consider this framework to have provided an exhaustive understanding of Saudi culture, it serves as a valuable guide for the process of investigation. The ultimate measure of our framework is its application to the design of new services and products (a topic of future work). However, the framework can be utilized for the evaluation and redesign of existing systems and services. This includes the interrogation of design decisions in the context of Saudi values by using them to explain the nature of localizations and/or the absence of otherwise globally popular services in Saudi Arabia, of which there are many.

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