Promoting Usability and UX Design for More Inclusivity of Muslim Residents and Refugees within Non-Muslim Communities

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Abstract

This paper aims to promote the inclusion of Muslim user-groups in user-centered design processes within non-Muslim countries of asylum, as an initiative that has been practiced in the past few years due to the noticeable demographic and societal restructuring. Many Muslim refugees and residents still suffer from Islamophobia or xenophobia in host societies. This position paper seeks to highlight that inclusivity and purpose can be two main pillars of global socio-economic development in the future. It also points out that upon such pillars, user-centered design process can be used to build and enhance positive emotional connections among different religious and cultural groups, eventually mitigating phobic attitudes associated with changes in host societies.

Author Keywords

Refugees; Xenophobia; Islamophobia; Muslim Users; Inclusivity; Co-Design; UX Design; Usability; Fifth Industrial Revolution.

CSS Concepts
• **Social and professional topics ~ User characteristics**; Religious orientation.
• **Human-centered computing ~ Human computer interaction (HCI)** HCI theory, concepts and models**.**

Introduction
As increased numbers of Muslim refugees have been arriving to Europe seeking safe haven away from longstanding wars that destroyed their countries, the "*refugee crisis*" unfolded in 2015 "*as the largest human migration witnessed on the continent since 1945*" [1]. Unfortunately, this human movement coincided with a series of terrorist attacks that stroke several European countries such as Germany, Belgium and France, which contributed to the rise of xenophobia and Islamophobia among Europeans. This was not the case in Europe alone, but in North America as well.

However, over time, the western governments started integrating refugees into their societies, which resulted in many permanent immigration cases and "*less crime rate than the native population*" [1]. Refugees tend to be productive upon learning the local languages, finding jobs, paying taxes, and starting up small businesses. This means that they contribute to the growth of the national economy by injecting more funds than swallowing them.

Productive and professional well-integrated refugees are becoming a promising asset to the aging European population for example, "*that without immigrants, the continent would actually lose population, some countries by double-digits within the next thirty years*" [1]. This shows that refugees do not actually constitute a real crisis as much as they contribute to the overall suitability and growth of asylum states. However, the rates of xenophobia and Islamophobia are still high. Different measures can be taken to help reduce such rates.

The question here is, how can design in its different forms (UX design, design for usability, interaction design or architecture) help increase or normalize the integration between both the peaceful Muslim refugees/residents and the fearful non-Muslim groups? Engaging the Muslim community in design practices and considering it as one of the main user-groups -we as usability and UX design professionals need to include- can play a major role in creating positive emotional connection and enhancing the integration between both Muslim and non-Muslim communities, which in turn may reduce the phobia rates.

The sections below are divided into two segments. The first segment addresses the world trend in the coming Fifth Industrial Revolution that calls for more inclusivity and upholds noble purposes. The second segment proposes direct design ideas in various contexts to demonstrate a couple of solutions to the current user problems, for increased inclusivity and engagement of the aforementioned communities.

Future: Towards Creating "Human Energy"
The Fifth Industrial Revolution fosters creating an effective connection between human beings and technology to generate "*human energy*", employing modern innovation to serve humanitarian causes and achieve inclusivity among The Fifth Industrial Revolution fosters creating an effective connection between human beings and technology to generate "*human energy*", employing modern innovation to

serve humanitarian causes and achieve inclusivity among different groups of people. This orientation is a kind of corrective action for the technological invasion that took place during the Fourth Industrial Revolution, which currently makes people suffer from high rates of isolation, loneliness, gender inequality and other global issues [2]. In this vein, the United Nations has established 17 goals, namely the Sustainable Development Goals (SDGs), as shown in Figure 1. The goals include "reducing inequality, creating sustainable communities, and forming partnerships for goals" [2], which go in line with the purpose of integrating and soothing the relationships between different communities for more inclusivity.

Figure 1: United Nations Sustainable Development Goals (SDGs). Source: https://www.undp.org/content/undp/en/home/sustainable-development-goals.html

In the following sections, we will propose some steps that UX design and usability professionals can take in order to move towards inclusivity and cope up with the upcoming orientation. This can be achieved through working for a good cause in order to address negative emotions resulting from xenophobia and Islamophobia, such as inherited fear or unjustified hatred.

Co-Design Apps & Ads with all User-groups

Eliminating the rates of xenophobia and Islamophobia can be realized by involving both Muslim users and non-Muslim users in focus groups or co-design sessions to share the process of innovating new technology or creating solutions to a common problem they both suffer from. During the requirements elicitation and persona building sessions with the two user-groups, a UX designer can build personas of the two users for the same tangible or intangible product and show them on equal levels on the board/wall to inspire friendliness and promote equality (as shown in Figure 2). The session moderator can show the same amount of interest and respect for both user-groups' answers and consider the design suggestions equally.

Figure 1: Persona building including Muslim and non-Muslim user-groups and showing both on equal footing. Source: https://www.freepik.com/free-photos-vectors/avatar

Issues during Participatory Design Sessions
Some challenges might happen during the participatory design sessions such as:

- Different religious views or reasons for choosing certain features of the design.
- The need to pray during the day as a request by Muslims attending the session.
- Limited interaction between men and women during the session.
- Possible use of aggressive language by phobic non-Muslim users towards Muslim users during or before the session.

The session moderator or the design professional should be well prepared to effectively handle and smoothly contain such situations to promote acceptance and openness.

Design for Engagement and Inclusivity
The digital or non-digital experiences that are designed by UX designers or usability professionals can show different avatars, matching the personas built for Muslim and non-Muslim users to demonstrate equality and inclusion.

Billboards and digital advertising screens in malls and bus stops may also show photos of both Muslim and non-Muslim customers/users advertising or using famous or successful products/services. This may contribute to the normalization of accepting others, even if they wear differently. The designer may focus on sending subliminal messages through the design details, like "we are all humans; we share the same needs, feel the same experiences and have the same hopes".

If mobile apps, websites, systems or services to be designed are relevant to food, tourism, places, or

clothes, there could be a section for Muslim users, for example, the "Halal" food or the "Modest" outfits. This is to show that Muslim users are being considered as a respected major part of the newly structured society, and perceived as a user-group that has been already engaged with the non-Muslim community.

Design Games to Create Empathy

This is an invitation to design entertainment applications and games like "Empathy Up" [3] that starts only when two different players (one Syrian refugee and the other is a native German) are online at the same time and want to play the game together. The game has proven the creation of empathy online between the German players who were skeptical about meeting any refugee and when they physically met at the end of the game, they greeted each other nicely and felt a lot more friendliness than expected. Since empathy can be created through online meetings, games, bots, or artificial intelligence tools and applications, it might be a good idea to design more connecting artefacts for the purpose of leveraging inclusivity and unity.

Halal Sign as a Canonical Icon

Food sold as ready-made meals or cooking components have some characteristics and ingredients that can be depicted by visual images or signs that "*are more communicative and memorable and are digested 60,000 times faster than text*" [4]. Such signs turned to be well-known to every user and grew to be "canonical icons" that are perfectly understood by all users and consumers, like the vegan, gluten-free, palm oil-free and alcohol signs (as shown in Figure 3).

Figure 3: Canonical icons of food usually placed on packages or digital versions of the product description.

In terms of interface design for digital channels (mobile apps, websites, digital ads…) for restaurants, markets or even results of search engines, it would be so helpful to unify and standardize the placement of a canonical icon for the "Halal" sign on meals/foods to facilitate online purchase decision-making. The standardized signs can also be used on physical packaging in physical shop for improving the consumer experience that shapes the emotional impact and connection with the product/service provider or brand.

Figure 3: Suggested Halal signs can be used as a canonical icon for designing digital and physical shops for selling edible and skin care products.

UX designers or usability professionals can choose to standardize one of the suggested signs as shown in Figure 4 (or similar) to accelerate the time-to-buy any item for Muslim users by showing weather it is Halal or not at a glance.

The use of Halal sign is somehow famous for restaurants and some foodstuff but not standardize for all products. The "Not Halal" sign is suggested to be used when the product's ingredients show ordinary

components like wheat, vinegar and water but the conservatives and the enzymes (e.g. E222) might not be Halal. Such chemicals are not understandable by the normal consumer, which is the reason Muslims will not be able to distinguish the validity of eating them unless there is an indicator like the suggested signs. This suggestion can be valid as well for skincare and beauty products, health supplements, vitamins or medicines being sold via all electronic platforms as well as physical shops.

Restroom Change Request by LGBT vs Muslims

Last year, in CHI2019 in Glasgow, an important discussion took place in a SIG entitled: "Queer(ing) HCI: Moving Forward in Theory and Practice". Attendees from LGBT community discussed the issue from their point of view. They complained about separate public toilets or restrooms and requested to update the design of the restrooms in the future to be gender identity free toilets for increased inclusivity. In fact, this change request seriously affects the Islamic culture and beliefs of Muslims who seek privacy and gender separation in toilets, prayer rooms and other events or venues due to the teachings of the Islamic religion. Architects may be confused when receiving such contradicting and controversial change requests, especially when aiming at achieving inclusion and responding to all user-groups. This issue is still under discussion and should be communicated to architects, engineers and interior designers who are responsible for designing the usage experience of buildings and public utilities. In terms of suggesting a universal solution for this issue, restrooms can still be the same as ever known, designed to be gender separate, in addition to adding an external portable toilet unit accessible to persons who prefer to keep their gender identity undeclared.

Conclusion

This position paper introduces some concepts and suggests some practical ideas to help UX designers and usability professionals understand and act towards including Muslim refugees and residents (as a user-group) in the design process and the design outcome. The inclusivity of such user-group is expected to contribute to the limitation of the Islamophobia or xenophobia phenomena that grew lately in the newly restructured asylum communities. This paper highlights the opportunity that user-centered design professionals can seize in order to help improve relationships and emotional energies in societies having different religious or cultural orientations.

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