A Key HCI based- concept for Creating Empathy for Refugees

Marcel Neuenhaus

Hamm Lippstadt University of
Applied Sciences
Hamm, NRW 59073, Germany
marcel.neuenhaus@stud.hshl.de

Maha Aly

Technical University of Dortmund
Lippstadt, NRW 5955, Germany
Maha.Aly@hshl.de

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Abstract

Nowadays, Syrian refugees are facing different challenges to mingle with the social life of Germans. The research done during this on-going study has shown critical problems faced by Syrian refugees. The two main problems are: (1) they do not get in contact with locals (Germans), and (2) they feel that Germans do not want to interact with them or accept them in their society. Using a mobile gamed-based approach with intensive integration with HCI methods, a new concept is being innovated. The concept named after its main goal, which is "Empathy up". It aims at creating empathy and encouraging support offered by German youths to Syrian refugees.

Findings: The study shows successful evidences for creating empathy by Germans towards Syrian Refugees when both played the game (see Figure 8 & 9). By providing a location-based mobile game, and combining some cultural indicators within the game design, it would connect players emotionally with the presented different cultures. Consequently, prejudices by German participants were minimized, and meeting refugees for the first time was simple and positive.

Figure 1: The Syrian refugees recorded their everyday lives with the use diaries and single-use cameras.

Figure 2: Learning German takes place in refugee classes only, although the students would like to practice it with German students.

Author Keywords

Refugees; Empathy; HCI; Mobile games; Cultures;

ACM Classification Keywords

H.5.1 [Information Interfaces and Presentation]: Multimedia Information Systems, Evaluation/methodology, Hypertext navigation and maps; H.5.2 [Information Interfaces and Presentation]: User Interfaces---Prototyping, Screen design, Theory and methods; K8.0 [Personal Computing] Games.

Introduction

Recently, Germans are facing a challenge approaching the Syrian refugees. Germans are a bit afraid from getting closer to another very different culture. Their fear is increasing by the negative image exported by the media about the refugees. And this has an adverse effect on Syrian refugees as well. However, some Germans took the initiative to establish "The Refugees Help Center" (Flüchtlingshilfe e.V.) in Hamm (a city in North-Rhine-Westphalia, Germany). The center is an association that aims at giving comprehensive support and aid for refugees in order to leverage their emotional state and improve their social accessibility to the German society.

Volunteers are trying to help refugees to overcome their lack of connection to German social life. Although refugees are learning the German language, they do not use it in their day-to-day life, because there are no Germans in their surroundings to talk to. Moreover, refugees feel very isolated, especially when the locals show no interest for communicating with them. For Syrians, it is important and crucial to have access to the social life of their new home and connect to the locals. One of the big obstacles, however, is the

amount of negative reports about refugees in the media. Such reports cause a kind of generalization in locals' minds.

The Research Background

The project team joined "The Refugees Help Centre" in Hamm and started connecting to the majority of refugees, which is Syrian. The primary data gathering was in form of interviews with refugees as well as German volunteers. The project team wanted to get closer and know more about the Syrian culture and behaviour, so they decided to gather data by observation too. Hence, the project team equipped the Syrians with single-use cameras and diaries (see Figure 1.) to record their daily routine. The resulting evaluation found that Syrian refugees were highly motivated to integrate with the German society. The plan was to organize some recurring events, where locals and Syrians can meet, connect and exchange their cultures. It was also found that they would like to get to know Germans, but they did not know how. The lack of communication between Germans and Syrians, made it difficult for them to learn or use the German language (see Figure 2.). It seemed easier for refugees that if they find one of them speaking German, that would be enough to help them. Therefore, they find no reason to learn the German language. The lack of contact between refugees and Germans, the language barrier, and the weak acceptance of Germans to refugees, are the biggest problems faced by the interviewed Syrian group. Moreover, refugees were afraid that media reports giving them negative publicity, would affect their image, because most likely people tend to generalize the negative image.

The results made the project team think about themselves in a self-reflection mode, starting self-questioning, what drives us as a project team to help refugees? The answer was "Empathy". Empathy is a term that describes a person's ability and willingness to recognize and understand thoughts, emotions and motives of another person [1]. Putting ourselves in their position, understanding the situation of refugees was a core motivation to help them.

To get a broader view of this situation, additional surveys were created and sent to people in different countries (Germany, China and Australia), to ask them about their first experience dealing with people from other cultures. The participants described their experiences as follows:

- Their first point of contact with another culture was already in their early childhood (at school for example, and this was normal for them).
- They are becoming familiar with foreign cultures, because it makes them feel that they broaden their horizons and make them feel more open to others. The overall feedback was: Knowing people from other cultures is a positive experience.

Participants also stated why they think it is hard to build up empathy:

- National problems and personal interests of locals are priority number one for them.
- The refugees' situation is too complicated to understand.

Figure 3: Sharing knowledge at the "openTransfer Barcamp" held in Düsseldorf in September 2016.

Figure 4: Marcel Neuenhaus is sharing his research results.

- Some prejudices and stereotyping about other cultures (negative media reports, their appearance, their religion rituals, and many other things).
- Empathy can also make them feel uncomfortable and in suffer which feels like personal stress or pain.

Research techniques showed many results that drove the project team to think about the solution spaces.

Discovering Solution Spaces

When talking about solution spaces, project team thought to explore several approaches with experts, interested participants, and innovators from different fields. Thinking of the best way to join such community is by attending a conference, that usually results in crowdsourcing of a pool or great ideas. Research results were presented at the "openTransfer Barcamp" in the city of Düsseldorf, Germany (see Figure 3.). The "openTransfer CAMP" is a foundation that encourages the exchange and the development of knowledge transfer systems that supports social innovation [2].

The "openTransfer CAMP" conducted a barcamp last September, themed "#Ankommen", it's a German word that means "Arrive". The barcamp was about over 100 participants from different expertise sharing one goal, which was supporting young refugees aging between 16 to 27 years old to arrive safely to Germany. The project team presented the topic that tackled the support of empathy with refugees using new technologies (see Figure 4.). This topic received the greatest attention among the parallel running sessions, which provided live and active group analysis with participants. The feedback was breath-taking! All

participants agreed that developing a mobile app is the way to go, so as to reach as many people as possible. The discussion included the advantages and disadvantages of modern technologies like augmented reality and gaming concepts (like what Pokémon Go does). The rich discussion led to the assumption that such modern technologies could stimulate curiosity, and make people eventually want to explore areas that are more new. There was a consensus also indicating that the use of HCI methods and processes would help significantly, as the main goal is to stimulate user emotions. One of the participants stated: "Germans like to play and that as easy as possible, so how about making users discover their surroundings with a new cultural setting."

The session ended up with significant ideas that helped the innovation of the new concept, "Empathy-UP" (EMP-UP). It's the use of technology to create empathy for refugees through a mobile game within a location based context. Both Germans and refugees are supposed to play the game. Maps help the player to explore the surroundings in an extensive way, getting to know more about the cultural differences, which helps dissolving the psychological barriers that can occur between both parties. This is supposed to happen through the game's characters, scenario, and story that encourages emotional connection between the two players (locals and refugees), till they meet in reality at the end of the game.

UCD Process and Technology
Data analysis and suggested solutions spaces drove the need to think if it is possible to innovate a concept that creates empathy for Syrian refugees to resolve the encountered problems using technology. Proposed

technologies were: free-to-play game, location-based mobile app, augmented reality, story-telling via task scenarios, and animated characters. The final selection of technologies were: location-based mobile app, story-telling via task scenarios, and animated characters, all in the frame of User-Centred Design (UCD) process. The selected success factor was the holistic User Experience (UX) results.

Building The Concept
The data gathering techniques of identifying the Syrian cultural characteristics were observation, literature and conducting surveys, which the project team put together to reach the final result. The results were analysed and prioritized to show a set of German-Syrian cultural differences and commonalities, like in the context of social behaviours and eating habits. As a result of the analysis, the concept of "EMP-UP" was created. The objective of this application is to create emotional link or empathy between Germans and Syrians.

The decisive factor for an empathy formation is the experience of a situation, or storytelling [3]. The filtered cultural features were the resources and components for the designed game story of an animated character named "Egufer" (read it backwards Refuge (e)) as outlined below:

The empathy is created in the game while experiencing Egufer's journey. Egufer chases a sparkling star which brings him into the world of "Syrdland". The citizens of Syrdland (who represent the real refugees) help Egufer find his way back. But it seems that Egufer cannot reach his destination until he meets "Ziad", who helps him. After the visual land transformation in the game

Figure 5: A preview from Egufer's journey after entering the world of Syrdland.

view, Egufer is looking for Ziad who appears in reality unexpectedly to the player who is playing the game on mobile while walking in the street following the map, to make the player (German) jump from the game into the real life meeting his co-player (Syrian Refugee).

According to Rupp [3] the travel and returning type of storytelling provides a kind of narration that allows the player to jump into a parallel world, where a player is able to learn, experience, solve problems, and return to the old reality, with more knowledge and wisdom. This type of storytelling is optimal for developing the game because it gives enough information for a parallel world, and this type is famous and meaningful, like in movies (e.g. Alice in Wonderland) [3]. Hence, the player lives Egufer's journey, which goes as follows:

- Egufer sees a sparkling star (this appears at any bus stop), which is a player's greatest interest.
- When interacting with the sparkle, Egufer accidentally enters a parallel world called "Syrdland". The satellite displays the map, then when the sparkle is clicked, the map view is changed into a different map representation (see Figure 5.).
- Egufer's wish is to get out of this world first. A mentor gives Egufer the advice to deal with the inhabitants of Syrdland, in order to collect the necessary "points" for the return journey.
- The tasks range from obtaining Syrian food ingredients to praying. The participant walks in the streets, in the real world, visiting places in the context of the story (like in Pokémon Go). For example, the participant is asked to buy some food in the game, and in reality, the player walks to a supplier of the ingredients at an Arabian shop that

really sells them. Each activity, presentation and dialogue has been customized to the Syrian features and culture (to allow the German player get the flavour of the Syrian culture).

- When Egufer is about to collect enough points to go back, Egufer will first be able to reach the target. The target here is the other animated character which is "Ziad", a Syrian character. Egufer reflects that it is quite difficult to cope alone in this new world (similar to the feelings Syrian refugees felt once they left their homeland). Ziad wants Egufer to get to know his folks more closely. Player clicks on "Yes, I want to get to know these people more closely".
- At this moment, Egufer reaches the full score and is back. But he wonders where Ziad is, he wants to get to know him and his people. A final sparkle star appears on the map.
- On the way to the sparkle, the player is suddenly approached by the real Ziad (real Syrian person), who is similar to the visual and vocal display in the game. This represents the transition from the digital world to the real contact with refugees. Here comes the connection and the feelings of surprise for both players to meet in reality after they met in the game.

This concept is assuming that the players would live with Egufer the difficulties that are experienced in reality by the Syrian refugees. Each experience provides the user with playful knowledge about the Syrian culture to create the empathy. Empathy creation and emotional connection happens while interacting with the mobile game that ends surprisingly, which makes HCI is a field that can be employed to encourage humanitarian aspects. In this game, technology and

Figure 6: This is how the first reaction of one of the participants looked like when she got asked to describe her last contact with a Syrian refugee before the test.

Figure 7: This is the same participant as in Figure 6 showing her reaction to her last contact with a Syrian refugee after the test.

research results were combined together to serve refugees solving one of their major issues.

Game Test and Evaluation

Eight persons participated in the test to identify their long-term empathy [4] in pre-game and post-game tests. Also, participants were asked about their knowledge and their first contact with a Syrian refugee (see Figures 6 and 7).

The reactions of the participants when meeting the Syrian person in reality were very positive, and this event was mainly their first contact with a Syrian refugee. The participants liked the surprise and were fascinated by the transition from the digital to the real world.

The EMP-UP concept also led to significant differences in the attitudes towards:

1- The willingness to help refugees by giving them little tangible things ($p < 0.023$) (see Figure 8),
2- As well as the idea of actively volunteering to meet and help refugees ($p < 0.33$) (see Figure 9).

The differences where tested for their significance using the t-test.

Conclusion

The results of user investigations show evidences and consensus of positive user feedback indicating that feelings of empathy were created by the tested Germans, to support refugees by the "EMP-UP" concept. Participants in the following days contacted the project team and asked how to help refugees.

Diaries written by refugees, as well as processing the grounded theory method for gathering and analyzing interviews and quotes revealed useful insights in the phase of research before game was tested (see Figure 8). After game test, surveys and interviews showed results of successfully created empathy (see Figure 9).
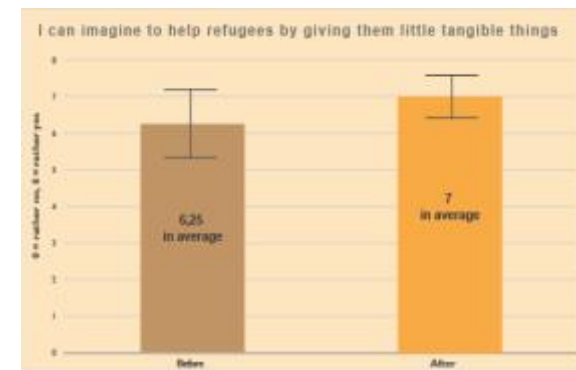

Figure 8: Visualization of the results of the participants' willingness to help refugees by giving them little tangible things.
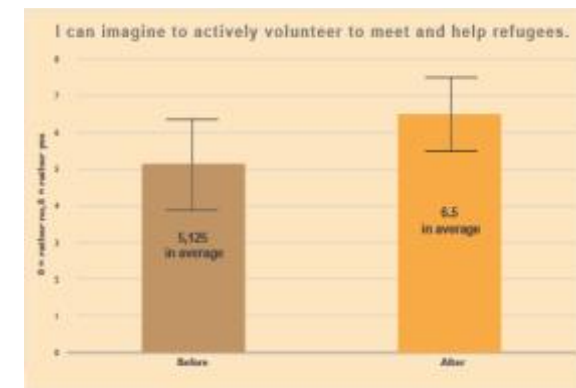

Figure 9: Visualization of the results for the idea of actively volunteering to meet and help refugees.

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