Coordinating Goodwill for Crisis Response

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ABSTRACT

This paper presents the process behind the design of an online platform named *whatdoweneed.se*, to be used by organizations involved in crisis response to communicate their needs to the public. In times of heightened crisis awareness, due to attention from the media and social media, the public often responds with overwhelming goodwill in the form of offers of help and donated goods. This design is an attempt to direct that goodwill in such a way as to avoid inappropriate or surplus donations. The design process followed a Human Centered Design (HCD) approach and the outcome of the project is a concept design in the shape of several wireframes and plans for future work. The design was inspired and influenced by the unfolding refugee crisis in Europe in 2015.

ACM Classification Keywords

H.5.2. Information Interfaces and Presentation: User Interfaces. - Graphical user interfaces.

Author Keywords

Human centered design, crisis response, convergent volunteerism

INTRODUCTION

In Sweden, organizations like the Red Cross and Refugees Welcome are aiding the influx of refugees, giving them food, shelter, and guidance. Among the many challenges these organizations face is the impact of public goodwill. The crisis has been a trending topic in all medias and this heightened awareness has prompted a wave of goodwill. Nevertheless, from talks with representatives of the organizations involved, the design team found that public goodwill is often misdirected, resulting in at least wasted resources, if not logistical nightmares.

That is not to say that the public's aid is not needed and appreciated. In order for organizations to maintain their support for refugees, these organizations need not only monetary donations, but also specific items like warm food and winter coats, and people with specific skills, like interpreters and drivers. These needs, however, are not always well communicated. The aim of the design described in this report is a website used to communicate the specific needs of these organizations to people that are willing to donate, thereby improving the usefulness of donations.

Presented at SIDeR 2016
Malmö University, Sweden

RELATED WORK

This project deals with convergent volunteerism, defined by Fritz and Mathewson as the "spontaneous generosity and outpouring of unsolicited aid to disaster-stricken populations" [3]. Many scholars (e.g. [1] [3] [9]) have described the disruptiveness of this activity on dedicated emergency response teams, with Whittaker et. al. [9] describing organisations as "inundated" with help of a nature that is often "inappropriate or unnecessary and require resources for their management or disposal" . Auf der Heide [1] stresses, however, that convergence needs not to be detrimental, that "local authorities need to recognise" that this type of activity will take place, and integrate it into the response. The design resulting from this project is an attempt to do so.

Real-time reporting of needs of organizations in times of crisis in the way that this project proposes has thus far generated little discussion. Meier describes a crisis map developed in response to the Haiti earthquake, which provided functionality to allow "anyone in Haiti to text in his or her location and urgent needs"[8]. Whereas that project aimed to report the needs of the public to crisis response workers, this project seeks to report the needs of crisis response workers to the public.

Critical to the project's success is not to inhibit the goodwill of the public while directing it, and a few scholars have delved into this area. Kajonius discusses the detrimental impact of information overload on charity donations [7]. Guéguen et al. have suggested that "words connected to the concept of love"[4] caused people to donate more freely. Fisher highlights the importance of trust for humanitarian organisations for "developing relationships with volunteers and donors" [2].

METHODOLOGY

The methods presented in this paper have been divided according to the design model proposed by Luma institute [6]. Methods employed are grouped according to what purpose they were performed for, rather than according to the sequence in which they were performed.

Human Centered Design

The design team followed HCD, as an approach to design that tries to understand their target groups on a human level, focusing on their needs, values and challenges and the way they operate as people. Although the activities performed by the organizations in the field made up the basis for the design, these kinds of observations were often disregarded to favour instead what was understood of the operatives in the field: their needs and feelings.

Figure 1. The truck holding clothing donations for Refugees Welcome

Methods for Looking

The team decided early to focus on ameliorating the Refugee Crisis, and to design for the goodwill of the public. Throughout the project they performed secondary research to become more familiar with the situation, keep abreast of current trends in the crisis and obtain a basis for contextual research. The team monitored online articles and press releases from sources including Migrationsverket, organizations like the Red Cross, and news sources from across the globe. This allowed them to perceive the ebb and flow in coverage of the crisis, and the results on the organizations supporting it, in particular the impact of public goodwill.

The local train station became a key point of contact throughout the project. A number of organizations were stationed here to provide aid to arriving refugees. The team balanced unstructured interviews with members of the organizations and refugees, with fly-on-the-wall observations [6]. Interviews provided factual descriptions of each organization's view of and role in supporting the crisis, whereas observations gave evidence of their emotional engagement. The impact of the public's goodwill was seen both in interview and observation, in particular at the storage area of one of the organizations, a truck overflowing with clothes donated by the public.

In addition, the team immersed themselves in online communities of various organizations, in order to observe their activities over a longer period. From here the team learned more about the organizations' ways of advertising new needs to the public, or in some cases dissuading the public from donating more of certain goods.

Methods for Understanding

The research was distilled into a set of stakeholder categories in the form of personas, intended to facilitate better comprehension of the goals, intentions and limitations of the people and entities that would be related to the final product. These included members of the public, charity and governmental organizations, and private companies. These personas allowed the team to critically evaluate ideas in more directed ways to what was possible when talking about generalized categories of people.

The refugee crisis was compared to disasters with similar trends, such as the Japan Earthquake and Hurricane Katrina. The main goal was to identify the causes behind the issues, as well as decide which problems were of interest and which to discard. This produced the first frame of the design challenge. Continuous framing and reframing of the design challenge, with the aid of the template provided by IDEO [5], was important in defining and maintaining the focus of the project.

Methods for Making

Once the design challenge had been accurately formulated, the team conducted a brainstorming session. Considering the issue from various angles, a number of different ideas were suggested. From the ideas brought forward, the design team voted for the most promising with regard to the design challenge, evaluating whether they had potential to be used in other contexts, for other crises, or in society as a whole. Three proposals were elected: a crowd-funding website like kickstarter.com but for goodwill, a volunteer coordination portal, and badges for organizations who gave appropriate donations. In the end, the team bundled the ideas together and attempted to synthesize the resulting application

Given the many stakeholders involved, the application needed to support different types of use in an effective way that did not add additional workload for the organizations, nor inhibit donations from the public. For members of the public, the website would need to display what is needed by different organizations in the context of a specific cause or crisis. From the organization's perspective, the website should allow them to update and advertise needs easily, and give additional information on how the public can address a particular need. Based on Kajonius's discussion on the impact of information overload on willingness to donate [7] the team saw the need to define a clean and appropriate display of needs with the ability to filter by crisis or cause. Among other issues raised were ease of use, in particular for organizations in the field, as well as trust from the public. Considering all these requirements, the *whatdoweneed.se* concept was developed.

A wire-frame of the graphical interface was produced for presenting and evaluating the concept (see Fig. 2). This detailed and more colourful visualisation of the concept helped to explain the concept and its use to the different stakeholders as the team sought initial feedback for the idea. The team presented the concept to people working at the train station and to a group of designers. Overall, they liked the idea of having an easy-to-use tool to address the needs of organizations, and having all organizations related to a crisis in one place. Concerns raised included the hierarchical structure of some organizations, suggesting that though the concept may be applicable at a local level, it may be difficult to introduce nationally or internationally. Another concern was that of actually updating the application with needs, and who that responsibility should fall to.

To address concerns about the financial viability of the concept, the team employed the business model canvas method [5]. Completing this template allowed the team to look at how the system could be developed, how it would generate revenue, who would be the potential partners and how to market the idea to customers and future partners.

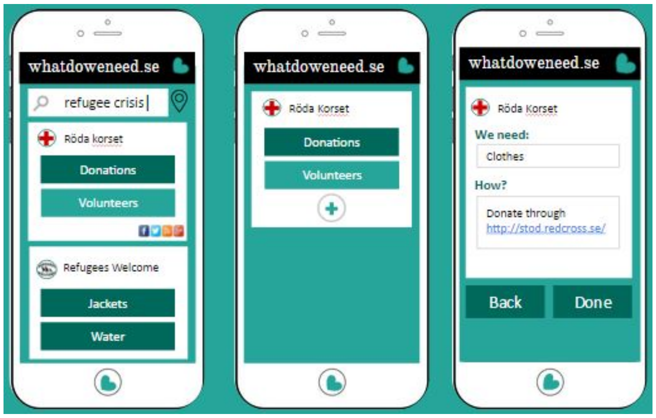

Figure 2. Mockup of *whatdoweneed.se*'s mobile interface.

RESULTS

The European refugee crisis was the initial point of focus, but after narrowing down the scope, understanding the obstacles the organizations faced, and framing the challenge, the refugee situation receded to more of a source of inspiration than the situation designed for. The refugee crisis was analyzed to identify more generalized problems in similar worldwide crises, finding challenges such as the uneven spread of donated resources over time, misdirected donations, the issues managing surplus donations from the organization's perspective and the effects of heightened crisis awareness influenced by media and social media.

Through online research the team found that several organizations already post updates on their websites regarding goods they had need of or were unable to handle. Even though help is always appreciated by these organizations, receiving extra resources requires logistics, people coordinating them, and space, none of which are currently planned for during times of crisis. The team sought to address this problem to reduce the work required to manage donations. Hence, the team framed their challenge as "*the coordination of goodwill in times of heightened crisis awareness*".

The Design: *whatdoweneed.se*

whatdoweneed.se.se is an online platform intended for use by organizations and members of the public who want to help. The design aims to aid organizations to advertise what help they actually need to fulfil their role within a certain crisis. Organizations will update the site with new needs, and this process is made as simple as possible, requiring only a couple of clicks for each update. A mobile interface (see Fig. 2) and a web interface are included, allowing updates to happen from the field, or any time that the organization's representatives are able to update it. The advantage of this tool is its simplicity, and the minimal effort required from the organizations to update it even when busy with their work addressing a crisis and dealing with other problems.

A need is submitted using a few short words as tags, associated with a longer text field where instructions on how to fulfil a particular need can be supplied. This free format allows for specifications of even very obscure needs, such as those encountered when observing organizations in the refugee crisis: warm sandwiches, winter jackets or tips for where to house refugees.

The public portal aims to provide the right information for members of the public. It allows those who are curious and eager to help during a crisis situation to find information on how to contribute and what resources will be most appreciated. The public can search based on the crisis they want to support, and get localised information about the needs of organizations in their specific area. Once they found a need of certain organization that they are interested on helping with, they can proceed to communicate directly with the organization and follow their guidelines.

Though initially designed for the refugee crisis, one of the greatest values of the design is its scalability to other contexts and other crisis situations. Misdirected donations are encountered everywhere, even when not in a time of crisis. Likewise, organizations, and in particular humanitarian organizations, will always have particular needs from their supporters.

The tool is non-preferential, putting all organizations on an equal level. It is meant to be used by different organizations, from local ones that emerge from a crisis situation (e.g. Refugees Welcome), to those known internationally (the Red Cross). The emphasis is on needs, instead of the fame of the organization in question. The platform works as a bridge between organizations and people eager to help. Hence, they should be able to trust in the website to advertise official needs from a certain organization, just as organizations should feel that what they post is being seen by general public.

FUTURE WORK

Among future changes to *whatdoweneed.se* lies broadening the scope, both in terms of function and scale. Currently, people in need are seen as external, but this is perhaps an area that *whatdoweneed* can take a more active part in. The team proposes to extend to provide not just the interface between the organizations and the public, but also their connection to the people in need. In addition, logistics and inventory management of donations can be introduced to address the full donations lifecycle and providing a more complete solution. The concept is also easily expandable to other organizations, other crises, or to fundraising in general.

Need For Further Evaluation

Several aspects of the current concept require more detailed testing to assess whether the design challenge has been appropriately addressed, which is part of the future work of the product. Among these is whether the application does, in fact, lead to more appropriate donations, particularly in light of the effect of information overload on willingness to donate [7]. Though filterable to specific crises, the site still presents a large number of options to anybody browsing the database of needs.

Another aspect that requires extensive testing is how trustworthy the public perceives the site to be, as per Fisher's publications [2]. The design builds on the theory that redirecting to the more trusted site of the organisation, but this is as yet un-tested. There is also a need to assess what else can be done to maintain impetus and keep whatdoweneed as the trusted portal for advertising needs for donations.

Lastly, the feasibility of updating a web portal from the field in the midst of a crisis needs to be evaluated with more elaborate prototypes than that produced at the time of writing. The need to update information directed at the public may not be at the forefront of crisis workers' attention when their main goal is that of helping the people in need.

DISCUSSION

Though the team's overall experience of the design process was a positive one, the project was not without its problems, and in retrospect there are many ways that it could have been improved. Communication within the team was very important to the project's success. All ideas, concerns, and methods were discussed during group meetings before they became part of the project. This gave the members the opportunity to train in how to defend their point of view in front of an audience, and also accept that others could see the same situation differently.

The multiculturalism of the group had a valuable impact, suited to the the study of this crisis. It meant the team could gather different points of view from both domestic and international media. In addition, diverse backgrounds with regard to volunteerism proved influential on discussions. Parts of the team were active volunteers at events and with organizations, whereas others professed themselves more likely to give financial aid only. This combined to give the team a more holistic view on the problem space.

Design During an Ongoing Crisis

An error made by the design team was to not establish contacts within the organizations investigated. The team instead spoke to whomever was available at the train station, with some attempts to set up stronger contacts later in the process. Research into the extended operation would have been useful to develop the scope of the application and evaluation, for example, but was not possible due to the difficulty in setting up connections when organizations involved were busy with the crisis.

Attempting to research crisis management during a time when relevant organizations were involved in a crisis was a blessing, because it gave the team the opportunity to observe the crisis workers in action, with real time and resource pressures in place, and real emotions to observe. The design challenge the team ultimately chose was heavily accentuated by the nature of this particular crisis, as a long-term influx of people in need of any help that the public can bestow.

In addition, with such an all-encompassing crisis to research, there was a lot of material available to gain insight from. The refugee crisis touched on so many facets of society that it was possible to obtain information through media, social media, advertising: the list goes on. This may have been why the team felt they were able to learn so much from online ethnography and secondary research alone, and managed to build a substantial case for the design even without the aid of closer connections to the organizations.

However, approaching charity workers at the local train station was one of the more challenging aspects of this project. Although they happily talked to the team, they were also very busy. Conversations were limited to five to ten minutes at the most, and it was difficult to find opportunity to ask questions while representatives' attention was elsewhere. Perhaps a greater emphasis on observations rather than interviews would be preferable, although the value of the visits cannot be understated.

Though design literature does not often advocate its use for getting to know a situation, the nature of the web at this point in time makes it a valuable source of information and inspiration for designers. With the rise of social networks an understanding of a community can be pursued both online and offline. In the case of this project, an abundance of information about how both Refugees Welcome and the Red Cross functioned was found on their Facebook pages.

CONCLUSION

During the design of this product, the team used HCD tools in order to facilitate continuous improvement, in its beginnings, through the project plan and secondary research, to the end, in the business model canvas method. Using the methods that were presented in this report gave the team a concrete understanding of their effect on a design project. The team are convinced of the approach's effectiveness when designing for the area of crisis response, and certainly see its potential for other fields.

ACKNOWLEDGEMENTS

We would like to thank all those who took time out from their busy schedules at the Central Station to talk to us and give us feedback, from Migrationsverket, Socialstyrelsen, Polisen, Röda Korset, Islamic Relief, Göteborgs Stad and Refugees Welcome. In addition, we are very grateful to the refugees that allowed us to interview them at the station after such a long journey to get here. Finally, we would like to acknowledge the valuable feedback from other students in our class and the guidance from Jonas Landgren and Min Juan Wang.

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