

Developing a Ready2Help Application

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Abstract

Approaching citizens to help during emergency situations can be useful for formal response organizations. Citizens can identify help requests in society and at the same time they are capable of resolving them. The Netherlands Red Cross currently has a platform called Ready2Help, which can activate these citizens, but does not yet have an application in which a match can be made between help requests and help offers.

This thesis investigated how a (web-)application could contribute in identifying and resolving help requests in society. Research was conducted to determine which methods could be used to match and activate volunteers. Several lo-fi prototypes were developed and evaluated using an iterative approach. These results were used to determine the requirements and scenarios for the hi-fi prototype. A highly interactive hi-fi prototype was developed, which was evaluated by a target-group of Ready2Helpers.

The need of having such an application is verified in this thesis. The Netherlands Red Cross can act as a match maker between help requests and help offers in the Netherlands using this (web-)application. It can be observed that Ready2Helpers are likely to respond to help requests, but are less likely to post help requests themselves. The thesis and prototype serve as an important guideline for further development of Ready2Help-like applications.

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Definitions

Throughout this thesis several definitions are used referencing to organizational structures of the Netherlands Red Cross and design principles:

The Netherlands Red Cross: The national Red Cross non-governmental-organization of the Netherlands. (hereafter referred to as: the Red Cross)

Ready2Help team: A project team within the Red Cross organization which performs all the Ready2Help activities.

Ready2Help platform: The platform which has been developed by the Ready2Help team, this platform does **not** include a Ready2Help application.

Ready2Help application: The (web-)application (prototype) which is going to be developed in this thesis.

Ready2Help action: An action in which Ready2Helpers are alerted to resolve a certain help request.

Ready2Helpers: Citizens who have signed up to be a Ready2Helper, they can be alerted by the Ready2Help team to participate in a Ready2Help action.

Lo-fi prototype: A low-fidelity prototype is a quick and easy tangible representation of a concept, which is created to get quick feedback.

Hi-fi prototype: A high-fidelity prototype is a high-tech representation of design concepts and requirements, resulting in partial to complete functionality.

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1 Introduction

1.1 Organizing volunteer responses

Over the last decade, the traditional way of organizing volunteer responses has been complemented by voluntary citizen initiatives on digital platforms. This provides new possibilities for formal response organizations (such as: emergency services, governments, the Red Cross) in solving help requests in society by organizing local community involvement. Voluntary citizen initiatives are able to quickly activate a large number of volunteers, but the effectiveness of these initiatives are often a sub-optimal solution when looked at from a higher perspective.

1.2 Ready2Help platform

The Red Cross has developed Ready2Help [1], a platform which can alert volunteers (Ready2Helpers) when the Red Cross identifies a certain help request which needs to be resolved. This platform has proven to be useful in quickly activating volunteers when needed to help resolving a certain help request. Currently, more than 39.000 volunteers have signed up for the Ready2Help platform, which provides the Red Cross with a large group of volunteers who can be activated quickly and effectively.

Ironically enough, the Red Cross kept using the top-down approach for the Ready2Help platform, given the original bottom-up nature of the initiative. The Red Cross tries to create and coordinate all the help actions, instead of providing the possibility for Ready2Helpers to create their own actions. Because of this fact the Red Cross and society cannot fully benefit from the knowledge and skills that all the Ready2Helpers possess. To achieve a more optimal solution a bridge must be made between formal response organizations and volunteers. This makes it possible to combine a bottom-up and top-down approach when looking at resolving help requests in society. A (web-)application could be used to create this bridge and combine the bottom-up and top-down approach.

1.3 Aim of thesis

This bachelor thesis will investigate how such an (web-)application should be developed, create several prototypes and evaluate this with the target group. The results can be used by the Red Cross to improve their Ready2Help platform.

1.4 Research Questions

The main research question which will be answered in this thesis, can be described as:

How can a (web-)application contribute in identifying help requests in society within the scope of the response organization and contribute in resolving these requests by activating volunteers with the appropriate skillsets?

This research question is formulated generically to make it scientifically relevant for different platforms and response organizations. The thesis itself will specifically focus on the Red Cross as a response organization and Ready2Helpers as volunteers. In such a way the (web-)application prototype can be applied and tested using a real-life situation, which leads to more useful insights.

Two research sub questions have been formulated to obtain the answer of the main research question:

- *How can Ready2Helpers identify help requests in society and properly report them to the Red Cross in an organized way?*
- *How can help request be resolved using Ready2Helpers with their skillsets?*

1.5 Outline of document

The 'State of the Art' chapter consists out of four sections. The first section will explore different methods on how help requests can be identified within society. The second section will investigate the different methods that can be applied to resolve these help requests. The third section will determine the different aspects that motivate volunteers to resolve help requests. The last section will connect formal response organizations with volunteers in such a way that the volunteers can be semi-coordinated.

The 'Methods and Techniques' chapter will provide an overview of the methods and techniques that will be used throughout this thesis. The methods and techniques discussed in that chapter will be applied in the successive chapters. This approach is novel because a wide variety of methods and techniques will be used, that all excel during different phases of the design process.

The context analysis chapter will provide an overview of the context in which the application is going to be deployed. Stakeholders will be defined to determine who are directly and indirectly affected by the application. Furthermore, this chapter will look at the ethical consideration, which should be taken into account. Moreover, an analysis will be done on other application with a similar goal within the Netherlands.

The ideation chapter will explore the idea of creating a (web-)application in more detail. A co-creation session will be performed to gain more insights on what the Ready2Helpers objectively expect from the Ready2Help platform. Moreover, interviews with the Ready2Help team will be conducted to gain more insights of their current way of working. Based on these insights, personas, user values and a user journey will be formulated.

During the specification chapter several lo-fi prototypes will be developed to evaluate the ideas which came up during the ideation phase. Based on these results requirements, scenarios and a flow chart will be formulated. These will act as a guideline for developing the hi-fi prototype.

Subsequently, the realization chapter will use the results of the specification chapter to develop a hi-fi prototype. This chapter will provide insights on how the hi-fi application prototype is developed and what decisions have been made to make sure it is in line with the specifications.

In the evaluation chapter, the hi-fi prototype will be tested by the target group (Ready2Helpers). This evaluation will be done using digital surveys and feedback mechanisms to provide insights from the Ready2Helpers. Several closed- and open questions will be asked to assess if all the specifications were met.

The last chapter will entail the conclusion of the thesis. It will evaluate all the results and draw conclusions. Several critical remarks will be made regarding the (scientific) shortcomings of the conducted research. Finally, recommendations for future work will be made, this to provide a guideline for further development of the application and future research.

2 State of the Art

2.1 Identifying help requests in society

Formal response organizations (like the Red Cross) could use at least three methods to identify help requests within society. The first method is gathering information from social media as described by several studies [2, 3, 4]. Shimak et al. [2] indicate that social media data-mining is the easiest way of crowd sourcing, looked at from an organizational point of view. This because all the information will automatically appear on social media, even if nobody explicitly asks to put this information on there. In addition, Gao et al. [3] argue that social media is an open and convenient way to collect various sources of information within a short period of time. The risk of using this method is that the information might be inaccurate and hard to verify. Besides, it appears to be hard to filter out only the relevant information from the huge amount of data available [3].

The second method is actively involving citizens by giving them specific tasks. Majchrzak et al. [5] argue that actively involving citizens could be of great benefit. Instead of passively scanning social media, the research points out that activating citizens for a specific task can lead to more accurate and useful information for the formal response organizations. Several (online) mapping-platforms could be used to ask citizens to report certain help requests on specific locations.

The third method is connecting information and creating awareness among the stakeholders. Streefkerk et al. [6] suggest that mutual awareness and situational overview are important to communication between stakeholders. During a disaster there are a lot of different stakeholders, who all need to cooperate and communicate to resolve the help requests which are occurring. For formal response organizations it is important to communicate clearly, but also to clearly listen to citizens and volunteers.

The different methods can be divided in an active and passive group, which can contribute in determining the best methods for the Ready2Help application. The active methods [5, 6] try to actively involve citizens in reporting help requests, while the passive methods [3, 2, 4] only observe what is occurring at the moment. These two groups can be evaluated against, the already existing, Ready2Help platform. The current platform holds the big advantage that it consists of out of 39.000 volunteers who are eager to help, but these volunteers do not get enough chances to participate. This makes the active group more suitable for the Ready2Help application, because this will improve the participation of the Ready2Helpers. Thus, the remainder of this chapter will explicitly focus on the active methods using volunteers.

2.2 Resolving help requests using volunteers

When help requests are identified it is important to also be able to resolve them using volunteers, this can be done using several methods. Schmidt et al. [7] stress the potential of volunteers who can be semi-coordinated by formal response organizations, but they also point out the potential risks in voluntary community response. In addition, Schimak et al. [2] point out the importance of crowd tasking, this can presumably benefit the ability to resolve help requests. When citizens get a concrete and well-defined task, which they can fulfill within a short period of time, they can add value in resolving help requests. Besides, Jihan and Segev [8] suggest to make use of 'context ontology', this allows volunteers to dynamically create and support knowledge about the disaster in a structured way. This might benefit resolving help requests, but the theorem is rather broad and not specifically applicable to practical situations. Thus, a combination could be made by using the

first two methods, by semi-coordinating volunteers using crowd-tasking with well-defined tasks.

There is already a platform operating well in this area, which provides useful insights for the development of the Ready2Help application. This platform is called Ushahidi [9], it demonstrates how open source software can be used during crisis situations and shows the potential of crowd-sourcing [10]. The platform serves as an example on how the different methods could be incorporated into a crisis mapping application. A significant risk of using these maps is, that multiple stakeholders are resolving the same help request at the same time, without being aware of this fact. Nevertheless, mapping the information could be helpful for the Ready2Help application. This makes it possible for the Ready2Helpers to find requests which are close to their current location and for the Red Cross to semi-coordinate the requests. Altogether, resolving help requests using citizens could possibly be of great value and the feasibility is proven by Ushahidi, but it also involves some risks.

2.3 Activating volunteers to resolve help requests

As described in the last paragraph, using citizens to resolve help requests can be useful, but still the citizens need to be intrinsically motivated to start resolving these requests. Assuming that all citizens want to help each other would be naïve. There are at least five different aspects that could help to active the volunteers.

The first three aspects are described by Malone et al. [11] as ‘money, love and glory’. The promise of receiving money is an important motivator for employees of traditional organizations, but conflicts with the idea of voluntarily helping fellow human beings. The love component can be described as ‘enjoyment of an activity’, ‘socializing with others’ and ‘contributing to a cause larger than themselves’, which is rather suitable for voluntary citizen involvement. Glory can be obtained by receiving recognition from others, like fellow citizens or formal response organizations.

The fourth aspect is ‘personal commitment’ [5], when a disaster directly affects the wellbeing of individuals, they are more likely to also act to resolve the burden of the disaster. The last aspect is ‘making citizens aware of their own competence’ [6], the spontaneous volunteers need to be made aware of their own disaster recovery skills. This can be done by showing them in what way they can contribute in resolving help requests. Altogether, these aspects could possibly contribute in higher citizens involvement to resolve help requests in society.

2.4 Semi-coordinating volunteers

Different approaches could be taken to semi-coordinate volunteers, there needs to be a balance between traditional top-down control and bottom-up voluntary citizen involvement. The first approach is suggested by Boersma et al. [12] as using ‘network-centric platforms’, which enables volunteers to actively engage in resolving help requests, but this approach is also geared towards formal response systems. This could make it possible to create an integrated system for volunteers and formal response organizations. The second approach is using the COBACORE system as described by Steefkerk et al. [6], which is a collaborative research project funded by the European commission. This system wants to close the gap between the different stakeholders involved in crisis recovery. Using this system, the different stakeholders should be able to work more efficiently together. The third approach is described by Majchrzak et al. [5], which suggests that volunteers cannot be controlled or commanded, but a Web 2.0 application could help them to create an overview of the different help requests. Such a website should contain a map, which visualizes the help requests and what skills are needed to resolve them.

2.5 Conclusion

The purpose of this chapter was to explore literature on identifying and resolving help requests using volunteers (bottom-up). It can be concluded that there are several methods that can be used to achieve this goal. These methods could be used to properly determine the desired functionality for the Ready2Help application. The main functionality would be to provide the Ready2Helpers with the possibility to actively report help requests. This method is chosen, instead of passively monitoring social media, because of the large number of volunteers that already signed up for the Ready2Help platform. Besides, the information posted on social media is not reliable enough and it is hard to filter out the relevant information.

It is important to provide the Ready2Helpers with the ability to share and resolve help requests. Developing an application in such a way provides Ready2Helpers to; be semi-coordinated, have relevant information, be able to share information and have well-defined tasks. The application will activate these volunteers by triggering several aspects which motivate them. These aspects are: 'love, glory, personal commitment and awareness of own competence'. When specifying the requirements of the application these factors should be taken into account.

Although this seems like a good starting point, some critical remarks should be made. This chapter only focused on volunteers to discover help requests within society, but this could also be done using various stakeholders. For example, by professionals like 'police agents', 'district nurses' and 'bailiffs', they are embedded within society and might discover help requests when they perform their profession. When looked at resolving help requests, this can also be done using trained volunteers. Trained volunteers were left out because the Ready2Helpers are currently untrained. When the volunteers are trained they might be able to perform more difficult tasks and resolve help requests more efficiently. The five provided aspects to activate volunteers are limited within the scope of this chapter and do not yet provide enough information to practically turn them into requirements for the application. Further should be explored how these aspects could be transformed into application functionalities that trigger these aspects. When this has been done, tests should be performed to verify if these aspects work for this particular Ready2Help application.

3 Methods and Techniques

3.1 Design process of Creative Technology

The design process of Creative Technology is applied in this thesis, as described by A. Mader and W. Eggink [13]. The graphical version of this design process can be found in Figure 1. On the highest level the design process consists out of four phases: Ideation, Specification, Realization and Evaluation. Every phase consists out of different methods that can be applied to provide useful information for the design process. These phases are not executed as a linear process, but are executed simultaneously. This does not mean they are done at random, they are interconnected with each other. It is part of nested problem solving, when a question is answered in the 'Ideation phase' this raises subsequently a 'Specification phase'-question, which then can lead back to a 'Ideation phase'-question. Hence switching between the phases can be easily done and will improve the quality of the prototypes. Within the different design phases, it is possible to be more divergent or convergent. When divergent, you are opened up and you are able to observe a wide variety of inputs. This diverse and broad spectrum of information can then be converted to reduce the design space until a specific solution is reached. In such a way an open mind is possible, but you will still end up with a specific solution. The individual methods that will be used in each phase will be elaborated in the following sections of this chapter.

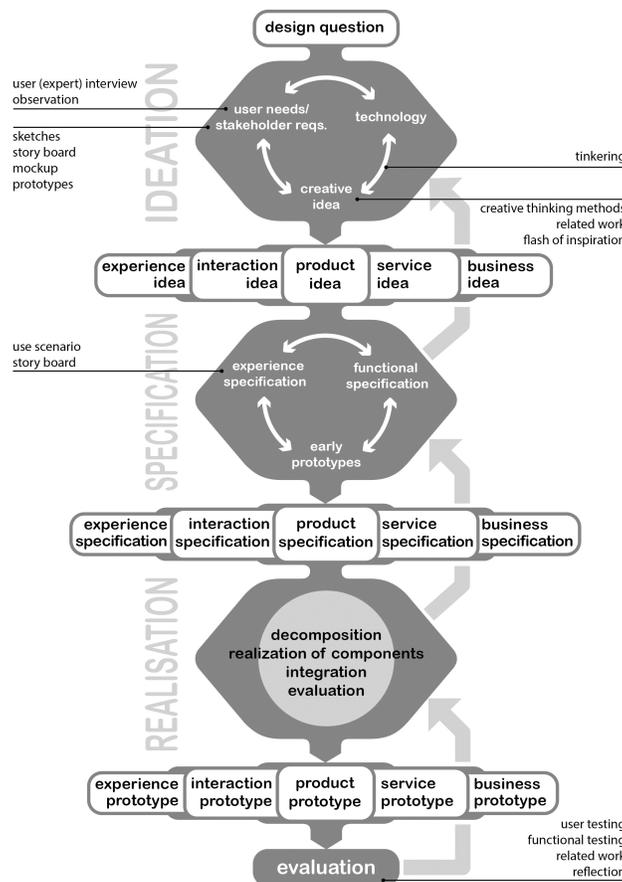


Figure 1: Creative Technology Design Process (enlargement: Appendix A)

3.2 Context Analysis

The contexts analysis chapter used several methods to understand the context in which the application has been developed. Stakeholders were identified by performing expert interviews with the Ready2Help team. These interviews were used as a guideline for determining the primary and secondary stakeholders. Besides, the ethical side of the application was investigated by exploring literature and conceptualizing the impact which the application might have. At last, existing applications in the field of resolving help requests were explored and investigated. This has been done based on a market research with help of the Ready2Help team.

3.3 Ideation

The ideation phase explored the possibilities which have been applied to improve the Ready2Help platform as it is. The first part of the ideation was done in a divergent design space, to obtain as much information about the platform as possible. This has been done by performing a co-creation session and expert meetings. Subsequently, the design space became convergent again and personas, user values and a user journey were formulated.

3.3.1 Co-creation session

During the ideation phase it was important to create a bridge between the technology and the needs of the users. To determine the needs of the users a co-creation session was conducted (Appendix C). This session was aimed at tinkering a small group of Ready2Helpers in a creative setting. They were given four exercises to help them to provide input in a non-restricting way.

The first exercise was filling in a persona form. These persona forms were later used to create actual target group personas.

The second exercise entailed creating a 'value circle', to determine what their motives were for volunteering. The target group individually received an A4-paper with a big circle in the middle and a sticker sheet containing different motives to perform volunteering work. The target group was given the task to place the stickers in the circle, where closer to the middle meant 'important' and more to the outside meant 'unimportant'.

The third exercise was X&Y Mapping, to determine what kind of volunteering activities they preferred to participate in. This exercise has been done in pairs, to engage the target group to have a discussion. Every pair received an A2-paper with a X-axis (ranging from 'fun' to 'not fun') and Y-axis (ranging from 'important' to 'unimportant'). They received post-its containing volunteering actions which fit within the scope of Ready2Help. The target group had to place the post-its somewhere in the X&Y-plane.

The fourth and last exercise was discussing the user journey as it is currently implemented. This user journey was discussed step-by-step plenary. When the target group wanted to provide feedback on a step they could start talking, and there was the possibility to discuss with other users of the target group. This exercise served as a semi-open discussion to determine the current issues with the platform.

3.3.2 Expert interviews

To obtain more information about the systematics of the Ready2Help-platform, weekly meetings have been attended of the Ready2Help team. During these meeting the ongoing business and the future perspective of the Ready2Help were discussed. There was the possibility to interrupt and

ask questions to obtain more information on how certain things currently work. Moreover, several meetings were conducted with the head of the Ready2Help team, the application manager of the Red Cross and several members of the Ready2Help team.

3.4 Specification

During the specification phase several lo-fi prototypes have been created, and a short evaluation and feedback-loop is applied. This method provides the possibility to quickly iterate the prototypes and fine-tune the functionality and requirements based on the feedback of the target group. These tests eventually lead towards goals, requirements and scenarios that will be applied to create a hi-fi prototype in the realization phase.

The first lo-fi prototypes have been created using quick drawings of the user interface. These prototypes were tested by asking users if they found the interfaces intuitive. These quick drawings were transformed into a lo-fi digital interactive prototype. This interactive prototype has been developed using Justinmind prototyper [14]. With this tool it becomes easy to create a mock-up user-interface because you are able to use drag-and-drop features to quickly build the interfaces. In such a way, it is possible to test different views without implementing the functionalities.

The MoSCoW method [15] has been used to prioritize the functional requirements. This is to obtain understanding on how various stakeholders rate the importance on the realization of each requirement. This method uses four prioritization categories: 'Must have, Should have, Could have and Won't have'. By placing the requirements in these categories, it is possible to determine a minimum viable product (must-haves). When the must-have requirements have been accomplished, the should- and could-have requirements can be developed.

3.5 Realization

During the realization phase the specifications (goals, requirements and scenarios) were translated into a hi-fi prototype. To make this translation, technical solutions were explored, compared and selected. The building of the hi-fi prototype has been done using the Angular 4 Framework [16].

3.6 Evaluation

The hi-fi prototype testing has been done using digital user feedback. 1235 out of the 39.000 (3%) Ready2Helpers were selected to test the prototype. This selection has been done by selecting the Ready2Helpers living in the province 'Friesland' as target group. This target group received an e-mail from the Red Cross asking them to participate in the prototype test. The e-mail contained a link to a web server which was running the application prototype. When the users entered the application an additional message was displayed (Appendix I). This message informed the users that the application is a prototype and that it would be appreciated if they provided feedback.

Gathering the user feedback has been done using Hotjar [17]. Hotjar provides the possibility to get all-in-one analytics and feedback from users. Two features of Hotjar were used to obtain the user feedback. The 'Incoming Feedback' feature has been used to get instant feedback regarding a specific page. The 'Surveys' feature was used to create a survey, which the user could fill in after testing the prototype.

The 'Incoming Feedback' feature was used to generate a button on the right side of the screen. When the user clicks on this button, the user will be asked how he or she experienced this specific page. Five rating icons were displayed ranging from 'bad' to 'amazing'. When the user clicks on a specific icon, a text input field appears asking the user to 'tell about their experience'. The rating and textual feedback are saved together in Hotjar.

The 'Surveys' feature was used to generate a feedback survey which the users could fill in after testing the prototype. A link to this survey was embedded in the header of the prototype application. Moreover, when the user tried to leave the application a pop-up appeared asking the user to fill in the survey. The full list of questions asked in the survey can be found in Appendix L. Seven closed-ended questions were asked, to gain insights on how the users would rate the idea, the website and the likeliness that they would use the application when further developed. Five open-ended questions were asked, to gain insights on why the users had chosen a certain rating and to provide them with the possibility to give suggestions and critics.

Google Analytics [18] has been used to measure several variables which provide insights on how the users use the application. First, to measure the number of users that visited the hi-fi prototype. Second, to determine the average session duration of the users. Third, to determine the operating system which has been used. By looking at the operating system it could be determine if the website is visited on a mobile device or desktop.

4 Context Analysis

4.1 Stakeholders

Several stakeholders can be identified and they should be taken into consideration during the development of the application prototype. Stakeholders can be defined as individuals or organizations that have a stake in a particular system. These stakeholders can be divided between 'primary stakeholders' and 'secondary stakeholders'. The primary stakeholders are parties that are actively engaged with the system and depended on it. The secondary stakeholders are parties that are not actively engaged or depend on it, but they can still influence the outcome of the system. The primary and secondary stakeholders can be defined as following:

Primary stakeholders:

- The Netherlands Red Cross
- Ready2Help team
- Ready2Helpers

Secondary stakeholders:

- Organizations collaborating with the Netherlands Red Cross
- Citizens of the Netherlands who are in need of help

4.2 Ethical considerations

4.2.1 Moral significance

The application could have a big moral significance once it is fully deployed within the Netherlands. As a NGO the Red Cross wants to help citizens who are in need of humanitarian help. The application will serve as a tool to resolve humanitarian help requests within society, which could have a big moral significance. Help requests within society which are not resolved currently, can be solved using the applications matching algorithm. It will serve as a bridge between help requests and help offers.

This matching has the potential to improve the wellbeing of individuals and resolve their suffering. Helping fellow citizens that suffer can be seen as having a positive moral impact. This behavior can be seen as right because, looked at from a utilitarianism point of view, the overall consequences of these actions are positive. It increases the wellbeing of the people that suffer, which eventually will increase the wellbeing of society as a whole. Resolving help request will not only benefit the people that suffer, but also the people who helped resolving it. They will get the feeling of satisfaction and appreciation, which will improve their wellbeing. This can also be seen as a positive moral impact for the individual and society.

4.2.2 Persuasive design

Before this application could have a moral significance in society, some essential persuasive design questions should be answered. The FBM model [19] can be used for understanding and steering human behavior. Certain behavior can be triggered by three main factors: motivation, ability and

triggers. These factors should be embedded within the design of the application to obtain the desired behavior of the users.

Firstly, how will users be motivated to use the application? The users have a rather high ability to sign-up for the platform because this can be done easily by using their social media credentials. The motivation to do so is rather low because signing-up for an application is a boring process and will only be done when there are clear benefits for the user. The Red Cross needs to send out messages (triggers) to citizens to ask them to sign-up for the application. The timing of these messages is crucial, when the messages are sent out during an emergency situation (refugee crisis, storm, high water, etc.), citizens have a raised feeling of wanting to help other people. This is the perfect moment to trigger citizens to sign up for the application.

Secondly, how would the application influence the users to offer help, which they normally would not offer? The users have a low ability to perform this behavior. This because it takes a lot of effort to help, especially if the user is not used to helping other people. On the other side, the motivation of the users could be rather high. They already decided to use the platform and signed-in with their credentials. They have an intrinsic need to help other people. The application should be focused on making the ability level as high as possible. This can be done by actively providing the users with clear information on how they can exactly help. The application should trigger the user with a notification when a help request was posted which matches the skills the user has. In such a way, the users are triggered by their own abilities and how these could be used to help other people in society.

4.2.3 Accessibility

When citizens want to report a help request they need to sign up to become a Ready2Helper. This raises the question: 'Is it fair for users to be only able to submit requests when they have an account?'. This can result in an in-group (Ready2Helpers) and an out-group (the rest of society). It could be argued that everybody in society should be able to report help requests. Creating an account could make the application less accessible because citizens might only want to report something without directly becoming part of the Ready2Help community. On the other side, when looked at web applications nowadays it becomes clear that in the majority of websites an account is needed to post something. It has become the standard for websites to make the user login first, before they can perform certain actions.

Moreover, logging-in has become easier using social media login buttons. You do not have to provide a username and password anymore, a user can use their credentials of a certain social media platform which the user has already signed in for. This social-media login makes logging-in easier, but creates the risk of privacy violation. Data which is provided on the social media platforms can potentially be seen by the Ready2Help application and be used for different purposes. It should be made clear to the user that their social media information will not become available for the Red Cross and it is only used to login onto their account. This statement could take possible issues away for users that are concerned about their privacy.

4.2.4 Intentional Abuse

The application can be intentionally abused in an easy way, this can be done by having wrong intentions while posting a help request. For example; an elderly man can report a help request that he needs a young female to help him with showering. The validity of such a request should be highly doubted, because this request has a high risk of being intentionally abused. When such a

request is posted on the platform it causes a risk for the Ready2Helper who is going to resolve the help request. When these situations go wrong it could potentially harm the reputation of the Red Cross and reduce the usage of the application.

This intentional abuse can be repelled using moderation of the help requests. Before a Ready2Helper can publish a help request it will be reviewed by the Red Cross. They will determine if the help request fits within the scope of the Red Cross, and if the help request does not cause a (big) risk for the helpers. They might ask the Ready2Helper who submits the request to provide additional information if something is unclear, or to verify if the posted request is valid. When this is verified, the help request will become visible on the platform. This moderation method poses some limits on how effective it is, this because they are not able to verify every aspect of the request. There are always things that can go wrong, and they can never give a 100 percent certainty that nothing will happen to the helpers.

4.2.5 Trade-offs

The application should make a trade-off between the necessity of a certain help requests and the vision of the Red Cross. It is important that all the help requests fit within the scope of the Red Cross. This scope can be defined by their seven principles: Humanity, Impartiality, Neutrality, Independence, Voluntary service, Unity and Universality (International Federation of Red Cross and Red Crescent Societies, 2016). It is a challenge to translate these principles to practical criteria to determine if help requests fit within this scope. Especially determining if a help request is humanitarian help ('noodhulp' in Dutch) instead of civilian help ('burgerhulp' in Dutch). It could be argued that civilian help is not within the scope of the Red Cross and they should only provide humanitarian help. When the platform only should be filled with humanitarian help it would rarely be used because there are not a lot of emergencies within The Netherlands in which humanitarian help is needed. When civilian help is also included this means the platform could be more actively used by the Ready2Helpers. This because help requests like 'helping an elderly neighbor', 'providing a Christmas dinner for homeless people' and 'educating children about the importance of first aid' are now within the scope of the application. The Red Cross should have a clear internal vision in how they want to handle this trade-off.

Moreover, a tradeoff needs to be made between the autonomy of the Ready2Helpers and coordination from the Red Cross. When you give the Ready2Helpers too much freedom, help requests will be resolved which might be dangerous for the Ready2Helper or have unexpected results. When there is too much top-down coordination, the Ready2Helpers might feel restricted by the platform and they might stop using it. Formal response organizations are used to have a strong command and control structure. This idea cannot be applied to the Ready2Help application because it would undermine the bottom-up nature of the platform. Besides it would be too time intensive to manage all the Ready2Help actions from top-down.

4.3 Existing applications and websites

A platform analysis has been performed (Appendix D), to create an overview of the existing applications in the field of connecting help requests and offers within the Netherlands. This analysis provides useful insights about the already existing applications and their characteristics. It can be observed that the 'kind of requests' among the applications differs significantly. They all seem to have a specific niche in which they operate. This differentiation can also be seen in the 'visions' of the applications. The common denominator is that they all want to help people in a certain way. It can be observed that all applications ask the user to sign-in before being able to participate.

Moreover, this analysis provides an indication if potential collaborations with other applications might be possible. Such a collaboration could benefit the Ready2Help application and the already existing application. Both applications, having both a different scope of help requests, can redirect help requests to each other. For example, if a user wants to put a volunteer recruitment help request on the Ready2Help website, a message will be displayed telling the user that it might be better to post this requests on another platform. This could also happen vice-versa, in such a way both applications can benefit in redirecting their users to the correct application.

5 Ideation

5.1 Co-creation session

In collaboration with M. Wijnands a co-creation session has been conducted. A list with the most significant observations can be found in Appendix B. The full proceedings of this session can be found in Appendix C.

This session revealed that the Ready2Helpers appreciated the flexibility and importance of the Ready2Help actions. How much a certain Ready2Help action was appreciated depended largely on the skills which the Ready2Helpers possessed. They would appreciate an action more if they could use their skills. Thus, creating a match between their skills and the skills needed to resolve a help request would be useful. These insights could be used to determine what functionalities the prototypes should entail.

In addition, the Ready2Helpers reported that they were not satisfied with the communication of the Red Cross. Certain things were unclear and they found it hard to get in contact with somebody of the Ready2Help team who could answer their questions. Furthermore, the Ready2Helpers wanted to have the opportunity to sign-up for help actions themselves. They wanted to do something, but they never got the chance to come into action. Having a (web-)application in which they could sign-up for Ready2Help actions could resolve this need.

5.2 Expert interviews

During the ideation phase I conducted several expert interviews with the head of the Ready2Help team, different members of the Ready2Help team and the application manager of the Red Cross. I also attended all the weekly meetings of the Ready2Help team. It could be observed that depending on who you were asking specific things, conflicting visions occurred. Between the Ready2Help team and the Red Cross the definitions of which help should be provided by the Red Cross differed. The vision of the Ready2Help team will be used as guideline, because the application will serve the Ready2Helpers and not the 'regular' Red Cross volunteers.

The Ready2Help team wanted to identify more help requests in society, such that more individuals could be helped. Moreover, they wanted to create a better match between help requests and help offers. This better match could be created by getting to know the Ready2Helpers better, by providing them with the possibility to report their skills. When these skills are provided, specific Ready2Helpers can be alerted for specific help requests.

The Ready2Help team observed that they were successful because the Ready2Help initiative is voluntary and without obligations. They are appealing for people who do not have the time to do regular volunteering jobs. A fitting target group could be young professionals, they want to help, but do not have the time to do so because of their full-time job. Moreover, they observed that also elderly people are an important target group, because they have plenty of spare time to come into action.

5.3 User values

The co-creation session included an exercise to determine the user values of the Ready2Helpers. Table 1 summarizes the results, based on the full results in Appendix F. The 'average importance level' is the average score which has been given for a certain 'user value'. This score ranges from 'Very important (5)' to 'Not important (0)'.

Four of the user values gained an average score of 3 or higher. These four user values are 'Helping during an emergency', 'Involvement with society', 'Helping people' and 'Being ready for fellow citizens'. These main values will be taken as a guideline while developing the lo-fi and hi-fi prototypes.

Table 1: Average importance level of user values

User value	Average importance level
Helping during an emergency	4.75
Involvement with society	4.75
Helping people	3.75
Being ready for fellow citizens	3
Helping refugees	2.75
Being useful	2.75
Shared goal	2.5
Equality	2.25
Without obligation	1.75
Spontaneous	1.5
Accessible	1.25
Being active	1.25
Social contacts	1.25
Working together	1.25
A lot of spare time	1
Action	1
Donating time	1
Satisfaction	1
Positive contribution	1
Religion	0.75
Karma	0.75
Appreciation	0.5
Learning	0.5
Red Cross	0.5
Protecting	0.25
Career	0.25
Self confidence	0.25
Diversity	0.25

5.4 Personas

Based on the co-creation session, expert meetings and a non-public research conducted by the Red Cross, personas have been created. The persona template of the University of Warwick [20] has been used as a guideline for the personas. This template is specifically focused on creating personas for (web-)application. Two personas were created and can be found in Appendix E. The first persona, Marianne, is a young professional who is too busy to do volunteering work because of her job. The second persona, Ronald, is a retired men, who has sufficient time to do volunteering work. Both personas address different target groups, which entail the main two groups visible in the Ready2Help demographic.

5.5 User journey

Currently the user journey of Ready2Help is simplistic (figure 2). The Ready2Helpers do not have the chance to actively sign-up for help actions. They are only alerted when there is an emergency situation occurring in which the Red Cross could use the help of Ready2Helpers nearby. When they engage in a help action, most of the Ready2Helpers are satisfied with the tasks they could perform. This has been concluded based on a evaluation from which the Ready2Helpers receive after participating in a help action.

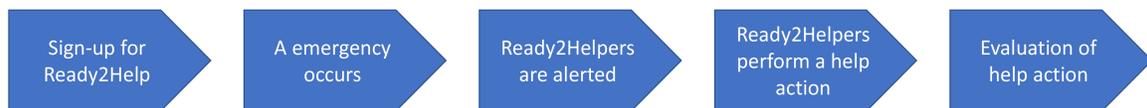


Figure 2: Current user journey

6 Specification

6.1 Paper lo-fi prototypes

Several lo-fi paper prototypes have been created using quick drawings of the user interface. This way of prototyping has been done to quickly iterate and fine-tune the functionality and requirements based on the feedback of the target group. These prototypes were tested by asking users if they found the interfaces intuitive and what could be improved. Based on this feedback the lo-fi prototypes were iterated in such a way that they became more clear and intuitive.

6.2 Interactive lo-fi prototype

The final version of the paper prototypes was transformed into an interactive lo-fi prototype. The URL of this interactive prototype and screenshots can be found in Appendix G. This prototype has been tested by the Ready2Help team during a dedicated meeting. The different views were demonstrated and the functionality which was going to be developed was explained to them. The Ready2Help team was able to provide useful feedback and questions during this meeting. Their first question was 'How do you think that help requests will end up in the system?', this was a valid question, because without a supply of help requests the system would be useless. This prototype was based on the idea that Ready2Helpers would identify and report help requests in the application. This idea could be extended by also providing access to organizations related to the Red Cross (like: the police, district nurses, hospitals). These organizations could also report help requests which they must face while performing their profession.

Moreover, they asked question about the scope of the help requests, which requests do you allow and which ones do you reject? This instantly led to a discussion among the team members, the Ready2Help team did not have a single clear definition themselves. This meant that the scope could be variable without the need of restricting the scope before testing the application. Overall, the Ready2Help team agreed that the help requests should fit within their seven core principals and it should concern humanitarian help.

Furthermore, a question was raised, if it was possible to connect the hi-fi prototype with their internal database system. This system, called Tools, contains all the user information about the Ready2Helpers. It would be necessary to connect with Tools to make sure the users were able to login using their current credentials. Realizing this connection largely depended on the question if the Tools system had an already existing API, which the application could connect to.

The Ready2Help team was enthusiastic about the fact that the application could create a better match between help requests and help offers. Moreover, they saw great potential of getting to know the Ready2Help users better, by providing them the opportunity to fill in their skill-sets.

6.3 Goals of application

It is important to define clear goals, which act as an overarching guideline for the requirements. In such a way the goals can provide an ideal situation and the requirements can be specific regarding certain functionalities.

The overarching goals of the application can be formulated as:

- Obtain a better connection between the help requests and help offers.

- Provide the Red Cross with an application in which Ready2Helpers can identify help requests in society, which are not visible from the top-down perspective of the Red Cross.
- Provide Ready2Helpers with the knowledge to identify a certain local problem, and how they can turn this into a Ready2Help action.
- Give the Ready2Helpers the ability to provide their skill set, such that the Red Cross can specifically target certain Ready2Helpers for certain Ready2Help actions.

6.4 Requirements

6.4.1 Functional requirements

Functional requirements have been formulated (see Table: 2) to determine which functionalities the application should have to be successful. They are prioritized using four categories: Must have (M), Should have (S), Could have (C) and Won't have (W). These requirements are based on the knowledge gained in the 'State of the Art'-, 'Context analysis'-, 'Ideation'-chapters and the lo-fi prototypes. During the development of the hi-fi prototype these requirements should be transformed into actual application functions.

Table 2: Functional requirements

No.	Priority	Requirement
1	M	Make it possible for Ready2Helpers to login using their current credentials (username + password or social media credentials).
2	M	Give the Ready2Helpers the possibility to post possible help requests which they have observed in society.
3	M	Give the Ready2Helpers the possibility to respond to a help request.
4	S	Ask the Ready2Helpers to provide more information on the skill set they have.
5	S	Give the Red Cross the possibility to moderate all the activities which are going on.
6	C	Make it possible for Ready2Helpers to share information during an emergency.
7	C	Store the user data in the Tools-system.

6.4.2 Technical requirements

Besides the functional requirements, technical requirements should also be formulated. These technical requirements do not concern the actual functionality of the application, but they should be the foundation on which the functions can be build. Important aspects like privacy and security should be incorporated into these technical requirements.

The technical requirements can be formulated as:

- The application should be a web-application, to provide easy access for all Ready2Helpers. Creating a mobile app would be not be useful because of the expectation that Ready2Helpers will not use the application on a regular basis.

- The web-application will use up-to-date, but stable web techniques. In this case; using the Angular 4 framework in combination with a no-SQL-database (Firebase).
- The login process should communicate with the Tools-system using OAuth2.0 or an equivalent.
- The privacy of the users is important and should be in all times be protected from theft and hacks.
- The applications should be protected with the HTTPS-protocol.
- During an emergency, many request could occur, the application should be able to handle all these requests. (Thus, the application should be scalable)

6.5 Scenarios

6.5.1 Use cases functionality overview

Before scenarios can be created, it is important to define the different use case functionalities (table 3). The hi-fi prototype should provide the possibility to the primary actor to reach a specified goal based on a certain use case. The use cases are prioritized, to create an overview on how important the use cases are for the functionality of the prototype. The use cases have a scope, which makes it easy to translate the use cases into a function classes while developing the hi-fi prototype.

Table 3: Use cases

Use Case Name	Goal	Primary Actor	Scope	Complexity	Priority	Frequency
Login User	Verify login credentials of Ready2Helper and log in	Ready2Helper	Auth	Med	1	Always
Login The Red Cross	Verify login credentials of Red Cross employee and log in	Red Cross	Auth	Med	1	Always
Provide Skill set	To obtain the skill set of a Ready2Helper to include in their profile	Ready2Helper	Profile	Low	2	Once
Report help request	Report a help request which is observed within society	Ready2Helper	Report	High	2	Sometimes
Respond to help request	Respond to a help request to initiate action to resolve the request	Ready2Helper	Report	High	2	Sometimes
Moderate help request	Moderate help request to make sure it falls within the scope of the Red Cross	Red Cross	Report	High	2	Sometimes
Share information during emergency	Share information about an emergency for Ready2Helpers who are close to the emergency	Ready2Helpers	Report	Med	2	Rarely
View information during emergency	View the information which is posted by the Ready2Helpers during an emergency	Red Cross	Report	Med	2	Rarely
View Profile	View the user information (including skills)	Ready2Helper	Profile	Low	3	Rarely
Edit Profile	Edit the user information (including skills)	Ready2Helper	Profile	Low	3	Rarely
Export a list of users	Export a list of Ready2Helpers depending on their skill set and location	Red Cross	Export	High	4	Sometimes

With all these use cases specified, four scenarios can be developed consisting out of the different use cases. These scenarios will be used as a guideline while developing the hi-fi prototype.

6.5.2 Scenario 1: User reports help request

1. User observes a help request in society and wants to report it
2. User provides login credentials to the Ready2Help web-application (**Login User**)
3. User clicks on 'Report Help Request'
4. The user provides a description, location, title of the help request and clicks 'Submit' (**Report help request**)
5. The application will process the new request and makes it visible for other Ready2Helpers

6.5.3 Scenario 2: User responds to help request

1. User provides login credentials to the Ready2Help web-application (**Login User**)
2. User clicks on 'Show Current Help Requests'
3. The application shows all the help requests, sorted by distance from the Ready2Helper
4. User clicks on a specific request
5. User responds to the help request to join an action (**Respond to help request**)
6. The application will process the new response

6.5.4 Scenario 3: User provides skill set

1. User provides login credentials for the first time to the Ready2Help web-application (**Login User**)
2. The application asks the user to 'Provide skill set'
3. User clicks on 'Next'
4. User fills in the skill sets which he/she has, based on predefined dynamic skills (**Provide Skill set**)
5. The application saves the skill sets to the user in the Tools system

6.5.5 Scenario 4: Red Cross moderates help requests

1. Red Cross employee provides login credentials to the Ready2Help web-application (**Login the Red Cross**)
2. Red Cross employee clicks on 'Show Current Help Requests'
3. The application shows all the help requests, sorted by relevance
4. Red Cross employee clicks on a specific request
5. Red Cross employee can moderate this request, provided with the options to 'Edit', 'Delete', 'Respond' and possibly additional actions (**Moderate help request**)
6. The application will process the moderation

6.6 Flow chart

To determine a proper workflow based on the scenarios, a flow chart has been made. This flow chart visualizes all the steps that are needed to resolve a help request. The flow chart starts with a help request in society, an individual or organization has a certain problem, which is currently not solved. Next, a Ready2Helper discovers the help requests and reports this problem to the Ready2Help application (scenario 1). Before the help request becomes visible in the application, the Red Cross moderates the request (scenario 4). They can determine to reject or approve the help requests. When accepted, the help request becomes visible in the Ready2Help application. Other Ready2Helpers can now sign-up to help resolving this help request (scenario 3). When enough Ready2Helpers have signed up, they can start resolving the help request. After resolving, they are given the possibility to provide feedback on resolving the help request. As a last step, the help request is resolved and the Ready2Helpers were able to help people who needed help.

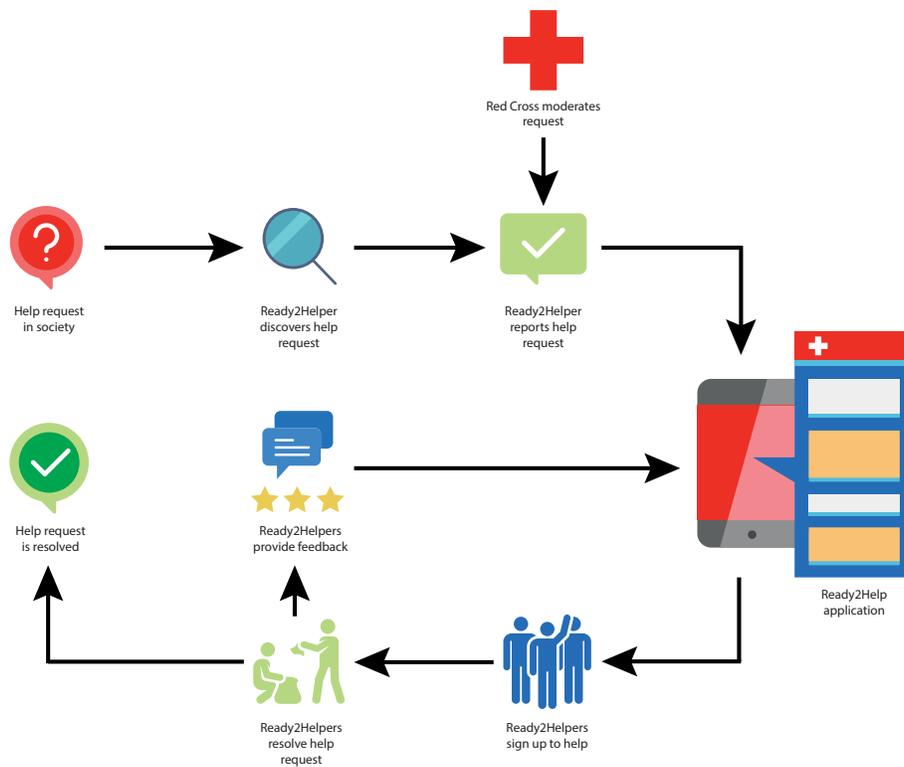


Figure 3: Flow chart of Ready2Help application (enlargement: Appendix H)

7 Realization

7.1 Platform selection

To translate the specifications into a hi-fi prototype decisions have to be made regarding the technology that is going to be used. The first step is to determine if the application should be a computer-application (Windows, OS X, Linux), mobile-phone-app (Android, IOS, Windows Phone) or a web-application. This decision can be based on a research that has been conducted by S. van Gooswilligen commissioned by the Red Cross. This research is not publicly available, but two figures were used in this paper.

Figure 4 provides information on how Ready2Helpers want to be contacted. It can be observed that a large portion of Ready2Helper wants to be contacted using a mobile device (SMS, Whatsapp, possibly email). Figure 5 provides information about the age distribution of the Ready2Helpers, it can be concluded that all the age categories (with the exception of 70+) are represented with 16% or more. Elderly people (60+), generally speaking, struggle more using a smartphone or do not own one (as discovered during the co-creation session). These people should also be able to use the application, because they are an important target group for the Ready2Help platform.

Based on these figures, can be concluded that a computer-application should be avoided, this because many Ready2Helpers want to receive information on their mobile phone. A mobile-phone-app is also not a satisfactory solution because it might exclude an elderly group of Ready2Helpers, because they do not have the skills or mobile devices to use the platform. A web-application can provide the best of both worlds when it is designed as a responsive application. When designed responsively, the application will automatically adapt to the screen size of the device. In such a way, it can be properly used on smartphones, tablets and computers.

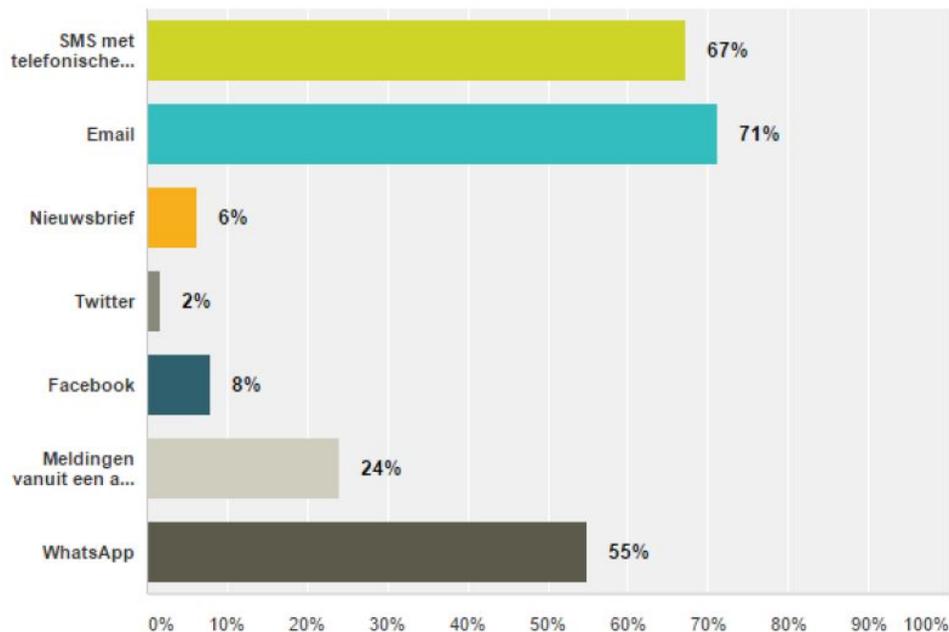


Figure 4: Survey Question: Ready2Help now contacts you by e-mail, SMS or by a phone call. In what way would you prefer to be contacted? (multiple answers possible)

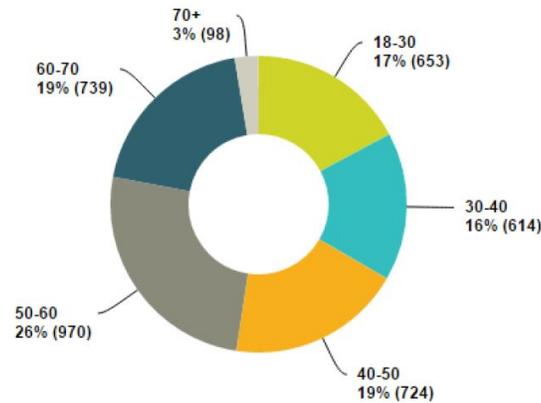


Figure 5: Survey question: Within what age category do you belong?

7.2 Web technology

When developing a web-application it is important to build it according to the web standards nowadays, this to make sure the application could be safely and effectively be used in the future. M. Hoque [21] analyzed the web standards in 2017. This research provided a limited, but recent overview, of the available web standards nowadays. Based on his analysis and personal experience the web technologies in the coming paragraphs are selected.

7.3 Technology front-end

The front-end of the application will be build using the Angular 4 Framework [16]. This Angular 4 Framework is based on TypeScript [22], which is a superset of JavaScript [23]. This makes it possible to use object-oriented programming and typing in javascript. This makes it easier to write clean and stable code, with the freedom of using plain JavaScript as well.

Angular 4 projects compile to a single page application, but due to the extended routing possibilities it is possible to use different URLs for different views. Moreover, it can use Ahead-of-Time (AOT) compilation and lazy-loading to make sure the user experiences a smooth web experience without waiting for the whole application to load.

All the users and objects will be stored using Google Firebase [24]. Integration with angular 4 and Firebase can be done using the Firebase JavaScript SDK [25]. Using an external non-SQL database saves time in developing and maintaining a database-system. In Firebase the permissions for each user and their read/write rights can be set by defining some database rules. Which makes interacting between the front-end and the database easy.

The different views of front-end can be found in Appendix J. As can be seen, the functionalities for the evaluation phase are already build into this hi-fi prototype. This has been done to make testing the prototype as easy as possible for the Ready2Helpers.

7.4 Technology back-end

The back-end of the application will be build using Node.js [26]. It is a JavaScript runtime build on Chrome's V8 JavaScript engine [27], which has the functionality to have a non-blocking I/O model that makes it a lightweight back-end. This is very useful to make the application scalable for a large number of users. Using Express [28], which is a web-application framework, it is easy to create a REST-API. This makes communication with the front-end possible using normal HTTP calls. For example a HTTP POST request to 'https://back-end.nl/API/match' from the front-end can easily received using the following code running in the back-end:

```
1 // Load Express Dependency
2 var express = require('express');
3
4 // Init app
5 var app = express();
6
7 // Receive 'match' POST-request form front-end
8 app.post('/API/match', function(req,res){
9   var requestId = req.body.id;
10  var skillsetsNeededIds = req.body.skillsets_needed_ids;
11
12  // Create a match between help request and user with certain skills
13  match(requestId, skillsetsNeededIds) {
14    res.send(true);
15  }
16 }
17 }
18
19 // Launches the app on port 80.
20 var port = 80;
21 var ip = process.env.OPENSIFT_NODEJS_IP;
22
23 app.listen(port, ip, function() {
24   console.log('Express server listening on %d', port);
25 });
```

Building the back-end as a REST-API provides the possibility to quickly develop new functionalities (like matching algorithms, sending e-mails, sending text messages). For this prototype it is not further developed, but this could be done in future work.

7.5 Verifying functional requirements

During the development of the hi-fi prototype it was not possible to realize all the functional requirements as specified. An overview of the requirements which have, and which have not been achieved can be found in Table 4. The first 'Must have' requirements has not been met because the connection with the Tools system could not be made. This connection was needed to obtain the credentials of the Ready2Helpers. Connecting to the API of Tools was, according to the application manager of the Red Cross, not within the scope of this thesis. Moreover, the API was not publicly available and an external ICT-partner of the Red Cross should have opened this API to be used in the Ready2Help application.

The requirements 2 to 5 have been met and are fully operational in the hi-fi prototype. The requirements 6 and 7 have not been realized because of the limited time available to develop an application during this thesis. These requirements should be further implemented in future versions of the application.

Table 4: Functional requirements check

No.	Priority	Requirement	Check
1	M	Make it possible for Ready2Helpers to login using their current credentials (username + password or social media credentials).	-
2	M	Give the Ready2Helpers the possibility to post possible help requests which they have observed in society.	✓
3	M	Give the Ready2Helpers the possibility to respond to a help request.	✓
4	S	Ask the Ready2Helpers to provide more information on the skill set they have.	✓
5	S	Give the Red Cross the possibility to moderate all the activities which are going on.	✓
6	C	Make it possible for Ready2Helpers to share information during an emergency.	-
7	C	Store the user data in the Tools-system.	-

7.6 Accessing the hi-fi prototype

The front-end and back-end are both hosted on a private dedicated server for testing purposes. A functioning version of the hi-fi prototype can be found by visiting the following website: <https://ready2help.freekboelders.nl/>.

Views (screenshots) of the application can be found in Appendix J.

The full source code of the hi-fi prototype can be made available on request by sending an e-mail to freek@freekboelders.nl

The README.md file of the application can be found in Appendix K. This file provides information on how to deploy and compile the source code. Moreover, it shows how to translate the application to other languages using i18n. The prototype has been developed in English but the user tests have been conducted in Dutch. The README.md file also shows a list (as a tree-structure) of folders and files that were written to develop the hi-fi prototype.

8 Evaluation

8.1 Goal of hi-fi prototype testing

Evaluating the hi-fi prototype has three objectives. The first objective is to determine if the requirements are met, and if not, why this is caused. Scenario 1-3 (as described in section 6.5) will be tested by the Ready2Helpers. When they can perform these scenarios most of the requirements will be met (because they describe a certain usage of the application). The second objective is to determine the usability level of the website. It should be determined if the application is user friendly for the diverse target group. The last objective is to validate the idea that Ready2Helpers are willing to create and respond to help requests.

8.2 Results of hi-fi prototype testing

In total 159 users out of the 1235 users (13%) visited the hi-fi prototype website. Out of these 159 users, 34 users (21%) provided feedback on the hi-fi prototype using the 'Survey' (see Appendix M). None of the users (0%) used the possibility to provide feedback using the 'Incoming Feedback' method. Because of this, there were no results obtained using the 'Incoming Feedback' method.

The average session duration of the 159 users was 5 minutes and 9 seconds. The users spend most of their time on the survey page (2 minutes and 15 seconds). Out of all users, 57% used a desktop-device (Windows, Macintosh, Chrome OS) to approach the website, the rest of the users (43%) used a mobile device (Android, iOS) (see Figure 6). On mobile devices the time spend on the website was significantly lower (1 minute and 41 seconds) in comparison with the desktop-devices (9 minutes and 8 seconds). Thus, it can be observed that users are more likely to explore the website and provide feedback on desktop-devices in comparison with mobile-devices.

Operating System	Sessions	% Sessions
1. Windows	80	50.31%
2. Android	47	29.56%
3. iOS	21	13.21%
4. Macintosh	6	3.77%
5. Chrome OS	5	3.14%

Figure 6: Distribution of operation systems during the user test

8.2.1 Survey

How would you rate the idea of matching help requests and help offers using a website?

The objective of this first question was to gain insights on how the users would rate the idea of having such a website. This to obtain a benchmark regardless on how the target group experienced using the hi-fi prototype. The average rating of the target group was an 8.1 (see Figure 7).

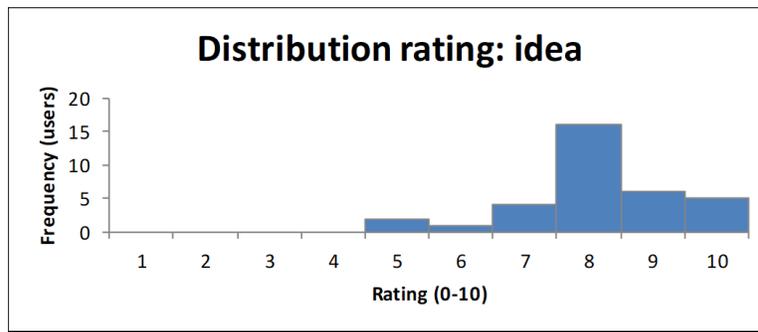


Figure 7: Distribution rating: How would you rate the idea of matching help requests and help offers using a website?

The target group was asked to motivate why they had given a certain rating. All these responses were gathered and divided into five categories. By counting the number of responses for each category, insights can be obtained regarding the general opinion of the target group. These results can be found in Table 5, this table has been created based on the categorical distribution of responses as listed in Appendix N. It can be observed that 63% (20 responses) of the responses are approving the idea of having a website that matches help requests and help offers. Only 9% (3 responses) of the respondents have critical thoughts on this idea.

Moreover, several suggestions have been made by the respondents on what is missing, and what was not clearly communicated during the hi-fi prototype testing. The respondents point out the importance of moderation, the help requests should be filtered to avoid abuse. This feature was already developed but was not used during the hi-fi prototype test. This because moderation of help requests takes time, which could result in respondents not coming back to fill in the survey. Besides, respondents provided the suggestion to receive a notification when new help requests are available by e-mail, Whatsapp or SMS. This feature should be included in the requirements for further development of the application.

Table 5: Categorization of comments: How would you rate the idea of matching help requests and help offers using a website?

Category	Definition	Num. of responses
Criticism	The expression of disapproval something based on perceived faults or mistakes.	3
Approval	The action of officially agreeing to something or accepting something as satisfactory.	20
Suggestion	An idea or plan put forward for consideration.	7
Question	A sentence worded or expressed so as to elicit information.	2
Uncategorized	A class or division of things regarded as having particular shared characteristics which do not fit within the existing categories	0

How would you rate the usability (user-friendliness) of this website?

Measuring the usability of the hi-fi prototype is important to determine if the requirements are met and the system is user friendly. This question can be compared with the first question to check if the 'idea' correlates with the reality as developed in the hi-fi prototype. The average rating of the users was a 7.4 (see Figure 8). This is 0.7 points lower in comparison with the first question.

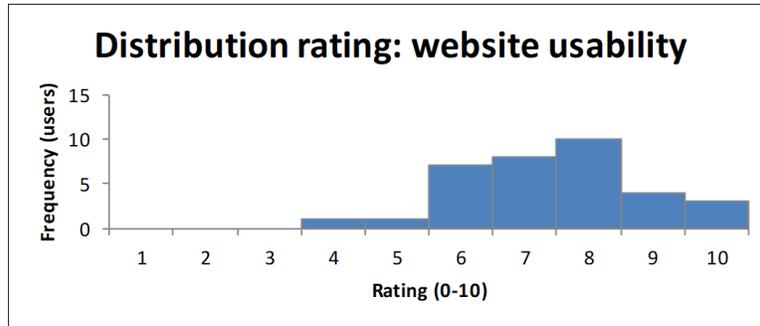


Figure 8: Distribution rating: How would you rate the usability (user-friendliness) of this website?

To get insights on why this score is lower, the users were asked to motivate their score. These results were categorized using the same method as used for question one, the results are listed in Table 6. The largest group 55% (18 responses) approves with the usability of the website. Their feedback can be formulated as 'clear, easy to use, fast, user friendly, well readable and easy to access'. The second largest group of 18% (6 responses) has critics on the usability of the website. They find the website 'unclear, hard to find information, were not able to post a help request and it took them a long time to understand). This feedback is the totally opposite of the approving group. It should be further investigated why this group did not approve the usability of the application and what could be improved to obtain a higher usability.

Table 6: Categorization of comments: How would you rate the usability (user-friendliness) of this website?

Category	Definition	Num. of responses
Criticism	The expression of disapproval something on the basis of perceived faults or mistakes.	6
Approval	The action of officially agreeing to something or accepting something as satisfactory.	18
Suggestion	An idea or plan put forward for consideration.	3
Question	A sentence worded or expressed so as to elicit information.	1
Uncategorized	A class or division of things regarded as having particular shared characteristics which do not fit within the existing categories	5

I would use the Ready2Help website when it is further developed

This statement was asked to verify if the Ready2Helpers are willing enough to use the platform once it is further developed. The average rating was an 8.2 (see Figure 9). This score indicates that among the respondents the willingness of using the website is rather high. Which proves that there is a significant need of having a Ready2Help web-application.

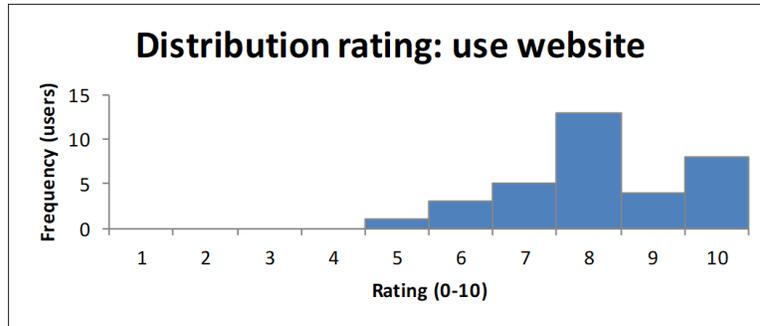


Figure 9: Distribution rating: I would use the Ready2Help website when it is further developed

Would you post a help request on the Ready2Help website?

This question was asked to determine if the Ready2Helpers are willing to post help requests themselves. The previous question showed that they were willing to use the platform, but this question shows that they are not as willing to post help requests themselves. The average score of this question is significantly lower in comparison with the other questions, namely a 6.4 (see Figure 10). Unfortunately, this questions did not have a follow-up question to ask why the users had chosen these scores.

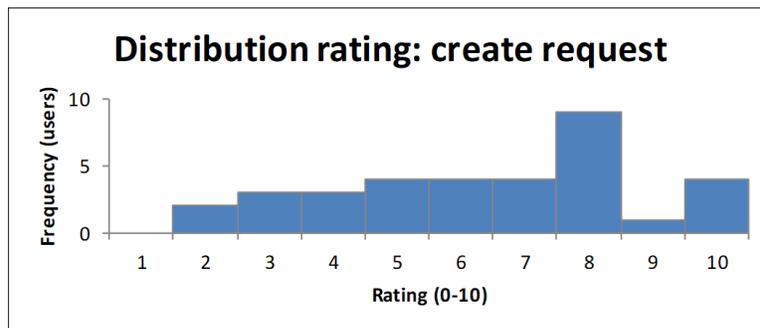


Figure 10: Distribution rating: Would you post a help request on the Ready2Help website?

Would you respond to a help request on the Ready2Help website?

This question was asked to determine if the Ready2Helpers are willing to actively respond to help requests posted on the website. The average score of this question was an 8.2 (see Figure 11). It can be observed that the users mainly like the aspect of responding to existing help requests instead of creating new ones themselves.

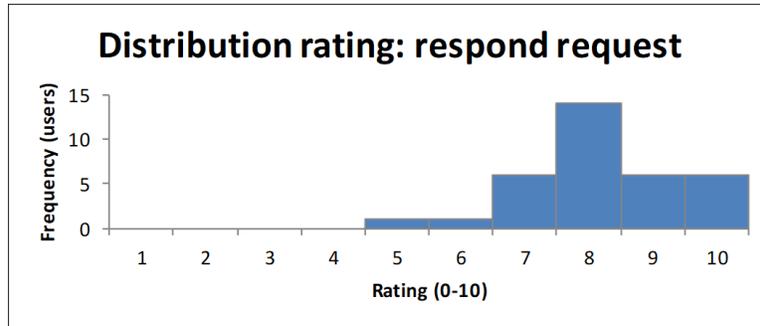


Figure 11: Distribution rating: Would you respond to a help request on the Ready2Help website?

8.2.2 Suggestions

The results of the survey (see Appendix M) also include useful suggestions by the Ready2Helpers. Several open questions were asked to provoke the users to think about solutions and improvements themselves. Their suggestions can be used to determine requirements for further development of the application. The most relevant suggestions are accumulated in Table 7.

Table 7: Survey suggestions

No.	Suggestion	Amount of times suggested
1	Whatsapp notifications	5
2	E-mail notifications	4
3	More explanation	3
4	Create an app	2
5	SMS notifications	2
6	Determine location of mobile phone	1
7	Notify other citizens about help requests	1
8	More possibilities for skills	1
9	Appoint coordinators for help requests	1
10	Organize help requests into categories	1

9 Conclusion

The purpose of this thesis was, to determine how a (web-)application could contribute in identifying and resolving help requests using volunteers with the appropriate skill sets. This question has been investigated within the scope of the Red Cross. It can be concluded that a web-application prototype has been developed, which was based on insights gathered using different research methods. The web-application prototype has been verified using a digital user test to make sure the prototype matches the needs of the stakeholders.

Moreover, it can be concluded that there is a significant need for a Ready2Help application as verified using the Ready2Help team and Ready2Helpers. The Ready2Help team wants to identify and resolve more help requests which can be done by using the Ready2Help application as a match maker. The Ready2Helpers acknowledge that they want to have a platform in which they can actively sign-up for help requests. Furthermore, they want to provide their skills, which makes it possible to create a better match between help requests and help offers. In such a way, the Ready2Helpers are more attracted and satisfied while being part of Ready2Help.

The usability of the application prototype has been approved by the Ready2Helpers. They were able to perform several scenarios and rated the overall usability of the application high. From the 'must have' and 'should have' requirements 4 out of 5 requirements were met. The only requirement that was not met was making the users sign-in using their current credentials, because of a non-available API.

Furthermore, it can be observed that obtaining sufficient help request on the platform can be challenging. The Ready2Helpers do not have a big commitment in posting help requests themselves. The Ready2Help team acknowledges the same problem and provided the suggestion of having other organizations posting help requests on the application. On the other side, the Ready2Helpers are very likely to respond to help requests which are already posted. They want to have the possibility to sign-up themselves.

Altogether, it can be concluded that the web-application prototype can serve as an important guideline in matching help requests and help offers for Ready2Help (and other similar projects).

9.1 Discussion

Although this thesis provides various useful insights on how a Ready2Help application should be developed, some critical remarks should be made. Some methods and user test should be further extended and improved to make sure they are scientifically relevant. There are several shortcomings in the design process which should be improved.

The literature research only covered a limited amount of scientific sources and should be further explored to gain a better overview of all the relevant literature in this field. It merely serves as an indication of the available methods, it does not provide an overview of all the available methods in this field. Some of the theories, methods, aspects and conclusions should be further substantiated with additional literature, to make it scientifically more relevant. Besides, it could be argued that some of the used literature is not directly applicable on the Ready2Help platform. A large segment of the literature is based on emergency situations, while the Ready2Help platform serves during emergencies, but also during non-emergencies.

The conducted co-creation session only consisted out of four participants. This small group is not representative for all the Ready2Helpers, though this has been assumed in the ideation and lo-fi prototype phase. In such a way it was possible to not only focus on user research, but also develop

a prototype and evaluate it.

The input of the Ready2Help team has been extensively used throughout the thesis. Their input can be seen as valid, because they are the only experts on the topic Ready2Help. On the other side, they have a vision of what Ready2Helpers want, but they only know this by their experience and internal researches. This vision could be influenced by the internal organization and goals of the Ready2Help team. They do not know what would be best for society as a whole, but they do know what is best for the Ready2Help team and the Red Cross.

The interactive lo-fi prototype has been tested during a dedicated meeting with the Ready2Help team. Because they tested the application all at the same time in the same room, it could be noticed that they influenced each other in the scenarios they tested. To have a more scientific relevant approach the team members should be split up and individually test the prototype. This would increase the validity of the user test and provide more reliable results.

The results of the user test of the hi-fi prototype are non-representative for all the Ready2Helpers. This because the Ready2Helpers were not randomly selected, instead Ready2Helpers of one province of the Netherlands were chosen. The Ready2Helpers that responded using the survey were also non-representative for the province group. The Ready2Helpers that responded are presumably the once who were most willing to participate and were the most enthusiastic about new initiatives of Ready2Help. It could be the case, that if all Ready2Helpers filled in the survey the results are less positive towards this idea.

9.2 Recommendations

Several recommendations can be made based on the results and conclusions of this thesis. Firstly, it could be recommended to improve the hi-fi prototype based on the feedback received during the hi-fi evaluation. This feedback can be used to improve the usability and the functionality of the hi-fi prototype. The hi-fi prototype should be extended by using the automatic matching algorithm. This algorithm matches help requests (which require specific skills) with certain Ready2Helpers (who have specific skills). When this match is created the application could automatically send messages to the Ready2Helpers who are matched. Moreover, the application should become connected to the Tools-system of the Red Cross. This provides the Ready2Helpers with the possibility to login with their own credentials. When these improvements have been achieved, the prototype should be evaluated again.

Secondly, the Red Cross should formulate a clear scope determining which help requests do belong, and which help request do not belong on the Ready2Help application. When the Red Cross has formulated this scope, clear guidelines should be created to communicate to the Ready2Helpers what kind of help requests they can post on the platform. Without these guidelines all sorts of requests will be posted on the application, which might not benefit the Red Cross. Furthermore, moderating help requests is essential for a usable Ready2Help application. When the help requests are not moderated, there is a significant chance that inappropriate help request will appear on the application.

Thirdly, it could be recommended to investigate who is willing to post help requests on the application. The Ready2Helpers and the Ready2Help team provided the insight that this might become a problem. Having help requests on the application is a crucial factor, which determines the success of the application. More research can be conducted in the area of identifying help requests in society. Primary and secondary stakeholders should be questioned to determine where the need of posting help requests can be found. There is a chance that this need will be found by

the (potential) partners of the Red Cross (like: the police, district nurses, hospitals, other NGOs). Several scientific methods could be used to determine if this need exists among these stakeholders. Moreover, it is recommended to further explore the already existing applications in this field. This to learn more about the requirements which they have formulated for these applications and how they obtain their help requests.

9.2.1 Further development

At last, the application prototype itself should be further developed into a stable version, which can be deployed for the 39.000 Ready2Helpers. The requirements for this stable version (see Table 8) are formulated based on the results of this thesis. These requirements are prioritized as following: Must have (M), Should have (S), Could have (C).

Table 8: Requirements for a stable version of the Ready2Help application

No.	Priority	Requirement
1	M	Make it possible for Ready2Helpers to login using their current credentials (username + password or social media credentials)
2	M	Store the user data in the Tools-system
3	M	Send Whatsapp notifications
4	M	Send e-mail notifications
5	M	Develop a matching algorithm to connect help requests to certain Ready2Helpers
6	M	Make the application mobile friendly
7	M	Extend the possibility to moderate help requests
8	S	Let Ready2Helpers create their own skills
9	S	Make it possible for Ready2Helpers to share information during an emergency
10	S	Categorize help requests
11	S	Provide access to premium partners to post help requests
12	C	Send SMS notifications
13	C	Extend the functionality to also become an Android or Iphone application
14	C	Determine the location of Ready2Helper based on their mobile phone location

This thesis showed that having a Ready2Help application can be of great benefit for the Red Cross and the Ready2Helpers. For the Ready2Helpers such an application creates the possibility to become more involved with Ready2Help and the Red Cross. They can actively sign-up for actions and their skills could be used more effectively. Such an application would provide the Ready2Help team with the possibility to perform more help actions in society. A project plan should be developed to conduct more user tests and improve the prototype towards a stable version. Overall, such a Ready2Help application is rather feasible and would provide the Red Cross with the possibility to help even more people within the Netherlands.

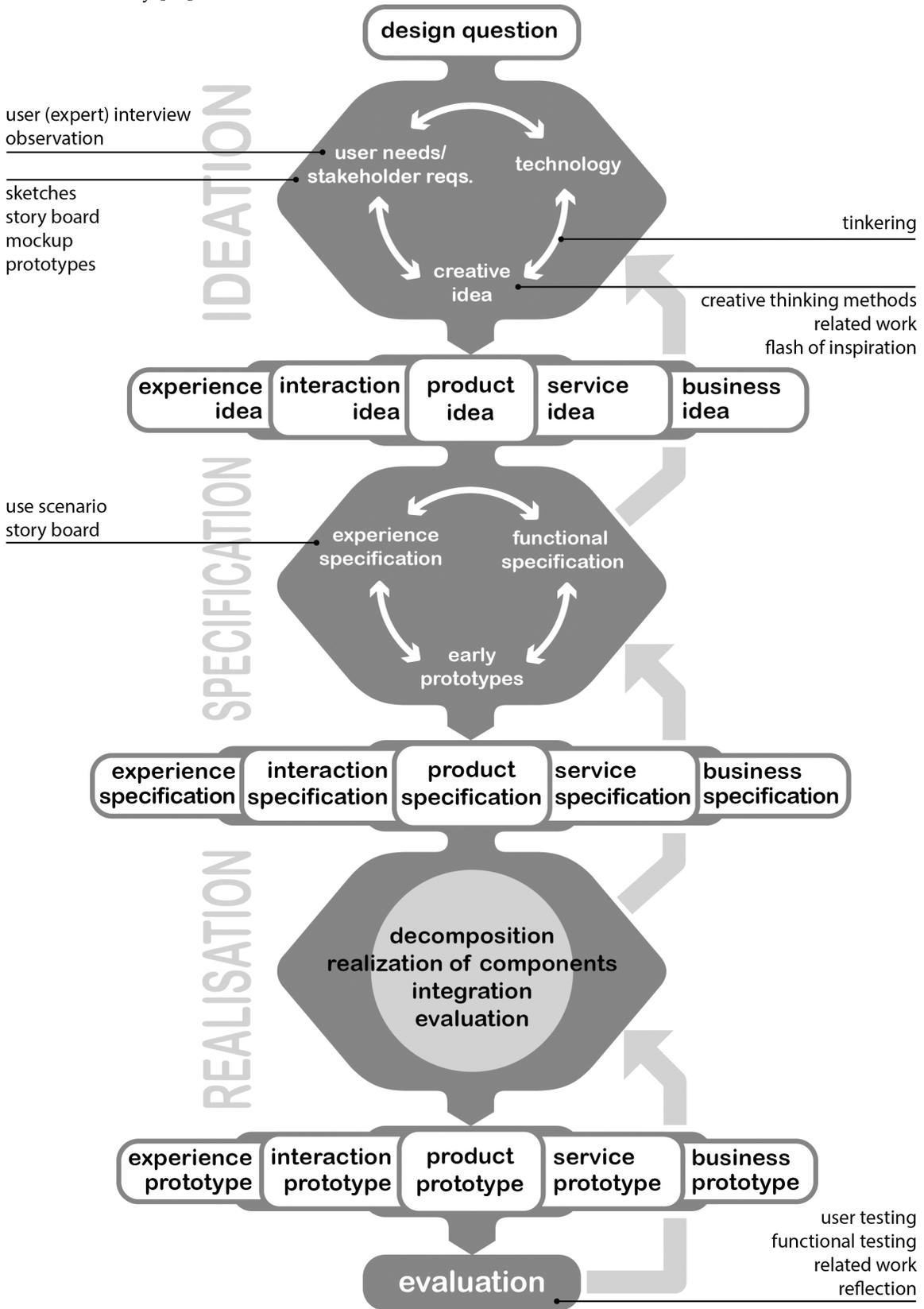
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A Creative Technology Design Process

As described by [13]



B Main points co-creation session

Hoofdpunten 'denk mee' avond (5-10-2017)

Door: Freek Boelders

- Flexibiliteit en zinvolle acties zijn belangrijk voor de Ready2Helpers
- Communicatie naar Ready2Helpers kan beter (Bij Leonie, een van de respondenten, werkte het UMS-systeem niet goed, ze heeft meermaals contact proberen op te nemen, maar heeft nooit contact kunnen krijgen met iemand van het Ready2Help team)
- De Ready2Helpers willen graag vaker ingezet worden, ze hebben het idee dat er heel veel te doen is, maar ze maar niet opgeroepen worden
- Mensen helpen en maatschappelijke betrokkenheid zijn de belangrijkste motivaties voor Ready2Helpers
- Persoonlijke vaardigheden bepalen in een grote mate in hoeverre de Ready2Helpers bepaalde acties waarderen
- Ready2Helpers vertellen graag over hun vaardigheden en willen daar graag iets mee doen. Deze vaardigheden plaatsen op een platform zodat ze gericht ingezet kunnen worden lijkt ze een goed idee
- De Ready2Helpers staan positief tegenover zelf ideeën (potentiele hulpacties) aandragen bij het Rode Kruis
- De Ready2Helpers waren teleurgesteld dat ze niet direct ingezet werden nadat ze zich aangemeld hadden
- Vaardigheden vragen tijdens het aanmelden wordt door sommige Ready2Helpers gezien als een extra drempel, voor andere juist als een extra bevestiging (omdat nu het aanmelden 'te gemakkelijk was' om betrouwbaar te zijn)
- Een platform met vraag en aanbod wordt als zeer positief ervaren door de Ready2Helpers. Het geeft ze de mogelijkheid om zelf actief hulpacties uit te kiezen die aansluiten bij de vaardigheden die ze bezitten en wat ze leuk vinden om te doen
- Doormiddel van een platform hopen de Ready2Helpers vaker ingezet te worden en kunnen ze actief opzoek naar een actie die ze graag willen doen
- De Efteling actie is in het verkeerde keelgat geschoten bij sommige Ready2Helpers. ('Rot op met je Efteling, ik wil gewoon contact hebben. Ik wil geen aai over mijn bol.')

Zie volgende pagina's voor een uitgebreide samenvatting van de sessie door Marilyn

C Summary co-creation session

Samenvatting Creatieve Sessie - Ready2Help / Nederlandse Rode Kruis

Door: Marilyn Wijnands

i.s.m.: Freek, Kelly

Deelnemers:

1. Leonie
2. Gerard
3. Nel
4. Rien

Vorbereiding, Binnenkomst en opdracht 1 - Persona Formulier.

Een viertal respondenten is uitgenodigd op het hoofdkantoor van het Rode Kruis in Den Haag voor een creatieve sessie. Bij binnenkomst krijgen de respondenten wat te drinken en een versnapering, wordt er wat gepraat over recente werkzaamheden van het rode kruis en krijgen de respondenten een formulier om in te vullen. Het doel van het formulier is enerzijds een eerste kennismaking met de respondenten, anderzijds een opwarmer voor de vervolgoopdrachten.

- De helft van de respondenten waren gepensioneerd de andere twee werken in de elektrotechniek en de zorg.
- Drie van vier geeft aan dat ze een keer eerder hebben meelopen met een hulpactie.
- Ze zijn positief over de organisatie vanwege de flexibiliteit en de zinvolle acties.
- Als tips geven ze aan dat de communicatie beter kan en dat ze meer ingezet willen worden.
- Bij de vaardigheden worden plannen, zorgzaamheid, aanpakken, analyseren computervaardigheden en beheersing van de engelse taal als voorbeelden genoemd.
- Facebook en WhatsApp zijn de populairste apps onder de Respondenten. Verder worden apps genoemd zoals de Volkskrant, NOS, Insight timer en ING.

Opdracht 2 - Waardecirkel

De respondenten krijgen ieder een vel met drie cirkels en een stickervel met daarop allerlei verschillende motieven voor het verrichten van vrijwilligers werk. Aan de respondenten de taak deze stickers te plakken binnen de cirkels, waarbij de middelste het belangrijkste is en de buitenste het minst. Nadat de respondenten dit in een paar minuten gedaan hebben worden de resultaten kort per persoon nagelopen.

Rien vindt het vooral belangrijk om mensen te helpen omdat hij zich betrokken voelt bij de maatschappij. Ook geeft hij aan dat gereformeerd is opgevoed waardoor hij in zijn opvoeding heeft meegekregen dat betrokkenheid en het helpen van andere belangrijk is. Hij is gepensioneerd en heeft daarom veel vrije tijd. In deze tijd gaat hij onder andere wandelen met mensen met een niet aangeboren hersenafwijking, doet hij de tussenschoolse opvang en helpt hij twee dagen in de week een zzp'er die moeite heeft rond te komen.

Ook bij Richard staat maatschappelijke betrokkenheid midden in de cirkel, samen met het helpen in nood. Hij heeft zich aangemeld ten tijde van de vluchtelingen crisis omdat de vraag naar vrijwilligers toen groot was. Heeft sinds dien één keer kunnen helpen bij de voedselbank en heeft dat als zeer positief ervaren. "twee dagen, heel verschillende groepen, de tijd vloog om."

Ook Richard geeft aan veel vrije tijd te hebben omdat hij met pre-pensioen is, waar hij van geniet, maar waarvan hij ook aangeeft dat het gaat wennen. Hij wil zich zo nuttig mogelijk voelen in de tijd die hij heeft.

Bij Leonie staan 'gelijkheid', 'mensen helpen', 'betrokken bij de maatschappij' en 'een positieve bijdrage leveren' in het midden. Ze geeft aan zelf ook projecten op te zetten (het maken en verkopen van kleren om de opbrengsten aan een goed doel te doneren) om dit te kunnen doen. Ze is een paar keer een paar maanden naar het buitenland geweest om vrijwilligerswerk te doen en vind het in Nederland moeilijk vrijwilligerswerk te vinden. Ze heeft het idee dat het moeilijk gemaakt wordt.

Nel geeft aan dat 'helpen bij acute nood', 'vluchtelingen helpen' en 'betrokken bij de maatschappij' belangrijke motieven zijn. De vrijblijvendheid en laagdrempeligheid van R2H heeft ervoor gezorgd dat ze zich aangemeld heeft. Ze geeft aan individualistisch te zijn en wilt per keer beslissen waar ze wel of niet aan meehelpt. Dit doet ze als ze de prikkel sterk genoeg vindt, niet wanneer mensen eenzaam zijn omdat ze andere verwaarlozen bijvoorbeeld. Ze geeft aan samenwerken niet fijn te vinden. Ze is één keer ingezet bij de voedselbank en heeft dat als leuk ervaren.

Opdracht 3 - X&Y Mapping

De respondenten worden in tweetallen opgedeeld en krijgen per team een groot vel met daarop een x-as (leuk - niet leuk) en een Y-as (belangrijk-onbelangrijk). Vervolgens krijgen ze een stapel met allerlei soorten werkzaamheden die je zou kunnen verwachten vanuit het R2H netwerk en moeten ze deze op of tussen de beide assen plaatsen.

Rien en Richard

De beide heren zijn erg eensgezind over de indeling van de projecten. Snel wordt duidelijk dat de persoonlijke vaardigheden van de heren bijdragen aan de keuze voor de plaatsing van de projecten. Zo geeft Rien aan niet zo goed te zijn in het helpen bij een sociaal isolement, terwijl hij het wel belangrijk vindt. Hij is daarvoor te praktisch ingesteld en helpt dan ook liever bij praktische werkzaamheden, zoals voedselbanken, zandzakken sjouwen etc. Ook Richard laat zijn persoonlijke vaardigheden een grote rol spelen in de plaatsing. "Werkkleding geschikt maken? Ik denk dat ze mij wel kunnen missen daarvoor"

Na het vullen praten de heren nog verder. Richard vindt vrijblijvendheid vooral belangrijk. Hij ziet dat organisatie groeit en verandert en wil daar best in meegaan. "je kan niet alleen maar blijven focussen op vluchtelingen." Ze zijn het erover eens dat de werkzaamheden niet door betaalde krachten gedaan moet kunnen worden. Er moet geen misbruik gemaakt worden van de vrijwilligers. Er wordt nog eens benadrukt dat ze graag werk zouden doen waar ze zich praktisch nuttig kunnen maken. Het opzetten van locaties, helpen bij wateroverlast, voedselbank en politiehulp worden als voorbeeld genoemd. Koken en spelletjes doen, bijvoorbeeld, zouden ze zich in moeten forceren omdat het niet in hun vaardigheden / aard ligt.

Vaardigheden die Richard zelf nog aandraagt zijn: computer vaardigheden, zich inzetten als chauffeur en zijn technische aanleg. Hij zou dit graag in willen zetten maar denkt dat het niet van toepassing is verder. Rien kan zo gauw geen extra vaardigheden bedenken die hem nuttig lijken.

Nel en Leonie

Leonie geeft aan dat voor haar vrijwilligers werk 'streven naar gelijkheid en eerlijkheid' is. projecten als het helpen van vluchtelingen, bij een dijkdoorbraak en voedselbank zijn de start daarvan en zijn daarom zowel leuk als belangrijk. Nel geeft aan dat dit ook duidelijke projecten zijn. "Je weet wat het doel is, je weet direct dat het nut heeft."

Nel vindt het onpersoonlijke belangrijk in projecten. Ze vindt het belangrijk dat het een goed gevoel geeft. Niet over zichzelf, maar om te zien dat andere mensen goed zijn. Als groep aan het werk en dan alleen weer naar huis.

Bij Leonie speelt het beheersen van bepaalde vaardigheden niet zo'n grote rol. Zij wil best ingezet worden op iets waar ze niet zo goed in is. Nel ziet hier ook de nadelen van in en zegt dat dit ook tegen kan werken.

Nagesprek

Er wordt gevraagd of de respondenten vinden dat de projecten altijd vanuit het rode kruis moet of moeten de vrijwilligers zelf ook met ideeën kunnen komen?

Leonie vindt dit gelijk een goed idee. Ze kan nu zo snel niets verzinnen, maar schrijft vaak kleine ideeën op in haar telefoon. Als ze weet dat ze dit ook ergens kwijt kan zou ze dat sneller doen. Wel vindt ze dat het rode kruis het vervolgens op zou moeten pakken. Ook Rien vindt het belangrijk dat deze mogelijkheid er is. Nel geeft aan dat alle burgers met input moeten kunnen komen, maar ziet er dan liever ook een beoordelingscommissie bij.

Richard geeft aan dat je ook de ogen en oren van de thuiszorg kan gebruiken om te bepalen waar nood is. Hij denkt dat het goed is om dit te koppelen omdat veel mensen niet durven of niet weten dat ze om hulp kunnen vragen.

Nel haalt aan dat we in een transitie zitten waarin we realiseren dat we steeds meer zelf kunnen doen. We kunnen steeds meer het heft en eigen handen nemen met de kracht van een netwerk.

Opdracht 4 - User Journey

Aan de hand van een user journey wordt er gekeken naar de verschillende knelpunten in het traject van de eerste aanmelding tot het uiteindelijk ingezet worden en evalueren van een project.

Er wordt gevraagd of het een belemmering zou zijn als er om interesses en competenties gevraagd wordt bij de eerste aanmelding. Nel geeft aan dat het beide kanten op kan werken. Het kan heel dwingend werken als er gelijk veel vragen komen. Vrijblijvendheid is makkelijker.

Richard vond het aanmelden te makkelijk. Hij hoefde maar een paar dingen in te vullen en toen was het klaar. "Nou, ik hoop dat het allemaal goed gaat." "Ik wist niet of ik het serieus moest nemen." Hij kreeg zo weinig bevestiging dat hij zelfs vraagtekens had bij de veiligheid van zijn gegevens. De rest van de groep is het ermee eens.

Nel geeft aan dat ze bij de aanmelding voor greenpeace een hele sollicitatie brief moest schrijven. Hierdoor haakte ze gelijk af.

Na het aanmelden was de informatievoorziening erg semier, terwijl de respondenten aangeven erg nieuwsgierig te zijn geweest. Iedereen had het idee snel aan de slag te kunnen, maar niemand werd ingezet. Richard geeft aan dat ie wel graag ingezet wilde worden, maar als dat niet gebeurd hij net zo lief andere dingen gaat doen.

Rien was vooral verbaasd dat hij maar één keer nodig is geweest. "Is er dan helemaal niets te doen?" "Je hebt het idee dat je voor alles ingezet kan worden en hoort niets meer."

Leonie had een soortgelijke ervaring. Toen ze van R2H hoorde heeft ze zich gelijk aangemeld, samen met een aantal vriendinnen. Ze werkte toen in de zorg en heeft speciaal vrijgevraagd om aan de slag te kunnen om vervolgens niets meer te horen, net als haar vriendinnen. Ze heeft de communicatie met R2H als zeer slecht ervaren en heeft nog pogingen gedaan zelf contact te zoeken zonder resultaat.

Nel geeft aan dat er een grijs gebied zit tussen de projecten die georganiseerd worden en vraag die er is. Daarom lijkt het haar handig als je je competenties ergens aan kan geven. Mensen vinden het leuk om iets te doen waar ze goed in zijn.

De respondenten zien allemaal de meerwaarde in van het zelf aanmelden van mogelijke hulpprojecten.

Over de manier van opgeroepen worden.

Leonie vindt de huidige methode helemaal niet goed, met name omdat ze zelf contact heeft gezocht en actief wilde helpen zonder resultaat. Ze zegt dat er altijd iemand mee bezig moet zijn, zodat er altijd iemand is om antwoord te geven.

Vervolgens gaat het gesprek over de bereidheid wat verder te reizen dan de directe omgeving. Richard geeft aan dat het mooi zou zijn als het netwerk een landelijke dekking zou hebben zodat dat niet nodig hoeft te zijn. Nel vindt dat je dat moet doen als het nodig is. Richard onderschrijft

dat, maar dan alleen voor mensen met bepaalde specialiteiten. Nel is het oneens en wil ook wel ver reizen voor het sjouwen van zandzakken.

Op de vraag of de hulpvraag ook uit de maatschappij mag komen om zo het netwerk te vergroten geeft Leonie aan dat ze dit erg ziet zitten. Nel maakt zich zorgen over de kracht van facebook, maar Freek geeft aan dat het om een apart gesloten netwerk gaat. Dit lijkt Nel juist heel goed. Dat je anderen kan ontmoeten om samen iets op te zetten. Rien is ook erg voor een apart netwerk met vraag en aanbod. Nel had dit in eerste instantie al verwacht bij haar aanmelding. Een lokaal netwerk waar je elkaar kan oproepen wanneer nodig. Richard geeft aan dat het dan belangrijk is dat je verschillende specialiteiten en competenties kan zien. Richard hecht ook waarde aan een wat sterker community gevoel, maar ook de koppeling aan de goede naam van het Rode Kruis.

De groep voelt veel voor een platform waar de hulpvraag op terecht kan. Leonie geeft aan dat nu heel erg te missen op de website, richard heeft daar vanaf dag één naar gezocht, maar kon het niet vinden. Het lag in zijn verwachting dat dit er al zou zijn. Leonie zou graag zien wat de projecten precies zijn, en hoeveel tijd het in gaat nemen. Richard vind de vrijblijvendheid daarin nog altijd belangrijk "ik wil me niet schuldig voelen als ik ergens voor gevraagd wordt en nee zeg." Ook Rien wil graag de keuze houden ergens wel of niet aan mee te doen.

Over het evalueren van de actie ziet Leonie dat het liefst direct op locatie gebeuren. Zo zit alles nog vers in haar hoofd en kan ze het gelijk goed op papier zetten. Richard doet het liever thuis zodat hij er even rustig over na kan denken. Nel vond het vervelend dat mensen ongelijk weggingen na een actie, waardoor het niet eens mogelijk is de evaluatie op locatie te doen.

Vervolgens gaat het gesprek over de voorkeur van een website of een app, of wellicht allebei. Voor Leonie en Rien is het om het even, Nel geeft aan een oude telefoon te hebben dus een app zou niet eens kunnen voor haar. Richard gaat het liefst achter zijn computer zitten en gebruikt zijn telefoon alleen als het echt nodig is.

Wanneer de respondenten zelf nog de mogelijkheid hebben iets toe te voegen aan het gesprek geeft Nel aan dat ze het vervelend vond na een hele tijd niets te horen opeens vanuit R2H korting te krijgen op de efteling "Rot op met je efteling, ik wil gewoon contact hebben. Ik wil geen aai over mijn bol." Als voorbeeld voor contact wordt gegeven 'updates over bezigheden' of simpelweg een melding dat er momenteel even geen werk is voor de vrijwilliger, maar dat er misschien binnenkort weer iets komt.

Leonie vraagt zich af waarom er geen vrijwilligers ingezet worden op coördinerende posities of voor intern werk binnen de organisatie. Zo kan je ook mensen intern inwerken en op latere projecten zelfstandig aan de slag laten gaan.

D Platform Analysis

Platform name	Kind of requests	Vision	Established	Able to resolve	Target group	Nation wide	Commercial	Amount of requests	Additional requirements	Additional comments	Conclusion
Deedmob	<ul style="list-style-type: none"> * Long term volunteer 'jobs' by different parties * Short term volunteering activities by different parties 	<ul style="list-style-type: none"> * Find volunteers nearby * Match between organisations and volunteers 	Semi Start-up (1 year)	Maybe	Young adolescents	Yes	For organizations	Currently +/- 300	<ul style="list-style-type: none"> * Sign-up * Additional provide skills 	<ul style="list-style-type: none"> * Seems promising * Big team and advisory board * Founded: September 2016 * Wide variety of skills can be provided 	Have a conversation
We Helpen	<ul style="list-style-type: none"> * Short term volunteering activities by individuals (hand & span diensten) * Long term volunteering by individuals 	<ul style="list-style-type: none"> * Make helping and organizing help easy * Match help requests and help offers 	Yes	Yes	est. 50+	Yes	?	Help requests: 13 000 Help offers: 1 200	<ul style="list-style-type: none"> * Sign-up * After sign-up you have to provide additional information (postal code) 	<ul style="list-style-type: none"> * Founded by: CZ, PGGM, Rabobank, BureauVijftig, The Caretakers en VitaValley. * Founded: Oktober 2012 * Wide variety of skills can be provided * Partly public profile 	Have a conversation
Nederland Cares	* Short term volunteering activities by orgnaizations (hand & span diensten)	<ul style="list-style-type: none"> * Flexible volunteering * Meeting different people * Improve social cohesion 	Yes	Yes (around 50%)	Young professionals	No, Amsterdam, Rotterdam, Den Haag, Utrecht	Collaboration with organizations	Around 10 per day	* Sign-up (need to provide address)	* ANBI regsitered	
Stan Global	* Emergency requests from the 'meldkamer'	* Civilians help civilians in need	Semi	Yes	Professionals	No, some parts	For organizations	? (They say a lot?)	* Sing-up (depending on family different requirements like BHV'er certificate)	* Different 'families': 'CPR network', 'safety staff', 'response team', 'security crowd'	
Nudge	* Projects by individuals and organizations	<ul style="list-style-type: none"> * Improve te world * Connect people and organizations * Persistent behavioral changes on 'climate, energy, environment and social sustainability' 	Yes	Maybe	Whole society	Yes	Commerical partners	Projects: 244 Organisations: 230 Nudgers: 41 425	* Sign-up (need to provide address)	* Lots of partners	
Next door	* free and paid chars by individuals	* Keep in contact with your neighbourhood	Semi	Maybe	Neighbours	Yes (separate neighbourhoods)	Advertisement	?	<ul style="list-style-type: none"> * Sign-up * Phone verification 	<ul style="list-style-type: none"> * Limited to your own neighbourhood * Not able to complete phone verification * International initiative 	

E Personas

Persona (1)

Marianne

Age: 28

Gender: Female

Occupation: Young professional

Goals and motivations

Marianne has a busy life as a young professional at a large hospital. She cares a lot about the wellbeing of other people and the environment. Because of her job she does not have the time to do regular volunteering work. She wants to help other people, but she is not able to commit to something that takes a lot of time.

Lifestyle

Yoga, fitness, vegan, commutes, has a relationship

Nature of work

She just finished her degree as doctor and is currently working fulltime at a large hospital. She likes being at work because she has friendly colleagues, which she can have fun with. Besides working with the patience gives her the sense of satisfaction.

Experience and training

Doctors degree, can provide first aid

Environment

At home and in the hospital

IT skill level

Intermediate, she grew up using (web)application and she must use them on daily base during her work. She uses several app on her mobile phone to interact with her family and friends.

Attitude towards technology

- Great – it's easy to use and saves me time
- I like it but it often falls short
- I don't like it but I have to use it

IT equipment

Desktop (at work), laptop, smartphone, tablet, printer

On which device will this person use the web application?

Smartphone

How will this person use the web application?

She will frequently check on her smartphone if new help requests are available. When she has the time to participate she will sign-up to help. If she sees a help request in society she will post it on the application.

Key tasks

- Check help requests
- Respond to help requests
- Create help requests

Persona (2)

Ronald

Age: 69

Gender: Male

Occupation: Retired

Goals and motivations

Ronald has just retired from his job as teacher, he always liked his job, but having more spare time is a welcome present. He likes spending time with his family and especially with the grandchildren. He is a 'regular' volunteer at the Netherlands Red Cross, he works at events to provide first aid.

Lifestyle

Retired, volunteering, widow, has grandchildren, likes gardening

Nature of work

As a pensioner he does not working anymore and enjoys his free time. In his former job he liked the social interaction he had with his students.

Experience and training

Teaching skills, social empathy

Environment

At home

IT skill level

Basic, he struggles using technology because he had to learn to use it at a later age. When he was a teacher he had to learn to use a computer and a beamer. He managed to use this technology but when things do not work, he has no clue how to solve the problem.

Attitude towards technology

- Great – it's easy to use and saves me time
- I like it but it often falls short
- I don't like it but I have to use it

IT equipment

Desktop (at home), an outdated smartphone, printer

On which device will this person use the web application?

Desktop

How will this person use the web application?

He will check the web application infrequently, it takes effort to login to the website. When he sees a help request, in which he can help, he is able to sign-up.

Key tasks

- Check help requests
- Respond to help requests

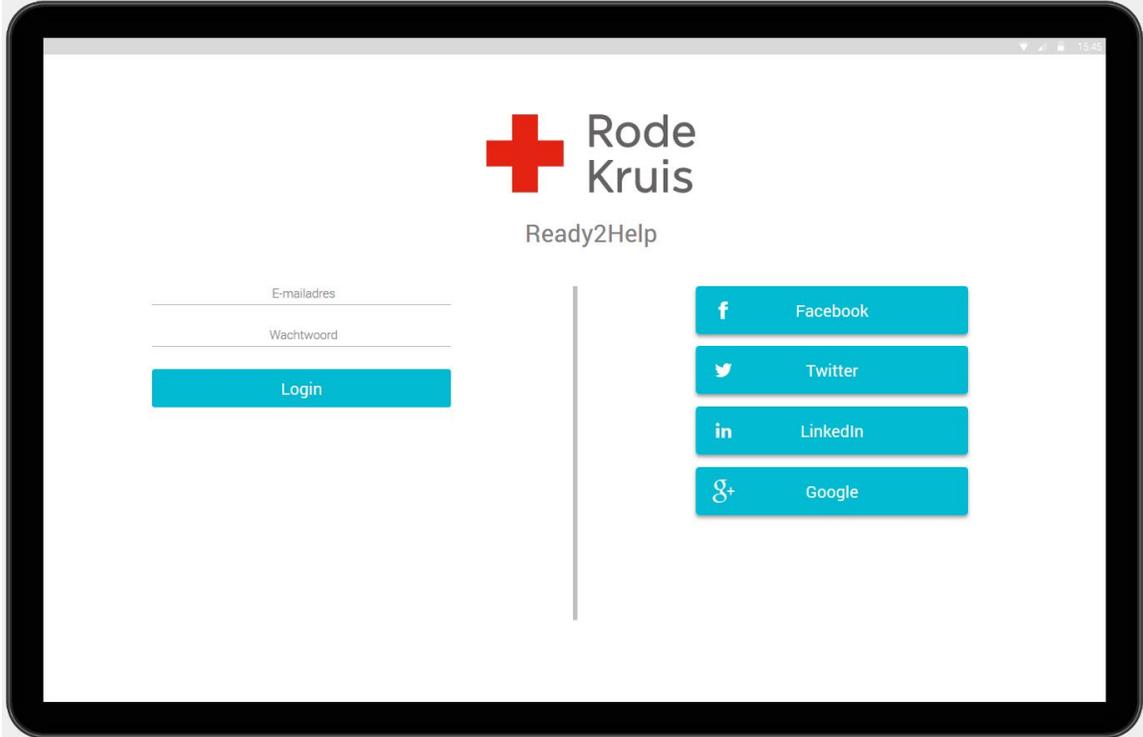
F Average importance level of user values

User value	Average importance level	user 1	user 2	user 3	user 4	sum of levels
Helping during an emergency	4.75	5	4	5	5	19
Involvement with society	4.75	5	5	5	4	19
Helping people	3.75	1	5	4	5	15
Being ready for fellow citizens	3	1	3	4	4	12
Helping refugees	2.75	5	4	2	0	11
Being usefull	2.75	0	4	4	3	11
Shared goal	2.5	0	3	4	3	10
Equality	2.25	0	2	2	5	9
Without obligation	1.75	5	0	2	0	7
Spontaneous	1.5	1	2	3	0	6
Accessible	1.25	4	1	0	0	5
Being active	1.25	1	0	4	0	5
Social contacts	1.25	1	0	4	0	5
Working together	1.25	0	3	0	2	5
A lot of spare time	1	0	2	2	0	4
Action	1	0	0	4	0	4
Donating time	1	0	0	4	0	4
Satisfaction	1	0	0	3	1	4
Positive contriubtion	1	0	0	0	4	4
Religion	0.75	1	2	0	0	3
Karma	0.75	1	1	0	1	3
Appreciation	0.5	1	1	0	0	2
Learning	0.5	1	0	0	1	2
Red Cross	0.5	0	0	2	0	2
Protecting	0.25	1	0	0	0	1
Career	0.25	0	1	0	0	1
Self confidence	0.25	0	1	0	0	1
Diversity	0.25	0	1	0	0	1

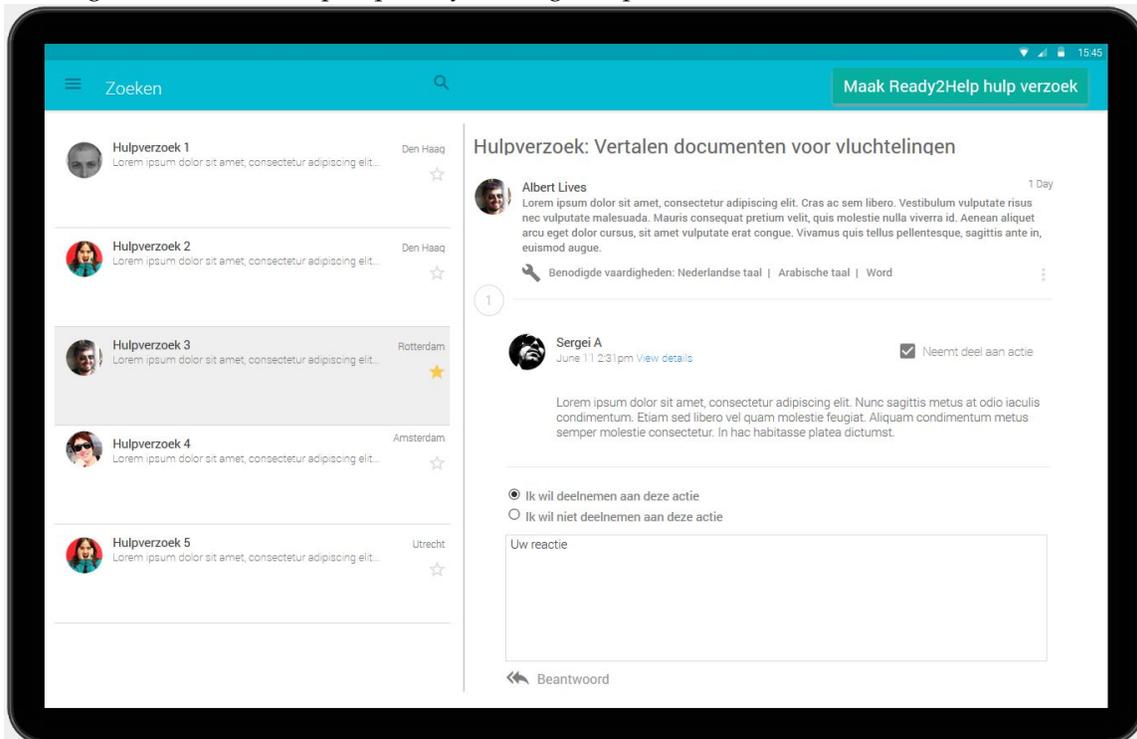
G Lo-fi Interactive Prototype

The interactive version of the prototype can be found here:
<https://freekboelders.nl/red-cross/lo-fi-prototype/>

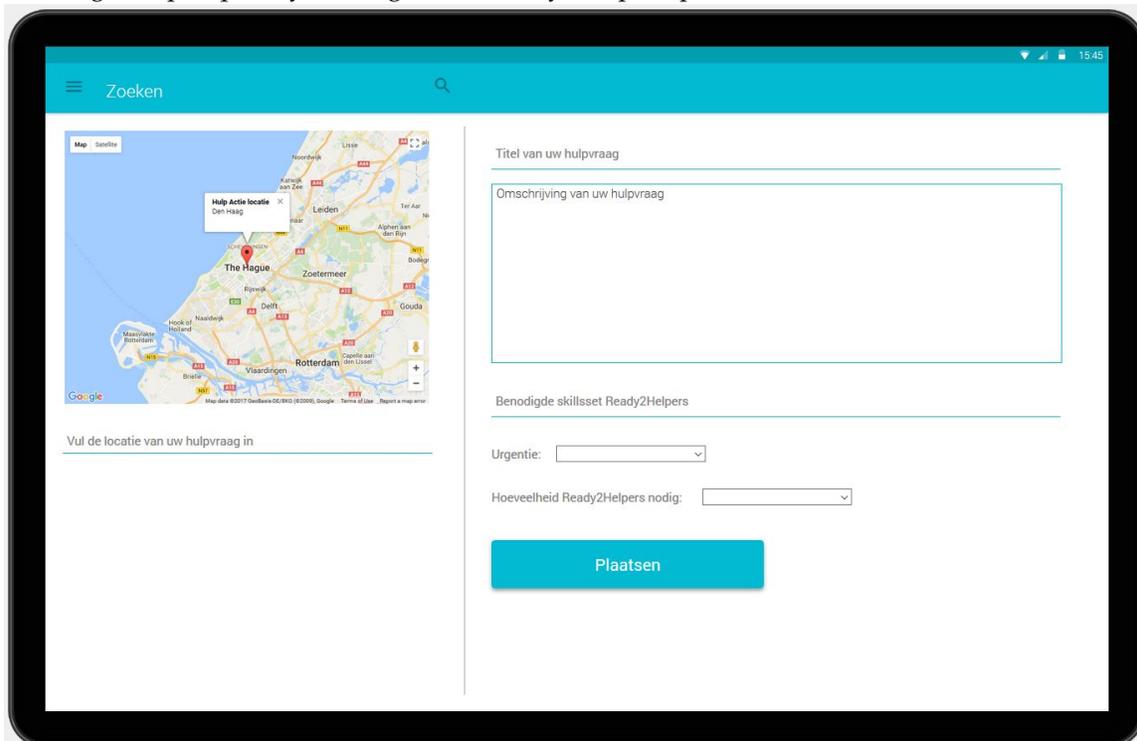
Logging-in by clicking one of the social media buttons or providing an email-address and password:



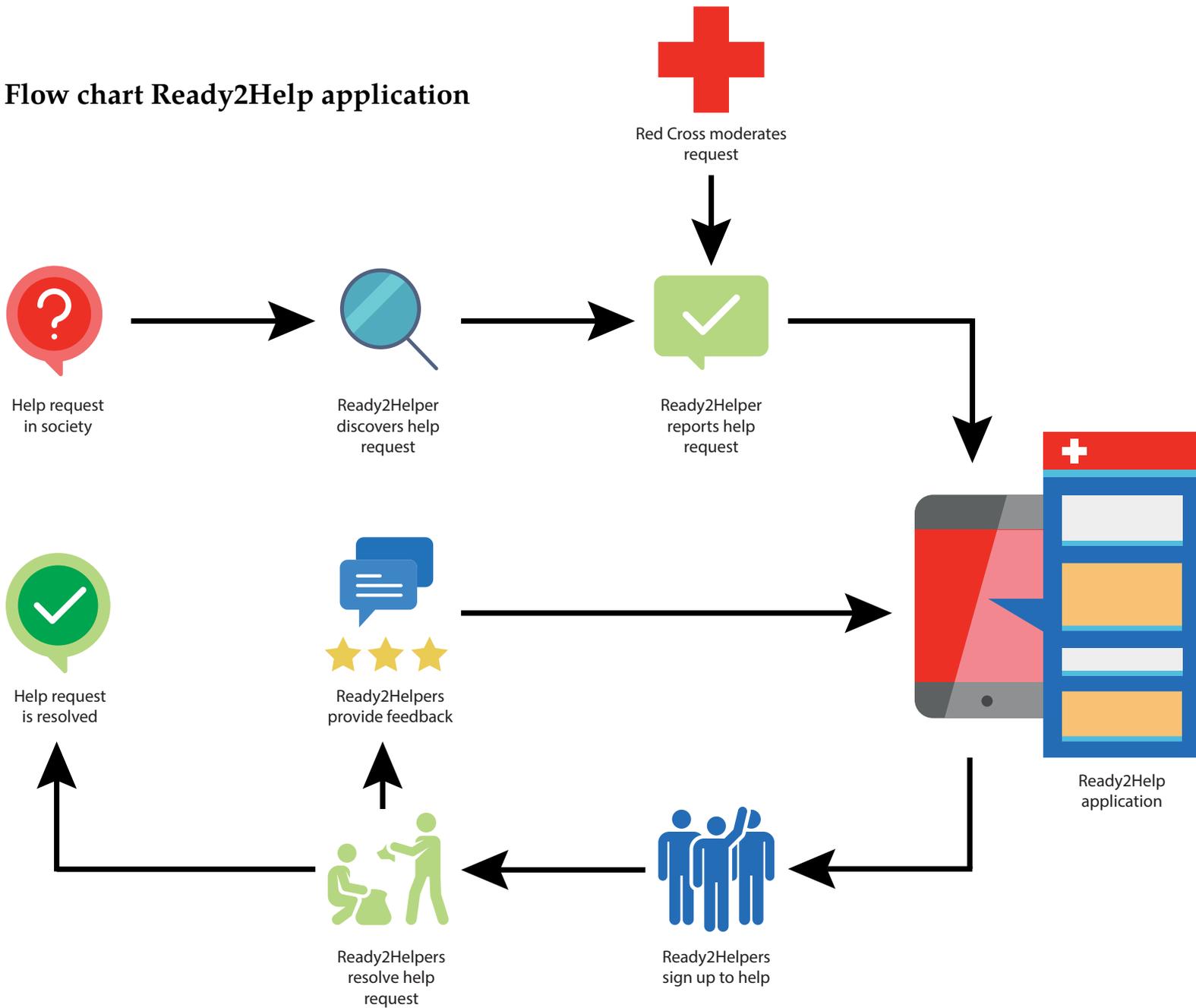
Viewing the details of a help request by clicking 'Hulpverzoek 3':



Creating a help request by clicking 'Maak Ready2Help hulp verzoek':



H Flow chart Ready2Help application



I Introduction message displayed during hi-fi user test

Feedback geven op de Ready2help website

Fijn dat je feedback wilt geven op de Ready2help website, we zijn je erg dankbaar!
Je bent automatisch ingelogd met een test account op de website.

De volgende actie's kan je uitproberen op de website:

- De verschillende pagina's bezoeken
- Hulpactie's aanmaken
- Reageren op bestaande hulpactie's
- Je profiel aanpassen

Alle informatie die je plaatst mag fictief zijn, maar het liefst wel zo realistisch mogelijk.

Op iedere pagina krijg je de mogelijkheid om feedback te geven door aan de rechterkant te klikken op 'Feedback'.

Wanneer je klaar bent met het testen willen we je vragen om een korte vragenlijst in te vullen.
Deze vragenlijst kan je bereiken in het menu onder de knop 'Vragenlijst'.

Alvast hartelijk bedankt voor je medewerking!



J Application views as used during the hi-fi user test

Main dashboard including help requests and responses:

Rode Kruis Dashboard Vragenlijst Over Test Gebruiker 35

Ready2help hulpactie aanmaken

Helpen bij voedsel bank

Helpen met inpakken van (kerst) voedselpakketten voor mede burgers in nood.

Voedselbanken Catering

Utrecht, Nederland

Zoeken naar een vermist persoon

Er is iemand vermist geraakt, het is van groot belang dat we deze persoon vinden.

Ondersteunend werk Auto rijden

Groningen, Netherlands

Test

test

Jeugdwerk Trainen

Amsterdam, Netherlands



Map data ©2018 GeoBasis-DE/BKG (82009), Google Terms of Use

Helpen bij voedsel bank

Helpen met inpakken van (kerst) voedselpakketten voor mede burgers in nood.

Voedselbanken Catering

Locatie: Utrecht, Nederland

✓ 8 Ready2Helper(s) helpen al meel

Q 2 Ready2Helper(s) nog nodig

Mijn reactie:

Ik wil meehelpen aan deze actie

Reageren

Verzend antwoord

Test Gebruiker 19 (✓ helpt meel) Ik wil graag helpen!	19 december 2017
Test Gebruiker 35 (✓ helpt meel)	21 december 2017
Test Gebruiker 30 (✓ helpt meel) wat zijn de tijden?	21 december 2017
Test Gebruiker 30 (✓ helpt meel) Wanneer is hulp nodig?	21 december 2017
Test Gebruiker 10 (✓ helpt meel) Vertel waar het is en ik kijk of ik kan komen helpen	21 december 2017
Test Gebruiker 30 (✓ helpt meel) Laat maar horen wanneer het werk moet gebeuren, kan ik ff kijken of ik kan, hoor dan wel graag waar het is	22 december 2017
Willemien Terpstra (✓ helpt meel) Ik kan helpen	23 december 2017
Test Gebruiker 14 (✓ helpt meel) Ik doe graag mee	9 januari 2018

Feedback

Creating a Ready2Help action:

Rode Kruis Dashboard Vragenlijst Over ▾ Test Gebruiker 35

Locatie van hulpactie

Map Satellite Location



Titel van hulpactie

Omschrijving van hulpactie

Datum en tijd

Duur (in uren)

Benodigde vaardigheden van Ready2helpers

Selecteer ▾

Urgentie

Hoeveelheid Ready2helpers nodig

Plaats hulpactie

Feedback

Changing profile data:

Vaardigheden

Jouw vaardigheden

Jeugdwerk, Coaching

Persoonlijke informatie

Voornaam

Test

Tussenvoegsel

Achternaam

Gebruiker 35

Geslacht

-

Geboortedatum

01-01-2001

Postcode

1234AB

Huisnummer

12

Huisnummer toevoeging

A

Mobiele Telefoonnummer

0612345678

E-mailadres

test-email@ready2help-rodekruis.nl

Over jezelf

Ik ben een test gebruiker

Profiel updaten



K README.md file

Ready2Help

This project is developed for the Netherlands Red Cross as bachelor thesis for the Bsc Creative Technology taught at the University of Twente.

This project is based on Angular 4 and needs to be compiled.

Serve locale nl

Merge new translation files? Use tutorial: <https://www.npmjs.com/package/ngx-i18n-support>

Run `npm run extract-i18n` to extract (generate) language files for all languages and make them merge automatically

Run `npm run serve-nl` to run with a Dutch language file

Development server

Run `ng serve` for a dev server. Navigate to <http://localhost:4200/>. The app will automatically reload if you change any of the source files.

Code scaffolding

Run `ng generate component component-name` to generate a new component. You can also use `ng generate directive|pipe|service|class|module`.

Build

Run `ng build` to build the project. The build artifacts will be stored in the `dist/` directory. Use the `-prod` flag for a production build.

Running unit tests

Run `ng test` to execute the unit tests via [Karma](#).

Running end-to-end tests

Run `ng e2e` to execute the end-to-end tests via [Protractor](#). Before running the tests make sure you are serving the app via `ng serve`.

File structure

```
|-- src
  |-- favicon.ico
  |-- index.html
```

```
|-- main.ts
|-- messages.xlf
|-- polyfills.ts
|-- styles.css
|-- test.ts
|-- tsconfig.app.json
|-- tsconfig.spec.json
|-- typings.d.ts
|-- app
  |-- app-routing.module.ts
  |-- app.component.css
  |-- app.component.html
  |-- app.component.spec.ts
  |-- app.component.ts
  |-- app.module.ts
  |-- directoryList.md
  |-- admin
    |-- admin-routing.module.ts
    |-- admin.module.ts
    |-- display-skills.pipe.ts
    |-- admin-dashboard
      |-- admin-dashboard.component.css
      |-- admin-dashboard.component.html
      |-- admin-dashboard.component.spec.ts
      |-- admin-dashboard.component.ts
    |-- admin-request-list
      |-- admin-request-list.component.css
      |-- admin-request-list.component.html
      |-- admin-request-list.component.spec.ts
      |-- admin-request-list.component.ts
    |-- admin-request-item
      |-- admin-request-item.component.css
      |-- admin-request-item.component.html
      |-- admin-request-item.component.spec.ts
      |-- admin-request-item.component.ts
  |-- core
    |-- core.module.ts
  |-- header
    |-- header.component.css
    |-- header.component.html
    |-- header.component.spec.ts
    |-- header.component.ts
  |-- home
    |-- home.component.css
    |-- home.component.html
    |-- home.component.spec.ts
    |-- home.component.ts
  |-- not-found
    |-- not-found.component.css
    |-- not-found.component.html
    |-- not-found.component.spec.ts
    |-- not-found.component.ts
  |-- pages
    |-- about
      |-- about.component.css
      |-- about.component.html
      |-- about.component.spec.ts
```

```

|-- about.component.ts
|-- contact
|-- contact.component.css
|-- contact.component.html
|-- contact.component.spec.ts
|-- contact.component.ts
|-- faq
|-- faq.component.css
|-- faq.component.html
|-- faq.component.spec.ts
|-- faq.component.ts
|-- getting-started
|-- getting-started.component.css
|-- getting-started.component.html
|-- getting-started.component.spec.ts
|-- getting-started.component.ts
|-- survey
|-- survey.component.css
|-- survey.component.html
|-- survey.component.spec.ts
|-- survey.component.ts
|-- welcome
|-- welcome.component.css
|-- welcome.component.html
|-- welcome.component.spec.ts
|-- welcome.component.ts
|-- requests
|-- display-skills.pipe.ts
|-- request-item.model.ts
|-- request.service.ts
|-- requests-routing.module.ts
|-- requests.component.css
|-- requests.component.html
|-- requests.component.spec.ts
|-- requests.component.ts
|-- requests.module.ts
|-- request-add
|-- request-add.component.css
|-- request-add.component.html
|-- request-add.component.spec.ts
|-- request-add.component.ts
|-- google-maps
|-- google-maps.component.css
|-- google-maps.component.html
|-- google-maps.component.spec.ts
|-- google-maps.component.ts
|-- request-detail
|-- request-detail.component.css
|-- request-detail.component.html
|-- request-detail.component.spec.ts
|-- request-detail.component.ts
|-- google-maps-location
|-- google-maps-location.component.css
|-- google-maps-location.component.html
|-- google-maps-location.component.spec.ts
|-- google-maps-location.component.ts
|-- request-edit

```

```

|-- request-edit.component.css
|-- request-edit.component.html
|-- request-edit.component.spec.ts
|-- request-edit.component.ts
|-- request-list
|-- request-list.component.css
|-- request-list.component.html
|-- request-list.component.spec.ts
|-- request-list.component.ts
|-- request-item
|-- request-item.component.css
|-- request-item.component.html
|-- request-item.component.spec.ts
|-- request-item.component.ts
|-- request-moderation
|-- request-moderation.component.css
|-- request-moderation.component.html
|-- request-moderation.component.spec.ts
|-- request-moderation.component.ts
|-- request-response
|-- request-response.component.css
|-- request-response.component.html
|-- request-response.component.spec.ts
|-- request-response.component.ts
|-- request-response.model.ts
|-- request-start
|-- request-start.component.css
|-- request-start.component.html
|-- request-start.component.spec.ts
|-- request-start.component.ts
|-- shared
|-- app-vars.ts
|-- auth.service.ts
|-- database.service.ts
|-- logger.service.ts
|-- server.service.ts
|-- shared.module.ts
|-- skill.service.ts
|-- user
|-- user-routing.module.ts
|-- user.component.css
|-- user.component.html
|-- user.component.spec.ts
|-- user.component.ts
|-- user.model.ts
|-- user.module.ts
|-- user.service.ts
|-- assets
|-- .gitkeep
|-- css
|-- picker.min.css
|-- font
|-- fontello.eot
|-- fontello.svg
|-- fontello.ttf
|-- fontello.woff
|-- fontello.woff2

```

```
| |-- images
| | |-- favicon.png
| | |-- nrk_logo.svg
| | |-- nrk_logo_white.svg
| | |-- ready2help-logo.jpg
| |-- js
| | |-- google_maps.js
|-- environments
| |-- environment.prod.ts
| |-- environment.ts
|-- i18n
| |-- messages.en.xlf
| |-- messages.nl.xlf
| |-- messages.xlf
```

Further help

To get more help on the Angular CLI use `ng help` or go check out the [Angular CLI README](#).

This project was generated with [Angular CLI](#) version 1.1.3.

L Feedback survey used during hi-fi user test



Ready2help korte vragenlijst

Bedankt voor het bezoeken van de Ready2help pilot website.
We horen graag je feedback!
Vragen met een * zijn verplicht.

Hoe beoordeel je het idee om hulpvraag en hulpaanbod te koppelen doormiddel van een website? *

0 1 2 3 4 5 6 7 8 9 10
Erg slecht idee Erg goed idee

Waarom kies je voor deze beoordeling? *

Jouw bericht...

Hoe beoordeel je het gebruikersgemak van deze website? *

0 1 2 3 4 5 6 7 8 9 10
Erg slecht Erg goed

Waarom kies je voor deze beoordeling ? *

Jouw bericht...

Ik vind een Ready2help website een goed idee! *

0 1 2 3 4 5 6 7 8 9 10
Nee, absoluut niet! ja, absoluut!

Ik zou de Ready2help website gaan gebruiken wanneer deze ontwikkeld is? *

0 1 2 3 4 5 6 7 8 9 10
Nee, absoluut niet! ja, absoluut!

Ik zou de Ready2help website gaan gebruiken wanneer deze ontwikkeld is? *

0 1 2 3 4 5 6 7 8 9 10

Nee, absoluut niet!

Ja, absoluut!

Zou je zelf een hulpactie willen plaatsen op de Ready2help website? *

0 1 2 3 4 5 6 7 8 9 10

Nee, absoluut niet!

Ja, absoluut!

Zou je zelf willen reageren op een hulpactie op de Ready2help website? *

0 1 2 3 4 5 6 7 8 9 10

Nee, absoluut niet!

Ja, absoluut!

Wat zou er verbeterd kunnen worden aan deze Ready2help website?

jouw bericht...

Wat zou er verbeterd kunnen worden aan het idee om hulpvraag en hulpaanbod op deze manier te koppelen?

jouw bericht...

Heb je over het algemeen nog opmerkingen m.b.t. tot Ready2help?

jouw bericht...

VERSTUUR

M Hi-fi user test results table

Number	Hoe beoordeel je het idee om hulpvraag en hulpaanbod te koppelen doormiddel van een website?	Waarom kies je voor deze beoordeling?	Hoe beoordeel je het gebruikersgemak van deze website?	Waarom kies je voor deze beoordeling ?	Ik vind een Ready2help website een goed idee!	Ik zou de Ready2help website gaan gebruiken wanneer deze ontwikkelt is?	Zou je zelf een hulpactie willen plaatsen op de Ready2help website?	Zou je zelf willen reageren op een hulpactie op de Ready2help website?	Wat zou er verbeterd kunnen worden aan deze Ready2help website?	Wat zou er verbeterd kunnen worden aan het idee om hulpvraag en hulpaanbod op deze manier te koppelen?	Heb je over het algemeen nog opmerkingen m.b.t. tot Ready2help?
34	8	Mits wel aan de gestelde afspraken wordt voldaan om wildgroei te voorkomen.	8	Overzichtelijk kan nog wat finetuning gebruiken.	10	10	8	10	Zie antwoorden testpanel	None	None
33	8	de meest eenvoudige manieren om mensen te informeren	6	nog geen ervaring mee	8	7	3	7	nog geen ervaring mee	geen idee	nee
32	8	Een website is een voor iedereen makkelijk te benaderen medium, de functionaliteit hangt af van de mate waarin hij up-to-date gehouden wordt	10	erg overzichtelijk	9	10	10	10	Meer info bij sommige hulpvragen	None	None
31	8	Het is eenvoudig maar zeer functioneel	8	Het is eenvoudig en overzichtelijk	8	8	6	8	Bij contactgegevens ook minimaal een mailadres en eventueel een telefoonnummer dat maakt het persoonlijker	Eventueel een app met locatiebepaling, eventueel samenwerking met hartslag.nu	Ik kreeg erg weinig informatie, maar de laatste tijd wel verbeterd
30	8	actief benaderen via sms werkt beter of via whatsapp app	9	prima	10	10	5	8	None	None	None
29	10	Goede bereikbaarheid voor oproep	9	Erg duidelijk, alhoewel ik gister geen beeld kreeg in de rechter vakjes (Locatie)	10	10	10	10	None	"	None
28	9	doel is goed. Zo is het als individu is het goed mogelijk als je wilt bijdragen een match te vinden	4	de site is onoverzichtelijk door de vele doorkoppeling waardoor je makkelijk informatie mist	10	8	8	9	destijds werden ready2help mensen in een cirkel van een bepaalde actie gemaild. dat is in mijn beleving heel effectief. effectiever dan dat je als individu opzoek moet gaan naar iets en moet merken dat iets net voorbij is.	zie boven	None
27	9	Hulpvraag gekoppeld aan e-mailnotificatie kan heel goed werken. Wellicht dat er toch nog altijd vragen aan een mens gesteld moeten kunnen worden over de hulpactie	8	Meedoen met actie kon prima ingevuld worden. Het plaatsen van een hulpactie lukte niet. Na het invullen van de gegevens volgde geen reactie op het aanklikken van de button 'plaats hulpactie'	9	9	8	9	Zie hiervoor	Lijkt mij prima uitgangspunt i.c.m. e-mailnotificatie	nee
26	8	Zeer direct.	7	Ik deed op mijn telefoon.	8	8	8	8	None	None	None

25	10	Daarmee krijg je duidelijkheid over de inzetten	7	Het lijkt goed te werken, maar de volledige functionaliteit heb ik niet kunnen testen	10	8	8	8	None	None	None
24	10	Gewoon het is inzichtelijk	10	Omdat het goed is	10	10	10	10	Zo ver als ik zie niks	Geen idee	Nee hoor
23	8	Openheid en contact leggen is 1e vereiste, m.i.	7	Goed, alles kan altijd anders/ beter maar	8	8	8	8	Weet ik nu eigenlijk niet	Lijkt mij prima	Nee , nu niet Blijf graag meedenken
22	8	Gemakkelijk voor de hulpverleners	8	Kort en snel	8	6	6	7	--	--	-
21	5	Wil wel graag actief geïnformeerd worden.	6	Weet het niet.	6	6	6	8	None	None	None
20	8	het is handig te zien of jouw hulp ergens nodig is of gewaardeerd wordt	6	het duurde even tot ik door had waar ik moest klikken	8	8	5	8	"wanneer deze ontwikkelt is" zou verbeterd kunnen worden in "ontwikkeld" :) Misschien door iets helderder kleurgebruik zou het duidelijker zijn wat waarmee bedoeld wordt	een automatisch mailtje naar mensen in de regio/provincie waar een nieuwe hulpvraag geplaatst is	None
19	8	Beide zijn laagdrempelig en voor iedereen bereikbaar.	8	De website is gebruiksvriendelijk en wijst zichzelf.	7	7	2	6	None	None	None
18	10	het is een laagdrempelige manier, vrijwel iedereen kan tegenwoordig een website bezoeken.	9	Het aanmaken van een hulpvraag of aanbod gaat erg makkelijk. Ik zou aanraden om een aantal vragen verplicht in te laten vullen zoals datum en tijd, waar het is en hoeveel mensen er nodig zijn. Dat is voor mij als hulpaanbieder handig om te weten en als ik nog op die informatie moet wachten dan is de kans groot dat ik afhaak om deel te nemen.	10	10	10	10	Zie bovenstaande. Verder ben ik benieuwd of er ook wordt laten zien hoe de actie uiteindelijk is verlopen en of er bij de aanmelding al voldoende deelnemers zijn.	Ik heb geen functie gezien om de pagina met een actie te delen. Wanneer dat wel kan is het ook gemakkelijker om mensen in mijn omgeving op de hoogte te stellen van de actie, willicht meer mensen meedoen	None
17	8	Lijkt mij en goed idee	6	Heb nog niets gezien	7	5	2	8	None	None	None
16	5	Het hangt van de hulpvraag af. Is deze zeer urgent, denk ik eerder aan een melding via Whatsapp	5	het lukte mij niet een hulpvraag te posten, werkte niet	10	10	8	10	koppeling met Whatsapp?	Whatsapp, net als burgernet?	None
15	8	Het is een snelle manier om vraag en aanbod bij elkaar te brengen.	8	Eenvoudig en voor een ieder te begrijpen.	8	8	7	8	None	None	None
14	7	Ik denk dat het een goede zaak is als hulpaanbieders zich via een website aan kunnen melden. Via de website informatie over hulpvragen krijgen is misschien wat lastiger, omdat je daarvoor altijd naar de website moet gaan.	7	Helder en overzichtelijk	8	8	8	8	Ik zou er voor willen pleiten dat er een app (Android / IOS) wordt gemaakt, die de hulpvraag snel naar de telefoon brengt. Steeds naar de website moeten gaan om te kijken of er hulpvragen zijn is omslachtig en werkt misschien niet zo goed.	Zie hiervoor	Nee

13	8	hoe breder vraag en aanbod wordt uitgezet, hoe sneller en adequater de hulp	8	is goed	8	8	9	9	None	None	None
12	7	Zal het veel gebruikt worden?	7	Kan beter, het is erg zoeken naar de juiste informatie	7	7	6	5	Professioneler, net als tools zou handig zijn	Landelijke app ontwikkelen	None
11	9	Eigen initiatief platform bieden	8	Overzichtelijk, snel!	10	9	5	9	None	Regio? Meer mogelijkheden vaardigheden	None
10	8	Een update bij nieuwe ontwikkelingen is wel van belang.	8	GB	8	8	4	7	None	None	None
9	7	goed idee, maar wordt het niet een marktplaats voor hulp, wie bepaald wat wel en niet. Maar daar hebben jullie vast over gedacht. mijn eerste vraag zou zijn wanneer moet ik helpen, dat zie ik nu niet. Misschien optioneel kiezen voor direct helpen of een dagdeel of morgen.	6	ziet er helder uit. ik mis het aanpassen van mijn eigen teksten. Je typt snel wat en ziet dan het antwoord staan, dan kan ik mijn tekst er niet uithalen of bijwerken	6	7	4	7	zie boven	coördinatoren aanstellen die bepalen of iets wel of niet een hulpactie moet worden en zoeken op regio	None
8	9	Kunnen meer mensen misschien hulp geboden worden.	9	Goed leesbaar , duidelijk	9	10	5	9	Geen ideeën	Is vlgs mij goed!	Nee
7	10	Het lijkt een directere aanpak, waardoor de reactietijd sneller zal zijn.	10	Alles was duidelijk te lezen en overzichtbaar.	10	8	3	8	Meer informatie over de dagen/tijdstippen dat hulp nodig is.	Weet ik niet.	Nee
6	9	heel praktischj	6	op bepaalde punten niet duidelijk zoals waarom onder de hulpacties twee termen (b.v voedselbank en catering). Wat is de betekenis daarvan?	9	8	3	8	zie eerdere opmerking	prima idee	neen
5	9	Lijkt me handig	7	Nog meer verduidelijken (welke ondersteuning, waar autorijden)	9	7	7	8	De spelfouten eruit halen s.v.p.!!! In deze vraag bijvoorbeeld moet "verbetert" zijn: verbeterd. Ik help daar graag aan mee.	Meer suggesties misschien van mogelijke hulpvragen.	None
4	8	Het lijkt me een zeer goede manier om mensen te bereiken	7	.	10	9	8	9	.	.	Ga zo door, jullie doen fantastisch werk
3	6	Op zich is het een goed idee, maar vraag me ook af wat voor soort hulpvragen er komen en of deze ook gefilterd moeten worden.	6	Hij is overzichtelijk maar er staat nog te weinig informatie op om dit goed te beoordelen.	6	6	4	7	Meer uitleg over werkwijze en criteria	Indeling in categorieën Indeling in periode, aantal personen etc.	None
2	8	-	8	Makkelijk toegang en alles wijzigt zich vanzelf.	8	8	7	7	Ik zie nu nog geen verbeterpunten.	Geen idee.	Neen.
1	7	-	7	Voor alle R2H ers makkelijk te vinden..	8	9	7	8	Kan dat nog niet vinden, wat er verbeterd zou moeten worden.	Nvt.	Nvt.
34 responses	8.1		7.4		8.5	8.2	6.4	8.2			

N Categorization of comments

How would you rate the idea of matching help requests and help offers using a website?

Criticism:

Num. of responses	Rating	Response
1	5	Wil wel graag actief geïnformeerd worden.
2	5	Het hangt van de hulpvraag af. Is deze zeer urgent, denk ik eerder aan een melding via Whatsapp
3	7	Ik denk dat het een goede zaak is als hulpaanbieders zich via een website aan kunnen melden. Via de website informatie over hulpvragen krijgen is misschien wat lastiger, omdat je daarvoor altijd naar de website moet gaan.

Approval:

Num. of responses	Rating	Response
1	8	de meest eenvoudige manieren om mensen te informeren
2	8	Een website is een voor iedereen makkelijk te benaderen medium, de functionaliteit hangt af van de mate waarin hij up-to-date gehouden wordt
3	8	Het is eenvoudig maar zeer functioneel
4	10	Goede bereikbaarheid voor oproep
5	9	doel is goed. Zo is het als individu is het goed mogelijk als je wilt bijdragen een match te vinden
6	8	Zeer direct.
7	10	Daarmee krijg je duidelijkheid over de inzetten
8	10	Gewoon het is inzichtelijk
9	8	Gemakkelijk voor de hulpverleners
10	8	het is handig te zien of jouw hulp ergens nodig is of gewaardeerd wordt
11	8	Beide zijn laagdrempelig en voor iedereen bereikbaar.
12	10	het is een laagdrempelige manier, vrijwel iedereen kan tegenwoordig een website bezoeken.
13	8	Lijkt mij en goed idee
14	8	Het is een snelle manier om vraag en aanbod bij elkaar te brengen.
15	9	Eigen initiatief platform bieden
16	9	Kunnen meer mensen misschien hulp geboden worden.
17	10	Het lijkt een directere aanpak, waardoor de reactietijd sneller zal zijn.
18	9	heel praktisch
19	9	Lijkt me handig
20	8	Het lijkt me een zeer goede manier om mensen te bereiken

Suggestion:

Num. of responses	Rating	Response
1	8	Mits wel aan de gestelde afspraken wordt voldaan om wildgroei te voorkomen.

2	8	actief benaderen via sms werkt beter of via whatsapp
3	9	Hulpvraag gekoppeld aan e-mailnotificatie kan heel goed werken. Wellicht dat er toch nog altijd vragen aan een mens gesteld moeten kunnen worden over de hulpactie
4	8	Openheid en contact leggen is 1e vereiste, m.i.
5	8	hoe breder vraag en aanbod wordt uitgezet, hoe sneller en adequater de hulp
6	8	Een update bij nieuwe ontwikkelingen is wel van belang.
7	7	goed idee, maar wordt het niet een marktplaats voor hulp, wie bepaald wat wel en niet. Maar daar hebben jullie vast over gedacht. mijn eerste vraag zou zijn wanneer moet ik helpen, dat zie ik nu niet. Misschien optioneel kiezen voor direct helpen of een dagdeel of morgen.

Question:

Num. of responses	Rating	Response
1	7	Zal het veel gebruikt worden?
2	6	Op zich is het een goed idee, maar vraag me ook af wat voor soort hulpvragen er komen en of deze ook gefilterd moeten worden.

Uncategorized:

Num. of responses	Rating	Response
0	-	-

How would you rate the usability (user-friendliness) of this website?

Criticism:

Num. of responses	Rating	Response
1	8	Overzichtelijk kan nog wat finetuning gebruiken.
2	4	de site is onoverzichtelijk door de vele doorkoppeling waardoor je makkelijk informatie mist
3	8	Meedoen met actie kon prima ingevuld worden. Het plaatsen van een hulpactie lukte niet. Na het invullen van de gegevens volgde geen reactie op het aanklikken van de button 'plaats hulpactie'
4	6	het duurde even tot ik door had waar ik moest klikken
5	5	het lukte mij niet een hulpvraag te posten, werkte niet
6	7	Kan beter, het is erg zoeken naar de juiste informatie

Approval:

Num. of responses	Rating	Response
1	10	erg overzichtelijk
2	8	Het is eenvoudig en overzichtelijk
3	9	prima
4	9	Erg duidelijk, alhoewel ik gister geen beeld kreeg in de rechter vakjes (Locatie)
5	7	Ik deed op mijn telefoon.
6	7	Het lijkt goed te werken, maar de volledige functionaliteit heb ik niet kunnen testen
7	10	Omdat het goed is
8	7	Goed, alles kan altijd anders/ beter maar
9	8	Kort en snel
10	8	De website is gebruiksvriendelijk en wijst zichzelf.
11	8	Eenvoudig en voor een ieder te begrijpen.
12	7	Helder en overzichtelijk
13	8	is goed
14	8	Overzichtelijk, snel!
15	9	Goed leesbaar , duidelijk
16	10	Alles was duidelijk te lezen en overzichtbaar.
17	8	Makkelijk toegang en alles wijzigt zich vanzelf.
18	7	Voor alle R2H ers makkelijk te vinden..

Suggestion:

Num. of responses	Rating	Response
1	9	Het aanmaken van een hulpvraag of aanbod gaat erg makkelijk. Ik zou aanraden om een aantal vragen verplicht in te laten vullen zoals datum en tijd, waar het is en hoeveel mensen

		er nodig zijn. Dat is voor mij als hulpaanbieder handig om te weten en als ik nog op die informatie moet wachten dan is de kans groot dat ik afhaak om deel te nemen.
2	6	ziet er helder uit. ik mis het aanpassen van mijn eigen teksten. Je typt snel wat en ziet dan het antwoord staan, dan kan ik mijn tekst er niet uithalen of bijwerken
3	7	Nog meer verduidelijken (welke ondersteuning, waar autorijden)

Question:

Num. of responses	Rating	Response
1	6	op bepaalde punten niet duidelijk zoals waarom onder de hulpacities twee termen (b.v voedselbank en catering). Wat is de betekenis daarvan?

Uncategorized:

Num. of responses	Rating	Response
1	6	nog geen ervaring mee
2	6	Weet het niet.
3	6	Heb nog niets gezien
4	8	GB
5	6	Hij is overzichtelijk maar er staat nog te weinig informatie op om dit goed te beoordelen.