

SpreadHelp

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ABSTRACT

In this paper, we describe the process we went through in creating *SpreadHelp*. We used an iterative design approach which consisted of a 3 stage process, the Design, Development, and Deployment stages. The Design stage consisted of research into potential market, competitors already, and then more specifically the functionality those websites were using because we wanted to approach the market with unique points of difference. After deciding on a design, we kept switching backwards and forwards between what our functional Requirements were, and how could we truly stick to them. We wanted our User Interface to be simple and effective. To keep *SpreadHelp* simple and effective we have had to address many things that threatened to veer us away from the value we initially proposed.



Spread Help

Spread Help provides opportunities to the local Otago community, by providing an environment to online users. We allow users to search locally, donate simply, and leave with a positive user experience. Our system charges no overheads on transactions, and we offer charities a personalised payment system.

Requirements

Category	Requirement
Functional	Users can search for charities by location, name, or category.
Non-Functional	System must be secure and protect user data.
Performance	System must be able to handle a large number of concurrent users.
Usability	System must be easy to use for both users and charities.
Integration	System must integrate with existing charity databases.
Reporting	System must provide reports on donation activity.

Development Process

- Agile iterative approach
- Understanding
- Functional Delivery
- Robust Delivery

Technologies used

- yiiFramework
- php
- jQuery
- MySQL
- PayPal

Client letter

audacious

Key features:



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SpreadHelp provides opportunities to the local community, by providing a welcoming environment to online users. We're basically here to give a voice to the unheard. We have noticed that there are so many local charities are doing so much good, but have way too much competition in the big international charity market to be heard. These local charities are out on the street fundraising for improvements, or to give aid in nearby neighbourhoods, but when a person drops a dollar into their bucket, it seems like that's it.

The problem continues when we noticed that our local charities are trying to seek donations for their local branch,

but have to compete with their international counterpart, this is a further statement to our local charities who are doing great things, unnoticed.

Our local charities come in all shapes and sizes, and the smaller charities, who are desperate for funding because they are putting everything they have into their cause, have no way of pointing donating customers, when donating in person, to a place to continue donating.

People who donate these days have become so concerned about where their money is being spent that it is almost hard for people to donate to a good cause because it is increasingly difficult to separate the truth from lies. *SpreadHelp* is to help minimize the perception of deceit the charity industry is a victim of, and we promise only to have trustworthy, certified charities being part of the *SpreadHelp* environment.

SpreadHelp.co.nz is a responsive website aimed at facilitating the donation process for our local charities. We have created this site in hope to create a link between charities that fundraise on the streets of your local community, and the people walking by that really like your cause but don't have a dollar in their back pocket at the time.

We choose to develop *SpreadHelp* as a responsive website because of the many possibilities that it offers. We wanted people to use *SpreadHelp* on their phones but have the need of downloading a native application. *SpreadHelp* as a responsive website means that we can update our site unnoticed, and we can Style our site so it can be compatible over many different platforms.

A unique point of difference in how we are solving our problem statement is by asking charities where they are specifically located. Our users then have the ability to find charities that are literally just around the corner. We feel that people are over-looking the charities that are operating in their own facilities because they just don't know, and have no way of finding them unless they had a specific name, or the specific site they are advertising on. We have designed *SpreadHelp* so people can just search by location and find these charities that are shouting out for them.

We have sought opportunities by observing similar implemented methods of a splitter bar (Figure 1.) in online PWYW (Pay What You Want) systems. In respects to this research we decided to give our users increased control over

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the donation process. Giving users the ability to simply add/remove charities to the splitter bar means they're that much more likely to spend a dollar or two on other charities when visiting our site. E.g. coming to our site and specifically wanting to donate your \$25.00 budget to Red Cross, but upon arriving you notice that the Rescue Dogs Dunedin is also just a click away, so give a small portion to them. These small donations may seem to mean nothing, but these dollars are creating a spread in the allocation of donations. This spread we feel can benefit all charities within all local communities.

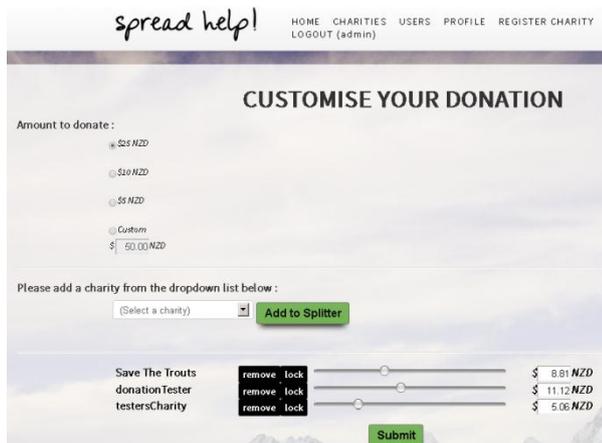


Figure 1: Splitter Bar

Users love the splitter bar, but a problem Charities are having arises in our \$25.00 Red Cross example; a user giving \$5.00 to Rescue Dogs makes him think that he is spreading help, and that he is doing a good thing. But some Charities think of that \$5.00 as \$5.00 they aren't receiving because of the Splitter Bar. If they want to advertise for Users to donate to them why use *SpreadHelp* when we are allowing Users to take money away from them and spread it to other local charities? A solution to this is our key feature called QuickPay. QuickPay is a URL that *SpreadHelp* issues Charities upon registration. This URL links the person to a personalised donation page specifically for the charity advertising, from there all the user needs to do is select an amount to donate, and then submit the form.

When it came to the decision of the development platform, we came to three possible solutions, which were PHP, Python, and Ruby. We have outlined the pros and cons for each platform discussed, but ultimately in the end to make a decision between which one we would use was based on a well thought of criteria.

We primarily choose PhP because of its community, it is easily deployed, and it has cross platform capabilities. The criteria our database needed to meet was that it had to work with open source software, and it had to be free. And of course it must be a relational database. For these criteria and the following reasons: Scalability and Flexibility, High Performance, Free, works natively with the Yii framework we have decided to use – we decided to use MySQL.

With the transferring of people's money being a core part of our system we will need to rely on a third party trusted secure payment provider.

We decided to use PayPal (Figure 2.) because they offer an adaptive payment system which allows us to send one payment to multiple recipients, they take a small percentage on each transaction which would give zero overhead to the system architecture in this aspect.

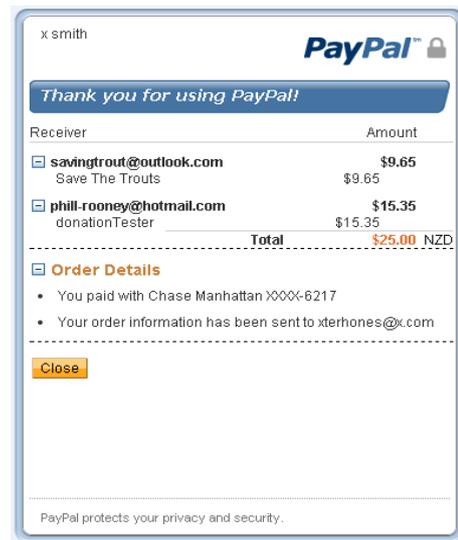


Figure 2: PayPal

Our initial tests were done through the paper based prototyping. From our paper based we realised some keywords were causing confusion. Overall we felt the paper based prototype confirmed a lot of our beliefs of where the project was heading, and what issues we would be facing.

Our Second round of testing (Figure 3.) was done when we had the final product, and was asking users about the user experience. We also contacted clients asking about what information they wanted to portray and any ideas they felt needed to be included.

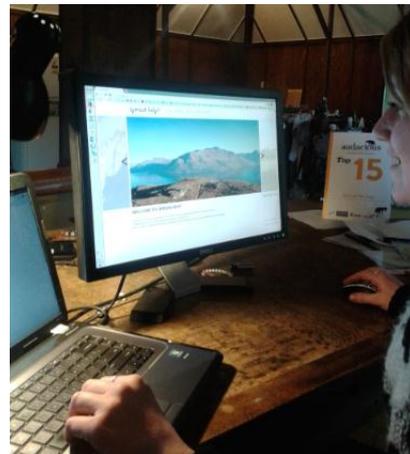


Figure 3: Final Product Testing Phase

SpreadHelp has changed so many times over the year, and in the end we have settled with a simple and effective product that has been created to bridge the growing gap between users and charities because of the discrete deceptiveness of this environment. We wanted *SpreadHelp* to only consist of trustworthy charities, we didn't want to take any money away from their great causes, and we wanted our users to be able to walk past the supermarket and see a charity they liked. If they didn't have a dollar in their pocket at that time we wanted these people to be able to go home and simply find that charity online. We found that the best way to do this was to search by the location that they said they were helping in. Finding charities in the big international markets these days is a strain and we wanted this process to be facilitated, and we think we are in the right direction in doing so.