

VACANT 2 VITAL - V2V

Project Summary Report

The Project

Vacant to Vital (V2V) is a volunteer project that is focused on connecting landowners of vacant, urban lots to people who can activate the land through community agriculture. Our aim was to create an application wherein land seekers could find a vacant plot and get in touch with the landowner.

Initial Evaluation

The initial evaluation consisted of gaining an overview of the project and the requirements by meeting the client. This provided an insight to the focus area of the project, specifically, facilitating an easy and intuitive matchmaking process for the land seekers to get in touch with the landowner. Researching about the existing system and the available data set led to a better understanding of the requirements. The team investigated survey methods for the landowners and seekers and decided to use both paper prototype as a means to gain feedback and having a subjective survey as we had the chance to speak with only one landowner and land seeker. Based on the client requirements and our understanding of the goals, we created paper prototypes as explained in the next section. The surveys consisted of meeting the people and asking about how they would react to such an idea, using a map versus location based search navigation, things that would build their trust in the system and in general gaining their perspective on their expectations and requirements. We also had a field visit and spoke with on-site workers to understand the end user perspective.

We discovered during this process that the owner would want a personalized postcard design with friendly language and most importantly a postcard that doesn't appear to be spam. We also concluded from the discussions that having a validation for filtering abusive request would be a good to have feature. The land seeker wanted to have a map based navigation to view the existing vacant lots.

Prototype Developed

Based on the requirements and feedback to our initial prototypes, we created a responsive website which would work well on mobile devices as well. Keeping in mind, the preference of the users for map based search, we employed Google Maps initially to map the vacant plots. However, we switched to ArcGis which is a map view incorporated with geolocation and the existing vacant plots highlighted. When the land seeker selects a plot, its details are visible with a button to contact the owner. This button leads to a user form which gathers the seeker's information and generates the postcard which we designed, and prints the seeker's information. On successfully generating the postcard, the seeker is informed. The postcard is then mailed to the owner. As and when the owner clicks on the link present in the postcard, the page click is recorded as part of the analytics dashboard. This can also inform us the location user is accessing from, the device user is using, etc.

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Final Evaluation

After meeting the clients and getting feedback on the prototype focused on new requirements including filtration of offensive language, building trust in the site. One of the challenges faced was to understand the initial idea as it is novel in nature and dealing with deadlines as we got a chance to survey the users later than anticipated. The dataset contained multiple features and extracting meaningful results from it without the domain challenge posed a challenge as well.

One of the biggest roadblocks was the decision to use ArcGIS over Google Maps. Google Maps, while, it allowed to plot the vacant land would only depict a pointer as opposed to the shapes of the available land. The coordinates format of the dataset was different and was not able to locate the plots on Google Maps. We used the plot address to mark the same in Google Maps but some plots were missed due to unresolved addresses. The dataset format was helpful to easily render shape files which was a feature available in ArcGIS which led to choosing ArcGis over Google Maps.

The prototype not only manages to succeed in meeting the client requirements but also incorporates the various value additions as per the initiative of the team. Google Analytics as a value addition serves to provide an idea if the owner has clicked on the seeker's request also indicating the platform on which the URL was accessed. The postcard API is utilized to connect to a service to send out the postcards and their design has been customized as per the owner's preference.

We believe that we have achieved our goal of making a minimum viable product (MVP). However, as beginners in experience designing we learnt a lot as we were progressing on the project and thought of the direction how this could shape up in future.

Future extension of work

A primary step would be to manage land owners and seekers information database. A matchmaking algorithm can be created that would match owner to an activator based on their profile and current needs. Also, we could fasten the process of matchmaking as we would no longer depend on postcard. The land owners not interested would also be able to unsubscribe from the mails if they desire. Further, we could allow the owner to add pictures of their vacant lot can help the mental model of the seeker. We could also have enhanced land filtration and more user verification techniques(email, sms, etc.). Right now the application works in browsers. These could also be pushed as standalone Android and iOS apps if there is a demand.

Another takeaway from our meeting with Lauren was that such projects are often group efforts since they involve a huge amount of work and coordination. There is a chance that actuators might be interested in a land but does not have the resources or manpower, which could be obtained by allowing them to team up with like-minded people through the application.