Rising Waters Team 1
Resource Mapping Spring 2022
Final Summary

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Goals

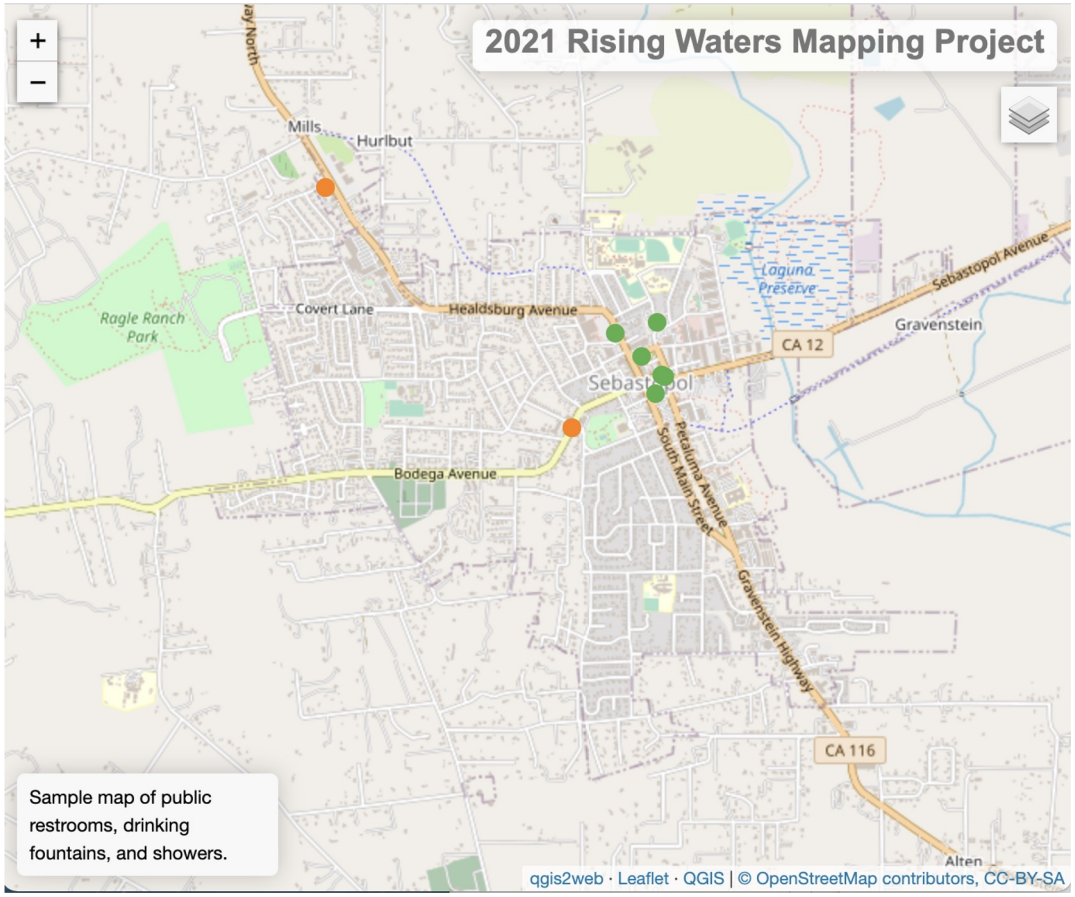
Continue development of the resource mapping tool begun in Year 1 of the Rising Waters collaborative.

- Compile list of “required” and “nice to have” features for the service from stakeholders
- Investigate various QGIS and other services for the ability to support the required features
- Determine short-term and long-term options for the service
- Characterize uses for the service via discussions with stakeholders.

Prior Work

2021 Rising Waters Team 1

- Prototype
- static website generated via a QGIS plugin



Timeline

Jan

- Kickoff & kickoff meeting (1/28)

Feb

- Survey: ArcGIS QField for QGIS (formerly QGIS for Android), Input, IntraMaps Roam
- Contacted and met with David Sul about prior year's prototype (2/4)
- Met with Chris Hallee re: scoping (2/11)
- Met with Darryl Maney re: how Team 2 can do data collection (2/15)

March

- Revised project goals: research HFOSS
- Survey: Sahanna/Eden; Uwazi, Ushashidi; Humanitarian Toolbox; etc

April

- Selected Ushahidi
- Trial deployment into development environment
- Contacted Team 2 for test data input
- Contacted SSU IT re: deployment of prototype

May

- Configure development environment to test features, feeds, etc
- Contacted Ushahidi for information about hosted options
- Complete deliverables per SOW

Requirements

- visualization of data on a map
- associate pictures with mapped data
- associate text with mapped data
- navigable as a website
- responsive web design (mobile-friendly)
- multiple users can enter data onto website
- data can be entered via mobile devices in the field

“Nice to have” Capabilities

Yelp-style functionality

- crowd-sourced photo gallery
- crowd-sourced meta data (hours of operation, amenaties)
- users able to submit new data
- users able to update / improve data over time
- rankings on cleanliness

Content Management features

- post moderation by editors
- limiting audience of some posts & data
- API for publishing and data ingest

Water Quality features

- Input and track water quality data

Survey

Did not survey any water quality monitoring options, but they exist:

- mWater
- Open Waters

Generally, surveyed HFOSS that appeared to supporting mapping data based on what is listed here: http://foss2serve.org/index.php/HFOSS_Projects

Of those, we found and tested the three best candidates

Survey: Sahana / EDEN

Background

- Caters to victims involved in an International Crisis
- Used for Disaster Management

Summary

We created an Eden Server, where we tested out the platform to see if it was the right fit. However, we decided to move on to other options because we felt that Eden was not suitable for our objective.

Pros

- User Friendly Platform
- Contains a lot of useful resources and tools that could be very helpful to NGO's or individuals affiliated with, e.g., United Nations

Cons

- Half of the resources would not be applicable for our organization. This includes the importation and exportation of goods, inventory and supply tracker and more.
- This made the layout and navigation poor for our purposes

Survey: Uwazi

Background

- Oriented towards Human Rights organizations and collecting data on Human Rights violations.
- Curate and search text-based "collections"

Summary

We did not need to install Uwazi, since there is an open demo instance (anyone and checkout its features), but we did not dig deeply to learn all configurable options

Pros

- Strong emphasis on privacy and security.
- Easy to set up.
- Hosted options are available

Cons

- Treats all data sources equally (text, PDFs, word processing documents, photos, images, video and audio) and so it not particularly geared toward our use case (mapping data with photos)
- Map view is not the default or central way to navigate data

Survey: Ushahidi

Background

- Supports "activist mapping" (combination of social activism, citizen journalism and geographic information)

Summary

This was our favored option. The map view is (or can be) the default way to explore data

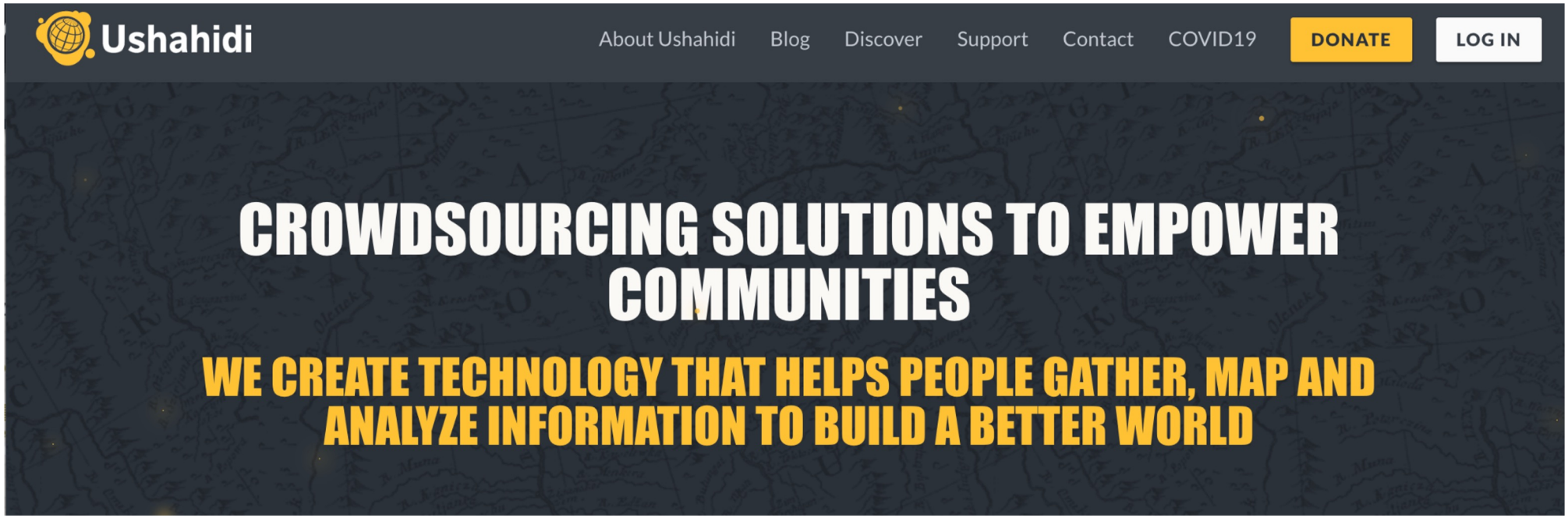
Pros

- Strong emphasis on mapping
- Strong emphasis on crowdsourcing
- Good data privacy and controls
- Supports public and private "data feeds"
- Configurable reports for data ingest (i.e., we control what a report holds and shows)

Cons

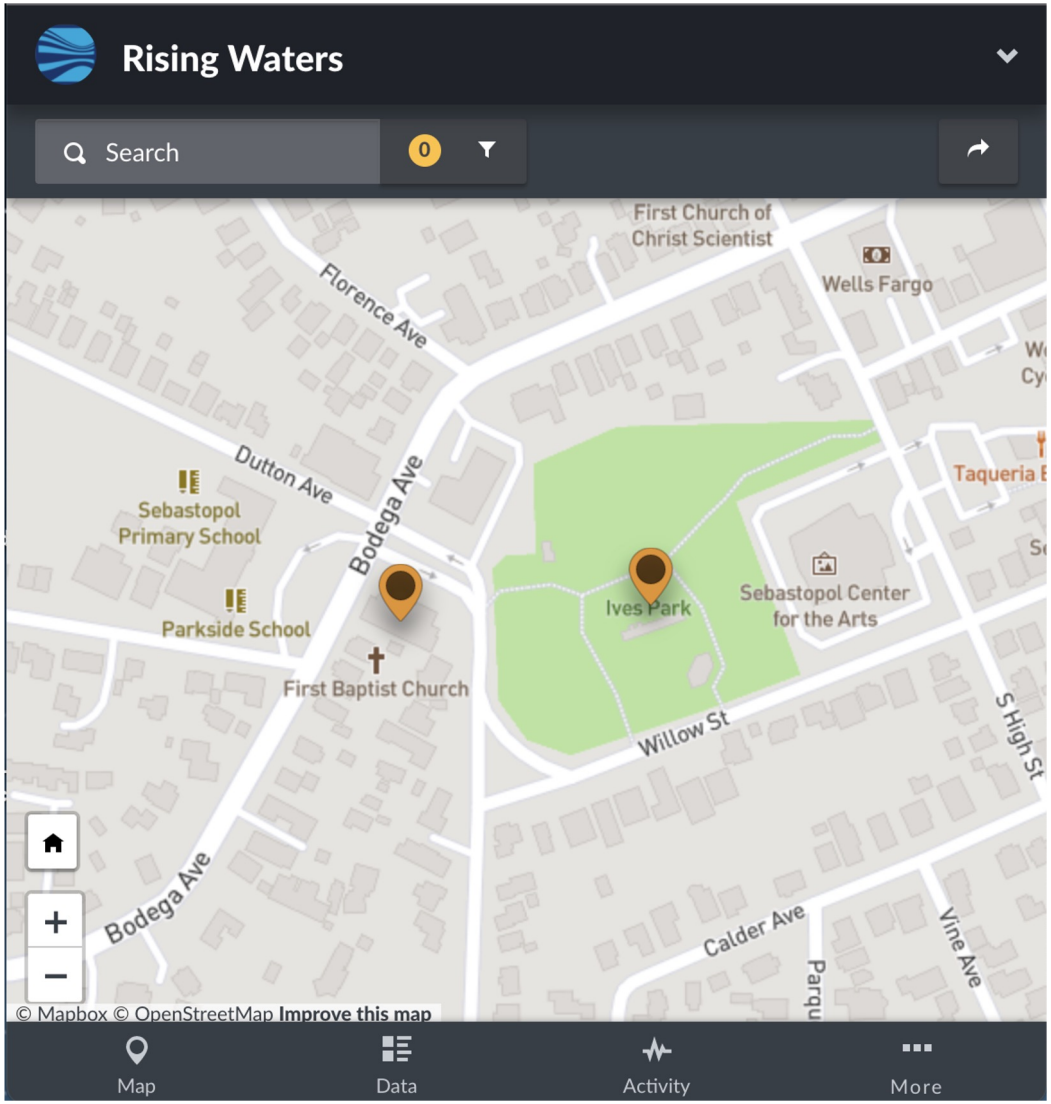
- Does not appear to support any SSO options

Ushahidi Selected for Prototype



Prototype

Shown: our Ushahidi Prototype in VM



Development Plan

Short-Term

- Host an instance of Ushahidi at SSU
- Support limited users

Long-Term

- Hosted Ushahidi
- Scales better, more appropriate for working with non-SSU stakeholders

Hosted Ushahidi: Pricing

Ushahidi Basic

Ushahidi Basic

Collect, monitor, analyze, and respond to real time incidents and engage with stakeholders

$0 /mo

until 31 January 2022, then $49.9

- 1 Deployment
- 25 admins and/or custom roles
- Unlimited posts
- Web, Email, SMS, & Twitter data collection
- Map, timeline, bar chart, & line chart data visualization
- Import & Export data

Hosted Ushahidi: Pricing

Ushahidi Enterprise

Ushahidi Enterprise

Ushahidi platform capabilities, technical expertise, ongoing support, and customizations.

Enterprise plans starts at $5,000.

Projects include all Basic features and much more, contact us to find out about the full a catalogue of technical services on offer.

- Comprehensive Setup and configuration of your development
- Assistance with survey design
- Training users and administers to use the service
- Web hosting that ensure availability of your development, and that your software will be up to date with the latest resources
- Access to technical support
- You will be assigned with an account manager who will work with you throughout the life of your project

Accomplishments

- Surveyed tool for mobile data entry with QGIS and QGIS extensions for content management to enhance 2021 prototype
  - ArcGIS QField for QGIS (formerly QGIS for Android), Input, IntraMaps Roam
- Assessed limitations of 2021 prototype
- Enumerated feature list
- Surveyed relevant HFOSS and recommended solution
- Trial configuration of Ushahidi
- Investigated hosted Ushahidi solutions
- Began process to self-host second prototype

Next Steps

- Configure our prototype instance of Ushahidi
- Enter Team 2 data
- Get Feedback from stakeholders

- Write scripts to help with data ingest
- Write scripts to help with blurring faces & resizing pictures