Crowdsourcing Volunteer Tasks

Shloka Desai
Department of Computer Science
University of Arizona
shlokadesai@email.arizona.edu

Luis Rodriguez
Department of Computer Engineering
National Autonomous University of Mexico
luigisrs@gmail.com

Saiph Savage
Department of Computer Science
University of California, Santa Barbara
saiph@cs.ucsb.com

Norma Elva Chavez
Department of Computer Engineering
National Autonomous University of Mexico
norma@fi-b.unam.mx.

Angus Forbes
School of Information: Science, Technology and Arts
University of Arizona
angus.forbes@sista.arizona.edu.

1 MOTIVATION

Most people in this world want to do good. But they don't want to spend their hard-earned money on something the can't see fulfilled and they don't want to give up time that they could have better spent doing things they actually love doing.

It is also true that a lot of the government and NGO funding for humanitarian/relief causes goes into overheads like setting up a website, holding fundraisers and publishing ads when it could have been better spent feeding a hungry child.

Here we propose an interface that brings together these two groups of people. It does this in two ways: first by visualizing all the tasks a user could do at any given time to reduce overheads based on their skill set, location, and availability and second by allowing community leaders/non-government organization to search for such people to join their cause.

The key idea here is that everyone has one thing they love to do: painting, photography, reading, teaching, web development. What if there was a way for them to do these things, and at the same time help reduce the overheads of these organizations? People who love photography, painting and any form of art could auction their pieces off and help raise funds. People who love web development could develop a website for an NGO and save the NGO thousands of dollars.

Also, the visualization in itself could act as a message. If we visualize every single task that could be crowdsourced in this world, the sheer volume would be enough to inspire more people to want to help. We also need to show that a person need not be a billionaire to make a difference and that donating time will accomplish as much as donating money, if not more.

2 CURRENT IDEAS

We have two interfaces, the first is a visualization interface, and the second is a people categorization tool.

2.1 Visualization Interface

The visualization interface allows for three different types of people to search for tasks: individuals, companies, and governments. Individuals search for tasks based on their interests, availability and location; companies search for services they can "donate" (for example, newspaper companies could donate ads); and governments search for tasks that their citizens have added for them (these involve things citizens see in their city every day that need fixing).

Currently we have two sources for the tasks; manual entry and data mining from Twitter and Facebook. Manual entry involves the organizers entering all relevant information into a database, and data mining involves real time collection of information from various social networks.

While going through the data we mined from Twitter, we discovered that there are lots of tweets on a daily basis about events such as protests/food drives/fundraisers etc. For this data alone we plan on creating a visualization for events. The visualization would show all the humanitarian/relief events that are taking place right now based on location of the user.

2.2 People Categorization Tool

This tool allows community leaders/non-government organization to search for relevant people to join their cause based on the person's profile. Each profile has the person's skills, background, interests, and ratings from other members.
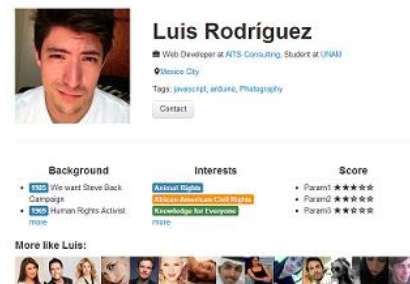

Fig 1 The People Categorization tool, with a sample profile.

3 RELEVANCE

1. The visualization interface allows users to fiddle with parameters while seeing the changes visually.
2. It caters for users with all kinds of interest.
3. Provides another way for citizens to reach out to their government.
4. Allows for resources to flow across borders without people having to travel.
5. Great tool for economists/governments/international organizations to see what regions require more resources, in effect helping them manage our resources better.

4 RESEARCH AREAS

Big data, data mining from social networks, dynamics involved in crowdsourcing tasks to people/groups of people/companies, crowdjournalism, scalability in information visualization.