

## **Improving Visibility of Charitable Donations**

### *The Problem*

One of the biggest limiting factors for charitable organizations is a lack of sufficient funds. Several of the organizations we reached out to expressed that they feel that too many resources go towards fundraising and not enough to running their programs. In 2017, 70% of charitable donations came from individuals. One of the biggest concerns individuals have when deciding what organizations to support is whether or not their contribution will have a tangible impact on the issue and the community.

Some organizations have expressed their desire for a system that would allow donors to, in some way, track the impact of their donations.

### *Current Solutions*

Organizations presently dedicate some of their resources to fundraising. Additionally, many charities and organizations run campaigns on crowdfunding websites such as GoFundMe.

### *Challenges/Limitations*

Lack of awareness of many organizations and their programs, lack of visibility on the impact of donations

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## **Improving Access to Resources**

### *The Problem*

Clothes for Kids provides new school clothes to low-income K-12 students across Snohomish County, but due to their small size, they only have one physical location. Communicating their location to low-income and homeless families has proved difficult, and thus many families are unable to access their services. In order to more effectively distribute these services, they would benefit a solution that aids in connecting consumers with their service.

### *Challenges/Limitations*

Most of Clothes for Kids' clients are low-income and/or homeless, and thus some will not have access to technology.

## **Improving Donor Appreciation**

### *The Problem*

A large factor in whether or not individuals choose to continue donating to an organization is the impact they perceive their donation to have. One way in which organizations can show their donors the impact of their donation is by expressing their gratitude in some way.

Clothes for Kids, a charity which provides new school clothes to low-income K-12 students in Snohomish County, would benefit from a solution that aids in communicating with their donors.

### *Current Solutions*

“Network for Good” is a tool for helping organizations fundraise. One of its features offers sending thank-you messages, but often some donors fall through the cracks and the generated auto-thank you messages seem very “canned.”

### *Challenges/Limitations*

Information inputted into the system would include donor names and type/value of donations, which would be sensitive personal and financial information. As a result, this solution would need to be privacy-focused. Additionally, the charity has very limited financial/time resources - only 3 full-time employees.

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## **Improving Data Visibility/Analysis**

### *The Problem*

The City of Seattle’s Human Services manages lots of data about homelessness and other topics, but it is often difficult to make sense of it. Without a good way of analyzing and visualizing the data, it is difficult to draw conclusions from it. Additionally, the data is often kept track of in ways that make it difficult to interface with other tools.

This organization would benefit from a solution that would allow them to a) store data in a way that will support interfacing with existing data analysis/visualization tools and b) provide a way to visualize/analyze existing data.

### *Current Solutions*

There are many very powerful tools for data analysis with various learning curves, from Microsoft Office Excel or Google Sheets, to Tableau, Airtable, R, Python. They all have their pros and cons, but generally the more powerful and versatile the tool, the more difficult to use and understand.

### *Challenges/Limitations*

Most charitable organizations do not have enough technically-trained employees nor enough time to learn to use most of the existing tools. Any solution to this problem would need to be designed with ease-of-use in mind, as this is the primary obstacle faced by the organization with all of the other tools.

## **Improving Data Persistence for the Homeless Community**

### *The Problem*

Volunteers at Harvard Homeless shelter have a street team that goes onto the streets to help people. However, the team needs to track information about people's whereabouts in order to reach out to them in the future (for instance if they have opportunities available for them or want to track their progress). Different volunteers working with the organization are working on the streets at different times. For example, Volunteer 1 might meet a person at a certain time at a certain location and records what the person needs. Volunteer 2 might come to the same location at some other day and would be unaware of what the person looks like and where exactly he was located before.

Volunteers working with Homeless shelters also tend to be vulnerable to safety issues. Instances of violence often take place and people who break the policies of the homeless shelter need to be tracked so that it can be dealt with.

### *Challenges/Limitations*

Any data solution to this must be incredibly careful and considerate of the privacy concerns for this community. The issue of privacy is especially relevant to the homeless community, so identifying individuals should not depend on sensitive information such as Social Security Numbers or even images (ideally).

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## **Universal Software for Housing Development Organizations**

### *The problem*

Affordable housing is complicated by funding mechanisms, bureaucracy and the current systems used for internal organization and communication with the public and private sectors. Mercy Housing is a national organization with headquarters in Denver and hundreds of properties in 41 states. Geographic dispersion makes it hard to reach all locations, meeting local and national requirements and deadlines for funding, organizations, governments. A common application to streamline the organization and communication is needed, something that is centralized but allows for local customization.

### *Challenges/Limitations*

Data access to public info, public record info regarding public evictions, can be hard to piece together and tenant applications are all mostly paper. Currently challenging to query the database.

### *Resources*

Excel is widely used by the organization and it is a goal for them to help all employees understand and navigate this application. Mercy works with many organizations that use Microsoft Office/Suite, Sharepoint, and Excel which works well but there's difficulty to get everyone on the same page and very difficult to get everyone to use these applications properly.

## **Improving Identification in the Homeless Community**

### *The problem*

One major problem for getting financial support to homeless people is getting identification/documentation. Proving identity is necessary for most financial support, but frequently, no official ID is carried by people (driver license, passport, SSN card, birth certificate, etc.). Creating a system which allows people to be matched into the system (for example, DNA/genetic information, facial recognition, etc.) would allow funding to be distributed to otherwise qualified people.

### *Challenges/Limitations*

There is an obvious privacy concern in identifying a vulnerable population, possibly leaving them open to tracking and surveillance. Such a system would require serious security, as this is personal identification information and as such is very sensitive. An additional challenge will be merging disparate state/national databases, which may not be regularly maintained, and may not be publicly accessible.

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## **Improving Client Tracking for all Needs Levels**

### *The problem*

One major problem for giving support and resources to homeless people, is getting support to all the different segments of homeless people. Most funding has gone to programs that target high-need people. This creates a gap between the the people needing the most support and little to no support. The department of HUD has a tool for client tracking. Unfortunately, this is only allowed for clients that need the most support. A dedicated system for data tracking (for example, personal info, criminal history, financial history, medical, etc) for all homeless people to bridge the gap and allow the current funding to reach more people.

### *Current Solutions*

Many current solutions are excel spreadsheets.

### *Challenges/Limitations*

The main challenge is a privacy concern in identifying, tracking and surveilling a vulnerable population. This would require serious security, and an additional challenge will be merging disparate state/national databases. These databases may not be regularly maintained, and may not be publicly accessible.

## **Improving the 211 Phone Service System**

### *The problem*

The [211 telephone service system](#) provides a way for individuals facing many different kinds of problems to discover programs that may be able to help them. According to our source at a local organization battling homelessness and poverty, many people in a homeless situation are told to dial 211 for information on available support programs, shelters, etc. The problem is that this system is extremely overloaded and unable to meet demand. Devising a technological solution to help more efficiently deliver information about 211 services would allow more people to be served.

### *Current Solutions*

The 211 system website is aimed at making the information more accessible to the masses, without the need for a telephone conversation. It is worth noting, however, that it is much easier for many people to interact with a voice on the other end of a line than with a website.

### *Challenges/Limitations*

The solution, like all other solutions in this space, will be used by people without much time to learn a new technology, so a lot of consideration must be taken when thinking about the interactions a user will have with it.

### *Resources*

In our research, multiple sources have confirmed that most people, even in homeless situations, have access to some form of web-enabled technology for some time in the day. Some even have smartphones. Solutions to this problem can use this knowledge to guide their design and impact estimation.

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## **Improving Accessibility of Technology for Homeless Populations**

### *The problem*

Much of modern life is tied to computers, from consuming information to contacting family or applying for jobs. However, many in the homeless community have limited access to computing resources, which can perpetuate their situation. Some shelters, libraries, and other organizations can provide access to these resources with limited capacity, but this limited access is an impactful disadvantage to those in homeless situations.

### *Challenges/Limitations*

Many of those in the homeless community are disabled, veterans, and others who face more difficulty adopting new technologies. This should be considered when designing and hardware/software interface these users would be expected to interact with.

## **Improving Accessibility of Resource Guides for Homeless Populations**

### *The problem*

Many shelters and homeless programs have tons of resources and helpful information for the homeless population. Resources range from mental health to affordable housing. However, for many people who need the resources they are unable to find the information without going to a shelter. If they have never been to a specific shelter they will have no idea what resources the shelter can provide them. Many of the resources available can have a huge impact on an individual, but the limited reach of the resources is very detrimental. Find a way to let the homeless population know about all the shelters.

### *Challenges/Limitations*

Providing access to mental and physical healthcare. Merging all the databases from the shelters to one main resource. Making the platform known to the homeless population.

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## **Improving Drug Accountability**

### *The problem*

Human sex-trafficking survivors are often housed by organizations, such as Real Escape from Sex Trade (REST), during their transition to find work and housing to sustain everyday expenses. Most residents at REST must take prescribed medication for health reasons related to depression, anxiety, PTSD, insomnia, etc. This a daily task, but due to the unique prescription of each resident, it is difficult to for an employee to supervise every inquiry for drug consumption. The efficiency of current methods could be improved.

### *Current Solutions*

To ensure exactness of drug count, an employee hands the resident's medicine box and requires the resident to count each medication on the watch. Drug count and check off of every med intake is recorded with pen and paper.

### *Challenges/Limitations*

The residents have been in a position where power dynamic could be a sensitive issue for them. Drug accountability and unreasonable suspicion could affect the relationship of the employee and the resident, which could negatively impact their views on transitional-housing institutions, such as REST.

## **Improving Web Presence of Charitable Organizations**

### *The problem*

Nonprofits and charitable organizations can't employ expensive software developers to design, build or maintain their websites. Thus, these organizations find it hard to establish a professional online presence and miss out on simple opportunities to interest volunteers or donors like blog posts or event updates. Lack of a significant online presence also makes it hard for potentially interested stakeholders to engage with organizations. As establishing a web presence becomes increasingly important, charitable organizations are falling behind due a lack of resources.

### *Current Solutions*

Website builders like WIX or Weebly make it easy to spin out semi-professional websites with in-built content management systems.

### *Challenges/Limitations*

Tools like WIX and Weebly still require a certain level of technical knowledge. They also cost money and solutions often look incomplete. In-built content management systems are complicated to use and require constant monitoring, which might not always be feasible.