VolunteerSense Project Update
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VolunteerSense is a web application designed to help nonprofits onboard, engage, and retain volunteers. Our goal is to help nonprofits automate key volunteer interactions, allowing them to move away from inefficient methods of volunteer management, scale up their volunteer community, and refocus on advancing their mission.

I. Value Proposition

Managing volunteers is a major pain point of nonprofit administration. Nonprofit employees spend a large portion of their workday entering volunteer data into Excel and filing volunteer-related paperwork. People's Emergency Center, a nonprofit whose mission is to "nurture families, strengthen neighborhoods and drive change," reportedly spends 300 hours each year processing volunteer requests and waivers. In many cases, small nonprofits are prevented from scaling up their volunteer base (and impact), simply because they lack the resources to hire an entire team to manage volunteer logistics. VolunteerSense alleviates this pain point by serving as a single source of truth for nonprofits to interface with their volunteers.

One challenge of the volunteer management process is onboarding new volunteers. Volunteers are often required to complete waivers, which are later a hassle to find when needed for service events. VolunteerSense accelerates the onboarding process by allowing nonprofits to upload blank waivers, which volunteers are notified to fill out electronically. Nonprofit employees can then catalog and reference these waivers, allowing them to determine volunteer eligibility for events with clearance requirements.

Another challenge faced by nonprofits is engaging and retaining volunteers. Maximizing engagement is important to nonprofits because committed volunteers recruit other volunteers and later become donors. However, nonprofits suffer from attrition with volunteers failing to complete required waivers, not attending events they register for, or only attending one event. By tracking users through each stage of the volunteer management funnel, nonprofits can nudge disengaged volunteers, convert engaged volunteers to donors, and understand why volunteers stop interacting with the nonprofit over time. The application also solicits volunteer feedback, which nonprofits can use to improve the volunteer experience, and learn which service events best boost engagement.

II. Customers, Stakeholders, and Market Analysis

Customers: VolunteerSense's impact, retention, and growth can be maximized by targeting small nonprofit organizations (less than 5,000 volunteers), whose expansion is limited by an inefficient allocation of volunteer management resources. Larger nonprofits generally require a dedicated technology team and customized software that integrates with existing infrastructure, in order to meet their specific needs, as demonstrated by our interview with Best Friends Animal Society (10k volunteers). However, for smaller nonprofits, this solution is not possible and such customized software is unnecessary, given that they often lack existing technological infrastructure. Our customers require an affordable, user-friendly application with a minimal learning curve, like VolunteerSense, to enable efficient completion of daily volunteer management tasks and maximize impact. For example, one potential customer, Bread and Roses Community Fund (20 volunteers), stated that VolunteerSense would enable them to scale their volunteer base by a factor of 3.

Stakeholders: In addition to nonprofits, our stakeholders include nonprofit partners, such as corporations and schools who mandate or encourage service hours for employees and students, respectively. Furthermore, the volunteers themselves are stakeholders, because they want to engage in meaningful service work and feel appreciated for their contributions. Donors are also stakeholders in VolunteerSense, since they play a huge role in supporting nonprofits, with private charities contribution reaching $427 bn (2018) and grant-sponsored charity funding totalling $77.7 bn (2019) from over 86k grantmaking foundations. Donors would like to see nonprofits have greater efficacy in recruiting and engaging volunteers, allowing them to pursue larger service campaigns.

Market Analysis: In 2016, 1.54 mn nonprofits were registered with the IRS contributing an estimated $1.05 tn (5.6% of GDP) to the US economy. Two-thirds of nonprofits are classified as small (less than $500k/year in expenses), and these nonprofits collectively comprise less than 2% of total nonprofit expenditures ($2.48 trillion). 25% of the US population (64 mn adults) volunteered an average of 8.8 hours/volunteer in 2017, most commonly assisting with Social Service (25% of time) and Administrative activities (22% of time). With VolunteerSense, we hope to target small US-based nonprofits (1.03 mn) and significantly decrease expenses and time spent on administrative activities by both nonprofits and volunteers (123 mn hours).

III. Revenue Model & Costs

To generate revenue, VolunteerSense will use a tiered, yearly subscription model with three pricing brackets depending on the number of volunteers (0-100, 100-1000, 1000-5000) that the nonprofit manages. Based on market research, 5000 volunteers is an upper bound estimate for the number of volunteers managed by small nonprofits. Brackets with more volunteers will have a higher price than brackets with fewer volunteers. Exact prices are uncertain at this stage, as VolunteerSense is preparing to undergo user testing with a nonprofit partner in the coming weeks. We will use our nonprofit partner's feedback to obtain a more concrete understanding of their willingness to pay for VolunteerSense. We will also be surveying other nonprofits about their willingness to pay for VolunteerSense to help generate prices and adjust the sizes of the pricing brackets, if needed.

VolunteerSense's costs consist of domain, hosting, and storage costs. Buying a web domain costs $12 per year, using Heroku's web hosting services costs $14 per month, and Google Cloud Storage's standard plan costs $0.026 per GB per month. Thus, assuming that the application will need to store a maximum of 1 mn clearance forms, VolunteerSense's total annual costs are $367.20.

IV. Competition

Surprisingly few applications are designed for volunteer management. Salesforce for Nonprofits is the only large player, and their software is too expensive ($150-325/user/month) and unintuitive for VolunteerSense's target market. Other large relationship management platforms focus solely on donor relationship management. While there are similarities between volunteer management and donor management, volunteer management has many unique challenges, such as handling waivers and scheduling service events. Consequently, both Salesforce and these other donor management systems are limited competitors for VolunteerSense.

There are a few smaller players in the volunteer management space that we consider competitors. Galaxy Digital, for example, is a "[m]obile-friendly volunteer management software…[d]esigned to help [nonprofits] increase engagement, develop long term relationships, and track involvement." They charge nonprofit customers $1000 per year. GalaxyDigital offers 24 features and expects nonprofits to decide which features to utilize, which is likely overwhelming for nonprofits without an existing technical solution or limited experience using technology. Instead, VolunteerSense focuses on providing a few key features that nearly all nonprofits need to onboard, engage, and retain volunteers.

Another competitor is Volgistics Volunteer Management, a volunteer management system with features including volunteer scheduling, volunteer tracking, and text and email communication. Volgistics charges based on the number of volunteers to be managed, number of documents stored, and inclusion of a few key features. A nonprofit with 2000 volunteers and 4000 spots in document storage will pay around $159 per month. During interviews, nonprofits People's Emergency Center and The Columbus Academy both stated that processing waivers on a per event basis was the most time consuming component of volunteer management. VolunteerSense thus specifically addresses the clearance process, while Volgistics does not. As a result, we believe VolunterSense is well positioned to be competitive in this market, despite having a few incumbent competitors.

V. Engineering & Development Process

Technology Stack: VolunteerSense is built using a React frontend and a Django backend with a PostgreSQL database. We utilized Heroku for web hosting and cloud database, Google Cloud Storage for file storage, Google Analytics for site analytics, and Plotly for analytics visualizations.

User Flow: This section will discuss how VolunteerSense facilitates the end-to-end experience of volunteers on its platform, from onboarding to long-term retention and donor conversion, and how this process can generate value for nonprofit employees.

First, volunteers are invited via email to the platform by nonprofit employees, where they are prompted to create an account. Upon account creation, volunteers can see introductory information about the nonprofit, as well as its upcoming service events and any frequently asked questions (FAQs). When volunteers register for an event, they are notified of any required waivers that they must complete. Nonprofit employees can track the completion status of the waivers, and prompt attendees to fill them out. One the waivers are submitted, nonprofit employees can review them and determine whether or not the volunteer is eligible to participate in the service event. The volunteer is then served an email notification 24 hours before the event to remind them to attend.

After the service event, we send a thank-you email to volunteers and solicit feedback from them about their level of satisfaction with their experience. Closing the feedback loop enables nonprofits to improve the quality of service events. In addition, we learned from our nonprofit partners that it is crucial to make volunteers feel appreciated for their service in order to retain them. Volunteers can view an individual contribution page that allows them to set and attain service goals and track their impact over time, including number of hours worked and number of different nonprofits served. Once they fill out the feedback survey, volunteers can get their community service hours approved by the nonprofit. This helps nonprofit partners, such as schools and corporations, verify that their students and employees, respectively, are completing their service requirements.

Once nonprofits have onboarded a cohort of volunteers and successfully organized several service events, they want to analyze the impact of those events in terms of volunteer engagement and retention. We developed an analytics page for nonprofits to see where users are falling out of the volunteer management funnel; for example, some volunteers may never finish the required waivers or attend their first event. We provide an interface for nonprofit employees to nudge disengaged volunteers by sending them email and text notifications, preventing them from falling out of the funnel permanently. Furthermore, our platform allows nonprofits to identify the most engaged volunteers, express thanks for their exceptional contributions, and convert them to donors.

Nonprofit Partner: The user flow detailed above was developed based on feature requirements provided by our nonprofit partner, The Columbus Academy, and recommendations from our faculty advisor, Prof. Gad Allon. Christy Bening, our primary contact at The Columbus Academy, has served as The Service Board faculty director for over 30 years. The Service Board is responsible for running school-sponsored service events throughout the year, handling all paperwork related to student completion of community service, and establishing and maintaining contact with nonprofits to facilitate events and service opportunities.

Next Steps: Following completion of necessary application features this week, The Columbus Academy will be utilizing our platform to organize an upcoming service event. We will be making feature improvements based on feedback following this event. In addition, we plan to create and send a survey to target nonprofits in order to better evaluate the efficacy of VolunteerSense, and gauge willingness to pay for the application.

VI. Sources

https://nccs.urban.org/publication/nonprofit-sector-brief-2019, https://www.volgistics.com/, https://cloud.google.com/storage/pricing, https://www.galaxydigital.com, https://www.salesforce.org/?nonprofit_product=nonprofit-editions-pricing