

Despite their age, the elderly still have vibrant lives to live, not merely to endure; they are often a disregarded part of society—an afterthought. They are left to navigate a world that deems them unnecessary, failing to recognize the severity of this neglect on their livelihood and mental well-being. We saw this inequity prominent throughout our community and wished to find the first step in minimizing the disadvantage seniors face. We created Peared. Peared is a website designed to facilitate the centralization and organization of volunteers in order to arrange all aspects of various events for seniors in an area. This is all done in an effort to improve the quality of life for seniors who receive minimal social interaction due to age and income-related barriers.

In the United States, one in four seniors experience social isolation [2]. The options in care for the elderly have a large equity gap when considering socialization. Those who are placed in typical elderly residential care facilities often have access to daily interactions with other residents as well as caregivers. On the other hand, there is a community of elderly individuals who can still meet their basic needs but cannot seek social interactions in their community due to age-related issues such as lack of transportation, minimal digital literacy, inaccessible common spaces, etc. Indira Vanguru, a general practitioner at Memorial Herman explains that the elderly outside of nursing homes don't get enough social interaction which can lead to mental health issues such as loneliness, dementia, and loss of cognitive and motor skills. Dr. Vanguru, through numerous discussions with her elderly patients, realized the prominent barriers that would restrict her patients from social interaction that they needed to uphold their quality of life. This group of individuals primarily relies on Medicare to cover medical expenses deemed necessary by their healthcare providers. However, group living homes are often not considered medically necessary for these patients [3]. As a result, many of them opt to live in traditional homes, which

offer a more affordable alternative to residing in specialized elderly care facilities. Therefore, the demographic of low-income and socially isolated elderly individuals, including seniors who have lost family members, such as widows or those without immediate family seeking social interaction, must be assisted through an easy-to-use and accessible system.

Our website, Peared, centralizes various volunteering and community service organizations to organize events on a hyper-localized scale for seniors in their specific locations. Typically, volunteering groups work in an isolated effort, whereas Peared will deviate from this status quo by recentering all the resources in an area towards this one issue, optimally utilizing labor. Individuals, as well as volunteer organizations such as National Honor Society chapters, can register to help facilitate the event through the website. We will utilize a matching algorithm for volunteers to be connected with a specific task for an event based on their preferences and location. Peared will match volunteers to elders in need of transportation within their location range so they will not have to travel beyond a certain distance, ensuring efficiency and convenience.

In addition to event planning and coordination, volunteers will engage in advertising to ensure seniors are informed about upcoming events. Our primary form of advertising is in local pharmacies. By promoting our events at these common spaces for the elderly, we can ensure attention is brought to our events from seniors and their acquaintances, further promoting our events effectively. Additionally, we will utilize door-knocking where volunteers will be matched to a specific area within a reasonable range. Since the target we are trying to reach for these events typically has a lack of digital literacy, it is crucial to span our advertising efforts over a wide range of methods. We will employ archaic forms of media such as the newspaper and radio to reach out to a larger range of elders who do not receive door-to-door knocking. Using these

various types of advertising ensures that a wide scope of elders is reached, therefore establishing equitable access to social events. Volunteers will also provide essential services such as transportation to and from these events, helping seniors overcome mobility challenges and participate more easily. This approach ensures that seniors can engage with their community and have the necessary support to enjoy local activities, as well as constantly be aware of ongoing events. Peared helps combat senior social isolation by pairing volunteers with event coordination tasks to ensure elders experience socialization at no additional cost.

Our members Anushka and Sophia are co-founding members of our school's Interact Club, which streamlines local volunteering commitments and opportunities. They have successfully simulated various increments of our proposal including connecting with seniors for events and spearheaded fundraisers which have raised over \$15,000 for our school community. Our team members are also part of the Key Club and National Honor Society, which means we collectively access three clubs to test Peared in and control one as a resource to utilize for our cause. This hyper-focuses our range to an area where we are most knowledgeable about disadvantaged seniors.

We intend to parallel this by relocating our volunteering experience to Peared's large-scale infrastructure which focuses on local seniors. While our competitors focus on assisting the physical health of seniors, Peared is centered on improving their mental health through increased social interaction. For instance, existing competitors such as Papa, Big and Mini, or Home Instead focus on the elderly's challenges without the momentum of a third-party organization. Instead, Peared targets efforts towards centralizing volunteer organizations within a community in order to work toward a common goal. This centralization of volunteers will allow for larger operations for projects as well as a wider reach of awareness for this critical but

overlooked issue. Furthermore, many of our competitors focus instead on aiding seniors who already have the resources and access to find aid and opportunities for themselves. In comparison, our organization prioritizes seniors who are often overlooked due to their minimal income and social connections. By targeting this underserved segment of the elderly population through nationwide combined local efforts, we address a critical gap and create a greater impact.

Since the website relies purely on software, our main financial expenses are to maintain the website's servers (approximately \$500 annually) and to improve the software and events periodically. Another major expense we must consider is the cost of events we host. This revenue can be earned back from a series of paywalls for volunteering organizations that can spend money on utilizing coordinating software like ours. Furthermore, we will conduct fundraisers and accept donations to maintain sustainability. For individual volunteers, both inside and outside organizations, an optionally paid subscription to allow for intentional algorithmic bias can be implemented as a secondary source of revenue.

We partnered with the school volunteer organizations listed above to simulate a small-scale event before implementing the website to prove its automation was critical as a proof of concept. The members were split into outreach groups and event volunteer groups. The outreach group utilized public records of local residencies to locate the elderly population in the Katy area. The volunteers advertised the event in person, on NextDoor, and on their social media groups. The event volunteer group set up the event in Mary Jo Peckham Park, gave transport, and assisted participants. Toward the end, the seniors expressed their gratitude to us for introducing them to an increased social life after years of minimal community interaction.

After this success, we will introduce the website's Web Real-Time Communication to streamline the connectivity. In addition, we intend to partner with larger nonprofit associations

such as the AARP or the American Society on Aging, which will speed up the communication infrastructure behind our app using the momentum of a pre-existing organization [1]. Finally, we will collect local grants like those listed on Texas GrantWatch targeting Community Development to appropriate our local domain before spreading outwards to what will hopefully be a national market.

We had approximately 50 willing participants, returning mostly positive feedback. Even without the help of the automated website, we successfully simulated a volunteering event with zero loss in terms of cost and miscellaneous expenditures. We controlled the event to evaluate its success and got feedback from various seniors and volunteers. A prominent issue that arose was time coordination since many volunteers were late or had conflicting schedules while transporting the seniors to the event. Using this feedback, we decided to implement preemptive communication systems with all volunteers over Zoom to ensure they are all on the same page and have the proper information regarding the event.

With Peared, seniors across the nation are finally provided with the means to have social interaction that offers them an opportunity to thrive, not just survive.

References

- [1] <https://www.venable.com/insights/publications/2013/10/combinations-and-alliances-among-nonprofit-organizations>
- [2] <https://pubmed.ncbi.nlm.nih.gov/34247388/>
- [3] <https://doi.org/10.1093/cid/civ750>