Senior Wellbeing Organizer: Project Proposal

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Abstract:

U.S. Department of Health and Human Services in 2010 indicate that 29.3% (11.3 million) of the seniors lives alone [2]. Although approximately 11,000 community senior centers provide a broad spectrum of programs for seniors to improve their overall health and wellness including physical and social health in their community, these senior centers do not meet with everyone’s requirements. As a matter of fact, the usage of senior centers declined nationally [2]. The aim of this project is to develop a web-based Senior Wellbeing Organizer which can effectively encourage seniors of different ages and background to participate in social activities and connect with their relatives and friends.

Keywords: Senior, wellbeing, social activities, remind, connect

Problem Identification

Large population of the senior living alone

Our society is aging rapidly. In the U.S. only, the number of people 65 and older in the United States is 39.6 million on July 1,2009 [3]. This age group accounted for 13 percent of the total h on a group of seniors in Canada articulated that less friendship contact and fewer close friends are the significant factors that cause loneliness [5]. Furthermore, loneliness has been associated to poor health, social
anxiety, and low life satisfaction. This research also found that lonely respondent would like to participate in planned activities.

**Senior center usage is limited**

Although there are 11,000 community-run senior centers in United States that provide various activities to improve their overall health and wellness, these senior centers do not meet the need of all the constituents. As a matter of fact, the usage of senior centers declined nationally.

A recent survey on 20 senior centers in seven states in 2003, found that older adults who frequently attend senior centers are typically in their mid-seventies. One-third of them are over the age of 80 [6]. This indicates that seniors on their sixties have less tendency to attend activities organized by senior centers. Population. Another research by U.S. Department of Health and Human Services in 2010 found that 29.3% (11.3 million) of the seniors live alone. This proportion increases with advanced age. Among women aged 75 and above, almost half (47%) lived alone.

Seniors living by themselves have been linked to loneliness due to the lack of social support [7].

Another research

Reasons why some seniors don’t use senior centers:

- Unconvinced if the programs can provide more benefits than their existing activities.
- Programs appealing to older seniors are not necessarily appealing to less older senior.
- Misperceptions that social senior services are for low-income people and older senior.
- Other objective factors like weather, transportation, time, or health issues.
Senior Wellbeing Organizer

Challenges

- Senior citizen is a large demographic with diverse age, culture, language, health, income, personality, lifestyle, etc. Therefore it is difficult to come with a single solution for one problem.
- While events in senior centers are very well organized, they are published through traditional means (such as flyers and posters) and through word-of-mouth. The use of traditional media to spread information reduces the impacts the usage of senior centers.
- Senior citizens with health issues or disabilities are limited by their inability to travel long distance and prevents them to participate in planned activities outside their area.
- Senior citizens living alone would like have closer communication with their family and friends. However, various issues like ability to travel, different schedules, timezone, etc, prevents them from having synchronous communication.
- Elderly adult with limited experience in technology could hinder their adoption of a new application.

Why is innovative

- **Focus on social and emotional health**

  Our study of applications to assist senior adults maintaining their health found that most of these apps are focused on the physical health. Pain Care, for example, records user’s blood pressure daily to monitor the risk of cardiovascular and cerebrovascular disease.
Our application focuses on how to improve senior citizen’s social and emotional health by connecting them to other seniors as well as their family members. Participation in this activities will have positive side-effect on improving their physical health.

- **Focus on seniors characteristics and social activities**

  Compared to popular social media website like Facebook, which provides generic services for general audience, our project will be focused to assist seniors to engage in social activities. Our users will be able to explore, organize, and sign up for activities. After that, they will be able to share the social experiences with their friends and relatives, especially their family members, which will help them maintain better communication within their circle.

  Many social networking sites like Facebook and senior dating sites were not designed to cater senior citizens. More importantly, they are not designed to facilitate physical and health conditions of senior citizens. Our observation on websites catered for senior citizens, such as seniordate.net, found that the text are too small and the overall interaction is too complex. Our goal is to help them engaged actively through simple user interface that is catered to their needs. To improve ease-of-use, we are going to reduce the number of click as little as possible, so senior adult user can accomplish their goal faster.

- **Flexible and customization**

  The shortcoming of senior centers is that they cannot meet with the requirements of all seniors with the same programs. To accommodate for seniors with different backgrounds, our project
allows them not only to publish and participate in public activities (usually programs of senior centers), but also design their own private activities (small group-gatherings) and share activity ideas. With such flexibility and customization, different seniors can search and attend social activities that they are interested in and comfortable with. This is also a possible solution for seniors who are uncomfortable to admit the change in their stamina and refuse to use senior centers.

**Why addressed by app**

- Recent statistics indicate a significant increase on the internet and mobile phone usage among seniors. Thus, it is the ideal time to improve senior wellness with the help of information and communication technology.
- Internet provides an efficient way to spread information and a convenient way to search and share information.
- Loneliness is a major factor that undermines the health of seniors, especially elder seniors who are retired. The ability of internet to connect people is well documented, and therefore internet have the potential to dissociate seniors with loneliness problem.

**Target User**

Target user for this application is adult aged from 60 to 75 who are capable of doing self-care and living alone. Our target user may already participated in few social activities and willing to extend their participation in various kind of activities to improve their overall wellness. This group is characteristically different to the general Internet/computer user in the physical and mental aspects.
User Characteristics

Seniors have the following characteristics which are quite different from us:

- Lessened or weakened hearing. Individuals aged 75 and older, 48% of men and 37% of women encounter difficulties in hearing. Of the 26.7 million people over age 50 with a hearing impairment, only one in seven uses a hearing aid.

- Diminished eyesight. Senior people are reported to have more difficulties to read in low light and in smaller print. Their reading speed is also reduced. Therefore user interface for this group needs to have larger text size and more pictures for them to understand other than small text with long sentences.

- Reduced mental and cognitive ability[6], therefore the ability to learn new things will degenerate. As a result, we need to simplify the process of each feature, such as sign in and post article, to make it friendly for the target user.

- Memory loss is common due to the decrease in speed of information being encoded, stored, and received. It may take more time to learn new information. That means they tend to forget things no matter how important it is. So that the way of remind them activities and significant issue becomes a part of great meaning.

- Depression [3]. This is an vital issue that needs to be addressed by providing relaxing appearance, understandable flow, and appropriate notification.

- Behavioral changes can include wandering, physical aggression, and verbal outbursts due to diseases such as depression, psychosis, or dementia. In conclusion, the activities they take part in must be suitable for them, more safety recommendations and healthy suggestions should be
Group Member

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<tr>
<th>Name</th>
<th>Computer Knowledge</th>
<th>Contribution</th>
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<tbody>
<tr>
<td>Wei Dai</td>
<td>PHP, CSS, Server Management</td>
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<td>Interface design and implementation</td>
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<tr>
<td>Wenjing Wang</td>
<td>HTML, Javascript, Jquery, CSS</td>
<td>Interface design and implementation</td>
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Contributions

We conducted a two-hour meeting on Saturday to discuss the ideas of our project. Wenjing proposed an idea help senior citizen to share activities organized by the senior centers, Herman proposed was to use calendar interface to present activity ideas, Jingtong proposed to simplify the steps to share information and maintaining contact with their families, and Wei proposed that aside participating on existing event, senior should be able to organize private events for themselves.

Our proposal was initially drafted by Jingtong on Sunday, then was improved by Herman by providing more supporting resources. Wenjing researched relative papers, and provide many suggestions to improve the proposal. Wei was focused on preparing team assignment website, and Wenjing gave contributions on website content and presentation.

Bibliography
   
   http://www.indiana.edu/~leisure/module2/unit3_LA2/readings/Aday-Role%20of%20Sr%20Ctrs.pdf

   


