CIS 129 Final Project “Connect”

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Introduction

- Society seems to be getting burnt out with the incessant use of social media and apps
  - Dating app fatigue
  - Concerns about interpersonal development of Gen-Z - do young people know how to interact in the real-world?
  - Large body of research is looking into this burn-out, its causes, and its long-term effects
- At the same time, we are eager for connection, especially post-covid
- Idea: create an app that is used to connect people in real life with tangible social and volunteer opportunities

Summary of Findings - Existing Solutions

Meetup

- “The people platform”
- Calendar of local events and groups for users to join
- Categories include “Travel and Outdoor”, “Social Activities”, “Hobbies and Passion”, and more
- Very similar to what I’m envisioning
- This doesn’t seem to be popular in mainstream use; how do we improve upon it?

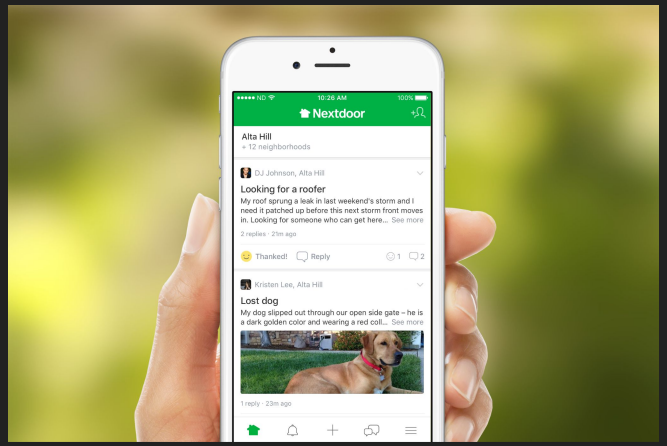
Summary of Findings - Existing Solutions

VolunteerMatch

- Website dedicated to connecting users with volunteer opportunities in their community
- Both single event and ongoing opportunities
- Could be a valuable facet to add to the program proposed

Summary of Findings - Existing Solutions

NextDoor



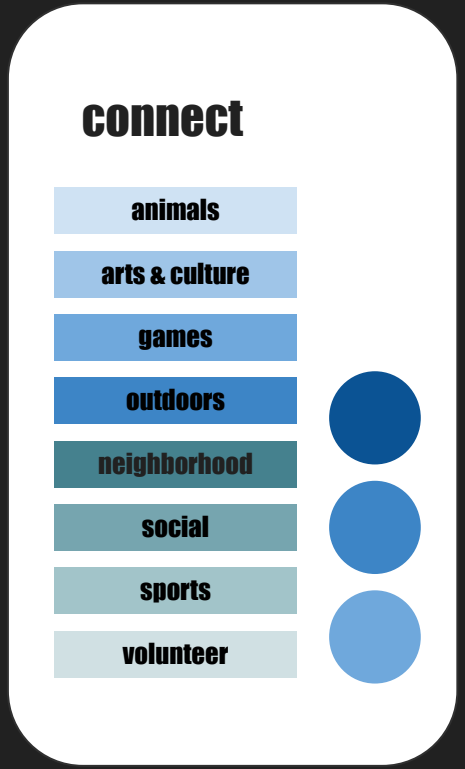
- Social networking service for neighborhoods
- Is used for users to connect with those in their immediate vicinity
- Promotes communication and mutual safety enforcement
- These would be valuable features to add to the proposed program to further strengthen connection in the community

Real-World Application: “Connect”

- A web and mobile-based app to promote the creation of more meaningful and lasting connections within your community in real life
- Would merge features of Meetup, NextDoor, and VolunteerMatch
- Features:
  - Host categories similar to Meetup that conglomerate information from users and websites to display ongoing sport teams, clubs, volunteer opportunities, etc.
  - Connect users with others in their area with similar interests
  - Enable users to message those in their communities to promote connection and safety

Design Approach

- Very simple design; after users entered their profile information, they would be taken to a main page with a menu
- Then each category would enable you to scroll through postings or create your own
- Messenger and support would appear as standard messaging



Design Approach - Psuedocode

```
import tkinter // standard GUI library to more easily create interactive app with widgets
import random // random function to facilitate user matching
import socket // for messenger function
import threading // for messenger function
import urlopen // for linking website information
import Request // for linking website information
import folium // to use location services for connecting users
import django // for user profile location

Initialize geolocator from folium
        Create map centered around first address
        Add markers for subsequent addresses
        For loop to draw lines between locations

Class profile to create user profile model
        Name, Location, Age

Create signal to create/update profile
        Define function to create profile
        Define function to save profile

Frame // rectangular region around the screen and group widgets
Menubutton // widget for user drop-down; define categories for users to choose from
        LabelFrame // border sub-widget
                Button (text = “Sports”) // create a button for each category outlined below
                        ScrollBar // allow users to scroll through sub-categories
                        Checkbutton // allow users to join given subcategories
                                Specify url // import data from other websites to populate
                                        Call Request on the URL
                                        Send the request and catch response
                        Label // allow user to create their own sub-category
                                Text // users to add more information, provide URL link, etc.
                        Message // indicate to user when they have successfully joined or created a
                                        Subcategory

        Separator // partition tkinter widgets for more aesthetic design

        (Repeat the above for all other Program sub-categories)

        LabelFrame // border sub-widget
                Button (text = “Let’s Make Friends!”) // to connect users with similar interests
                        if statements to assign integers to users based on their Program selections
                        random function to match users with same integers
                        seed random function to match a new user every day

        LabelFrame // border sub-widget
                Button (text = “Messenger”)
                        Define function to handle client connections with socket & threading
                        Define function to broadcast messages to clients

        LabelFrame // border sub-widget
                Button (text = “Support”)
                        Messenger capability as above but messages go straight to admin
```

Solution Design Proposal

- User Profile - used to connect users
  - Name, age, location, interests
- Program Categories - for users to add to their profiles and see opportunities
  - Sports
  - Arts & Culture
  - Outdoors
  - Volunteer
  - Animals
  - Games
  - Social
  - Neighborhood
- Other Categories
  - Let’s Make Friends - connect similar users
  - Messenger
  - Support

Open Questions

- Design solution: how to we create a more robust plan for program design?
  - The pseudocode exercise helped me get a better grasp of general ideas that would go into creating this software, but it still needs substantial development. How exactly this would be done is one open questions.
- Safety: how will users will be kept safe?
  - How to prevent events like mass shootings from targeting these gatherings?
  - How to prevent people from maliciously using the program to stalk, harass, or harm individuals?
- Marketability: how do we responsibly and most effectively get this product into use?
  - Should we be marketing it to all populations or just certain?
  - (e.g. should children be allowed to use the tool?)

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