
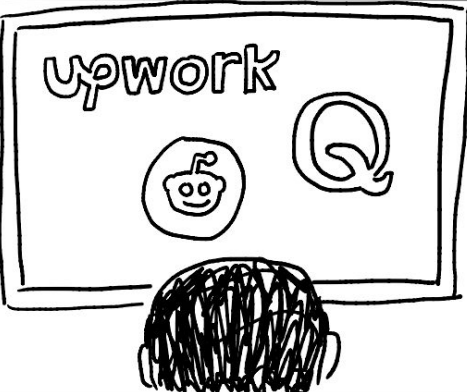

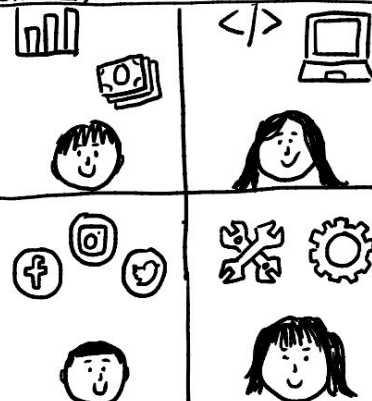
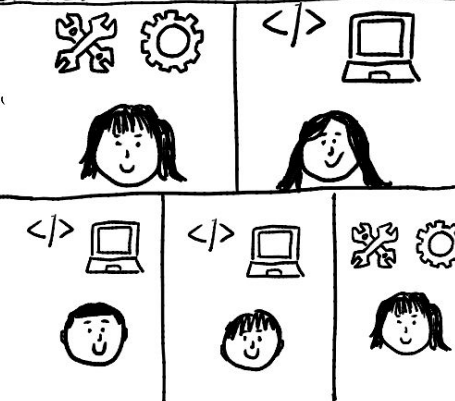
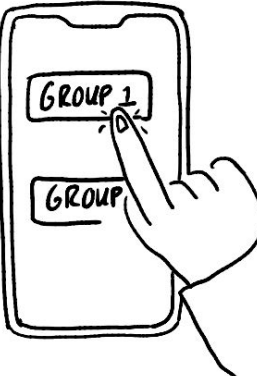


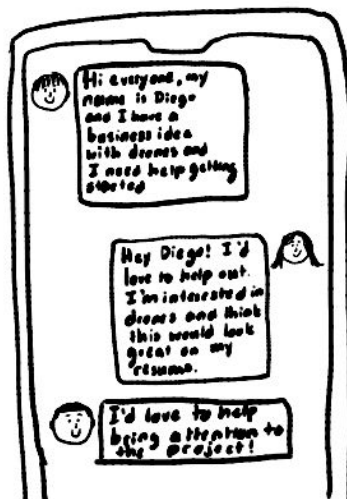
Facilitating Collaboration in Like-minded Individuals

Calvin Yu and Jinhong Yu

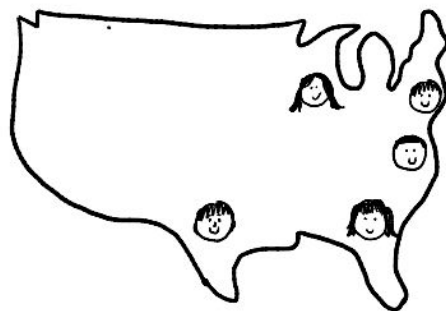
Motivation

- People may have business ideas but not the technical skills
- Other people may have skills in an area but not the business expertise
- These people may have the similar ideas and motivations
- We want to bring these people together
- Potential impact
 - Helps flush out ideas
 - Bring out innovation through collaboration
 - Could be the start of a business

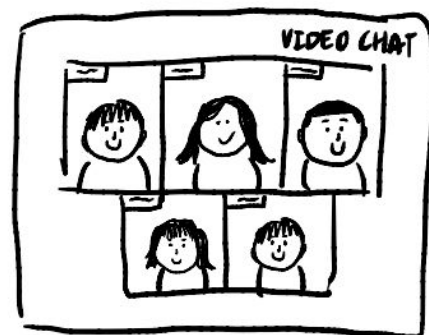
		
<p>Diego, a 28 year old product manager, has an idea of using drones to deliver groceries. He wants to start a business and needs help.</p>	<p>He considers getting freelance workers to help but realizes they will not be able to dedicate their time to a business and also posts questions on discussions forum for help but finds it hard to develop an long-lasting connections here</p>	<p>He finds our platform on a discussion forum and submits his idea and his skill set.</p>
<p>GROUP 1, TOPIC KEYWORDS: DRONES, VISION, BUSINESS</p> 	<p>GROUP 2, TOPIC KEYWORDS: DRONES, RESEARCH, BUSINESS</p> 	
<p>He is recommended a group of people who are also interested in drones with different skills such as hardware, software, marketing, and social media.</p>	<p>The platform also given the option of another group with less a less diverse skill set but appear to very technical.</p>	<p>Diego ultimately decides to join group 1 because of the diverse skill set and slightly more business oriented objectives.</p>



He is placed in a group chat with the existing members of the group and introduces himself. The others are very willing to help him.

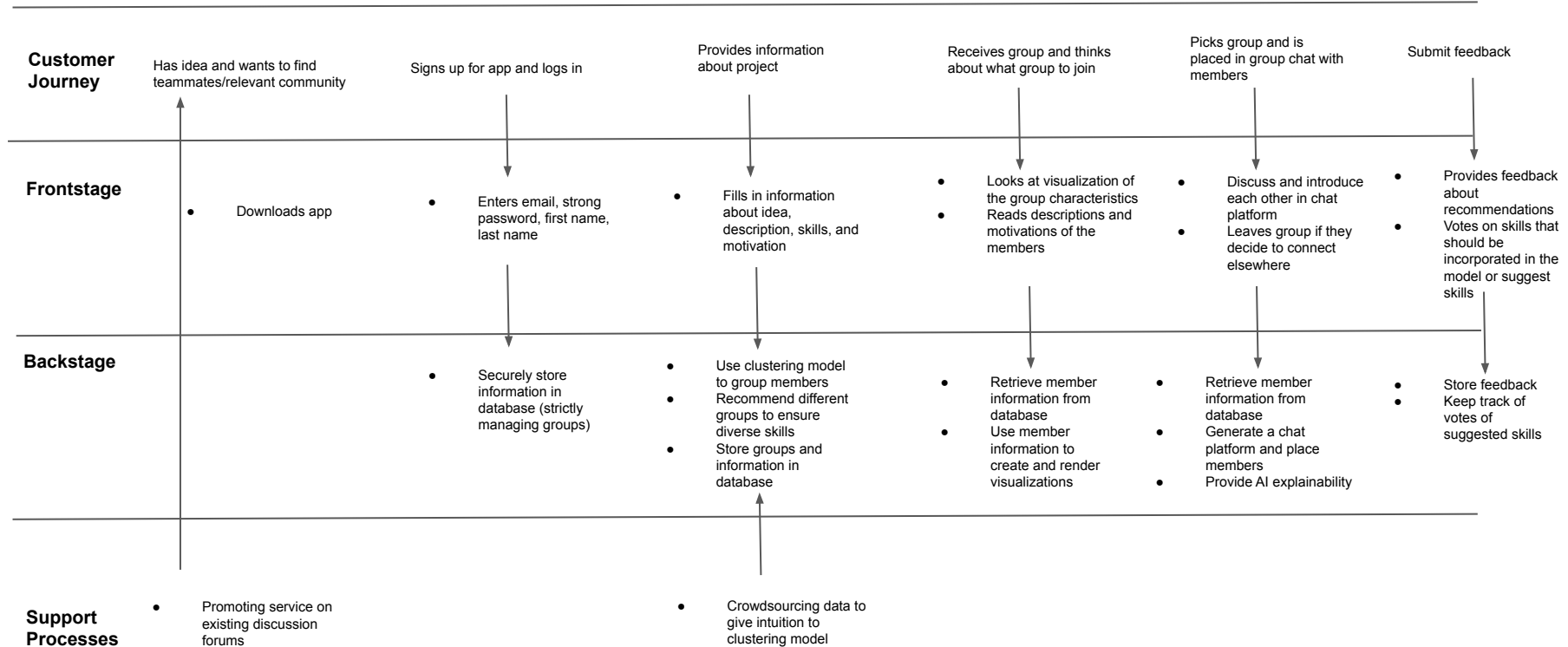


Diego learns that the members are located in different parts of the US so they won't be able to meet for the time being.



However, they begin to develop a better understanding of each other and become closer. They continue their conversations over video call every week. They plan to meet up in a few months.

Service Design



Data Collection

- Start the model off with web-scraped publicly available ideas
 - Contained ideas and their categories (9)
 - ex.

Student Career And Personality Prediction Android Application

As students are going through their academics and pursuing their interested courses, it is very important for them to assess their capabilities and identify their interests so that they will get to know in which career area their interests and capabilities are going to put them in. This will help them in improving their performance and motivating their interests so that they will be directed towards their targeted career and get settled in that. Also recruiters while recruiting the candidates after assessing them in all different aspects, these kind of career recommender systems help them in deciding in which job role the candidate should be kept in based on his/her performance and other evaluations. This paper mainly concentrates on the career area prediction of computer science domain candidates.

- Alternatively could have crowdsourced this data
- Crowdsourcing is built-in
 - People submit ideas intrinsically because they may want to learn from others
 - Or extrinsically for networking

How AI is Involved

- AI to group people together based on ideas
- Extracted keywords from descriptions
 - KeyBert model
- Obtained embeddings from these keywords
- Use unsupervised clustering to group these embeddings
- Invisible, critical, reactive

How HCI is Involved

- Incorporated various principles of Microsoft's guidelines in mockup
- Allow the users to pick from multiple groups and provide feedback
 - Use data visualization to help users make a decision
 - Explain some of the decisions through visualizations
- Request users to suggest what skills should be included in model

Design Implications

- Simplify group selection process for projects
- Facilitate business ideas
 - Collaboration among diverse set of skills
 - Find those with similar motivations and values
- Encourage innovation
 - Refinement of ideas
 - Encourage discussion, collaboration, and expression

Future Work

- Obtain more initial model data
 - Public data (from websites, research paper abstracts, etc)
 - Crowdsourcing viability
- Improve clustering model
 - Fine-tuning embedding models or training from scratch
- Incorporate more informative data visualization to help users pick groups
 - More brainstorming required here
 - Likely need feedback from users