

Team Members

- Britt Christy (Team Leader)
- Evan Crook (Scribe)
- Kevin Malta
- Trevor Frese

Project Description

Our Vision

Our team will develop a Smart Assistant: a "software secretary" that integrates with a video-conferencing service, observes the audio/video streams and provides real-time assistance and information.

What problem is the project solving?

The Smart Assistant will help minimize distractions and tasks that interfere with person-to-person interaction during a virtual conversation, distractions that eat up valuable time. Examples of features to avoid distraction are:

- It will take notes
- Add events to calendar
- Research terms and facts in real time
- Add people to meeting conversation
- Create a meeting summary for people who were unable to attend the conversation

Why is this problem important?

The Smart Assistant will:

- Help make meetings more efficient
- Increase person-to-person communication by removing the need to use outside technologies that divide one's attention
- Maximize organization

This could save business users time, money and offer peace of mind.

How is the problem is solved today?

- While live assistant software already exists, most of its current functionality is limited to using speech-to-text to take notes and minutes
- Personal assistant products using natural language, most notably Apple's Siri, already exists, but are proprietary, often tied to specific devices and are generally not optimized for business use.

Project Outcome

Define initial project milestones

Specification

- Meet with mentors to discuss specs
- Choose technologies
- Tentative group assignments

Design

- Visually represent the entire system
- Try out/learn technologies

Prototyping

- Set up website/server
- Assign tasks

Implementation

- A "virtual secretary" that simply creates speech-to-text notes of what is being said; demonstrates Speech Recognition working
- Adding the ability to identify requests and their format: demonstrating Natural Language Processing
- Handling the requests, interfacing with the appropriate systems/APIs, and returning the results; for the first milestone, only one or two APIs (e.g. Google Calendar, web search)
- Adding more functionality/more APIs
- Improving UI, look and feel of the system, etc.

How do you plan to articulate and design a solution?

Implementation platform and technologies

1. Audio/Video/real-time communication: WebRTC
2. Client: Javascript/HTML for Chrome

3. Servers: Node, Firebase
4. Speech recognition: Chrome Speech API
5. Natural language processing: NLTK

Overview the process model you will employ to achieve the milestones

AGILE/SCRUM

- Weekday scrum meetings (to be scheduled at end of each meeting)
- Establish consistent coding and documentation standards
- Using Slack for communication so that we have 1 unified platform to refer to. This particular program runs in the browser and has the functionality to create subgroups to better communicate between split tasks. Also, it will keep a record of all communication between group members and subgroups
- Google drive for document storage and scrum meeting notes
- waffle.io for scrum organization
- Github for repository and version control