

Assignment 1

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Observations

Throughout many years of study and some time in the professional world, we've noticed a trend that apparently stems from the very nature of human-kind; people do things late and then they panic. There's very little help when facing a very close deadline and having someone scold you for not having done something about it earlier isn't exactly helpful. (1) We've observed students taking up the monumental task of reading a whole book and understanding it overnight. (2) We've observed students unable to stick to a method of studying for a quiz, to the point of confusing themselves. (3) We've observed professors struggling with organizing the materials they need to assess. (4) We've observed professionals unable to organize a presentation merely due to the fact that their thoughts are disorganized and disoriented. (5) We've observed grown adults unable to cope with personal suspicions causing them to become disoriented.

We have used our interviewing phase to try and either confirm or re-think and re-analyze our observations. As a follow-up to these observations, we will provide details of the surveys we conducted, the common and interesting responses to our interview questions.

We have hypothesized that although the nature of all of these problems are different, they share a common effect on the individual's state of mind; they cause disoriented thinking and a mild state of panic. In some cases, for certain individuals, they cause a state of panic severe enough rendering the individual dysfunctional. Perhaps, a tool could be intelligent enough to distinguish between the specific needs of these states and guide the user through a calming and organized solution.

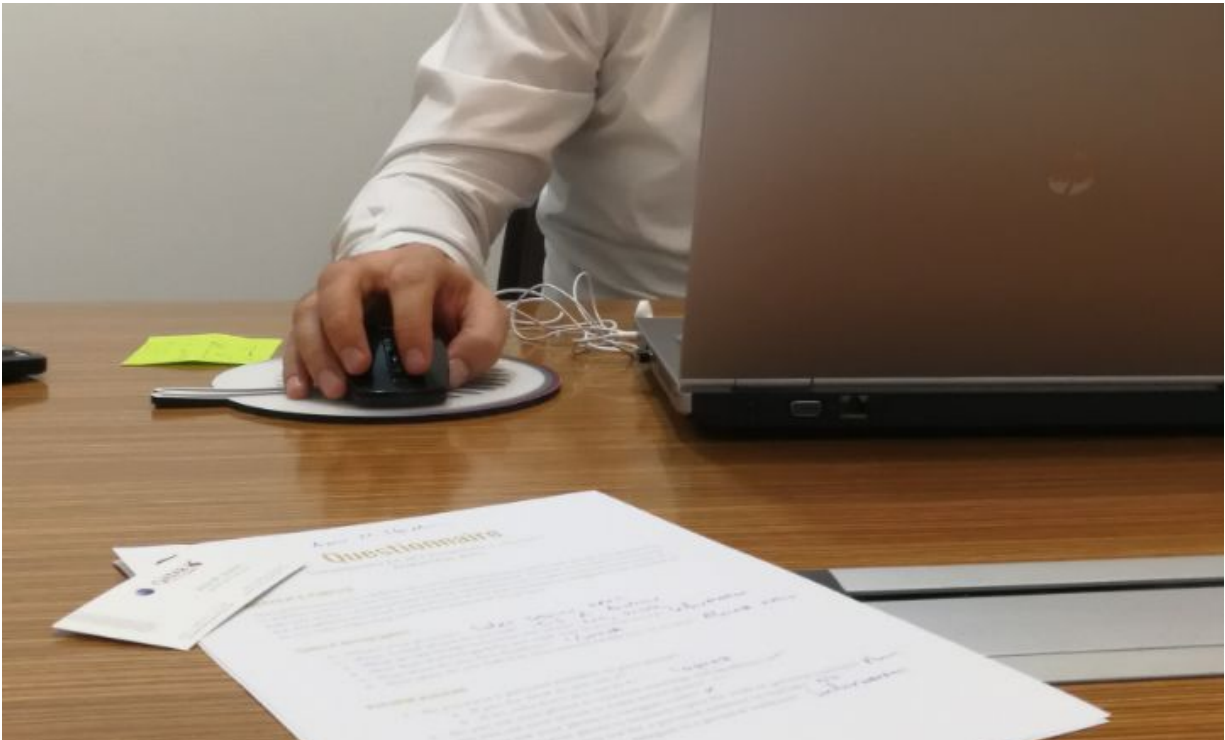
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Developing Observations: Interview Phase

Our interview questions varied in tone based on the recipient of the questions. We identified all “busy people” as a pool of possible users for our concept, and we chose the following groups of people to interview:

- a) Students
 - i) Researchers
 - ii) High school students
 - iii) University students
- b) Educators
 - i) Professors
 - ii) Teachers
 - iii) Research supervisors
- c) Managers
 - i) Middle management employees
 - ii) CEO's
 - iii) Office supervisors
- d) Freelance skilled workers
 - i) Journalists
 - ii) Translators
 - iii) Graphic designers

Having selected an ambitious and diverse pool, we couldn't create a single questionnaire to ask everyone, so we had a plan to personalize. We also took the freedom to ask follow-up questions that were outside of the original questionnaire as they came up. The team agreed on figuring out what all of these disciplines had in common regarding the level of control they had over their own work and their lifestyles.



Subject Alpha: Amir M. Ibrahim is a senior sales executive at Qatar Airways. He likes football and would not take a conversation with an AI seriously, but he still would like to meet a smart one.



Subject Tango: Hama is helping out in the liquor store. He doesn't like how Siri can't recognize his accent, and he doesn't drink. He's never spoken to a therapist and doesn't feel the need to, but he often loses sleep over stress and worry.



Subject Bravo: Bzhwen Ali Chalabi, former AUIS student and a very busy person, would love to have a way to make everything and everyone else a little faster so things don't take so long to happen!

Ideation

Our results included a variety of suggestions that weren't implicitly asked for, but implied by the potential users. We came up with the following requirements for ideations and brainstorming. Please note that these are not program requirements, but simply a list we imposed on ourselves to help us come up with better ideas:

- ☐ Our ideas don't all have to be relevant to the initial suggestions
- ☐ We will have multiple brainstorming sessions so we see what we come up with when we are in different "moods"
- ☐ Nothing is too ridiculous.
- ☐ Text the group chat with any random idea you have, at any random time you have it.

Some of the suggestions included:

- ☐ Creation of streaming app that lets people use the university projectors wirelessly and fast.
- ☐ Supermarket help. You log things as you pick them, so when you go to the cashier, you pay right away and things move faster.
- ☐ Depression management guidebook
- ☐ Recipe booklet
- ☐ 3D printed furniture for each person's preference
- ☐ Body-specific comfort blankets, custom made by an algorithm for each person
- ☐ Crisis helper, integrated with many different social media platforms, to help, allow a user to offer help, and allow another user to find help and shelter in the case of a crisis such as internal displacement, war, or terrorist attacks.

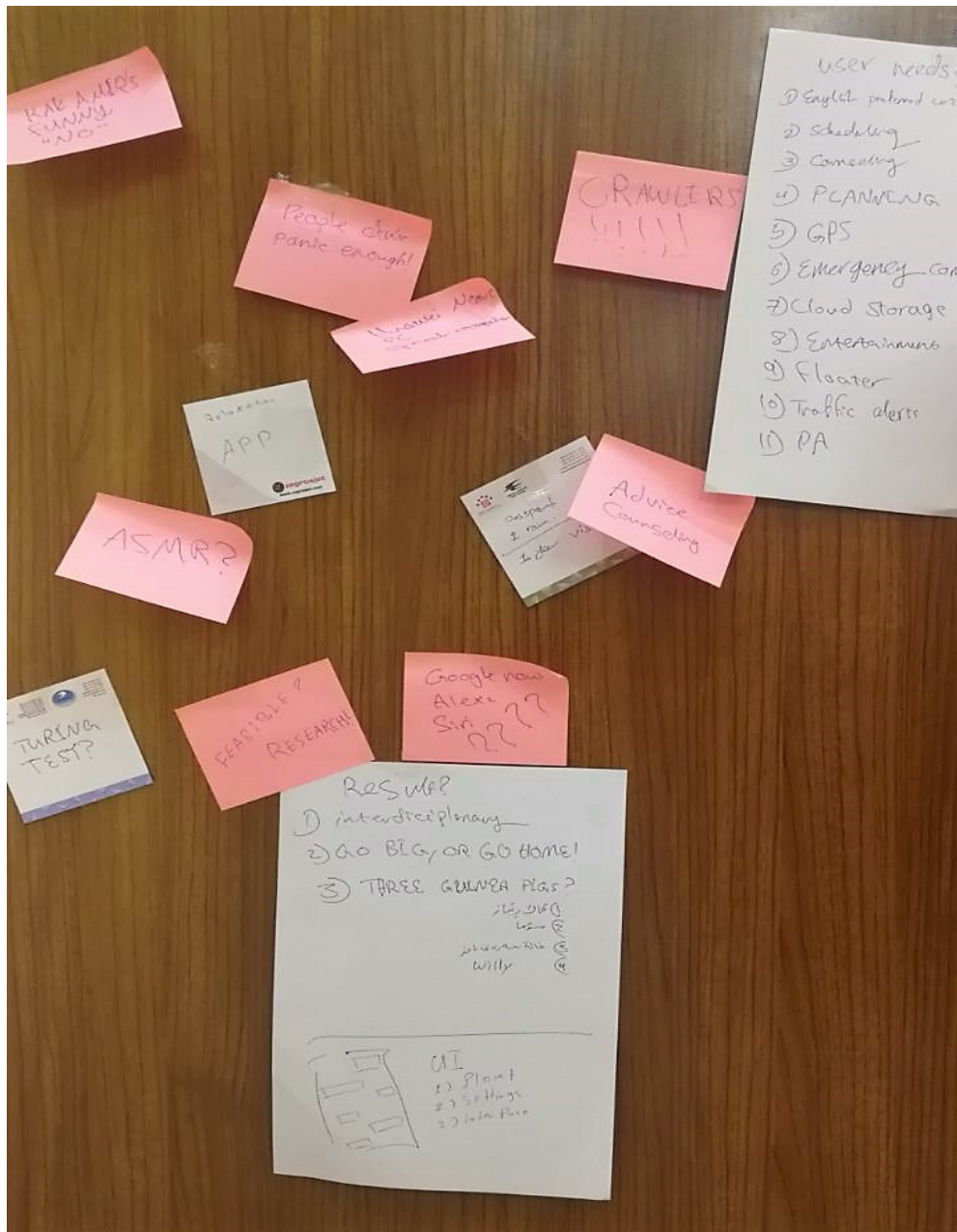
Brainstorming and idea incubation

To properly allow an idea to incubate, we used a little wooden wall to hang each idea and then we moved on to the next one. This would allow us to come up with new ideas free from the influences of the others, and then refer back to something else we pinned in the past and integrate them into our ideas. You can find an illustration of this technique on the next page of this document.

Images and illustration

During the process of investigating existing ideas regarding the sort of topics we had started discussing, we noticed some interesting things about the virtual assistants on smartphones such as iPhones and Androids. Due to the number of images, we found it inappropriate to include said images in this document and have included them all in one folder titled opportunity_pictures in the folder containing this document.

The opportunities we noticed were plentiful in that we saw room for improvement. We imagined something that could be free of the restrictions of platform specificity. What we noticed was that some of the things that were missing google now, such as a sense of humor, existed in Siri. Also, some of the things that existed in Google Now, such as having the intelligence to scan emails for flight dates and reminders, were missing in Siri. We also saw that plenty of Google Now's features are exactly just that! It googles things and shows you relevant results for your search. We think there's a better way of doing this, and that the application can be more involved in the actions they are told to plan and execute. What we took away from this was that the technology exists, and the ideas we've been having are possible, programmable, and imaginable. The bits and pieces of our idea are scattered around the world of technology, what we need now is a way to combine them all.



User needs

Initial ideation came up with the following problems, or opportunities, that we found worthy of pursuing:

- ☐ When people search for things online, they come across simply the most popular results, not the one most suitable to the specific situation they are in.
- ☐ People are stressed out and want to unwind. Many people would choose rest over additional success.
- ☐ There are problems with our phone's reminders and scheduling features in that they're tiresome and tedious to use.
- ☐ People struggle with managing their time properly.
- ☐ Insomnia and sleep deprivation is a common complaint.

After the initial ideation phase, we started another phase of idea incubation. We left things alone for a while, doing nothing but asking people questions and noting down ideas. Our results led to the creation of many ideas, of which we all liked the following ideas:

- ☐ Panic/emergency management app:
 - ☐ This app would help people cope with panic attacks and disorienting anxiety, and would provide emergency help in case of severe depression and mental breakdowns.
 - ☐ The inspiration for this app was from the teenagers we talked to, especially 6th grade students. We saw that complaints about the lack of mental health awareness are more common than we anticipated.
- ☐ Relaxation app:
 - ☐ This would help people relax and focus for studying, sleeping, etc
 - ☐ Similarly to the panic management app, the inspiration for this was from a high school student at CSM who recommended using ASMR videos on youtube to help stressed and overworked students go to sleep. After exploring the term "ASMR" we found that this is a popular type of video on youtube in which people make long compilations of sounds that people find relaxing. Some even like to fall asleep to the sound of somebody chewing food.
 - ☐ We also found plenty of videos in which a repetitive calming tone is used to help people focus; the idea is that regular music or song is too distracting despite being relaxing. Therefore, the repetitive music is thought to be relaxing, but not distracting as there are no lyrics or disturbances in the tone.

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- ❑ A planner:
 - ❑ People are often bad at time management. This app would be most useful for professionals who need to make thorough plans on a tight schedule.
 - ❑ Personal voice activated assistant:
 - ❑ The inspiration for this came from the fact that many people said that they *would* use the personal assistant apps such as Cortana, Google Now, Alexa, and Siri, but were deterred by things that they said made the apps unusable. For example, platform specificity was one of the interesting faults we found.
 - ❑ We hypothesized that having a personal assistant that is all about integration and cross-platform communication, it would be more appealing to users that use multiple devices.
 - ❑ An artificial intelligence for entertainment:
 - ❑ Many people enjoy talking to cleverbot.
 - ❑ A mindfield video got us thinking about the possibility of making a robot capable of passing a test more difficult than the turing test:
 - ❑ <https://www.youtube.com/watch?v=qZXpgf8N6hs>
 - ❑ Study planner:
 - ❑ This app would basically find the most suitable youtube videos, online articles, quizzes, and pages of books that will help with any given test or assignment.
 - ❑ This was inspired by our own wish to have had something to help us plan how to do this project better.
 - ❑ This app would be ambitiously intelligent;
 - ❑ It would use a web crawling algorithm to create connections between personality patterns, urgency of a task, the amount of time available, the task, and the resources available.

Point of view

Almost all of the user needs that we cherry-picked can be interlinked together. The main problem seems to be that individuals in today's world are taking up too many tasks than they feel comfortable handling. What everybody needs is a best friend they can rely on to help, guide, and comfort them through their lives. The only problem is that our real best friends are facing the same problem. They too need a helping hand. That's why we designed bestie; a virtual best friend that will talk to you when you need to talk, tell you stories and sing you lullabies until you sleep, suggests ways to schedule your days so you can have both a social life and a successful career, call your emergency contacts when you need them, and entertain you with memes whenever you're bored.

Inspiration

We used many different things as sources of inspiration. We've identified specific sources as ideas were listed. The main sources of inspiration were the following:

- ☐ The things people complained about.
- ☐ Existing applications faults
- ☐ Brainstorming sessions
- ☐ Conversations
- ☐ Personal experiences
- ☐ Huawei P6 and its advanced personalized voice recognition ability
- ☐ Youtube videos (eg. mindfield game show where the users can't tell which person they're texting is a robot and which is real)
- ☐ Opportunities in artificial intelligence and possible complex algorithms
- ☐ Dr Katango said that "storage is cheap" in one of his classes. This got us to think big and not worry about the number of complex relationships in databases and technicalities.
- ☐ Popular trends that don't have a platform (eg. sleep deprivation solutions)
- ☐ Seeing a student freak out before an exam and not being able to decide on what to review in the time left
- ☐ Our single words compilation:
 - ☐ Soothe
 - ☐ Easy

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- ☐ Help
 - ☐ Therapy
 - ☐ Manage
 - ☐ Plan
 - ☐ Friendly
 - ☐ Software
 - ☐ AI
 - ☐ Algorithm
 - ☐ Connection

Storyboards

We have attached our storyboards in two separate folders, storyboard 1 and storyboard 2. It's meant to illustrate how the app would function in real life as a friend and companion to talk to, but also to help. It emphasizes the application's ability to store conversation in sessions, and then index the key aspects of the conversation in semi-permanent memory. For example, the app had helped the student prepare for and schedule an exam, and so it asks him how he did on the exam after the exam is over. The user finds the exam questions and answers online, simply through conversing. The app is intelligent enough to distinguish between relevant and irrelevant answers, search results, and articles online. The app opens results and expands on its response only if prompted to, and it avoids having to open a third application for as many tasks as possible. It seamlessly integrates any sort of 'browsing' function into itself, and plays youtube videos as music through browsing them in a specialized interface. The idea is that the app can work as a cross-platform all-in-one solution.

Sample description of Bestie advertising

Bestie is your next best friend! Your human friends are too busy to go over the details of your daily life? Do you wish you had someone to be your counselor and advisor? To be your friend and entertainer? To be your planner and teacher?

Well, download bestie, the virtual friend that's artificially very intelligent. Bestie will wake you up in the morning, walk you through the day, and then help you get to sleep at night! Name your new virtual assistant any name you want, and watch yourself feel lighter and brighter.

Prototypes

We have also prepared two design prototypes, each depicting different and divergent design ideas. For example, the interaction types that we emphasized in each prototype is different. One prototype shows a user experience that involves a lot of speech recognition and speaking, but another is more 'texting-oriented'. Our team preferred the speech recognition idea better so far, mostly due to the impressive possible ways we could use this feature. For example, the Nexus P6 can recognize the user's own voice. This sort of capability would really help bestie be a better friend, as it would be able to recognize the user's voice and wouldn't respond when others try to mess with the user's phone. The folder containing the prototypes are to be found alongside the rest of this submission in separate folders.

For the prototype versions, Prototype 1 shows a very primitive concept of what the application would have been like. Needless to say, an application so primitive was lacking the impressively intelligent web-crawling AI that we mentioned earlier. Prototype 1 is a simple, easy-to-use, reminders and relaxation app in which the user commands and guides the app through its own functions. Comparing that with the entirely different interaction type, in which there's emphasis on smooth conversation rather than commands, our designs diverged even further. The first prototype was created at a very early stage of conceptualizing, when we hadn't yet realized what was possible. As for prototype 2, we've tried to take full advantage of today's technology's potentials. The intelligent algorithms used in the application allow the user to have conversations that are just as productive as the structured language other virtual personal assistants use, but is at the same time more 'natural sounding'.

A key feature of our application is the relax tab, in which users can unwind in a variety of ways. This feature survived the elimination rounds when moving from prototype 1 to prototype 2, because bestie is not a professional hired assistant only concerned with a person's schedule. Bestie cares about your feelings too.