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Xukang Zhang
xz4268@rit.edu

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Interactive tool to help decidophobia people make decisions with confidence

By

Xukang Zhang

A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of Master of Fine Arts in Visual Communication Design

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College of Art and Design

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Mike Strobert
Chief Thesis Advisor

Adam Smith
Associate Thesis Advisor
Abstract

Various internet sources estimate that we might make about 35,000 remotely conscious decisions each day. For some people, making decisions is a natural and easy thing. They can quickly weigh the pros and cons and make a choice right away. However, when we make decisions, the options are getting more and more than before. Therefore, it is more and more difficult for people to make quick choices. Suppose you are afraid of making decisions. In extreme cases, you cannot make the most straightforward decisions or depend on externalized decision processes. You might have decidophobia.

Having difficulty making decisions is a big problem for many people now. It is a waste of time to spend much time making simple decisions; for another, it will cause severe problems in people's careers, relationships, and lives. I attempt to solve this problem by building an interactive tool to help them make decisions effectively in the short term and increase the faith in their choices. The app can visualize users' options and provide them valuable suggestions when they make decisions in several social scenarios. Meanwhile, it is necessary to build a person's self-confidence in the long run. Because people have no one to depend on but yourself, a quote can thoroughly explain that: Give a man a fish and you feed him for a day; teach a man to fish, and you feed him for a lifetime.

The deliverable of this project will be an app. The evolving idea is to try to track users' daily decisions. That will help users feel confident about their choices. The audience will be the people who have decidophobia at different levels.

Keywords: Decidophobia, Artificial Intelligence, Big Data, Interactive Tool, Infographic Design.
Introduction

We live in an information age, which makes our lives convenient. However, the information age also leads to information overload. The choices that people face have significantly increased, which makes people have trouble making decisions. We call this decidophobia medically. Decidophobia can ultimately lead to an unhealthy dependence on others or impractical guidance methods and, subsequently, can't control the direction of their lives.

The research addresses how many decisions a person makes every day on average, how long it takes when they decide, the type of daily decisions they make, and what impractical methods we have now. This part helps me find a new opportunity to solve the problem.

After doing the research, I attempt to divide the thesis into two sections. The first body of work is to help people simplify and visualize their options when they make decisions. This work is based on big data and people preferences, which allow the app to request tracking by users. The second scenario is the decision tracking system. People can build a positive independent condition and retake control of their life direction.

This thesis will focus on how to assist decidophobia people to make decisions effectively and build their confidence. This project's outcome is an intelligent personal assistant app that gives people valuable suggestions by capturing their daily preferences and visualizing data. The name of the app is Hey Eden. It's also the way to wake up the personal assistant. The thesis showcase will demonstrate how the app works in several social scenarios from both static screens and interactive scenes.

Context

An adult makes about 35,000 remotely conscious decisions each day. We confront various choices every day. Decisions can be tiny, such as what should I eat at lunch, which route I should take to get to work. People also need to make big decisions constantly, for example, which car should I buy or do I need to move to another city. These big or small decisions make up our daily lives. However, having trouble making decisions start to be a common problem for people. There are various factors involved in this
The world is getting more complex and unpredictable. People deal with overwhelming information, and it's hard to compare them to get a result. Therefore, helping people organize and visualize the factors that influence their decisions is a feasible approach for the thesis.

The approach has quite a vast audience. No matter if a person has mildly or severely decidophobia, it's worth letting the method assist her in making decisions. The thesis's biggest challenge is to use big data and people's data property in the right way. This is the most cautious part I would like to take care of.

The thesis will mainly focus on how the app analyzes users' preferences and gives valuable suggestions in different scenarios. The app also tracks users' every decision they asked and categorizes them according to the ongoing status. That will help users build confidence in long-term decision making. The final intention of the thesis is to help people get rid of suffering when they make decisions.

**Research**

To reflect users' internal needs, I did surveys and interviewed different people. I made a persona and journey map to present the user I design by talking to various people. The journey map can also show which part my design can help with and identify their pain point. Survey results show that 83.5% of people feel they spend more time making decisions than expected, 90% think they make more decisions every day than they thought. (Figure 1.1). The results address that help people make decisions quickly is an appropriate approach. The persona and journey map shows that users' daily decisions typically are simple but hard to decide. (Figure 1.2, Figure 1.3)

Moreover, it's essential to know what methods we have now. Therefore, I do a competitive analysis, too. (Figure 1.4) Though these three methods are the most typical ways to help people decide when they feel unsure about results, there are still several limitations. They are challenging to use in some social scenarios. Besides, we can't decide everything by flipping a coin or asking strangers. Mobile devices are indispensable for people. Designing an app is a better solution to help people make decisions in different scenarios.
Figure 1.1

83.5% of people feel they spend more time making decisions than expected.

45% of people take about five to ten minutes to make a decision.

52.5% of people think they make more than ten decisions every day.

90% of people feel they make more decisions every day than they thought.

8% of people take about one to three minutes to make a decision.

32% of people spend about ten minutes or more to make a decision.

15% of people think they make five to ten decisions every day.

7% of people think they make one to three decisions every day.

How long does it take people to make a decision?

How many decisions do you make every day approximately?

Figure 1.2

Sarah Alby

Age: 24
Gender: Female
Occupation: Graduate Student
Location: Boston, MA

“Why should I eat for lunch is the question I ask myself every day…”

About
Sarah is a graduate student at BU. She likes shopping, traveling, and eating delicious food. However, she doesn't have too much money. She needs to do a part-time job to maintain her spending. Her daily life is mainly going to school and doing a part-time job. She makes little decisions every day. Normally, she can decide quickly, but some of the decisions take her a long time to make.

Frustrations
- I am not sure my choice is right or not. I'm afraid I'll regret it.
- Sometimes they are too many options, I can't compare them.
- When I buy something expensive, I need to compare very carefully. It really takes time.

Goal
- I am not sure my choice is right or not. I'm afraid I'll regret it.
- Sometimes they are too many options, I can't compare them.
- When I buy something expensive, I need to compare very carefully. It really takes time.

Tech Devices

Desktop Tablet Phone Watch
Figure 1.3

Sarah's Day

Let's see Sarah's daily arrangements and how many decisions she needs to make.

7:30AM

Do I go to the gym after part-time job?
Feel tired and sometimes don't have enough time.
Feeling: 
Duration:

7:50AM

What should I eat for lunch?
Go out or eat in dining hall? Japanese food or meat/légumes?
Feeling: 
Duration:

4:50PM

Which assignment should I do first?
Due date, my motivation, time...
Feeling: 
Duration:

11:40AM

Which sneaker is better for me?
The price, color, comfort, stock, popularity...
Feeling: 
Duration:

8:30PM

Figure 1.4

Flip a Coin
Advantage:
Easy and quick to make decisions.

Improvement:
It has quantity limitation because coins only have two sides.

Pro and Con
Advantage:
The idea is simple. A good way to elicit the total value to receive from each option.

Improvement:
We can't use this to make more important decisions.

Post and Get Suggestions
Advantage:
We can get more valuable experience when we ask someone's advice.

Improvement:
Everyone has different situations, we can't rely on stranger's suggestion.
Based on the research results, I determined the target audience. The first group of people is those who have mild decidophobia. They can make most of the decisions, but sometimes when options get complicated, they need someone to help organize factors and provide valuable suggestions. The other users are suffering from a more severe stage of decidophobia. They cannot make simple decisions. They might rely on the app anytime. Therefore, an app based on wearable devices is the right choice for them.

I start to design workflows and use cases according to the users' needs. (figure 2.1, figure 2.2, figure 2.3)
The first use case aims at simple and tiny decisions, such as buying a cup of coffee. Users can finish the flow with wearable devices that can respond quickly. The second use case is to give valuable suggestions when users make complex decisions. The last case is to help users track their decisions.
Visual Guideline

Visual style plays an integral part in interaction design. Appropriate graphic design can convey positive psychological hints to users. Creating a visual guideline can keep as a reference and make sure the user interface is consistent across the project.

For the color choice part, I applied several colors representing calm, safe, and positive. (figure 3.1) Light colors make users feel at ease and relaxed. It's helpful to get rid of anxiety when users make decisions. I will maintain consistency throughout the whole thesis.

Personal assistance plays an essential role in my app. So I named the personal assistant Eden. I spend much time designing a kind and helpful character. I applied a soft outglow and energetic gradient color. I also create different expressions for the personal assistant. As for the motion effect, the character slowly moves, and its face follows the conversation flow. (figure 3.2)

Figure 3.1

Figure 3.2
User Interface

User interface is a bridge in the interaction design between users and devices. After trying different visual styles, I combine material design and flat design to keep the user interface understandable and straightforward. Our real-life and physical textures inspire material design. It brings the interfaces more realistic and acceptable for users. I also add soft shadow and rounded corners for tabs. The atmosphere of user interfaces is comfortable and user friendly.

I divide the main menu into four parts. (figure 4) The first part is the personal assistant. Users can ask their questions by typing or speaking to Eden. After Eden analyzes the data, the results and suggestions will show on the screen. Users can make decisions based on Eden's recommendations. Clicking their choice can help Eden know you better when you are ready to decide. The second part is the record that users can check previous decisions. This function allows users to check their solved and ongoing decisions. The third part is the community that will enable users to help each other by voting, sharing achievements, and posting thoughts. The last part is the status. The status tracks users' daily decisions and brings more awareness to users when they make decisions.

Figure 4
Motion Effects

A good transition provides invisible fun and real-time feedback for users. Microinteractions are a necessary part of any successful interaction design. I applied various micro-interactions in the app. For example, when users click a button, the button's size is different between tap down and tap up. Also, the voice button changed when users talk to the personal assistant.

Promo video also helps users get to use the app easily. Therefore, I implemented the stories into promo videos. Good storytelling builds a solid structure for the motion clips. Users know highlight features in several seconds by bullet points and thoughtful animations.

Testing

To improve the quality of user interface and animations, I ask a few users to try the prototypes and watch animations. After a group of testings, a few issues I should avoid. For the user interfaces part, users feel some screens are hard to know how to interact with other screens. Also, the font size needs to be smaller in some screens. Moreover, users think some graphics can be better and prettier. For the animation part, some of the key frames need to change to be more dynamic.

I modified screens after gathering advice. Users can scroll the suggestions page and know which suggestion they are looking at now. I also delete repeated buttons and edit the subtitles. (figure 5.1) In another page, I changed the layout of the progress and redesign icons. (figure 5.2) The scatter dots can better show every decisions' time and situation. In addition, colorful and energetic graphics imply a positive user environment.
**Figure 5.1**

Before

After

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**Figure 5.2**

Before

After
User case 1: Let's grab a cup of coffee.
"I always stuck with some tiny little things every day. Which coffee should I order? Chinese or Japanese food? I wish I could make quick decisions because they are not that important right?"

Based on the user story, the user can easily make decisions by using the app. At first, the user can quickly interact with Eden by using a wearable device. The user then asks the question and lets Eden help the user analyze information and give suggestions. The user can make choices easily by checking tips. Finally, the user may give Eden a little response, which can make Eden help the user better in the long term.

The links to User Case 1:
https://drive.google.com/drive/folders/16HZNFs8ddICROZlveUb1AzWplv9pe?usp=sharing

User case 2: I need a new laptop.
"I will waste more time on deciding to buy things that are (a little bit) expensive. I don't want to waste my time and also money at the same time."

This user case aims at users who have complex decisions to make. Users can ask Eden for worries on the phone and tell Eden the options they have. Eden will provide detailed information for users. There is also a help button in case users don't know some professional terms. Then users can click the icon that represents Eden and look through suggestions. These suggestions are based on users' preferences and their big data. Eden will explain every suggestion clearly by charts, graphics, or texts. Meanwhile, users can easily give Eden a response by clicking these buttons. If users think this suggestion is right for them, they tap the Like button. This action will help Eden know users better. After users finish deciding, the result will be saved at the record menu, and users can check the case anytime.

The links to User Case 2:
https://drive.google.com/drive/folders/1V5s0AMecS604PH1_vFuOMTJ9_XWBqP6l?usp=sharing

User case 3: Next time, I will make a choice easily
"Sometimes, I just don't know how to decide. Maybe I need help or just extra time. So it would be better for me to review records or some other way."
What if users can't decide right now? What if users still need other suggestions? What if users want to review previous decisions? Eden serves every step for users! Users can check, share, download, and create a vote for decisions they are hesitant to make.

The links to User Case 3:
https://drive.google.com/drive/folders/1dZpwmeEDRDnImpy0sx437-TlbaJ06ngE?usp=sharing

Highlight Features:
This part introduces several features about community and status. Users can create votes, vote for other users, give and get suggestions, share achievements, and post moments in the community. I believe that encouragement is the key for people to gain confidence. Thus, the community is an integral part of my app. The status lets users check their daily/monthly progress of decisions. Users also can see their achievements and vote results here.

The links to highlight features:
https://drive.google.com/drive/folders/1G8kefB5f7omsjhlxJhHuzM1H-zHxFqwr?usp=sharing:

**Evaluation and Discussion**

After the final design showcase, I ask testers to see through the outcomes and give feedback. (figure 6) Most of the feedback is positive. The problem statement and solution can perfectly match, and the research part is reliable and reasonable. As for interactive explanations, testers can keep up with the interactions and easily understand each function. Most people love the visual style of user interfaces. They think interfaces feel comfortable and eye-catching. Besides, they love Eden’s tiny expressions when they talk to Eden.

Also, some feedback shows that they want to see more possibilities on the wearable devices. Since we live in a fast-paced life, more and more people start to use wearable technology to enhance their life qualities. Exploring the limitations of wearable technology is becoming more important today. Moreover, some feedback reveals that the rhythm of highlight features videos can be a little faster.
In conclusion, there are many possibilities for this project to be explored. For example, we can discuss the other functions of wearable technology based on the feedback mentioned above. For now, we are talking about decisions that are not life-changing. What if Eden can give suggestions on some crucial decisions? This track needs more big data and users' preferences, which allow more advanced technical support. I believe that Eden will bring a positive impact on people making decisions in the future.

Figure 6
Conclusion

Through the process, the solution matches the problem statement. I explain functions and design goals correctly by graphics and animations. In the aspect of user interface design, most screens are simple and accessible for users to operate. The aspect of motion effects gives users quick and positive feedback when they interact with the app. The audience can quickly know what they should do next.

The author’s purpose for the thesis project is to help people decide with confidence. I found out that people are always stuck in some decisions for a long time. The main reason is we have difficulty in comparing them because of some limitations. I have done this project to break these limitations and make the factors that affect our decisions visible. At the same time, help people organize their thoughts and encourage them after finishing the whole process. It should create a more efficient and positive environment for people when they make choices.

If I have time to push my project further, I would like to explore the infographic of decision details and different ways to gather users’ data through their daily life. Also, there are some technical and safety factors that I have my limitations to discuss yet. I hope I can improve the app to a better solution for decidophobia people later.
Reference:


https://www.uopeople.edu/blog/fear-of-making-the-wrong-decision/.


https://medium.com/@ergomania_ux/the-ultimate-guide-to-creating-personas-and-how-to-use-them-to-enhance-your-business-1066b0d1f50b.

https://medium.com/@danhollick/material-design-is-design-science-6c99c1d76498.
