

Personality Traits on HCI User Interface

CSC 497 - FALL2021

University of Victoria

Presenter: Lihui Yang

Supervisor: Dr. Adam Murray

HCI





Openness



Conscientiousness



Extraversion



Agreeableness



Neuroticism

Personality Traits & User Interface

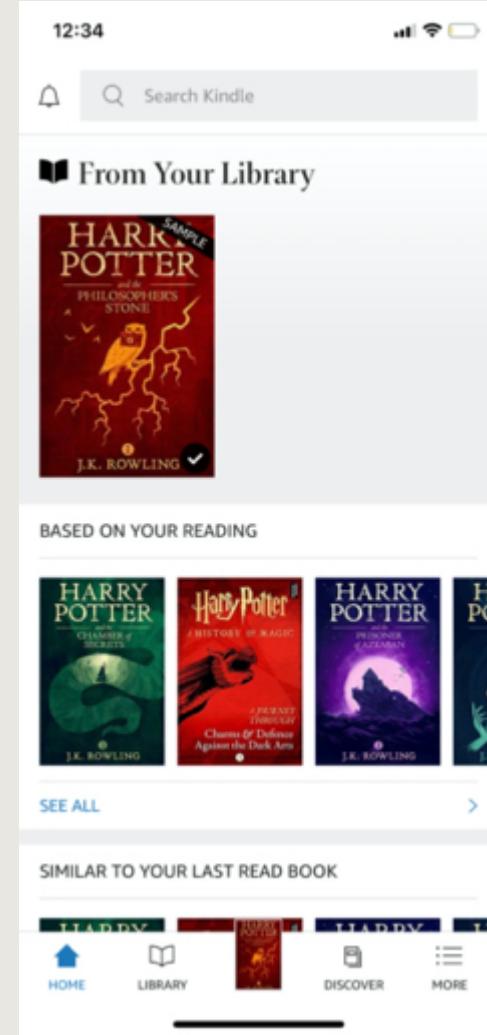


- Highly extravert people prefer warm colors with low brightness but higher contrast color (Choungourian, 1967; Rider, 2010).
- Highly open people have a positive search motivation use diverse methods when seeking information (De Raad & Schouwenburg, 1996).
- People with a high neuroticism score showed less intention to participate in online group discussions (Kim, et al., 2013).

Kindle iOS

Personality Traits Features

- Colour
- Layout
- Navigation
- Commenting Feature



— CHAPTER ONE —

The Boy Who Lived

Mr and Mrs Dursley, of number four, Privet Drive, were proud to say that they were perfectly normal, thank you very much. They were the last people you'd expect to be involved in anything strange or mysterious, because they just didn't hold with such nonsense.

Mr Dursley was the director of a firm called Grunnings, which made drills. He was a big, beefy man with hardly any neck, although he did have a very large moustache. Mrs Dursley was thin and

Location 56 of 408 1%

Personas

Kelly
32
ADMINISTRATIVE ASSISTANT

Bio
Kelly is a 32 years administrative assistant. She likes working in a team and helping with her colleagues. Kelly likes to read Romance novels and loves to leave comments and discuss with other readers. She hopes to join in the discussion when she reads the e-books.

Goals
Join in the discussion when reading the e

Action

- Open
- Tap c
- Read "Go"
- Fill ir
- Sele
- Subn
- Sele
- Click

Result
A per: test is have; well v to get their i helpfu

Charlie
23
COLLEGE STUDENT

Bio
Charlie is a 23 years old college student. She loves trying new things and is passionate about the arts. She likes to read fiction. She has been reading e-books and read books for a couple of months but she hopes to have more options when she is reading e-books.

The Big Five Personality Traits

Goals

Join in the discussion when reading the e

Action

- Open
- Tap c
- Read "Go"
- Fill ir
- Sele
- Subn
- Sele
- Click

Result

- A per: test is have; well v to get their i helpfu
- Charlie**
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Bio

Charlie is a 23 years old college student. She loves trying new things and is passionate about the arts. She likes to read fiction. She has been reading e-books and read books for a couple of months but she hopes to have more options when she is reading e-books.

The Big Five Pers

| | |
|-------------------|-------|
| Openness | * * * |
| Extraversion | * * * |
| Agreeableness | * * * |
| Conscientiousness | * * * |
| Neuroticism | * * * |

Goals

Provide extra optio e-books: A new fea

Actions and Tasks

- Open Kindle App iOS
- Tap on the new feature
- Read introduction of The "Go"
- Fill in the consent form a
- Select Questions as: (5)-
- Submit the answers
- Select Go to reading mo
- Click the demo of the personal reading mode

Results

A person with a high level o test enjoys trying new things. Individuals with a high level of openness have a general appreciation for unusual ideas and art. They are usually imaginative. Being creative, open to new and different ideas, and in touch with their feelings are all characteristics of openness people.



Eric

16
HIGH SCHOOL STUDENT

The Big Five Personality Traits

Goals

Hope for a better way to keep hi stable and a long time for reading

Actions and Tasks

- Open Kindle App iOS
- Tap on the new feature
- Read introduction of The "Go"
- Fill in the consent form a
- Select Questions as: (4)-5, (9)-1, others-3
- Submit the answers
- Select Go to reading mode
- Click the demo of the personal reading mode

Results

People who score high in neuroticism are emotionally reactive. They will have an emotional response to events that would not affect high scorers in neuroticism on a personality. greater chance of feeling threatened or being mood in a normal situation. However, they details and can fix some specific level of con tasks.

The Big Five Personality Traits

Goals

Hope to try to recomend books based on his personality in the system

Actions and Tasks

- Open Kindle App iOS
- Be interested in the new feature "Personality Traits"
- Tap on the new feature
- Read introduction of The Big-Five personality traits and click "Go"
- Fill in the consent form and click "Submit"
- Select Questions as: (1)-1, (5)-1, (10)-5, (16)-5, others-3
- One more tie-breaker question
- Submit the answers
- Select Go to reading mode
- Click the demo of the personal reading mode

Results

Extraversion indicates how outgoing and social a person is. A person who scores high in extraversion on a personality test is the life of the party. They enjoy being with people, participating in social gatherings, and are full of energy. A person with a high level of openness to experience in a personality test enjoys trying new things. They are imaginative, curious, and open minded. Individuals with a high level of openness have a general appreciation for unusual ideas and art.

James
43
BUSINESSMAN

The Big Five Personality Traits

Goals

More visual icons and signifiers.

Actions and Tasks

- Open Kindle App iOS
- Be interested in the new feature "Personality Traits"
- Tap on the new feature
- Read introduction of The Big-Five personality traits and click "Go"
- Fill in the consent form and click "Submit"
- Select Questions as: (1)-1, (6)-5, others-3
- He has something to say now. So, he clicks "No, I want to quit" do the question again, he clicks his personal page
- He wants to save the answer then click "save it for later" do the question again, he clicks his personal page
- More visual icons and signifiers
- Fill in the consent form and finish all
- He is doing the personal reading mode

The Big Five Personality Traits

Goals

Indicates how outgoing and social a person is. Scores high in extraversion on a personality test is the life of the party. They enjoy being with people, social gatherings, and are full of energy. Engaging with the external world. These are on excitement, and are enthusiastic, people. They like to be the center of ups.

Actions and Tasks

- Open Kindle App iOS
- Be interested in the new feature "Personality Traits"
- Tap on the new feature
- Read introduction of The Big-Five personality traits and click "Go"
- Fill in the consent form and click "Submit"
- Select Questions as: (1)-1, (5)-1, (10)-5, (16)-5, others-3
- One more tie-breaker question
- Submit the answers
- Select Go to reading mode
- Click the demo of the personal reading mode

Results

Extraversion indicates how outgoing and social a person is. A person who scores high in extraversion on a personality test is the life of the party. They enjoy being with people, participating in social gatherings, and are full of energy. A person with a high level of openness to experience in a personality test enjoys trying new things. They are imaginative, curious, and open minded. Individuals with a high level of openness have a general appreciation for unusual ideas and art.

Linda
55
REGISTERED USER

The Big Five Personality Traits

Goals

Hope to have a reading target or goals when she reads e-books. Also, a larger font size.

Actions and Tasks

- Open Kindle App iOS
- Be interested in the new feature "Personality Traits"
- Tap on the new feature

ction of The Big-Five personality traits and click "Go" sent form and click "Submit" ions as: (3)-1, (8)-5, others-3 nsers' reading mode

ing high in conscientiousness usually has a self-discipline. These individuals prefer to rather than act spontaneously. shiness is about how a person controls, directs their impulses. Individuals with a conscientiousness are good at formulating ials, organizing and planning routes to these rking consistently to achieve them.



Charlie

23
COLLEGE
STUDENT

“

Bio

Charlie is a 23 years old college student. She loves trying new things and is passionate about the arts. She likes to read fiction. She has been using Kindle iOS to read books for a couple of months but she hopes to have more options when she is reading e-books.

”

The Big Five Personality Traits

| | |
|-------------------|-----------|
| Openness | * * * * * |
| Extraversion | * * * |
| Agreeableness | * * * |
| Conscientiousness | * * * |
| Neuroticism | * * * |

Goals

Provide extra options when reading e-books: A new feature in Kindle

Actions and Tasks

- Open Kindle App iOS
- Tap on the new feature
- Read introduction of The Big-Five personality traits and click "Go"
- Fill in the consent form and click "Submit"
- Select Questions as: (5)-1, (10)-5, others-3
- Submit the answers
- Select Go to reading mode
- Click the demo of the personal reading mode

Results

A person with a high level of openness to experience in a personality test enjoys trying new things. They are imaginative, curious, and open-minded. Individuals with a high level of openness have a general appreciation for unusual ideas and art. They are usually imaginative. Being creative, open to new and different ideas, and in touch with their feelings are all characteristics of openness people.



James

43
BUSINESSMAN

“

Bio

James is a 43 years old businessman. He loves to talk and socialize with people. He also is a good decision-maker. He is new to use Kindle iOS version. He is a more visual person, who likes to read charts or graphs (dislike text). He figures out that he prefers to see more icons on the navigation of the reading page.

”

The Big Five Personality Traits

| | |
|-------------------|-----------|
| Openness | * * * |
| Extraversion | * * * * * |
| Agreeableness | * * * |
| Conscientiousness | * * * |
| Neuroticism | * * * |

Goals

More visual icons and signifiers.

Actions and Tasks

- Open Kindle App iOS
- Be interested in the new feature "Personality Traits"
- Tap on the new feature
- Read introduction of The Big-Five personality traits and click "Go"
- Fill in the consent form and click "Submit"
- Select Questions as: (1)-1, (6)-5, others-3
- He has something to do now. So, he clicks "No, I want to quit"
- He wants to save the answer then click "save it for later"
- When he tries to do the question again, he clicks his personal page and clicks "Personality Traits Mode"
- Back to the questions page and finish all
- Submit the answers
- Select Go to reading mode
- Click the demo of the personal reading mode

Results

Extraversion indicates how outgoing and social a person is. A person who scores high in extraversion on a personality test is the life of the party. They enjoy being with people, participating in social gatherings, and are full of energy. They enjoy engaging with the external world. These individuals thrive on excitement, and are enthusiastic, action-oriented people. They like to be the center of attention in groups.

Prototype



— CHAPTER ONE —

The Boy Who Lived

Mr and Mrs Dursley, of number four, Privet Drive, were proud to say that they were perfectly normal, thank you very much. They were the last people you'd expect to be involved in anything strange or mysterious, because they just didn't hold with such nonsense.

Mr Dursley was the director of a firm called Grunnings, which made drills. He was a big, beefy man with hardly any neck, although he did have a very large moustache. Mrs Dursley was thin and blonde and had nearly twice the usual amount of neck, which made it very useful as she spent so much of her time craning over garden fences, spying on the neighbours.

— CHAPTER ONE —

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— CHAPTER ONE —

The Boy Who Lived

My Discussion Board

NOTES (1)

My Notes

You do not post any note yet.

Others Notes

User Name: Lightorange Note amazing it is
User Name: Dr. Smith I wish there were more books like many others
User Name: Dr. Smith I wish there were more books like many others
User Name: Dr. Smith I wish there were more books like many others

Type your comments here



— CHAPTER ONE —

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— CHAPTER ONE —

The Boy Who Lived

2,134,861

You have been read 2,134,861 words in this year and 8 books in total

1 One series in total 7 Seven books in total 8 Times!

You have 8 times to Spin to win the prize!

Prize A Prize B Prize C Prize D Prize E Prize F Prize G Prize H

— CHAPTER ONE —

The Boy Who Lived

2,134,861

You have been read 2,134,861 words in this year and 8 books in total

Congratulation! You win Prize A!

Get

Prize A Prize B Prize C Prize D Prize E Prize F Prize G Prize H

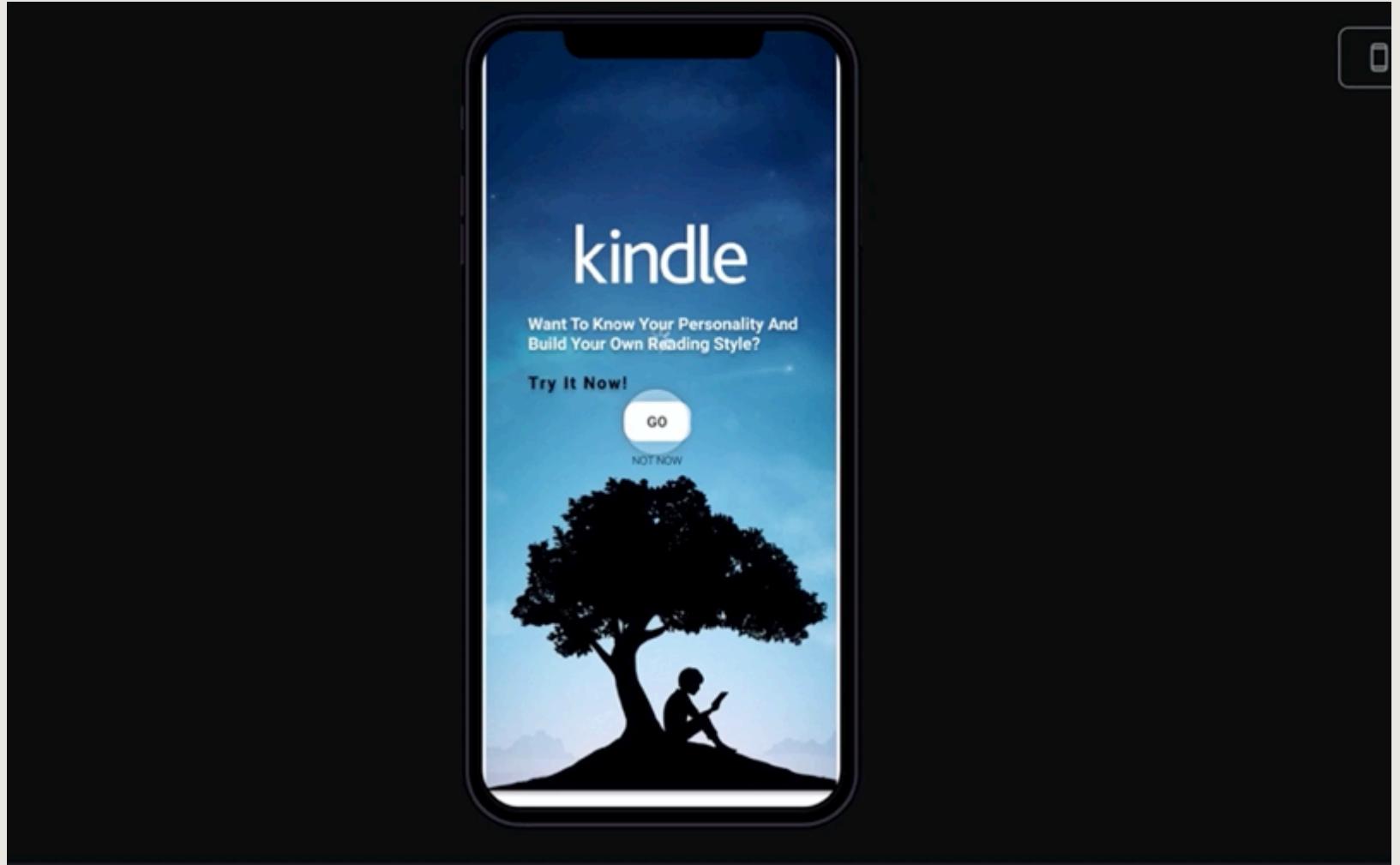
CHAPTER 1

The Boy Who Lived

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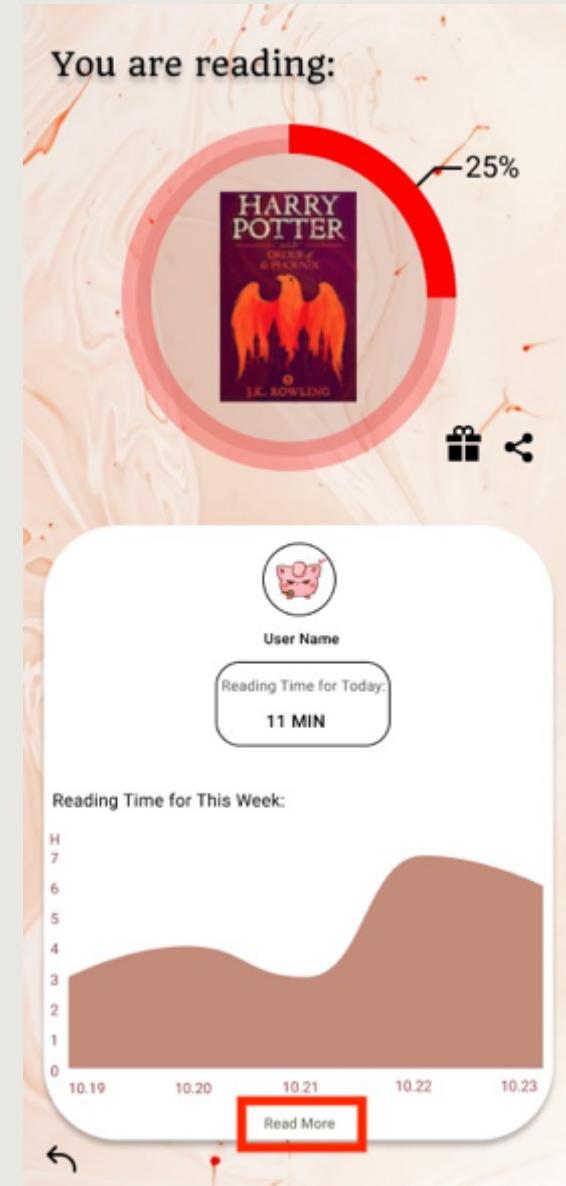
Mr Dursley was the director of a firm called Grunnings, which made drills. He was a big, beefy man with hardly any neck, although he did have a very large moustache. Mrs Dursley was thin and blonde and had nearly twice the usual amount of neck,

Cognitive Walkthrough Demo



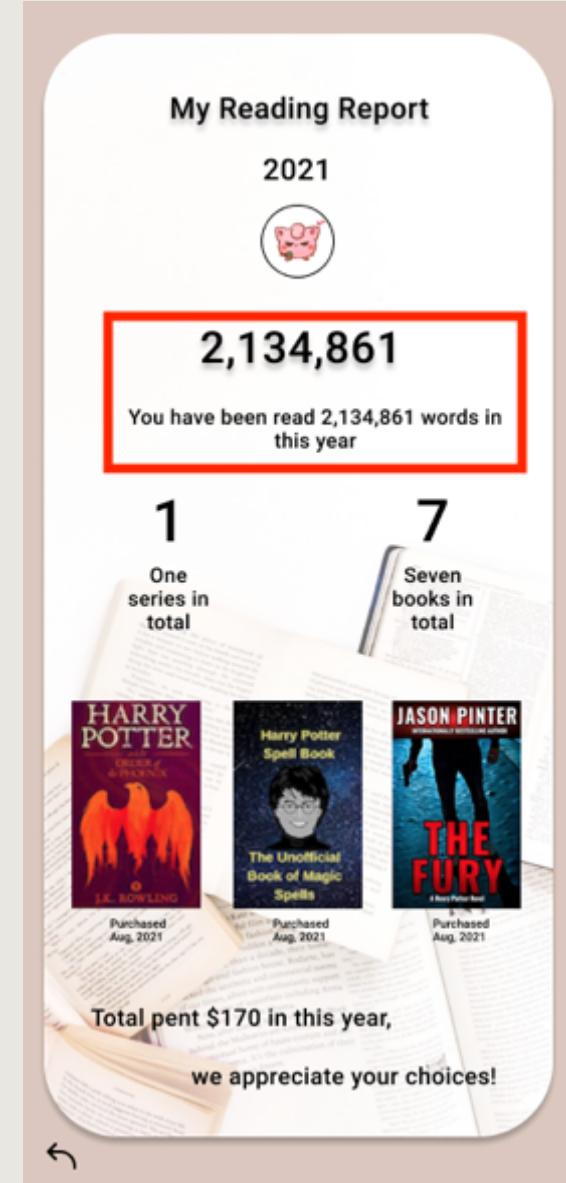
Feedback

Font size and font colour of "Read More" is hard to notice



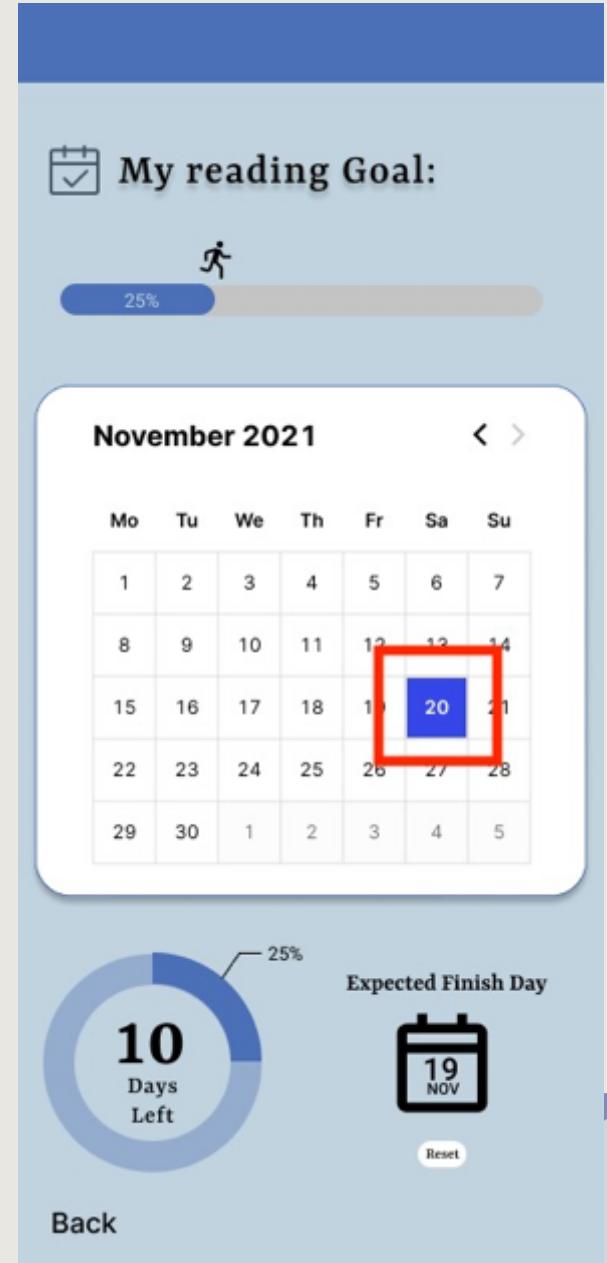
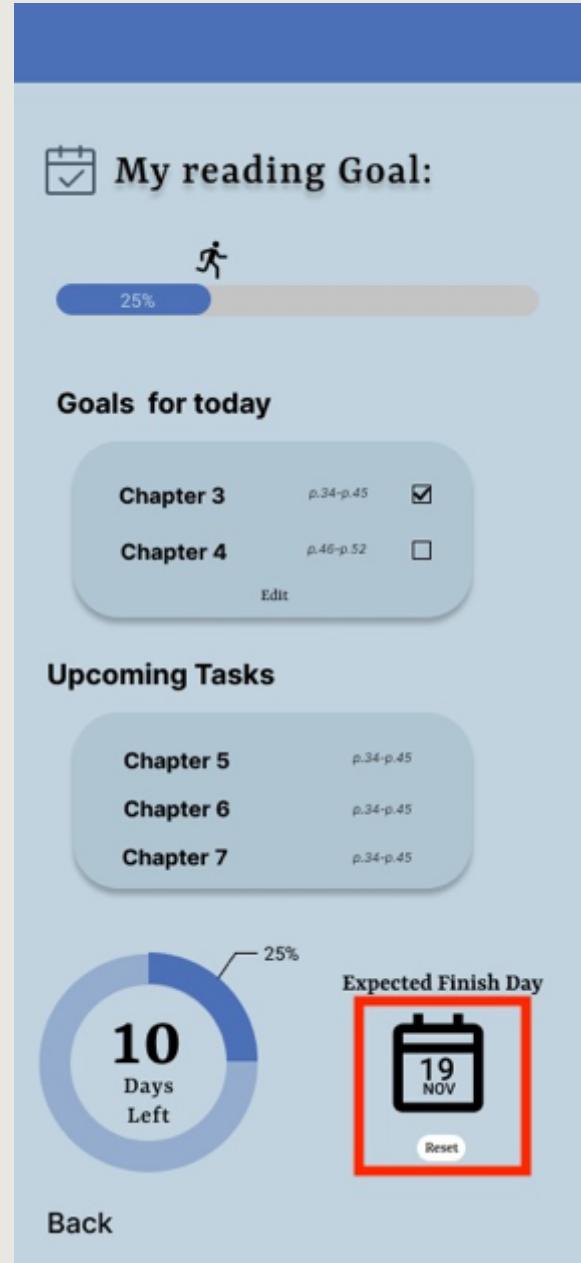
Feedback

The words amount of user read can be changed to a summary format, such as the words you read this year has the distance from Canada to America



Feedback

- Prefer to click the icon rather than the button below the icon
- Reset date on the calendar is expected once tap rather than twice



Project Biases

Participants

Familiar levels of Kindle iOS

Personality Test Results

Prototype limitation



Project Biases

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Familiar levels of Kindle iOS

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Prototype limitation



Project Biases

Participants

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BFI-10 Questionnaire

Appendix A. Big Five Inventory-10 (BFI-10)

English version.

Instruction: How well do the following statements describe your personality?

| I see myself as someone who ... | Disagree strongly | Disagree a little | Neither agree nor disagree | Agree a little | Agree strongly |
|-------------------------------------|----------------------|----------------------|-------------------------------|-------------------|-------------------|
| ... is reserved | (1) | (2) | (3) | (4) | (5) |
| ... is generally trusting | (1) | (2) | (3) | (4) | (5) |
| ... tends to be lazy | (1) | (2) | (3) | (4) | (5) |
| ... is relaxed, handles stress well | (1) | (2) | (3) | (4) | (5) |
| ... has few artistic interests | (1) | (2) | (3) | (4) | (5) |
| ... is outgoing, sociable | (1) | (2) | (3) | (4) | (5) |
| ... tends to find fault with others | (1) | (2) | (3) | (4) | (5) |
| ... does a thorough job | (1) | (2) | (3) | (4) | (5) |
| ... gets nervous easily | (1) | (2) | (3) | (4) | (5) |
| ... has an active imagination | (1) | (2) | (3) | (4) | (5) |

Scoring the BFI-10 scales:

Extraversion: 1R, 6; Agreeableness: 2, 7R; Conscientiousness: 3R, 8; Neuroticism: 4R, 9; Openness: 5R; 10 (R = item is reversed-scored).

Rammstedt, B. & John, O. P. (2007). Measuring personality in one minute or less: A 10-item short version of the Big Five Inventory in English and German. *Journal of Research in Personality*, 41, 203-212.



Appendix A. Big Five Inventory-10 (BFI-10)

English version.

Instruction: How well do the following statements describe your personality?

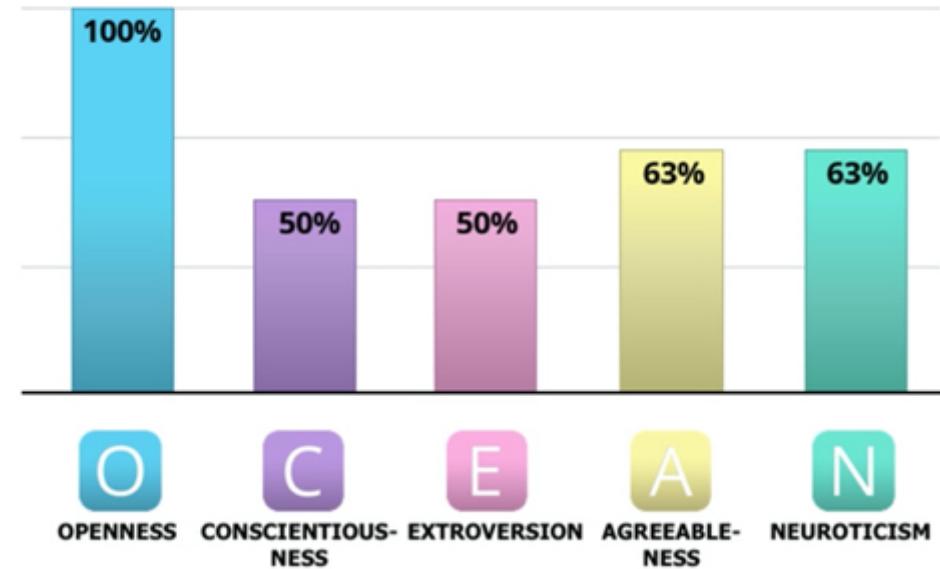
| I see myself as someone who ... | Disagree strongly | Disagree a little | Neither agree nor disagree | Agree a little | Agree strongly |
|-------------------------------------|----------------------|----------------------|-------------------------------|-------------------|-------------------|
| ... is reserved | (1) | (2) | (3) | (4) | (5) |
| ... is generally trusting | (1) | (2) | (3) | (4) | (5) |
| ... tends to be lazy | (1) | (2) | (3) | (4) | (5) |
| ... is relaxed, handles stress well | (1) | (2) | (3) | (4) | (5) |
| ... has few artistic interests | (1) | (2) | (3) | (4) | (5) |
| ... is outgoing, sociable | (1) | (2) | (3) | (4) | (5) |
| ... tends to find fault with others | (1) | (2) | (3) | (4) | (5) |
| ... does a thorough job | (1) | (2) | (3) | (4) | (5) |
| ... gets nervous easily | (1) | (2) | (3) | (4) | (5) |
| ... has an active imagination | (1) | (2) | (3) | (4) | (5) |

Scoring the BFI-10 scales:

Extraversion: 1R, 6; Agreeableness: 2, 7R; Conscientiousness: 3R, 8; Neuroticism: 4R, 9; Openness: 5R; 10 (R = item is reversed-scored).

Rammstedt, B. & John, O. P. (2007). Measuring personality in one minute or less: A 10-item short version of the Big Five Inventory in English and German. *Journal of Research in Personality*, 41, 203-212.]

Your scores:



Reference from: <https://www.idrlabs.com/short-big-five/test.php>

BFI-10 Questionnaire Result

Project Biases

Participants

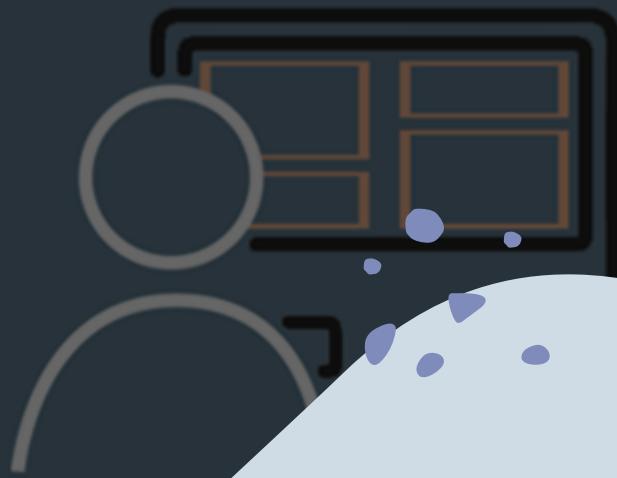
Familiar levels of Kindle iOS

Personality Test Results

Prototype limitation



Discussion





*Personality Traits Feature is
selectable*

A close-up photograph of a person's hand holding a single red 3D-printed puzzle piece. The hand is positioned as if placing the red piece onto a larger, partially assembled grey puzzle board. The grey board consists of several interlocking puzzle pieces. In the bottom right corner of the frame, there are some small, scattered blue and white dots.

*Previous Experience is another
factor that may lead to user's
behavior on the interface*

*Inversely, personality also
may play a role in the design
of a user interface*



UX Design



DISCOVERABILITY



CONSTRAINTS



FEEDBACK



WORD CHOICE



Thank You!

My great appreciation to **Dr. Adam Murray**
for being my supervisor this semester and
always sharing me valuable suggestions





Q & A?
