PROBLEM

Seniors

- tend to have less secure online habits
- are targeted by many online scams
- have difficulty adapting to new technologies
SOLUTION

Seniors

- learn by **pattern matching**
- value **simplicity**

notE is a **simple, non-invasive** online account information management notebook
Initial Paper
Prototype

Cover
Index Page
Account Page
Notification Page
Light Notifications
Linked Pen
Storing, Generating, and Updating Passwords

Giving Guidance After an Account Has Been Compromised
Task 1: Storing, generating, and updating passwords

- Use facial recognition to securely unlock
- Use index page to locate next available page
- Use available page to record account information
Task 1: Storing, generating, and updating passwords

Confirmation of entry with a green light

Index page automatically updates for quick search
Task 1: Storing, generating, and updating passwords

Yellow light indicates minor account issue

Yellow light shows on the index page

Prompt to update password
Task 2: Giving Guidance After an Account Has Been Compromised

Red light indicates severe account issue

Red light shows on the index page

Red light shows on page and notification provides more information
Task 2: Giving Guidance After an Account Has Been Compromised

Message shows that there will be someone to contact them later.

Greenlight shows on page indicating no further security issues.
TESTING PROCESS

2 heuristic evaluations + 3 usability tests
HEURISTIC EVALUATION

Identifying as many major usability issues as possible before conducting usability tests
## Testing Process: Heuristic Evaluation

### Participants
- Students currently taking CSE 440
- Conducted inside and outside of class

### Method
- Brief introduction of our design
- Give them scenarios and observed
- Focused on violations of Nielsen's heuristics for interface design

### Issues
- Lack of help + documentation
USABILITY TESTING

Testing the simplicity and intuitiveness of our design among our target audience
## Testing Process: Usability Testing

<table>
<thead>
<tr>
<th>Participants</th>
<th>Method</th>
<th>Issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seniors found in the library</td>
<td>Brief introduction of our design</td>
<td>Initially gave insufficient explanation of design</td>
</tr>
<tr>
<td>Familiar with technology</td>
<td>Give them scenarios and observe</td>
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**Participants:** Seniors found in the library, Familiar with technology

**Method:** Brief introduction of our design, Give them scenarios and observe, Focused on points of frustration and intuitiveness

**Issues:** Initially gave insufficient explanation of design, Over-corrected and gave too much
Testing Results: Main Takeaways

Heuristic Evaluation

- Help and documentation
- Consistency

Usability Testing

- Level of documentation and instruction
- Need more resemblance to a notebook
- Intuitiveness
Major Changes: Change Index to traditional table of contents

Before

After
**Major Changes:** Change input boxes to regular lines

*Before*
```
WEBSITE *
USERNAME
PASSWORD
EMAIL
SECURITY QUESTIONS
ADDITIONAL NOTES
```

*After*
```
Website
Facebook
Username
JohnDoe
Password
jD9g9o2G
Email
JohnDoe@gmail.com
Security Questions/Additional
```
Major Changes: Add screen on the front cover

Before

After

- Your Facebook account has severe security issue.

- NotE

- Secret Issue

- Notifications

- Scan face to unlock
**Major Changes:** Change help section to high level topics

**Before**

**Welcome to Note**

Facial Recognition

In order to protect your account information, we use facial recognition to only display the contents of the notebook to recognized users.

*The right is a type of recognized user. It is a known user. You can create an "add new known user button". Once a user is registered, you can choose to invite them by pressing "invite" next to their profile.

Managing Your Accounts

1. Set up facial recognition first.
2. Fill in your personal information on the personal info page. To access it, you can press the first icon on the index page.
3. Add new account. Do this by pressing the "+" icon on the index page. Enter information on the account page.
4. Once set up, the green light will turn on on your account page.

**How to Use Note** (link to learn more)

1. Using the note pen
2. Personal Information Management
3. Sharing your account information
4. Accessing your account information
5. Tracking your account information

**After**

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Task 1: Storing, generating, and updating passwords

Use facial recognition to secure and unlock

Use index page to locate next available page

Use available page to record account information
Task 1: Storing, generating, and updating passwords

Offer password suggestions

Confirmation of entry with a green light

Index page automatically updates for quick search
Task 1: Storing, generating, and updating passwords

Yellow light indicates minor issue with an account
Yellow light shows affected account
Offer suggested password for the update
Task 2: Giving Guidance After an Account Has Been Compromised

Red light indicates major account issues
Red light shows on index page
Red light shows on page. Notification provides more information
Task 2: Giving Guidance After an Account Has Been Compromised

Red light shows on page. Notification provides more information.

Notebook will contact help and suggests other steps.
Digital Mockup: Overview
Task 1: Storing, generating, and updating passwords

Use facial recognition to secure and unlock

Use index page to locate next available page

Enter information on the available page
Task 1: Storing, generating, and updating passwords

- Offer password suggestions
- Confirmation of entry with a green light
- Index page automatically updates for quick search
**Task 1:** Storing, generating, and updating passwords

- Remind to change password
- Yellow light shows on index page
- Offer suggested password for the update
Task 2: Giving Guidance After an Account Has Been Compromised

Red light indicates severe account issues

Red light shows on index page
Task 2: Giving Guidance After an Account Has Been Compromised

NOTIFICATIONS

Your account may be compromised. To have a representative contact you to assist you with account recovery, press the "help" button below.

Other suggested steps:
1. Change your password immediately
2. Notify people who may be contacted by that account
3. Browse your account activity and identify any other suspicious activity

NOTIFICATIONS

Thanks for confirming the issue. Someone from the company will contact you shortly.

Red light shows on page. Notification provides more information

Notebook will contact help and suggests other steps

Notebook will contact help and suggests other steps
SUMMARY

For Process

- Iterative refinement and revision
- Focus on Participants’ wants and needs
- Different testing processes and their purposes
- Simplicity is key
THANK YOU
Q&A