

SECP1513-05 TIS DESIGN THINKING

Chapter 4 System Software



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1.0 INTRODUCTION

WHAT IS DESIGN THINKING ?

- A process whereby any inventors need to face to create a new thing or modify the existing application no matter you are from any field.
- This skill requires the inventors to have critical thinking to fulfill user's requirement and provide the solution to solve the problems.

UTILITY SOFTWARE

Specialized programs to make computing easier

Example of essential utilities

- Troubleshooting or diagnostic programs
- Antivirus programs
- Backup programs
- File compression programs



2.0 DESIGN THINKING PROCESS

- Empathy - Get an empathic understanding of the problem you are trying to solve
- Define - Gather all the information, analyse and synthesise the main problems of the client in order to produce a solution.
- Ideate - Brainstorming. Think outside the box.
- Prototype- Turn the ideas into tangible products
- Test- Test the complete product and get feedback from the client for the further improvement and refinement of the products.

EMPATHY

- Target of client : middle-aged people who might face problems when using smartphone.
- Name : Aunty Cat
- Android user for 7 to 8 years
- Frequently receive messages from unknown sources (mainly about online gambling & pornography)
- Barely use the scanning function of antivirus application by manually

DEFINE

- Problem 1: Receiving unknown messages frequently especially in Whatsapp, Facebook and SMS.
- Problem 2: Unable to maintain the regular scanning manually over her mobile phone.

IDEATE

List of possible solutions :

Rational :

- Provide a reminder application to remind her for regular scanning
- Suggest the respondent to ignore messages from unknown sources.

Intermediate :

- Adding the extra features of regular scanning and message filtering into antivirus application existed in the phone

Radical :

- Create a new antivirus application which mainly specified for regular scanning and message filtering

PROTOTYPE

We choose the solution that adding the extra features of regular scanning and message filtering into antivirus application existed in the phone.

REASON TO REJECT OTHER SOLUTIONS

Categories	Reasons
Rational	<ul style="list-style-type: none">● Providing a reminder application for our respondent might be the fastest way to solve the respondent's problem, but it probably will not be lasted for long time as the respondent might stop using reminder application due to annoyance of the reminder application.● Ignoring messages from unknown sources might can reduce the chance of browsing unwanted websites through link in the messages, but it cannot completely prevent the respondent from receiving messages from unknown source and being affected by those messages.
Radical	<ul style="list-style-type: none">● Creating a new antivirus application which specified for regular scanning and message filtering is completely impossible as we <u>are lack of</u> knowledge and experience in developing antivirus application.

PROTOTYPE

- Quick Scan
- Cleanup & Accelerate
- Virus Scan
- Privacy Permission
- Regular Scanning
- Message Filter

TEST

- We explained detailly about the regular scanning and message filtering to the respondent.
- Our respondent is satisfied with the solution given.
- She responds that it will benefit her and the old folks.

3.0 DETAILED DESCRIPTIONS

PROBLEM FROM THE USER

- Existence of unknown message on her social media and SMS
- User has trouble to do the regular scanning by manual

PURPOSE OF THE PROGRAM

- To scan all the messages in social media and SMS and filter out the unknown and risky message
- Provide feature that can automatic scan the system regularly

SOLUTION

- Message filter is added into antivirus application
- Regular scanning is added into antivirus application

4.0 ASSESSMENT

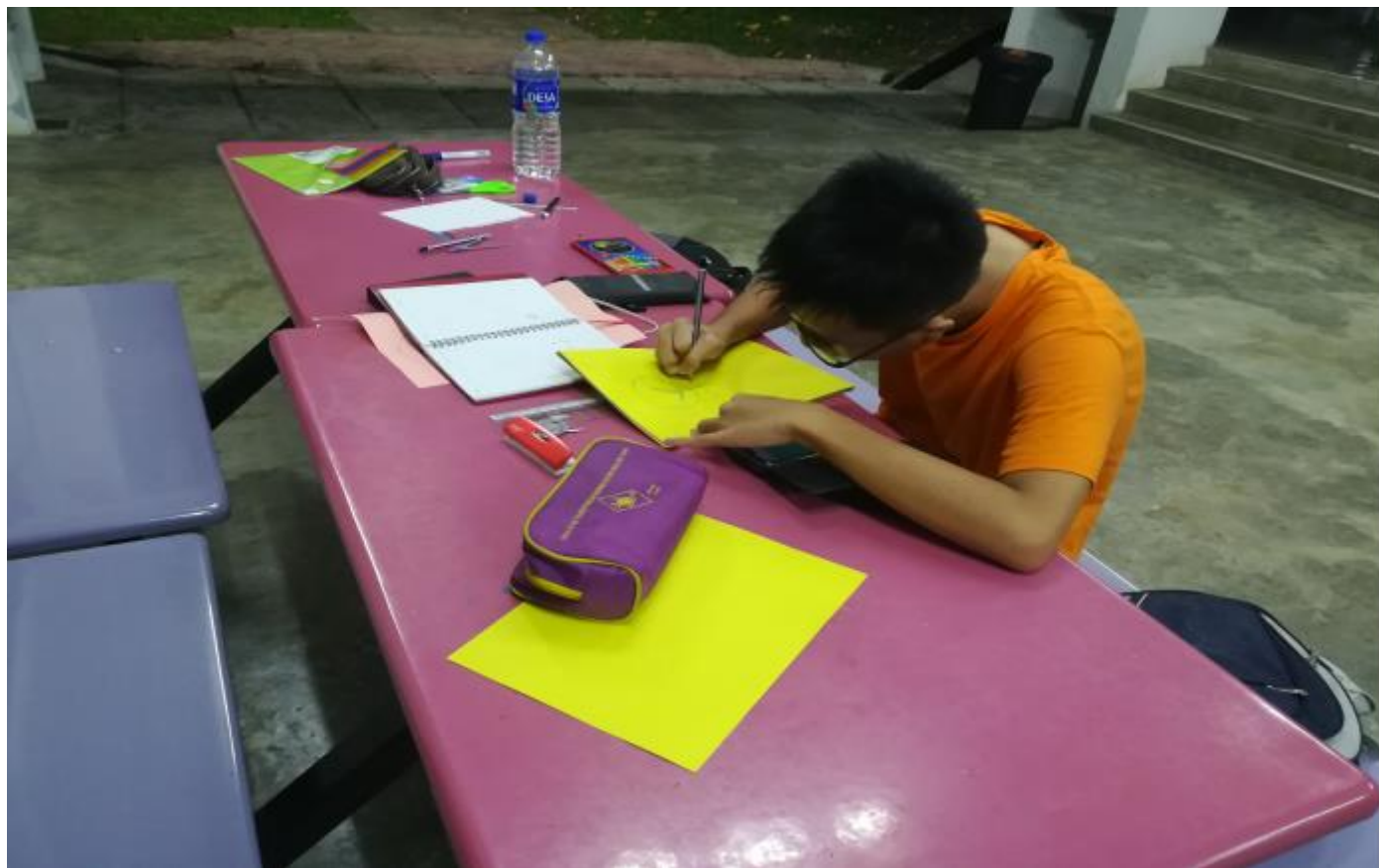
- Design thinking is a process whereby it needs time to understand the needs of the customer and find the solution that suitable with them.
- Creating a new product is easy, but creating a product that is need by society and profitable is needs a lot of effort and thinking to implement it.

5.0 DESIGN THINKING EVIDENCE



s antivirus software has the message filtering function?







Last time you said that the unknown messages are very annoying.



Time of last scan 18:01



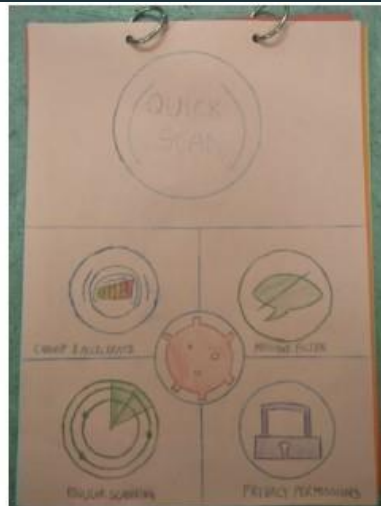
Cleanup &
accelerate

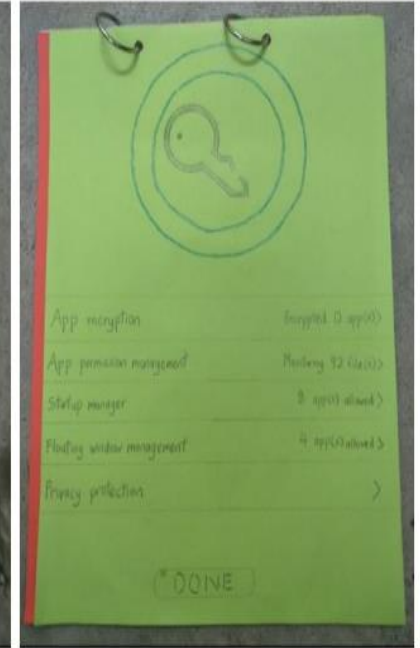


Privacy
permissions



Virus scan





6.0 REFLECTION

- a) Dream
 - To think out of box and listen to the words from the community
 - To create the software that make the quality of lifestyle improved
 - would not become the weapon
- b) Prototype
 - hard to build up a new software
 - Modify the existing software
 - To reduce the resources used and able to help the community
- c) Trend of communities
 - to find what they need from the application
 - critical thinking exercises must be more implemented
 - to ensure we would figure out the solution

7.0 TASK FOR EACH MEMBER

Name		See Wen Xiang	Kong Hao Yang	Loo Zhi Xuen
Tasks	Interview, Discussion, Prototype and Test Sections	Interview (Empathy) &Test	Producing Prototype	
		Discussion for Define and Ideate Stages		
	Documentation and Presentation	Editing Videos	Slides Presentation	
	Report	Introduction	Detail Description for Each Phase	Detail Description About Problems, Solution and Team Working
			Assessment Point	
		Design Thinking Evidence		
		Merge and Compile the Report	Reflection	

DESIGN THINKING VIDEO

Video link: <https://youtu.be/fHLqH62fZUQ>



QUESTION & ANSWER ?



THE END