

gabor_jonas_usability_engineering

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Health/fitness Interface Prototyping

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1. Introduction

The purpose of this report is to discuss theory behind user experience design and present an example using

2. Active Travel

Active travel means walking or cycling (or part of the journey) to a destination on daily basis.

2.1 The Active Tourist Application

In the Active Tourist application people who do city breaks can plan their journeys and routes between attractions and the accommodation using various transport methods.

3. Task Analysis

3.1. Active Tourist task analysis

The purpose of task analysis is to help to understand the users' [1]:

- Goals
- Steps to complete a task
- Personal abilities and experiences
- Surrounding environment while trying to achieve the goal

During the task analysis the following questions were asked.

Who is going to use system?

Adults who are not in their home city, aged 18+, most likely comfortable with mobile applications.

What tasks do they now perform?

- Find attractions in a city
- Find out the location of the attraction
- Check available transport methods
- Research transport fee and journey time
- Creating note how to get there

How are the tasks learned?

The users have to be able to use a mobile device, the tasks require using input fields, drop down lists and buttons.

Where are the tasks performed?

Tasks performed on a mobile device, it can happen at home or on the street.

What's the relationship between user & data?

The application doesn't store any data of the user.

What other tools does the user have?

The users don't need other tools

How do users communicate with each other?

No communication between users.

How often are the tasks performed?

Can be once a year or several times a day.

What are the time constraints on the tasks?

Users can be in hurry to get to the next attraction in time.

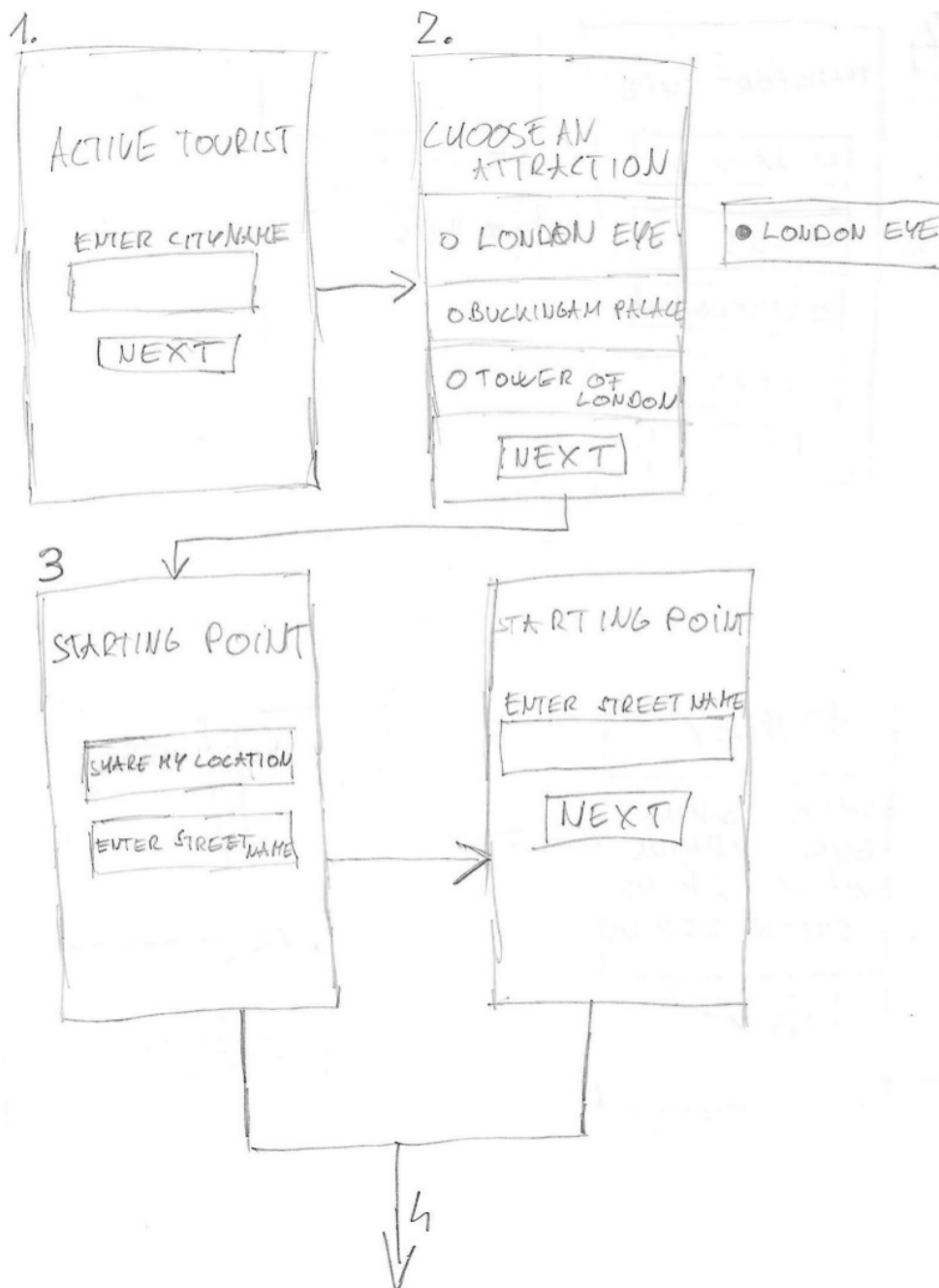
What happens when things go wrong?

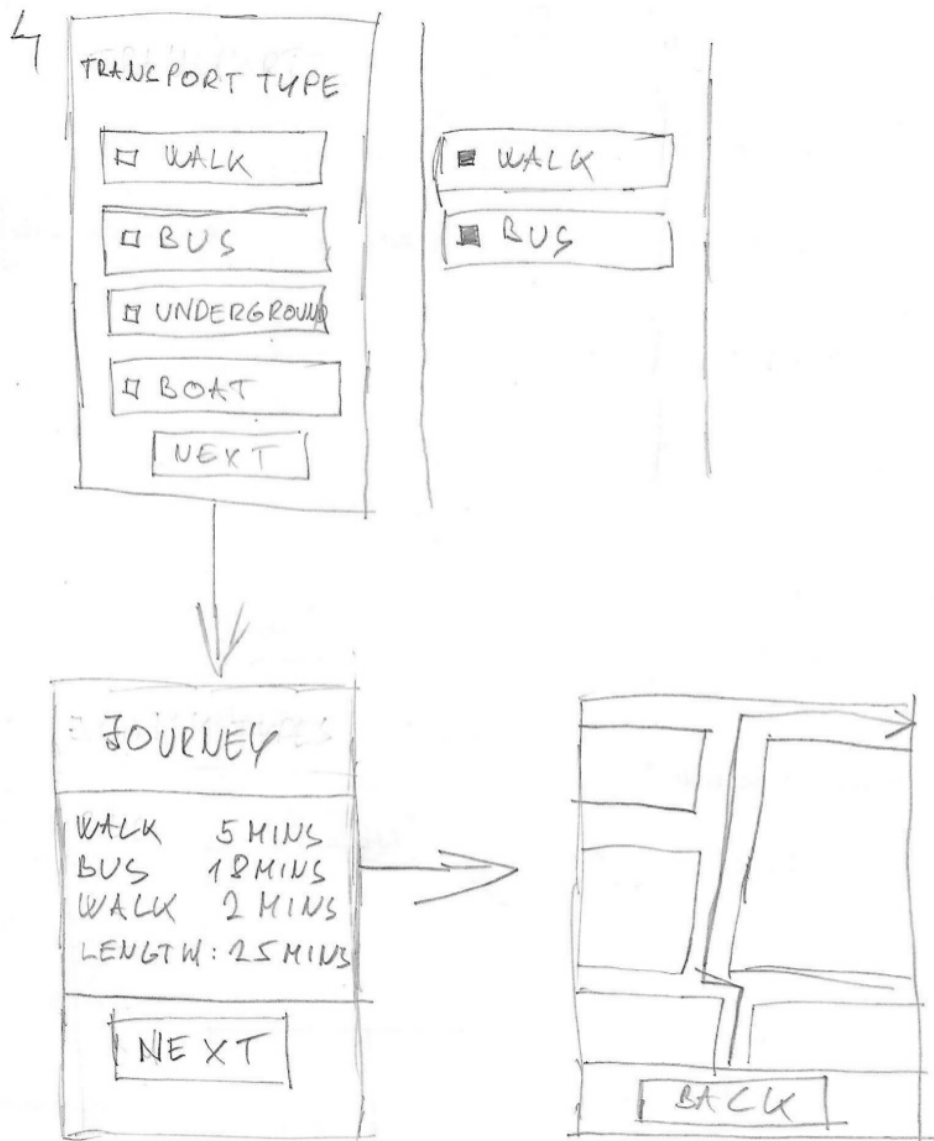
The application gives specific error message and highlight the problem with red colour.

2.1 Hierarchical task analysis

0. Go to an attraction
1. Choose a city
 - 1.1 Type in city name
 - 1.2 Tap on next
2. Choose an attraction
 - 2.1 Choose an attraction from the list
 - 2.2 Tap next
3. Give starting point details
 - 3.1 If the gps access is not available/ not allowed enter street name
 - 3.2 If the gps access is available, tap on share my location
4. Choose transport type
 - 4.1 Choose transport type from the list
 - 4.2 Confirm details of length and types
 - 4.3 Tap next
4. The journey
 - 5.1 Follow instructions on the screen

3. Paper Prototype





5. Software prototype

For prototype design Adobe XD was used. It is a vector based user interface builder for web and mobile applications.

ACTIVE TOURIST

ENTER CITY NAME

NEXT →

NEXT

ACTIVE TOURIST

CHOOSE ATTRACTION



LONDON EYE



BUCKINGHAM PALACE



TOWER OF LONDON

NEXT →

ACTIVE TOURIST

STARTING POINT

ENTER STREET NAME

SHARE MY LOCATION

HEAT

ACTIVE TOURIST

STARTING POINT

ENTER CITY NAME

NEXT →

NEXT

ACTIVE TOURIST

TRANSPORT TYPE

☐

WALK

☐

BUS

☐

UNDERGROUND

☐

BOAT

NEXT →

ACTIVE TOURIST

JOURNEY

WALK	5 MINS
BUS	18 MINS
WALK	2 MINS
TOTAL	25 MINS

NEXT

NEXT →

6. Human Factors Theory

Affordance

It was first proposed in psychology in 1977 by James Gibson [2]. Don Norman describes affordance as *“the design aspect of an object which suggest how the object should be used; a visual clue to its function and use”*. [3]

For example, a button should resemble a real button to have a slight surround effect, stick out from the surrounding surface and suggest that it’s “pressable”.

7. References

- [1] D. Wigdor and J. A. Jackko, Human-Computer Interaction Handbook: Fundamentals, Evolving Technologies, and Emerging Applications, 3rd ed., Florida: CRC Press, 2012.
- [2] V. KAPTELININ, "The Encyclopedia of Human-Computer Interaction, 2nd Ed.," Interaction Design Foundation, [Online]. Available: <https://www.interaction-design.org/literature/book/the-encyclopedia-of-human-computer-interaction-2nd-ed/affordances>. [Accessed 2020 01 16].
- [3] D. Norman, The Design of Everyday Things, New York: Basic Books, 2013.

FINAL GRADE

53/100

GENERAL COMMENTS

Instructor

Introduction: An outline of the area chose with appropriate examples and references would have been an improvement here.

Task Analysis: A useful Task Analysis was shown. It shows thought in analysing the problems

Visitors face and what they want to achieve. What happens when things go wrong? – Don't mention the app at this stage. I repeatedly visited the wrong fountain in Rome, thinking it was the Trevi Fountain because I lacked location sensitive information. Like me, a visitor could miss out on the attraction they planned to visit when things go wrong.

Paper Prototype: An effective Paper Prototype is included and explained - a good and well thought out feature of your assignment! The main improvement I'd suggest here would be to include more visual metaphors.

Human Factors: Brief explanation with this section appearing incomplete.

Review of Classmate's Design: Not presented.

Software Prototype: Good use of Adobe XD to create a software prototype. I'd have ;iked to read your opinions on its effectiveness.

Evaluation: Brief points included in report but section not present.

Overall The interface designs are a good feature. The written report appears incomplete. If you need help with academic writing or time management it's on offer so consider this.

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