

INF 4260

Human Computer Interaction

BLINDERN STATION

Mid-term Report



University of Oslo

Department of Informatics

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INF 4260 – Blindern Station

Introduction

This document contains the mid-term report written by Jeton and Tor following the group work related to the course “Human Computer Interaction” provided by the University of Oslo – Department of Informatics. As this course is an “introduction to those subjects that constitute the field that is usually referred to as human-computer interaction” (UiO Website, 29 Oct 2007) and as it has a practical part through which we focus on the experience of getting to know the use and the user, prototyping and finally evaluating the design, we as a group consisting of two individuals, decided to work on Trafikanten related area, more specifically at Blindern T-bane Station, which by 2011 will be completely rehabilitated and restructured due to University’s 200th anniversary.

Overview

Our early plan was to make some products that give information and entertainment to T-bane users at Blindern station. Such information is having a University Map on a touch-screen display where one can click on any University building shown on the map to get information about that building, for example the information that will be shown on the screen could be such as the name of the building; under what department it is; contacts of persons in charge; whether or not does there exist a library and so forth. Another product within “information” at Blindern station is having a T-bane Map showing which train is coming and time of its arrival and also what direction is it going to.

On the other hand, as far as entertainment at Blindern station is concerned, we thought to design a quiz on the same basis as the Map of University, which is a touch-screen display. The quiz is in English and Norwegian version depending on the choice of the user. Users can choose to play within different areas of expertise, thus one can choose between variety of quizzes such as movie, sports, geography, science and music.

Approach and method

To get a better understanding of users needs at Blindern station and to get a clear picture from user's perspective point of view, we conducted some interviews and observations to see if they support us in what we are doing.

Interviews

The interviews were shortly held at Blindern station. We conducted interviews in three days in a series of twice daily – in the morning and in the evening. We completed 42 short interviews as we have a short frame of time to finish this project. We tried to find out the users satisfaction level at Blindern station facility and we also tried to see if our idea by incorporating a Quiz machine, a map of University campus and a more advanced map of T-bane – showing which train is coming and what direction is it going, would make them feel any better. We also conducted interviews with international students to measure their satisfaction level and what they think of our project.

As shown in (fig 1.1), out of 42 interviewees, 33 of them fully supported our project proposal as they can kill some time by trying to solve the quiz questions. While 9 of the interviewees didn't really want to play with the quiz machine as they would rather read something.

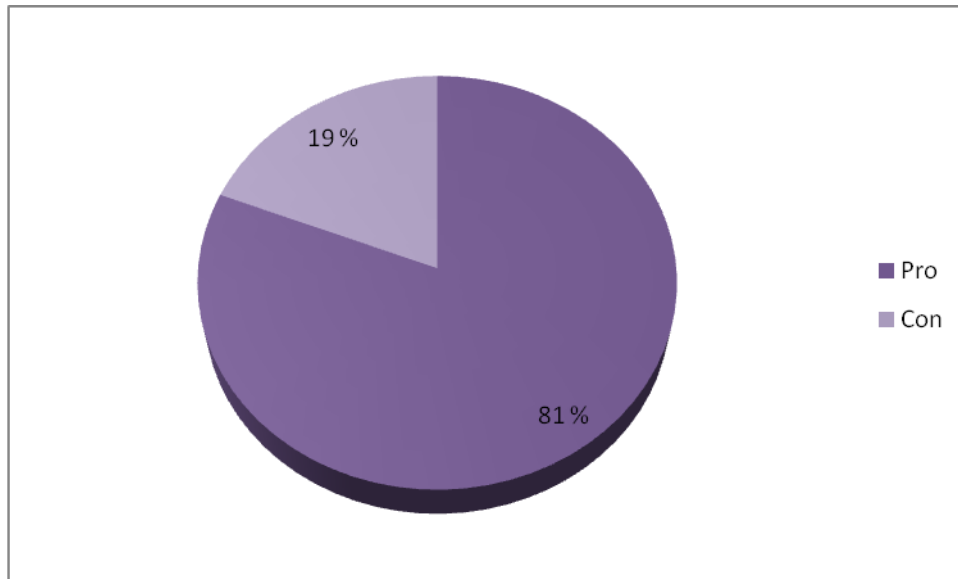


Fig 1.1

While talking with international students, one of the interviewee says that *“University of Oslo is a multicultural institution and it doesn’t really have much information in English nor does Blindern station”*.

So they really think the idea of making both of the maps is really helpful as it helps to see what any building of the University is and has to offer. Also, the traffic map of T-bane is very helpful as they know what direction they are going before entering into the train.

Figure 1.2 shows the satisfaction level of international students to finding the many buildings around Blindern campus and their finding of the right T-bane direction to their homes or downtown. Out of seven that we interviewed none were satisfied¹.

¹ Note that the interviewees were referring back in the time when they first arrived in Oslo and especially at University of Oslo.

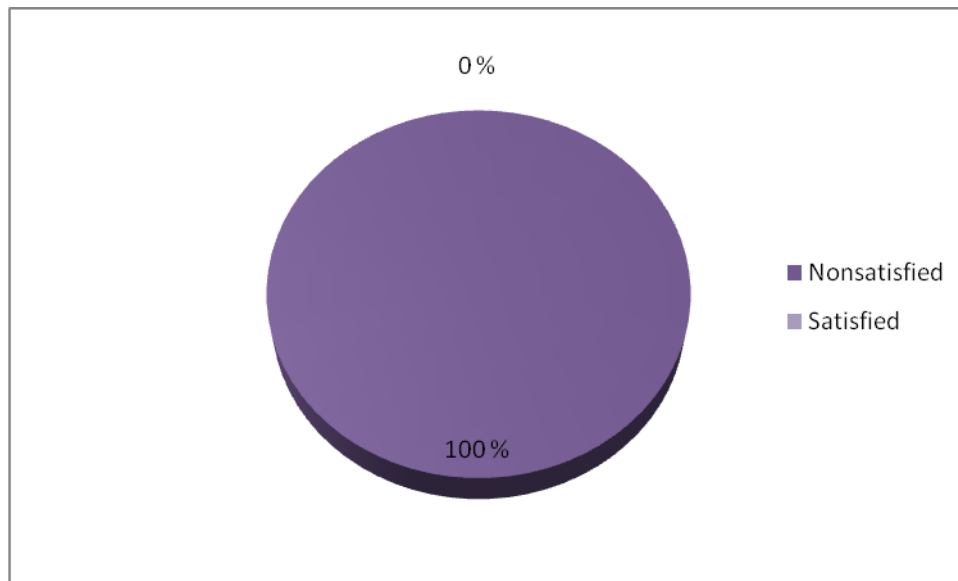


Fig 1.2

Observations

Regarding the observation, we conducted two observations of one hour. The observation gave us an insight of how is it out there to wait until the subway arrives. Moreover, in one way or another it backed up our idea which supported us to keep working with further continuation of our prototype. During our two observations of one hour, we noticed that users don't really do much while they wait for T-bane. Majority of them just sit or stand or have their headphones on their ears listening to music, while others have something on their hands such as snacks or drinks. We also noticed that some users have something to read while they wait for T-bane. Figure 1.3 gives a graphical percentage presentation of what people do while they wait for T-bane at Blindern station!

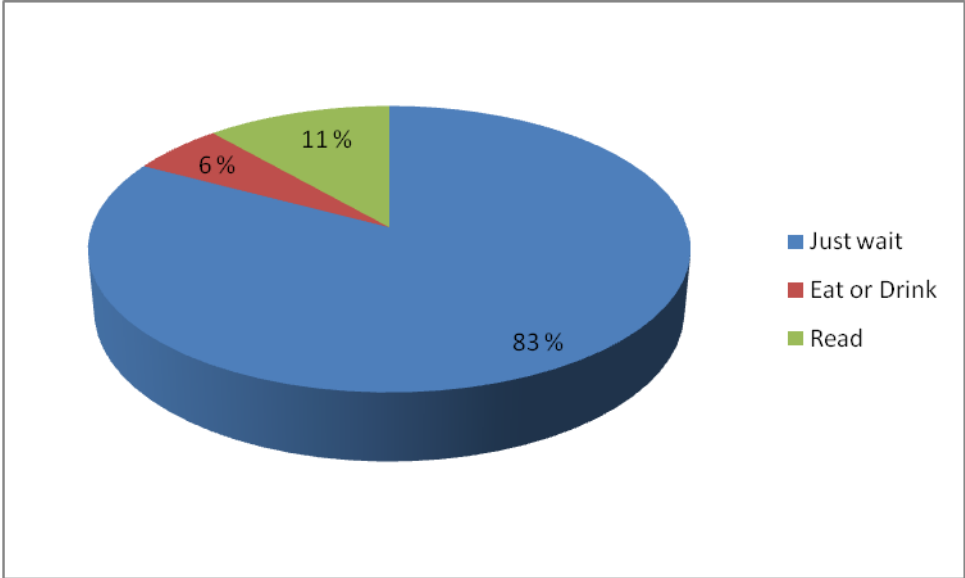


Fig 1.3

Discussion

Identification of user needs

If we look back at the wondering document we may discuss a few points, since the project as expected has changed a little. Our goal is a multicultural information system e.g. the traffic map, a university map and a quiz. On the quiz machine, we need two different languages for the system including English and Norwegian.

Many new students wonder if they are on the correct platform and the direction they want to go. Obviously, we want the prototypes and especially the traffic map to be on both sides (platforms) of the station, since the map clearly indicates the direction and the time arrival.

The university map indicates the location of the buildings on campus, opening hours for the building and much other useful information that will make it easier to new students and visitors to easily find the requested building and requested and right information.

User group

Basically the user group for the project is all travelers, but above all especially new travelers. The quiz is for entertainment purpose and help people interact and communicate, and may include more than one user by participating in the quiz.

Assumptions

The concept is based on two basic assumptions:

- Some sort of information about the arrival and departure is required for travelers.

- Travelers enjoy both entertainment and information at arrival and departure.

Today you will find timetables which tell you the arrival of the train. The timetable might be confusing and frustrating for new travelers since the train might be delayed or one will find some changes in the timetable. With the new traffic map one will always see where the train is and how long will it take to arrive at the station and whether or not there is a delay. We believe that by integrating this system will make one's life easier. On the other hand, by integrating quiz and information about University building, we believe that users can help reduce stress and waiting time.

Possible problems

The interviews and observations indicate that the majority want to play the quiz games and are interested in an easier way to know which direction to go as well as where the train is. One of the scenarios is users getting very involved in the game that they can miss the transport. We canceled the idea of the reward as we have mentioned in our wondering document that a winner of the quiz will have a free ticket. Thus there will be no winning prizes for the quiz as the ticket reward may lead to travelers missing their train.

Prototype

The prototypes for the traffic map and university map are to be developed in Flash, while the quiz is to be developed in Visual Basic. You will find a short presentation of each section in this document. The prototype is in the first stage of the production, and when finished it will be presented at the end of the course. After a careful review of our project proposal and after we went through our wondering document feedback, we thought to have one touch-screen display for the university map and another one for the quiz. This way

it is easier for the users not to collide with each other as opposed to having only one machine which includes both the quiz and the university map.

The map below in Fig 1.4 is taken from UiO website. The idea is that when a user selects a building, information such as name of the building, opening hours and so on, will appear on the right side of the map. Eventually it is also possible to make a better and clearer map that is easier to understand while this map might be confusing to new students and travelers.

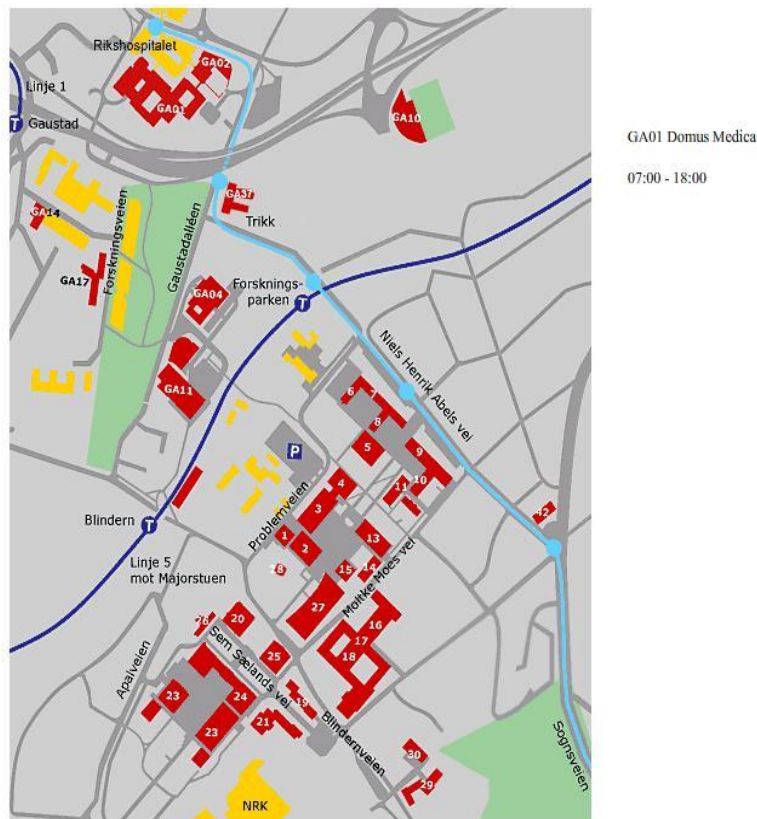


Fig 1.4

Considering the T-bane map, we will have yellow dots moving along constantly that indicate the direction and location of the trains as they move. In addition, we also introduce the arrival time of the trains in the same map. There will be one yellow dot for each train and for all directions. The map shown in Fig 1.5 is not the final map that we will use in our final prototype, but it similar. We will use a rectangular map that is actually used on each train today. Regarding the real time system for T-bane, as it is needed for showing their locations and their arrival time, we assume that Trafikanten will implement this system by 2011.

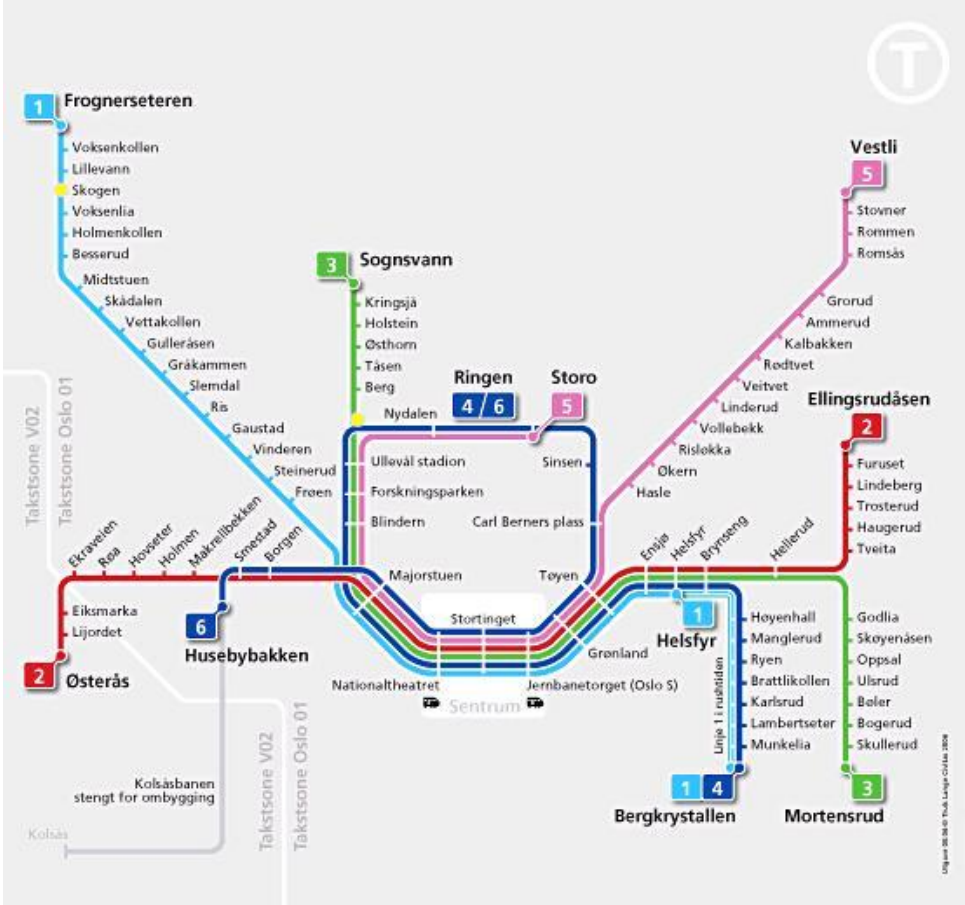


Fig 1.5

The last but not least is the Quiz. It will be implemented in one touch-screen display. Figure 1.6 shows an example of how the Quiz interface might look like. As mentioned in the introduction, the quiz is in English and Norwegian version depending on the choice of the user. Users can choose to play within different areas of expertise, thus one can choose between variety of quizzes such as movie, sports, geography, science and music.

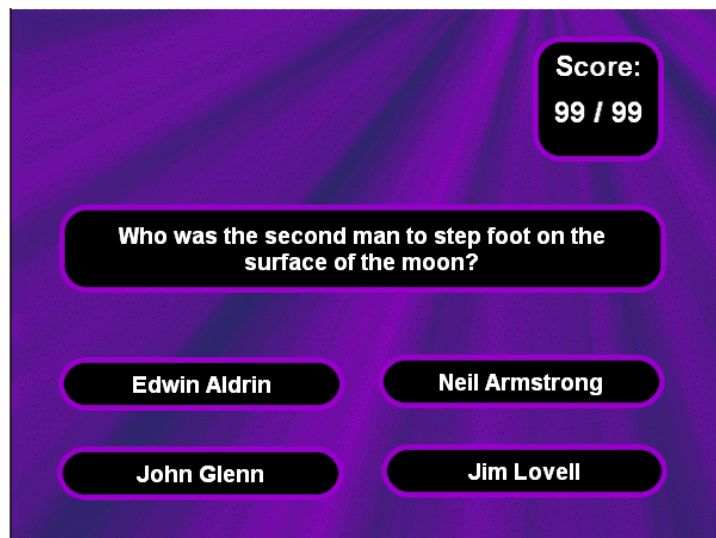


Fig 1.6

Conclusion

We conclude that our idea for our project at Blindern station is helpful to those new comers and to those who don't have much to do while waiting at the station. To summarize, we are going to have three types of services: Real time system T-bane map, University Map and a Quiz. The University Map will be implemented in a touch screen display and so is the Quiz but in a different display, while the T-bane map will be one of those maps that are actually being used today at T-bane stations but with real time system integrated on where one can track the train and its time left to arrival at Blindern station.

It is worth mentioning the observation and interviews that 83% of the travelers just wait for the train to arrive and 33 persons out of 42 asked, supported the idea of the quiz so they kill some time while they wait. Also, many and especially international students fully supported the idea of the T-bane map, which gives a clue to new comers as where and what direction they are going.

The following you will find important tasks that will be finalized in a short period of time:

Processing of the results from observations and interview, and possible several interview, development of the prototypes, development of the final report and development of the presentation.

Referencing and Bibliography

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