

CHAPTER 1

INTRODUCTION

1.1. Background

Education was an essential part of every country's development to achieve greater economic wealth. In its study, International Institute for Applied Systems Analysis [1] concluded that one of the most important factors contributing to economic growth is education. But unfortunately for Indonesia, the education quality still needed to be improved as stated by ADB Principal Economist ADB, Muhammad Ekhsan Khan[2].

Eventhough the quality of Indonesia's education was considered to be low, surprisingly, according to checkfacebook.com[3], Indonesia's population was the second largest Facebook users after United States. Another popular social networking platform: Twitter, had reached 19 % of Indonesia's population and ranked fifth in the world in term of its country reach. This proved that Indonesia's citizens were accustomed to learn and share their thoughts through Internet in their daily life. Therefore, it could be concluded that the Internet, especially the social network platform might become a potential learning medium for Indonesia youth.

Some studies had been conducted regarding the use of social networking for academic purposes. For example, a study showed that Twitter, one of the most popular social networking platforms, was able to help students to communicate with classmates or lecturers (for academic and/or non-academic purposes). One of the reasons was because

the interaction through Twitter tends to be informal and quick, and was preferred over traditional LMS's discussion forum[4]. Observation result of this study convinced that social networking feature could actually be used as a tool to support learning process.

Another popular social networking site, Facebook, had also proven to be able to aid learning process. A Kansas State university professor for instance, had been using Facebook as a collaborative tool for students. He stated that Facebook platform is more than a way to connect with friends; it can also be a valuable research and learning platform [5].

Although some institutions used social network to enhance student learning process, a majority of students did not find it suitable to use social network as a learning platform. According to a paper Facebook, "Social Integration and Informal Learning at University", one student stated that the social networking sites is a tool to conduct social activity, using the social network sites for educational purposes essentially giving the students green light to not do work. Moreover, when the students were asked whether they thought of utilizing social networking platform to enhance their learning, 43 % of the respondents responded negatively to this [6]. This proved that the social networking platform was not suitable platform for educational needs as people are already accustomed to use the social networking platform to conduct social activities other than learning.

Aside from social networking, a specific platform for educational purposes had also been widely used, the platform was called LMS (Learning Management Systems). Eventhough LMSs were designed to aid and enhance student learning process, LMS as an education system had its own weaknesses. For instance, it did not promote student-focused and collaborative learning [7]. Another weakness was that LMS such as eCollege, Blackboard, Moodle, WebCT constrains the design of online courses[4]. Furthermore, LMSs were also known to be missing the important interaction between school teachers and students[8] which contributes to the student learning process.

Noting from the facts that: (1) social networking sites was not suitable to be used for learning process, (2) LMSs tend to miss the feature that encourages interaction between student and teacher, and (3) Indonesian youth were accustomed to use social networking in their daily life. The proposed solution was to build a social networking platform specifically suited for learning purposes, as supported by Davidson and Goldberg which argued that today's institution will need to adapt, otherwise, they will face a growing mismatch between how they teach and how today's generation learns[9].

The project's first objective was to put the social networking trends in Indonesia into educational use. As the country with the second largest number of Facebook users, it was assumed that Indonesian people enjoy and were accustomed to utilizing social networking functions. Thus, it would be very good if they could utilize those functions for educational purpose. The second objective of this project was to expand LMS's functionalities with social networking features so that it could be used by the students to do social interaction with their peers and lecturers.

1.2. Scope

The research would be focused on the development of a web-based interface in the form of social network developed using HTML 4.0, CSS, and JQuery. The platforms used were chosen based on the extensive experience in doing projects for undergraduate courses.

The features that would be implemented in the web interface will be based on time constrain consideration and literature suggestions in Chapter 2.

Moreover, in order to accommodate the main users (school students and teachers needs), user testing would need to be done in order to follow the correct steps in user interface design. The testing would be conducted to students and teachers in a student transfer agent office to see whether they were able to use it according to the functions specified above without any tutorial. The testing activity would be conducted using paper prototyping.

The testing activity will involve 3-5 users. For the clarity of the test response, the testing activity will be recorded by video and then analyzed to see whether the user are able to conduct the activities specified according to existing website functions.

As the time provided for this research was limited, therefore this research will be limited to the development of the application interface excluding the backend. The application

would not be focused to be able to present media files (videos and musics), but instead to be able to display images and texts.

1.3. Aims and Benefits

The aim of the research is to design a user interface that adapts to how today's Indonesian school institutions teach, and how their students use the Internet in order to learn and share.

The benefit of the study is to later develop a usable system. The design of the interface follows the development of the Learning Management System (outside the scope of the thesis). After the application has been finished, school institutions should be able to utilize it to their teaching process and ease the students in accessing and participating in the learning process.

1.4. Structures

The thesis will be written in 7 Chapters as described below:

Chapter 1. Introduction

Contains the background, scope and benefits for this thesis.

Chapter 2. Theoretical Foundation

Contains the Theory, Literature, Framework that will be used in the development of the solution.

Chapter 3. Problem Analysis

Contains analysis of the existing literature and how it can be applied in the design of the system.

Chapter 4. Solution Design

Contains the author's approach in designing the proposed system and the final product of the proposed system.

Chapter 5. Implementation and Design

Contains the result, observation of the proposed system.

Chapter 6. Discussion

Contains discussion and analysis about the system's observation.

Chapter 7. Conclusion and Recommendation

Contains summarization of the important aspects noted starting from the problem, the solution design, and the implementation observation result.