

Cardiff University School of Computer Science & Informatics

Initial Project Plan:

To What Extent can Social Networking Sites enhance the Student Education Experience?

CM0343 - 40 Credits

Supervised by Roger M Whitaker & Moderated by Alia I Abdelmoty

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Author – Samuel Boyes/Supervisor - Roger M Whitaker/Moderator – Alia L Abdelmonty
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1.0 Project Description

This project aims to analyse the student education experience based on the use of conventional teaching methods, unconventional teaching methods, typical learning procedures and the effect of external factors in some cases. The process will include an evaluation of current methods for learning provisions such as lectures, tutorials and learning central usage; against the use of social networking sites providing forums, group chats and direct messaging. Furthermore, the concept is based on discovering student interaction with different social networking sites and whether this has a bearing on enhancing the student education experience.

It is expected that the research will be based on a large segment of year one students studying both Information Systems and Computer Science. The data gathering process is based on the willingness of individuals to be used throughout the study. Moreover, the analysis conducted from the information retrieval procedure will construct the potential of a unique teaching session based around a combination of conventional teaching styles and unconventional social networking site mechanisms. The project is expected to understand student learning patterns and accommodate for the ever increasing social networking site presence.

The research aims to uncover the different methods that students use to understand course content. This will reveal which types of learning methods are beneficial and the influence it can have on the student education experience. The project will allow module leaders to understand work patterns in terms of types of learning methods, this will help with assisting changing module teaching procedures, if the results display the need for improvement. Moreover, this research could help draw conclusions to understanding individual students' learning types such as auditory, visual, kinesthetic or read-write. This could potentially help develop new teaching methods for particular modules and gain a better understanding of specific course content. Furthermore, alongside this an in depth set of quantitative data will be analysed which displays exactly the amount of time students spend on social networking sites or using the resources for teaching provided by the School.

2.0 Project Aims and Objectives

As an overview, the model of research process for this project will cover that of the strategies including surveys, experiments and possibly the coverage of a recent case study. The data generation process involves that of questionnaires and observations within a teaching study. Lastly, the data analysis process will include both quantitative and qualitative data; the analysis will be based on gathering responses from pre and post teaching session questionnaires. The following list displays the main aims and objectives for the project from the present to the completion of the final report:

Aim One – In depth analysis of learning patterns of a targeted segment (approximately 120 students), based on a 50-60% segment being returned, across first year studying Information Systems and Computer Science.

Objective One – The production of specific questionnaires uncovering factors such as approximate time spent using conventional learning methods, typical learning methods and unconventional social networking site learning mechanisms. (Conventional includes lecture learning, tutorial learning and laboratory learning. Typical learning methods includes hours spent on coursework, hours spent on exam preparation etc. Unconventional teaching methods include Facebook group chats, Twitter direct messaging and YouTube channels). With particular attention to elements such as gender or age differences, students studying IS or CS and their preference of teaching styles within each module. These questionnaires will be produced for both before and after the teaching session and the design of the surveys will be constructed using SurveyMonkey or a similar questionnaire building website.

Aim Two – Systems dynamics modelling to discover the interlinking factors that contribute to the student education experience.

Objective Two – Combining the ideas discovered within questionnaires and variables initially discussed that can be found within the categories of conventional, typical and unconventional learning through the construction of an influence diagram. In addition, it will provide the provision for including external variables that affect the education experience. If the student is willing to provide more personal details, the influence diagram can be made more expansive. However, the student's name and ID would remain anonymous.

Aim Three – To design a new unique teaching session involving one or two lecturers that advocate using social networking sites; assisting to discover the extent that these sites are beneficial learning aids.

Objective Three – Based on the data gathered from the questionnaires, the analysed data can then be used to support or dispute the creation of a unique teaching session. Furthermore, methods will include Facebook polls for multiple-choice questions that students can instantly answer through the use of smartphones, laptops and tablets or using Twitter with a chosen hash tag that has asynchronous methods to ensure the lecturer and students can contribute to the discussions. (RSS feed or AJAX technologies installed within Facebook and Twitter). If students do not wish to use their own personal Facebook or Twitter account, a random trial account will be setup for their use within the session.

Aim Four – To analyse the unique teaching session and decide whether this provisional session is beneficial to the student education experience.

Objective Four – Formulate the conclusion to the project and assist discovering whether social networking sites enhance the student education experience. The concept would be produced through the use of physically sitting in and taking notes of the session and asking the students to complete an end of tutorial questionnaire to judge the satisfaction with the session.

Aim Five – To turn social networking sites into a more predominant teaching tool.

Objective Five – Through the combination of understanding the different students' work patterns and discovering the usefulness of current teaching methods used by various lecturers within the school.

Aim Six – Review of all the work conducted since the completion of the project plan, specifically focusing on the questionnaire analysis and initial completion of the influence diagram.

Objective Six – The production of the interim report containing an introduction to the project, background details about the project, chosen approach of the questionnaire analysis and the future work in terms of progress changes to the influence diagram and teaching session. Lastly, a conclusion to the previous findings from the research and data analysis will be included.

Aim Seven – Review of all the work conducted since the completion of the interim report, including the unique teaching session and advanced changes to the influence diagram.

Objective Seven – The production of the final project report containing an introduction discussing the outline of the project itself, design elements of any of the items undertaken, implementation details of the unique teaching session and potential influence diagram. Discusses details of the results and findings of the project, including the value of the unique teaching session and the review of the success of the production. Lastly, the inclusion of an evaluation which would state any other potential deliverables that the project could expand towards if there was more time to complete the project.

3.0 Work Plan

See attached Appendix for Work Plan in a Gantt Chart.

