University of Salford MANCHESTER

Empower the VLE with social computing tools: system prototype

Hussein, KAN, Al-Jaber, J and Arayici, Y

Title	Empower the VLE with social computing tools: system prototype
Authors	Hussein, KAN, Al-Jaber, J and Arayici, Y
Publication title	
Publisher	
Type	Conference or Workshop Item
USIR URL	This version is available at: http://usir.salford.ac.uk/id/eprint/33225/
Published Date	2014

Empower the VLE with Social Computing tools: System Prototype

Dr. Khaled A. Hussein
BSc, MSc, PhD
Aspire Academy – Doha - Qatar

E-Mail: khalid.hussein@aspire.qa
Tel: +(974)44136292

Jassim Al-Jaber
BSc, MSc,
School manager
Aspire Academy – Doha - Qatar

E-Mail: jassem.aljaber@aspire.qa
Tel: +(974)44136262

Dr Yusuf Arayici
BEng, MSc, PhD, FHEA
College of Science and Technology
The University of Salford
Greater Manchester, UK

1- Introduction

In this research, new experience of enriching the Learning Management Systems (LMS) and learning apps with Social Computing (SC) tools through developing new system prototype for a conceptual solution. Implementing learning systems that are based on utilizing SC tools in academic institutions is expected to develop better learning levels and consequently better educational outcomes.

2- Objectives

I. To determine the Social Computing (SC) functionalities that can enhance the Virtual Learning Environment (VLE) with tools preferred by students..
II. To implement these new prototyping tools for the new VLE model or mobile application that can be used for course content delivery and collaboration.
III. To validate the developed prototype through heuristic evaluation and usability testing.

3- Methods

• Interviews in Aspire Academy in Qatar.
• Prototyping: The prototyping process included usability testing with Aspire student-athletes and lecturers.
• Heuristic evaluation by Human Computer Interaction (HCI) experts.

4- Results

• Developing new system prototype for VLEs/Mobile Learning Applications.
• Implementing the prototype system in academic institutions.

5- Discussion

Oblinger and Oblinger (2006) point to a different kind of student: A non-traditional student who simultaneously works and studies. While their description is US-oriented, this kind of student is increasingly part of Aspire's educational landscape.
Some lecturers in Aspire Academy and other institutions worldwide gave reports and showed instances of moving part or all of their electronic course support from the VLE to social networking systems like Youtube, MySpace and Facebook because of greater student engagement with these kinds of social networking tools. The first questions that may arise are the following: Do the skill sets of incoming students demand (possibly only transitional) 'remedial' teaching, for example, in using libraries and finding primary sources? Is changing student's profile going to require different ways of teaching i.e., minimizing traditional patterns of attendance and increasing flexibility wherever and wherever learning takes place?
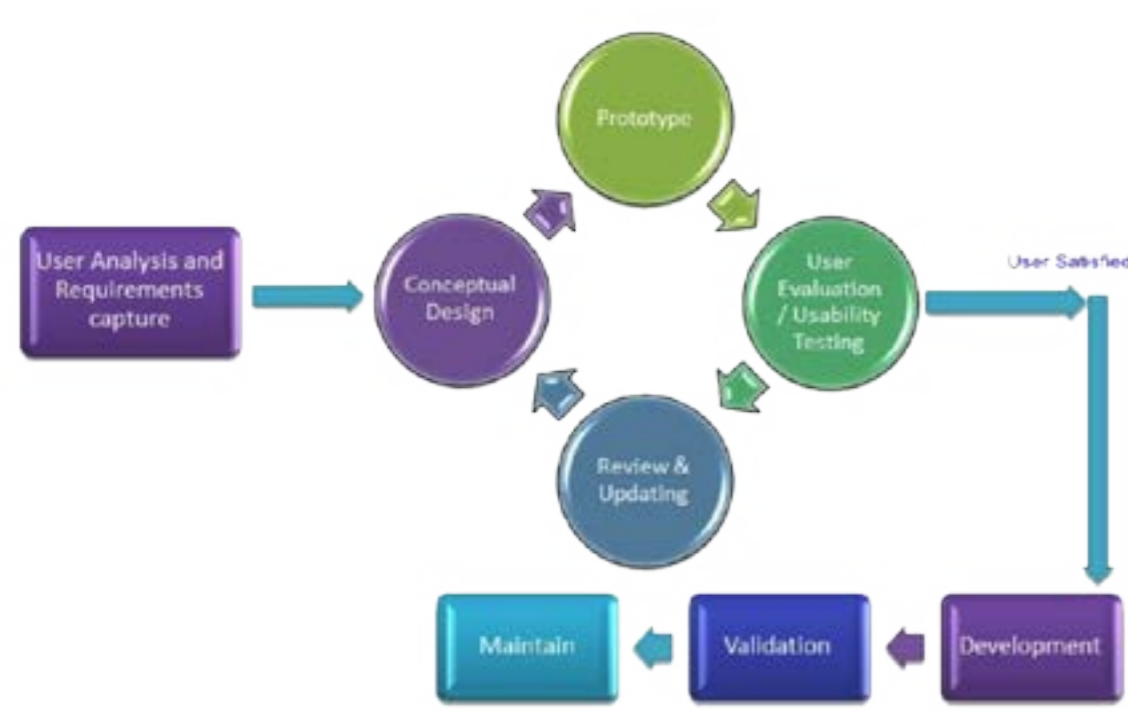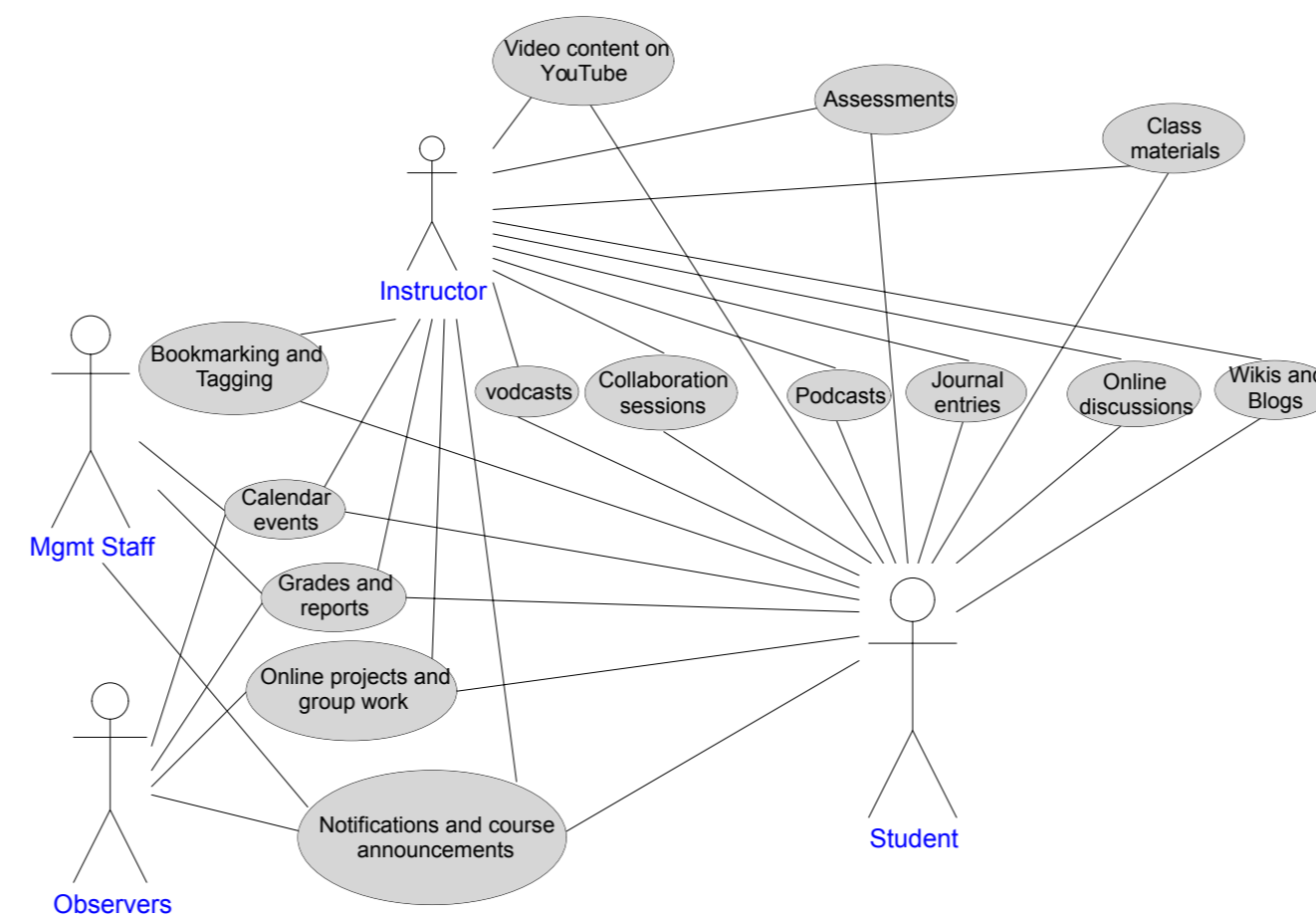
Figure 1.1: the Prototyping process

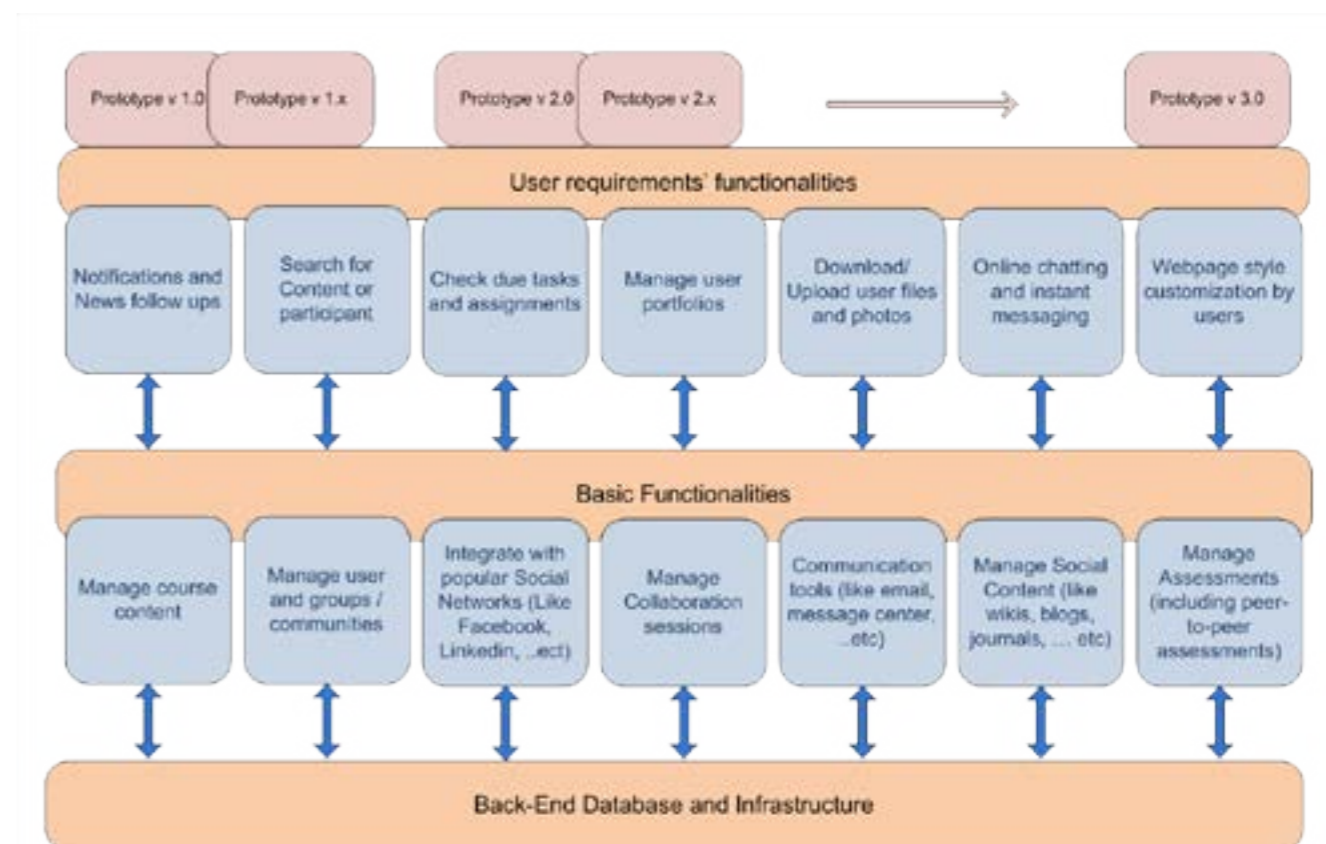Figure 1.2: UCD (Use Case Diagram) of the user needs.

Figure 1.3: The evolutionary approach in developing the system functionalities

Figure 1.4 the paper prototype design, version 3.0

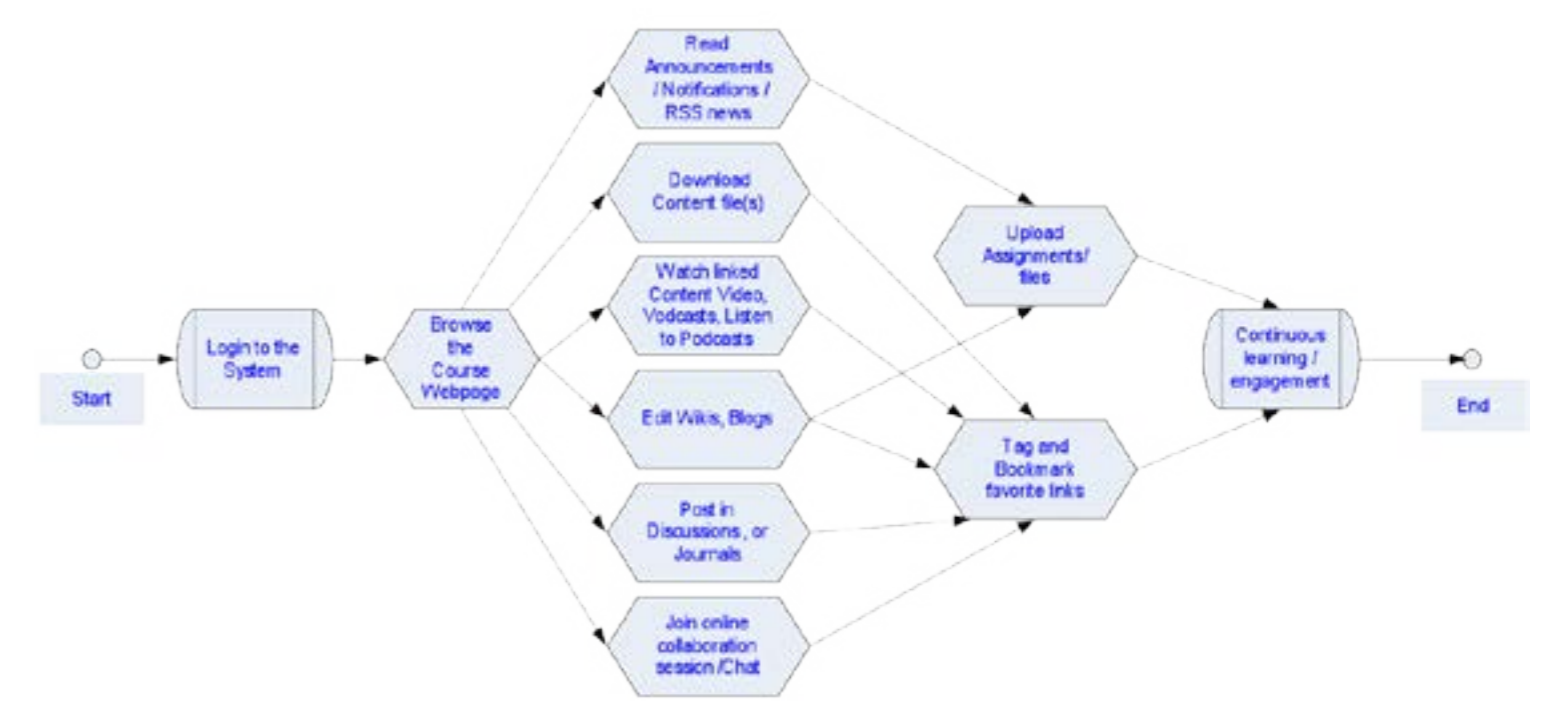Figure 1-5: IS success model by Delone and Mcleans (1992)
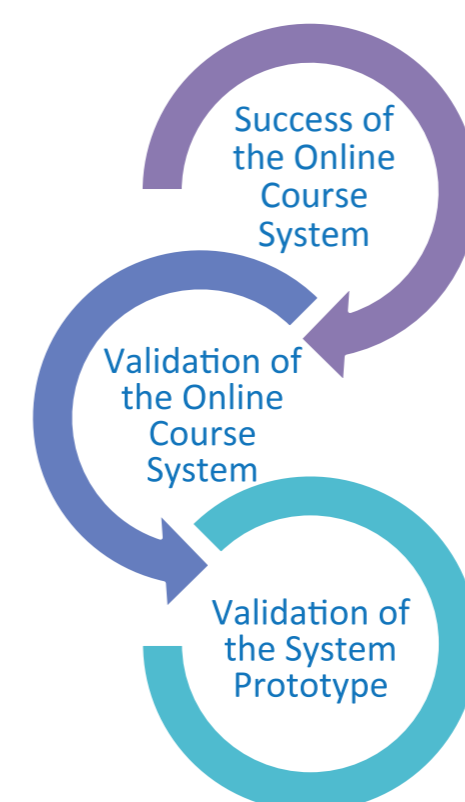
Figure 1-6: Use Activity Diagram

Figure 1-7: Prototype validation Process

6- Conclusion:

• There is ample room for studying user behaviour and technology acceptance using the UTAUT model with possible extensions of the model to predict successful implementations of technology in education.
• There is vast potential to implement SC technologies in education in order to harness its positive effects of collaboration in developing student-centered systems to achieve the potential value of business.

7- Acknowledgments