

Research Paper

Can Facebook engage students in critical analysis of academic theory?

A review of preparations for and research into the first year learner with integration of the HEA Shock Absorber Project

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Abstract

This paper presents a preliminary review of the current literature and use of technology within assessment and delivery of courses within higher education in the United Kingdom. The research is to be carried out during the 2009/2010 academic year using Events Management students at level 4 and level 5. The study follows the aims and objectives of the MMU Shock Absorber Project: a Higher Education Academy project to support and retain the first year learner.

Beginning with a literature review of web2.0 technologies, the paper will note historical developments of this e-learning tool. Collaborative learning and other pedagogical theories will then be related to these technologies.

The research methodology will comment upon the planned research to be undertaken over the next 12 months. Assessment objectives, level 4 and 5 benchmarks will also be explored to identify the need for the use of technology in relevant courses.

Keywords: Collaborative learning, education, Facebook, first year learner, higher education

Introduction

Engaging and motivating students is a familiar problem to many lecturers. With cohorts of today able to use texts to 'rat' on lecturers who start lessons late or do not even turn up, the student experience is fundamental to student success and engagement [1]. With new Higher Education (HE) strategies on skill enhancement and employability, never has the time been more appropriate to review delivery and assessment for vocational students. This paper reviews

literature to support a study to be conducted during 2009/2010 academic year. The objectives of this study are threefold; to assess students engagement of theory through Facebook, to determine student motivation in the use of web 2.0 technologies, and to assess the impact of Facebook use for the first year learner. Through assessment of these objectives, suggestions will be made to enhance delivery and assessment for vocational students in Hospitality, Tourism and Events Management degrees. To review current theory and literature in support of this research, the paper will firstly discuss the background of web 2.0 technology to highlight its use within HE.

Background

Internet usage of the current generation Y students is profoundly social in nature. Indeed, this is the basis for web 2.0 developments and motivation for Facebook use within this study. There are currently a vast number of publications relating to web-based learning (WBL), and this paper is only aiming to give an overview of these in order to contextualise the research. The creation of web 2.0 is seemingly twofold in that there are increasing numbers of users and the improved technology to exchange practices [2]. In addition to web 1.0, web 2.0 utilises all social interactions whereby students can blog, wiki, stream, upload and link to a variety of opinions, practices, photos and experiences enabling a much larger forum of discussion. Although there is clearly only one internet in use at any point, the developments in technology are defined using the terms web 1.0, web 2.0 and web 3.0. These are clarified in Figure 1.

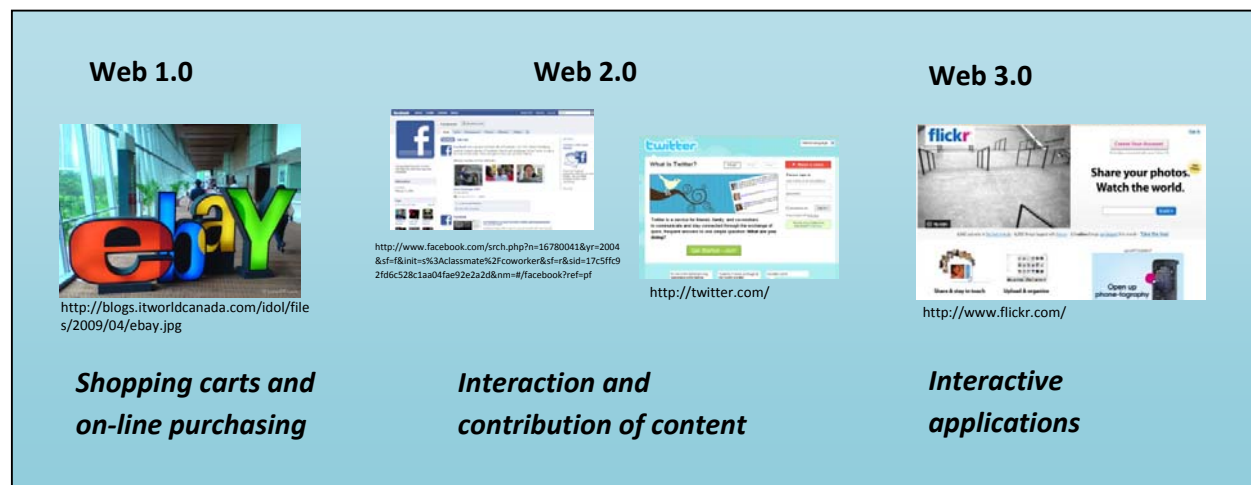


Figure 1. Differences in Web Versions.

(Source: Based on information from Getting [3])

One interesting consequence of web 2.0 is changing the emerging patterns and methods of communication. With time constraints inhibiting many students' face-to-face interactions, they are frequently turning to social networking services (SNSs) within computer-mediated communication (CMC) to develop peer relationships [4]. This CMC may be viewed within websites such as MySpace, Facebook and Twitter and allows individuals to create an on-line identity in which to communicate with. Tidwell and Walther [5] further found that students who do communicate via this medium tend to use more direct questions and self disclosure than in face-to-face conversations. CMC within web 2.0 can clearly enhance and increase self-disclosure and freedom of opinion, something which is sought after in many a university session. It is clear that many students have accepted and adapted their communication methods through the use of SNSs finding a flexible and convenient platform in which to engage [6].

In Mazer *et al* [7] it was stated that there were already over 297,000 Facebook members who declared themselves as faculty or staff. Further work by Joinson [8] highlights that it is within the top 15 most visited websites in the world with a record of over 30 million users globally. This usage has been a notably recent development, with increase in users reaching 500% within one year alone [8, 9]. In fact 6-8% of all on-line time is spent within these SNSs with students at the forefront of adoptive users [10, 11]. The issue raised is the attraction surrounding this web 2.0 technology and to consideration of why the students prefer this choice. Selwyn [12] suggests that these participants either use SNSs as self-expression or as a directory to find old and current friends. SNSs can also be viewed as an area for self exploration and identity with some users logging on to receive social and emotional support through the 'chat' function [13]. In order to access information on peers, members of Facebook are required to join a network, and thus they are affiliated within a group academic identity. Equally there are reports that a large proportion of messages sent within Facebook are external to their own friends and networks highlighting the ability to interact and develop CL in this program [8]. With Facebook as the most popular SNS on the web [14], it is a clear favourite to base any research and study to enhance motivation and engagement. Hewitt and Forte's [15] research suggested that more male students felt that they should be on Facebook than female members. This was reported within a purely social analysis of student engagement with their tutors as friends on Facebook and not for academic purposes.

Pedagogy, Delivery and Assessment Styles to Support Technology Use in HE

Learning impinges on the ability to perceive and assimilate facts, which in turn is affected by individual beliefs. Mejjia's [16] research suggests that knowledge should be consciously independent of your personal beliefs to enable effective autonomous learning. Interpretation of knowledge, and origin of thought derives from a variety of individual processes based on perceptions and previous experience, however with current resource pressures and increasing cohorts, new strategies in technology can enhance learning in new formats.

Collaborative learning is entwined with technology through Computer-Supported Collaborative Learning (CSCL) [17]. With Collaborative Learning (CL) conducive of many interpretations [18], this study will purport the view that it is *a situation that is created where two or more learners contribute information to aid collective study*. The term 'collaboration' generally invokes team working, group work, socialising, discussion and interaction, thus web 2.0 is the most valid resource. However, CL learning may require the individual to have a cognitive ability to perceive and interpret information in order to trigger inductive and deductive reasoning. In this way it is clear that students are required to work together but learn individually. To enforce this pedagogy there often follows specific instructions within the task/assessment; 'Working in a group', 'Members of the group will be awarded', 'Evidence is required from each member' and this alludes to a social contract between peers. Linking with social learning, socio-cognitive theoretical approaches have been much debated within educational psychology and are also a core element within CSCL [19]. These approaches highlight the need for equilibrium strategies to ensure students understand the basis of their knowledge or know their peers educational background and work experience [20]. Hence, it may be suggested that Piaget and Vygotsky both influenced socio-cognitive learning developments as they analysed learning origins. Socio-cognitive learning is clearly an integral part of CSCL and may enhance deep learning, something very difficult to achieve without instruction [21]. This social cognition benefits from group cognition viewed in research done by Stahl [22].

CL and CSCL can utilise group work to enhance employability skills such as communication, leadership, teamwork, empathy, understanding and organisation. However, cognition loads between the group members may differ, creating problems and hindering learning progression [18]. Often in group work there will be a variety of engagements and workloads and this can create an unbalanced and negative feeling for the other members. If the task is not assessment-related, nor weighted, there may also be a difficulty in ensuring student interaction and motivation. In order to manage and analyse this, systems for CL will be noted.

Systems that support CL can be managed through two approaches; structure the CL situation or structure the type of collaboration [23]. These two standpoints infer two levels of student autonomy; full student engagement and motivation to structure the collaboration or merely motivation to input and review within the CL environment. Weinberger's [20] work on cognitive social collaborative learning (CSCL²) equally highlights the facilitation of two further approaches; socio constructivist and socio-cultural. Noting these comparative methods to engage CSCL and CSCL², the variance is clear in student motivation and lecturer workload. In contemporary autonomy driven HE institutions it may be viewed that the latter of these methods would better prepare the student for future work, however lack of motivation to engage is often a detrimental factor to this approach.

Further, Hamalainen *et al* [17] suggest that collaboration scripts may be created by the lecturer to manage and analyse the CL process. They highlight two studies [20, 24], who cite that scripts are concerned with the way in which a learner can complete the CL task; scripts are, therefore essential in the second system noted. Epistemic scripts differ from social scripts in that they either highlight how a learner deals with a task rather than how they interact with the other group members. Both of these scripts ensure monitoring of the CL and how the students engage with the task. Kollar and Fischer [25] also state that collaboration scripts can tailor support to the variety of activities available through web based learning. They discuss a third type of script; cooperation scripts, which can be used to dilute the discord between group members and the variance of engagement through mutual agreement. Hamalainen *et al* [17] state that collaboration scripts can scaffold improvement of any CL environment.

Methodology

As with many studies, this research will be undertaken with pre and post task questionnaires and analysis. These questions will be based on a variety of current research - shown in Table 2 - to enable expanded comparative analysis of motivational use of this SNS.

The Shock Absorber currently in process within MMU studies first year learners with no previous HE experience and questions their perceptions on their course/degree/HE institution choice from induction week onwards. The Shock Absorber project's primary function is to counteract retention problems often found at a higher rate within first year cohorts. However, this study intends to use first year learners and enhance their experience through the use of SNSs. As a comparative study there will be a total of around 260 students taking part from two levels of study within Events Management degrees. Figure 2 shows each research and study area.

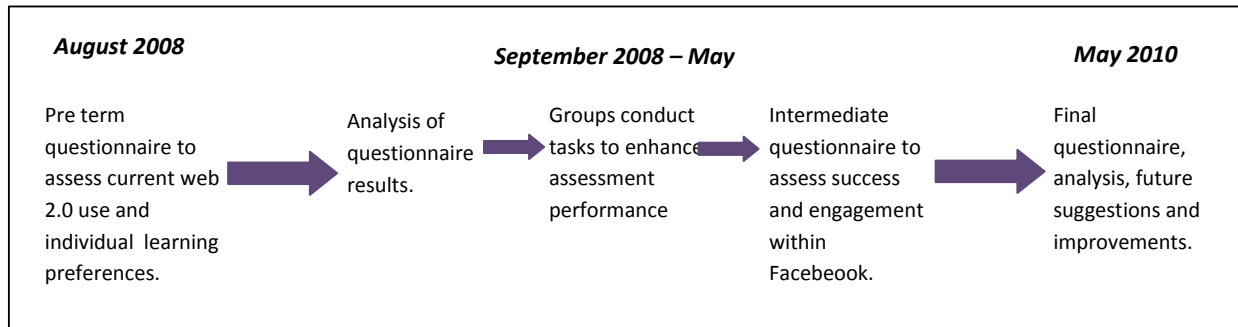


Figure 2. Planned Research and Analysis for 2009/2010.

This study is based upon feedback from first and second year students on the Event Management courses and has the primary objective of increasing engagement and discussion of theory between peers. To begin the research a pre term questionnaire has been posted to all new and returning students to assess their current use of technology within education and preferences within social networking sites. Subsequent to analysis of this, there will be a number of tasks required of both cohorts. Resnick [26] stated that any learning activity used in a virtual environment cannot be simply transferred between settings, thus this study will structure the type and location of the collaboration and it will be linked directly to learning and development of ideas for a summative assignment. Using social scripts to manage the CL process, students will be given the information shown in Table 1 alongside each task.

Table 1. Collaborative Epistemic Scripts.

<i>Task Type</i>	<i>Instruction</i>	<i>Time allowed</i>
Discussion board – individual opinion	Please read the question/quotation in discussion board ‘1’ and add your own opinion.	1 week
Discussion board – academic query	Based on lecture notes and your own additional reading answer the question on discussion board ‘1’ and include at least 3 references.	2 weeks
Photo discussion	Please view the photos uploaded on the group webpage. What do you think/feel/observe?	3 days
Linked material	View and click on the link uploaded on the group page. Annotate your opinions on its appearance/relevance/target market/success.	1 week
Wall Posts	Please post a list of your recent work experience within the Events Industry.	1 week.

By using collaborative scripts, this research promotes the opinion that it is easier to educate students from foundation and first year degrees as, in the majority, they have no previous university experiences. Equally, by presuming that students have little or no experience, a lecturer should give basic and thorough instruction for all assessments. Using first year learners also supports pedagogical research on understanding learning through starting at the unconscious incompetence, which is how perception, understanding and meaning are created [27]. With Barron [28] citing that students can find CL difficult within the confines of usual group work tensions, this study will rely on their natural reactions when conducting group work. By utilising computers, CL is recorded accurately and in a timely manner allowing the lecturer to download and interact with their learning at any time or place.

With current research in Facebook concentrating on self disclosure and frequency of usage, this study will compare the collected data against studies noted in Table 2.

Table 2. Facebook research on usage and frequency.

Research	No of respondents	Location of respondent	Gender balance	Age of primary users	Frequency of Facebook use	Primary use of facebook
Skeele and Grudin, 2009	430	Business	22% Female 78% Male	<25	Several times a day 5.3% Daily 11.6% Occasionally 19.3%	Not researched
Joinson, 2008	241	Students	67% Female 33% Male	Mean age of 26	Daily 38% More than once a day 27.5%	Keeping in touch 52%
Lampe <i>et al</i> 2007	30,773	Students	53% Female 47% Male	None mentioned – all are members of Michigan University	Not researched	Not researched
Kolek and Saunders, 2008	464	Students	48.1% Female 51.9% Males	Undergraduates at the University of Massachusetts	Not researched	Not researched

In light of this secondary data, this study will compare results in EHTM student’s usage of this SNS for future development within teaching strategy and enhanced learning platforms. This enables both qualitative and quantitative elements to be addressed and noted. The qualitative research will be based upon homework tasks set within Facebook and some formative assessment tasks as noted in Table 1.

The summative assessment and Facebook tasks will be used to develop student knowledge in preparation for peer assessment. Peer assessment has been increasingly important to tutors within formative work for many years, with many opting for on-line methods of evaluation [29, 30, 31]. It is equally important when consideration is given to their increased work-life and lifestyle pressures in comparison with other generations [32, 33].

It is important at this juncture to also note the limitations of this study to suggest further research. Table 3 highlights these limitations, alongside preventative measures.

Table 3. Study limitations and preventative measures.

Limitation	Prevention measure/ explanation
Level and ability of written English	All students enrolling are required to have level
Level of computer literacy	
Feedback is received at a slower pace than face-to-face interaction	Deadlines within the collaborative scripts for each task will ensure that all students have communicated and read their feedback in an appropriate time.
Facebook has limitations of use – cannot record the number of times students log on and does not highlight the time spent for each task.	Study will only utilise key components of the group function on Facebook.
Learning style preferential	The study does allow for visual, auditory and kinaesthetic learners, but does not benchmark tasks according to these.
Social group choices	Students will be grouped according to their classes and not by social groups.
Physical detriments	The lack of vocal language and intonation are already overcome in many technological resources with the use of ‘smileys’ and punctuation. Although pod casting would effectively prevent this limitation, Facebook’s interface and the resources available for this project do not lend themselves in aid of this.

Conclusion

As Hamalainen [17] suggests that vocational students must embrace new technologies, this comparative study will aim to clarify current use of social networking sites between two cohort years in HE and suggest improvements for delivery and assessment to increase student engagement and motivation. Although CSCL was termed and has been in practice since Koschmann's original 1996 study [34], the real question will be how Facebook can be used to support peer interaction and group learning. As support within CSCL is developed and evaluated in time, it is vital for lecturers to be aware of new technologies as they will undoubtedly be embraced by the generation Y students of today's faculty.

A recent survey stated that 78% of students felt that external working requirements affected their study [35]. It is therefore imperative for students to access learning environments that are socially enabled and reflect their identity. With a current fan base of over 4.1 million [36], Facebook is a distinctively preferential platform for HE to utilise alongside assessments as it lowers barriers and allows more self-disclosure to improve collaboration in preparation for graduate employment [14].

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