'Sounds Exciting - It means a group of Skype users can work on one document' An investigation of student reactions to using Skype nnd Google Docs for collaborative group learning

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Abstract

Based on the learner's voice, as part of an ongoing evaluation, this paper provides preliminary evidence on students' experience of working with Skype and google docs to accomplish a group assignment, which suggest that they engage with the technology because it fits with their study, jobs and lives inside and outside of University. A small in depth case study was undertaken with a group of health profession students in which their progress in and use of the technology was logged. In addition, structured face to face and online discussions with the group provided valuable insights, in their own voice, from the students' perspective. The study found that successful use of this technology was based on 4 criteria; firstly, students voluntarily engaged with the technology, secondly, the usability of the technology was clear to the students, thirdly, the technology solved a problem from the student's perspective and finally, relevance and applicability was inherent in the technology. The paper suggests that for higher education, Software and web advances represent a paradigmatic conceptual shift that results in tension and consequences for learning, and concludes by identifying areas for further research.

Introduction

In Academic Learning Skills at the University of Salford we have been developing new approaches to study skills support for students. A recent collaboration between the Learning Technologies Development Officer in the Research and Graduate College, and the Academic Learning Skills Advisor in the Education Development Unit facilitated the adoption of strategies to improve off campus student experience of group presentation work. This paper describes ongoing evaluation of one case; a study of part time health professional students working on a group presentation project. Strengthening existing strategies (face-to-face workshops and tutorials) with online versions arose from the need to support students who are physically "isolated" from the University facilities. Connecting to one's learning community is a very important component of students' lives, and social and emotional processes are critical to success (Nicol et al. 2003, Salmon 2000). At Salford, Academic Learning Skills offers the opportunity for students to meet in a tutor supported environment, discuss academic problems in a 'neutral environment', and practise new skills without course related pressure.

This type of academic learning support is greatly sought by students, but students who cannot come into the University were deprived of this kind of support. Interactions with peers and tutors were scarcely an aspect of part-time students' and interns' academic life. As we already run bespoke sessions for part time or placement students, we created additional virtual office time, hosted by Academic Learning Skills, and run via Skype, that students could access remotely. Skype is a free to download web-telephony tool available on the web, which enables students to contact each other in real time. It also allows the sharing of document files. We added a Skype tutorial to our website, and invited students to join the online tutorials.

Early on we noticed that students were using the technology in groups, organising themselves autonomously and independently. We ascribe this enthusiastic adoption by students of the technology to four factors:

- Voluntary engagement with the technology
- The usability of the technology was clear
- The technology solved a problem from the student's perspective
- The relevance and applicability inherent in the technology

The second phase of this project combines google docs with Skype to provide students with the opportunity to collaborate together in real time, though physically apart. Using Skype and google docs simultaneously, students can develop, edit, simulate, and rehearse their PowerPoint presentation. This initiative provides "off-campus" students with similar learning opportunities, and stimulates students to be autonomous and supportive of each other while developing communal knowledge through active and shared practices. In general, there is a scarcity of information on student-focused e-learning initiatives (Sharpe et al. 2005), and we were keen to know how the students used these learning technologies. Based on the learner's voice, as part of an ongoing evaluation, this paper provides preliminary evidence on student's experience of working with Skype and google docs, which suggest that they engage with the technology because it fits with their study, jobs and lives inside and outside of University.

Background

One of the most significant current discussions in higher education is the student experience of distance learning , especially on-line learning. However, there are few studies on the use of e-communication in part-time campus based programmes, and even fewer studies that discuss the student's own experience which can be characterised as expressing the learner's voice (Sharpe et al. . 2005). The majority of studies in the field focus on aspects of e-learning course design, teaching methods and tutor interventions, and are teacher, course or programme focused, rather than student-focused (Ibid). Two studies that have asked students about their experience are Ellis and Calvo (2004) who set out to unravel the structure and meaning of student perceptions of e-Learning experiences as they relate to face-to–face experiences, in order to understand how to help students in an on-line context, and Sweeney et al. . (2004) whose study compared student learning outcomes and student perceptions of and satisfaction levels between two sections of the same class—an online section and a face-to-face section. However, as Sharpe et al. . (2005) point out, studies generally ask students how the tutor's chosen VLE influence their learning. What studies have not so far looked at is the voluntary take up of e-collaboration tools such as Skype, and the benefits from the student's point of view. This study looks at the way a group of part-time health profession students made use of technology that is readily available, free from institutional emphasis, and strongly underpinned by an understanding of its use and efficacy in relation to assignments and assessment.

The Study

A small group of part-time health care profession students self-referred to Academic Learning Skills for advice on their assignment: developing a group presentation. Courses such as health care professions coordinate real work experience with university based course provision as a way of providing an authentic introduction for practitioners (Johnson and Brierly 2005). Students in the study were part-time, and geographically distant from each other, so they were finding their assignment challenging, because all their time spent at University was taken up with lectures and tutorials. Academic Learning Skills were already piloting the use of Skype, and an on-line tutorial was available on the Academic learning Skills website, so the group was encouraged to try using

Skype to communicate. Discussion with their course tutor confirmed that the students were highly motivated to work together, cohesive as a team, both socially and academically, and already familiar with and open to the concept of peer collaboration. A small in depth case study was undertaken in which the students' progress in and use of the technology was logged. In addition, structured face to face and online discussions with the group provided valuable insights, in their own voice, from the students' perspective.

Discussion

Collaborative technology in practice-removing barriers to communication and learning

The students in the current study undertake work placements, combine University based and practice based learning with domestic and paid work; it was not a huge step for them to recognise that Skype would help in developing effective personal technological organisation to coordinate a wide range of activities including formal and informal learning, family and friends;

> *'I use it for university work mainly, being on a part time course it is a great way to keep in touch with university friends as we don't see each other that often. I also keep in touch with family in the states, its a free way to communicate' (student*)

Electronic collaboration is generally taken to mean 'collaboration among individuals engaged in a common task using electronic technologies' (Kock et al. 2001). What we know about e-collaboration is largely based upon empirical studies that investigate the pedagogic worth of technological innovations, but there are few studies that investigate whether Web 2.0 technology can simplify the process of collaboration. We wanted to look at the way students used the wider panoply of free or low cost technology to streamline their communal activities. From the study, it appears students find this technology easy to use and we also found evidence that it was influencing the way students learn, communicate and work on a daily basis:

> *'I use it nearly every evening just to chat with uni friends and exchange work ideas' (student)*

Students in this study regard themselves as members of the Networked Society (Castells, 2000), they either belong to the digital native generations (Veen and Vrakking 2006) or have been influenced by them. In the context of higher education, emergent learning technologies, especially collaborative ones, have the potential to empower students in a more meaningful way by providing them with an active voice. This contrasts with the more directive and institutional Course Management Systems (CMS), which are often "disguised" as "Virtual Learning Environments" and may be insufficiently engaging for learners (Andrews 2004). For example, Blackboard is a popular CMS used in education. To all intents and purposes, Blackboard acts like an electronic version of a blackboard and chalk. It addresses the problem of students not being able to see a blackboard in class by storing data that might be able to be displayed on a blackboard, and allowing students to retrieve it (Kock 2005), and this is how most staff use Blackboard as part of their modules. Although setting up a discussion board is possible, many are not using the communication features of the system, It is being rather used as a repository, and since students are not entitled to add or change anything in this type of system, they are visitors to, rather than participants in, the learning strategy designed for them.

Evidence from this study suggests that current institutional additional educational tech and tools available on the web 1.0 are mainly staff driven and tutor led, whereas the web 2.0 learning tools are open to the entire learning community. In closed systems, such as a typical CMS, traditional teaching approaches are emphasised; the tutor decides on content and mode of student interaction. Discussion Boards, blogs and wikis have to be activated by staff. Being tied to one institutional learning system proved frustrating for the students in the present study, presenting a

barrier to effective, ongoing communication:

> *'Blackboard is not very reliable and can be quite confusing to navigate around. It is very easy to miss information posted on it' (student)*

Successful on-line action entails successful negotiation of the technological medium. The institutional control and ownership of Blackboard presents an institution specific system that the students found rather methodical, controlling and therefore uninteresting. In general, Institutional CMSs are often taken for granted by students and seen by them as having relatively little value, probably because they are used primarily as repositories for material rather than being used in more imaginative ways to support learning (Conole, de Laat, Dillon and Darby 2007). Software and web advances represent a paradigmatic shift which, it appears from evidence in this study, academic staff find difficult. Changes from web 1.0 to web 2.0 concepts mean the web has become more communicative and flexible, allowing individuals not only to access information, but also to change and contribute with new lines of thought to a wider group of people interested in the same issues-the read and write web (O'Reilly 2005). Our study suggests that staff wish to communicate with students but find exiting the CMS frustrating:

> *'Staff initiate and use discussion boards but the numbers are small which is disappointing' (academic staff)*

Compared with students, who seem to have low expectations of the CMS, and therefore no great hopes, staff were disillusioned as a result of their unsuccessful attempts to use the VLE as a tool to communicate with students. In this study, we found using Skype with google docs offered a possible way of removing some of the conservative barriers to communication, because its services are universal and coordinated. Our evidence suggests that students use it in a learner centred way. Displaying, updating, modifying and saving, students can jointly work on the same document asynchronously, and the document is available for discussion and continued development. It appears students find this way of developing joint artifacts more natural and intuitive:

> *'It's a fast way of communicating and file sharing with a group of people' (student)*

> *'I am encouraged by the fact that not only can Skype be used for university, but it is a fun free way of keeping in touch with friends and family. As far as file sharing, if it is easier than Blackboard everyone is in favour' (student)*

Some students looked ahead to ways in which their tutors would also benefit:

> *'I would like to think my tutors would be interested, especially given the way teaching has changed so much over the years. They are encouraging the use of independent learning more and more through the use of technology, so if they weren't, why use and rely on Blackboard so much ??' (student)*

> *'Students, lecturers, when on clinical placements it would be a good way of communicating instead of a clinical visit' (student)*

Conclusion and Recommendations

This study set out to investigate whether newer, flexible technologies can be adopted within the University to enhance the students' capacity to work and learn together, successfully complete their assignments, and (incidentally) become more familiar and competent using new communication technologies. Successful online action entails thoughtful, learner-centred negotiation of the technological medium, and researchers such as Lewis (1999), Privateer (1999), and Dutton and Loader (2002) have shown an increased interest in identifying paradigms that

refer to the conceptualization of the use of technology in higher education. Recently, two major alternative views have emerged (Snyder et al. 2007). On the one hand an e-corporate paradigm; with a tendency to technological determinism as reflected in assumptions that ICT in themselves develop cognition, initiative and collaboration (Fabry and Higgs 1997); on the other hand, an e-constructivist paradigm that suggests learners construct knowledge for themselves---each learner individually (and socially) constructs meaning (Hein 1991). The two approaches are not mutually exclusive, but there are major differences between these two paradigms, as shown in the table below:

E-corporate	**E-constructivist**
Potential of ICT (Information and Communication Technology), especially on-line to bring HE to a larger student population	Emerges directly from teaching and learning context
Reducing of per capita costs, standardising systems, creating saleable products	Existed as a concept prior to and independent of ICT
Enhancing competitiveness	Understands learning as 'a process of socially based active co-construction of contextualised knowledge (Salomon and Almog 1998)
Foregrounds the proactive student as consumer, rather than collaborator or critical reflector (Giroux 2005)	Highlights proactive student as reflective, self-regulated learner
Its principal mode is transmission (one way)	Aims to re-examine the role of the tutor and the student (McConnell 2000, Salomon 2004)
Emphasis on standardised curricula in the form of intellectual property	ICT is seen as augmenting the potential for student collaboration
Technological determinism (Fabry and Higgs 1997)	Foregrounds student initiative and self-motivation (Laudrillard 1993)
Increased managerial control and declining academic autonomy	Seeks to develop the use of ICT to enhance proactive, reflective and self-regulated pedagogy (Looi 1998, Gunn 1999)

Figure 1 E-corporate and e-constructivist paradigms in higher education (based on Snyder et al. 2007)

As Snyder (2007) has recently pointed out, 'the points of intersection and overlap *(between the two paradigms)* are just as interesting as evidence of a divide', and the students in the current study negotiated their learning within a developing technological environment at the University that is rich in multiple meanings and possibilities for both creative learning and increasing conformity. Although many e-learning developments in HE have been based on constructivist approaches that require students to create their own meaning from a variety of different perspectives (Sharpe et al. 2007), it is also apparent that there are tensions and consequences for learning of the more e-corporate approach. The results and consequences of all these initiatives need more clarification through empirical and theoretical research.

The findings of this small exploratory study suggest the students using google docs and Skype found the experience rewarding for the following reasons:

The learners' voluntary engagement with the technology provided them with scope for

spontaneity in their learning approach. Evidence suggests they were transferring what they already do in their social life to their learning environment, because such approaches are already part of their daily realities. This suggests that the students were building an effective learning community that included socializing online as well as course related activity. These results confirm the findings of studies such as Salmon (2000), and Hughes et al. (2007) on student strategies to overcome social and psychological barriers in online collaboration.

Students in the study recognised the relevance and applicability inherent in the technology they were using. They were comfortable using technology and saw it as integral to their learning. As Conole et al. recently suggested (2007) Students 'are critically aware of the pros and cons of the different technologies and 'vote with their feet' –there needs to be a purpose and clear personal benefit'. In this case the benefits included no cost tools, with unlimited free access from anywhere on any computer.

The usability of the technology was clear to the students. They adopted the technology enthusiastically because they found it natural and intuitive. This study highlights the tensions between closed systems, such as a typical CMS, and Software and web advances in web 2. 0., and suggests that providing students with autonomy can generate high levels of motivation. We suggest further investigation along the lines of Kock and Nosek (2005) to discover whether programme managers are designing limiting conceptual views of collaborative work into existing CMSs, or whether there something inherent in the browser-based model that limits its use in this way.

The technology solved a problem from the student's perspective. This confirms earlier work which suggests that the web can help to promote collaborative learning particularly when it incorporates an assessed task (McConnell 2000, Macdonald 2004). This study was undertaken by the Academic Learning Skills advisor in collaboration with the Learning Technologies Development Officer in the Research and Graduate College as part of a drive to develop new approaches to study skills support for students. Academic Learning Skills represents a 'neutral environment'; students in the study were engaging with staff who didn't have direct academic or pastoral responsibility for them, so it is likely that they expressed themselves more openly than they might otherwise. The students in the study were very keen to participate in the inquiry. They recognised they were taking part in a new and interesting development, were keen to have their voices heard, and provided rich material on aspects of the progress of the project from their perspective. We suggest including students as participants in further studies such as this to discover more about the strategies of those learners who are highly motivated to work together socially and academically as a team. We respectfully suggest that we have a lot to learn from our students.

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