

JISC-funded study on the effective use of social software to support student learning and engagement

Project website has the full report and case studies:

<http://www.jisc.ac.uk/whatwedo/projects/socialsoftware08>

This document has the summary of the key findings and forms the transcript for the presentation by Dr. Shailey Minocha at the e-learning community event on 28th April, 2009 at the Open University, UK.

1 Introduction

Thanks to Ingrid for giving this opportunity for sharing our study with you here today.

Our study is related to the use of social software in education. By social software, we **imply software that allows users to interact and share data with other users, primarily via the web**. Examples are blogs, wikis, social networking websites, such as Facebook and Flickr, and social bookmarking sites, such as Delicious. **The key aspect of a social software tool is users participate in the creation of information which is shared**. So for example, if we take the social bookmarking site **Delicious**, I can create bookmarks – say on Web 2.0 tools, and through the tags/key words that I assign, users with similar research interests can access my bookmarks and perhaps find them useful; I can create networks where I can link up with users who are also interested in bookmarks – so in addition, to my own library of bookmarks, I also have access to a network of colleagues and their bookmarks who are also interested in Web 2.0 tools.

So **our aim in this study** was to investigate situations or case studies where social software tools had been employed in further and higher education; collect information about the experiences of the staff and students involved; and analyse that information to discover the benefits, problems and issues (and their resolutions) associated with the use of social software.

The **criteria** were as follows:

- The social software used, or equivalent software tools, should be available in the **public domain**
- The usage of social software should be situated in the **pedagogy of the course** or a programme; or the social software should be used to support and engage learners and to enhance their online participation
- Within the activity or activities where a social software tool is employed, if other e-learning tools are also employed, the social software should be the primary tool
- Studies selected should **demonstrate evidence of effective practice** (or evidence to the contrary). In order to fulfil this criterion we chose studies that had been running for some time (more than one semester), and that included a reasonable number of students/modules

- Case studies should be drawn **from a variety of disciplines**; our case studies cover diverse disciplines: for example, hair salon management, dentistry, computing, education, photography, and physiotherapy

We employed a **case study methodology** to collect data from 26 case studies or initiatives, where social software tools have been employed. We chose cases which gave us a wide spread of tools to examine, from a variety of subject areas, from different contexts (part-time, full-time or distance learning) and levels of study, and institutions (higher and further education).

Through **interviews, focus groups, reviewing any internal reports or publications, course descriptions, and in some cases students' activities** helped us to find out from both educators and students and in some cases from the policy makers or VLE managers, what they had done, how well it had worked, and what they had learned from the experiences.

- **benefits** that the learners and educators perceive with the pedagogical usage of these tools
- **the design of activities and the challenges involved in using the tool(s), relating these to their context** (including the expected learning outcomes of the course and/or programme)
- **learning experiences of the educators**: what worked and what did not work so well; whether or not the social software tool or the associated pedagogical activity is transferable to another context
- **obstacles faced** by students and educators, whether they are technological, usability-related, skills or training issues, or social issues
- **accessibility issues** regarding support to users with special needs, and how they are being (or have been) addressed

Through the case studies (examples) and their analysis, our goal was to come up with some **recommendations** or some **guiding principles** for educators and policy makers, for social software initiatives – the pedagogical roles of social software: communication, nurturing creativity and innovation, and collaborative learning; but also the influencing factors that can enhance student learning and engagement.

In the report, which is one of the **deliverables**, the analysis of the various case studies is presented as answers to questions which educators and policy makers may have about social software initiatives. We give examples of the case studies in our analysis – so if you would like to know about a **particular case study that** we refer to, you can have a look at the case study which is in a separate document and both these documents are on this project website on JISC's website.

2 Findings: Analysis and Synthesis of the Data

In the case studies, we have identified themes related to the benefits and challenges of using social software, and enablers (or drivers) and barriers that influence social software initiatives in education. The analysis is presented as answers to questions which educators and policy makers may have about social software initiatives:

Educational goals of using social software

- What are the educational goals of using social software?

Enablers to social software initiatives

- Which enablers or drivers within the institution or from external sources, that positively influence the adoption of social software?

Benefits of using social software

- What are the educational benefits of using social software?
- What are the social and other non-educational benefits of using social software?
- What are the positive implications of employing social software tools, which extend beyond the initiative?

Challenges (including obstacles and barriers) within the institution, or, from external sources that they may influence a social software initiative

- How does the social software fit within the learning and teaching context?
- What are the concerns of students regarding the use of social software tools?
- What are the training needs for students and educators?
- What are the technological obstacles or specific technological requirements?
- What are the concerns of institutions, educators and students of using tools in the public domain?

Issues that need to be considered in a social software initiative

- What are the workload issues for educators?
- What are the workload issues for students?
- How does an educator's role change when social software is used?
- Are there any accessibility issues with these tools?
- Are there issues of assessment in courses which use social software?

While answering each of the questions listed here, examples, snippets or vignettes from the case studies or references to the case studies are included.

3 Key findings

We have drawn out some key findings from our investigations reported in Section 6. In this section, we discuss these findings, which relate to the benefits and challenges that organisations (policy makers), educators, and students will experience in a social software initiative.

3.1 Benefits to the organisations

Student retention: There are several instances which we came across in our investigations where early signs of a **student struggling** were picked up in formal and informal contributions on social tools and **early interventions** meant that students were provided with support and help before it was too late.

A number of the case studies provided firm evidence of the positive impact of social tools on student retention, as students who were struggling were picked up in formal and informal contributions on social tools and offered support. Several cases studies identified the development of communities of learners who, in some instances, stayed in touch after completing the course.

Image-building: To be at the forefront of adopting digital technologies in courses and programmes not only **attracts students** but also is **perceived by external bodies** as being forward looking.

Alumni community building: In two of the case studies that we investigated we found that students, who had worked collaboratively using social software on courses, went on to form alumni groups at the end of the course to keep the conversation and dialogue flowing.

3.2 Challenges to the organisations

The tension between social software tools in the public domain and the VLE: If the tools used by educators are not within the institution's VLE, then **continuity of the service, its reliability and maintenance**, and whether it should be employed in **assessment** are just some of the concerns that policy makers within an organisation have. The **lack of control** of an external service is of concern, as the service to the students cannot be guaranteed unless formal agreements are set up with external providers.

There was more general concern that educational organisations had no control over public sites, eg the software providing the service could change or the site could become unavailable. This could become a serious issue if assessment were involved. In reality, the popularity of the sites usually meant that they were well maintained and backed up so the probability of loss of service or data was low; none the less, the worry remained.

Policies about the usage of social software tools for both educators and students: We did not come across any formal policies that an organisation had set up about how these tools should be used and what were the expected norms – even when the students' contributions were being made in public groups (for example, on Flickr or on Facebook).

The success of the projects is very much dependent on the enthusiasm and drive of committed tutors, with none of the case studies reporting **coherent institutional policies** about the usage of social software tools for either educators or students.

Firewalls and access to tools in the public domain: Access to some social software tools, such as Skype or Second Life, may require altering the firewall mechanisms. The **security risks to the institution's network systems are of concern** to the organisations.

3.3 Benefits to the educators

Being able to track student's process and intervene early: Educators are now able to keep a track of the group's or an individual student's progress and intervene before the formal assessment.

Being able to review students' contributions: Educators are able to see the questions that students want to find an answer to prior to a tutorial which enables the educator to make a more effective plan for a tutorial.

Being able to teach interactively rather than broadcast: Some courses and activities require students to have a conversation and dialogue, and now there are tools such as a wiki to discuss collaboratively and create resources. Students can create podcasts themselves to learn communication skills and receive feedback from peers and the educator.

3.4 Challenges to the educators

Changing the way they teach: Students who belong to the digital generation expect to talk back, and have a conversation. They want their education to be relevant to the real world; they want it to be interesting, even fun. Therefore, educators face the challenge of continuing to **'broadcast' lectures** as well as using **'conversational' social software** supported methods to motivate, empower and enthuse the students.

Diverse needs of students: While supporting students who have grown digitally and who prefer a **more participatory approach** to education, the education system still has to cater for the needs of those students who may not have had the resources (availability of computers, broadband) to be able to grow as 'Net Geners' (from the net generation). Some of these students may still **prefer a 'broadcast approach'** of teaching and may be unfamiliar with the social networking phenomenon.

Designing and assessing learning activities: Even though the case studies investigated in this study provide several examples of effective use of social software tools for different purposes, there is currently **little (formal) guidance** for educators to assist them with the design and assessment of learning activities for the social software toolkit. So unless there are personal initiatives (as the majority of our case studies are), educators may find it difficult to determine the role the tools can play and how they can be effectively employed. Further, **designing assessment** can be extremely challenging; counting the number of comments on a blog post may not be an effective indicator of a student's contribution if the comments are not insightful enough.

The literature reviewed concluded that there could be a problem with assessment in that teachers are expected to mark the work of an individual student but this may prove to be very difficult for collaborative work.

Workload issues: Some of the case studies suggested that the planning, launch and maintenance of a social software initiative can be very time consuming. Further, some educators suggested that it was **difficult to keep a track of everyone's progress** (30 blogs on a course is not unusual) if there is formal assessment along with using social software tools. However, other case studies are exactly the opposite (the initiative did not take much time to organise or has saved time overall and assessment is practical and not unreasonably time consuming. Tools such as **RSS feeds** can help in tracking the updates but **better reporting tools** (for example, who has contributed on the wiki, what and when, instead of scanning the history on the wiki) and integration of support for assessment into social software tools would help to reduce the burden on the educator.

Perceived role of the educator: The role of an educator becomes **facilitative, (ie more like a mentor)** when social software tools are employed. This perception might be in conflict with that of the educator's who may still see his (or her) role as **'delivering' education and instruction.**

3.5 Benefits to the students

Collaborative and peer-to-peer learning: Students learn by looking at the contributions of other students in the collaborative working space such as wiki or a group blog, by seeing the different approaches that others take, and by reflecting on their own contributions. Through **conversations and dialogue**, they are better able to **internalise their learning**. Students also tend to comment on other contributions and **provide support and critical feedback.**

Gaining transferable skills for work environments: Social software tools are increasingly being used in the workplace, for example, wikis as intranets, blogs for marketing, podcasts for customer education, web conferencing for meetings, and social networking groups for campaigns, and for conducting surveys. If students learn to use these tools and are aware of their potential, then they will not only be able to use and adopt new technologies with ease but **will also feel confident when taking decisions about which tools should be used for what purpose.** In addition, using social software tools assists students develop **team-working skills** and online **collaboration and communication skills**, which will help them to fit easily into work settings.

Developing an e-portfolio for future employment: The outputs of their studies, eg essays, poems, records of their skills audits and skill development, are portable if they are in tools such as wikis and blogs, and can be shown to prospective employers.

Collation of resources: Social bookmarking facilities can enable the students to collate their resources over a period of time and across courses and institutions.

3.6 Challenges to the students

Group working in collaborative authoring spaces: When students work in groups and contribute collaboratively in a space such as a wiki or a group blog, there are **concerns about everybody not contributing equally** and, therefore, there are **questions or concerns about the ownership of the resulting product.** However, the same problem is reported in all group-working situations whether or not they are technologically mediated. Further, the students may not benefit from the collaborative activity if most students do not contribute. Mechanisms such as the

history in a wiki can track individual contributions but it requires monitoring by the educator. A more general solution is to design the assessment in a way that rewards group and individual contributions.

Most organisations require their employees to work in groups and there will always be people who do not make as great a contribution to the group as others, so learning how to recognise and manage this situation is arguably a useful life lesson.

Deriving value from the tools: The value from social software tools comes only if there is participation by the group. If a student **does not receive comments** from his peers on his blog, or on his photographs on Flickr, then he may not derive the intended value from contributing on these tools.

Learning new tools: Unlike an institutional VLE, as new tools evolve and educators experiment with them, students might be using **different tools on different courses**, and this would require them to learn to use these tools, taking up time and effort, and **perhaps diverting them from the actual learning activities that they are supposed to conduct using these tools**. On the other hand, learning the tools helps to equip them with knowledge which can be used later.

Pedagogy vs. technology: If students are not able to understand the role the technology plays in their learning or if there is a **steep learning curve** for the technology or the **usability of the tool is poor**, they will have an unsatisfying experience and may feel that the **technology is 'getting in their way'**.

Concerns about their materials in the public domain: Some students have concerns about their contributions on these tools being in the public domain (eg a public-facing blog). Some students even have **concerns about sharing their reflections and ideas** even with peers (eg being worried that somebody else would take their ideas). Even when the ethos of the social software tools is to be collaborative, **the individual assessment** is still seen as competitive by some students.

Some students had concerns about their contributions being in the public domain but on the other hand, exposure to a public site allowed learners to showcase a portfolio of their work to potential future employers.

Invasion of students' social spaces: Students are not always willing for institutions to enter their social spaces such as Facebook, or being asked to make a tutor their 'friend' on a social networking site. Some students are keen to keep the personal (social) and academic spaces apart. However, most case studies concluded that there were few, if any, problems of this sort.

Preference for individualistic learning rather than collaborative learning: Adult learners or part-time learners who are handling work and studies at the same time generally **prefer learning at their own pace and in their own time**. They can be **resistant to collaborative work** as it means that they may have to work at a time that suits others, a commitment which they may find hard to meet.

4 Recommendations

As discussed in Section 6 of the report, there are wide-ranging factors that influence the success of a social software initiative. Therefore, there are no set procedures or guidelines that, if followed, will guarantee the success of a social software initiative. In this section, we outline principles, which we believe will apply to an initiative and will guide you.

4.1 Be learner-centred

The initiative should be learner-centred: meeting learners' requirements and providing them with a positive and empowering experience. The technology should support the learning activities and outcomes of the course or programme.

4.2 Consider the impact on staff

It is important to consider how all staff will be affected by any initiative. For example, a technical support team may have to support another tool; or a helpdesk may receive queries from students and others involved and the associated staff will need the requisite training and resources to support the students. What is important is that policy decisions about the expected involvement of all staff are taken.

4.3 Identify your key stakeholders

The key stakeholders will include students, technical support teams, departmental heads, and colleagues who are involved with the learning and teaching strategy of the organisation. It will be useful to communicate with them regularly as they may not only offer support to the initiative but also give ideas. They will help you to understand the requirements from multiple perspectives.

4.4 Be convinced yourself

In almost all the initiatives that we investigated in this report, the educators were passionate about the tool and were convinced of its significance in learning, teaching, and student engagement. Therefore, only if you are yourself convinced that the initiative is worthwhile, should you proceed with it.

4.5 Be prepared to spend time

The introduction of any initiative requires the allocation of time and resources for: planning for designing, conducting and evaluating the initiative, communicating with a variety of stakeholders, choosing a particular tool; designing the educational activities. It is necessary to ensure that sufficient resources are allocated to an initiative.

4.6 Do not hesitate to learn from others

There may be colleagues within your institution who have already used the same tool or have faced similar challenges. There will almost certainly be colleagues in other institutions who have relevant experience (as can be seen from the case studies). Talking to colleagues who have had similar experiences is helpful as there are several minor details of any initiative, which the reported case studies could not, or did not, capture but which can be elicited in conversations or by sharing concerns.

The case studies accompanying this report are intended to provide useful insights into a variety of initiatives and should be a very useful resource for learning from experiences of others.

4.7 Keep a log of the experiences

Keeping a regular log of the activities and your experiences with the initiative will be useful for self-reflection and for sharing experiences with others during and after the project. This regular log could be maintained in a tool, such as wiki or blog, which could be made accessible to all or to selected group of stakeholders.

4.8 Be willing to disseminate

Do not wait to write a journal paper! It would be good to share your experiences and efforts from early on – whether they are internal seminars, departmental meetings, and lunchtime talks in your institutions. The more you discuss and share your experiences with others, the more support and ideas will flow your way.

4.9 Be prepared to monitor and intervene

Our investigations have shown that constant monitoring of students' experiences and timely interventions play a significant role in the success of the initiative. This, of course, has resource implications and you would have to be prepared to spend time to 'be there'.

4.10 Evaluate the initiative

All the successful case studies indicate that it is important to elicit students' and educator' perceptions and experiences and to evaluate them. The evaluations can help to iteratively improve the initiative in terms of activities, choice of the tool, training and support, and so on. Further, evaluations and iterative improvement of the initiative will enhance its potential for sustainability and transferability. Depending on the context of an individual initiative, a variety of techniques may be applied to collect feedback: reflective journals or diaries, surveys, interviews, questionnaires, and focus groups.

To draw out both analytical and statistical generalisations, collect both qualitative and quantitative evidence, over a period of time. Thorough evaluations will be helpful in convincing the institution. They would also facilitate transferability of the initiative, and will be useful for the community.

4.11 Be prepared to adapt and change

The landscape of social software tools is emerging and changing, and so are students' choices of tools and their expectations of the tools. However, the experiences with a set of tools can be carried over to other initiatives with a different set of 'new' tools, if there has been a thorough process of evaluation and learning from the evaluations (as suggested in strategy 9.10 above).

One educator summed up their experiences as follows: 'I think that you just have to give these things time, use them and try and build up experience and expertise and disseminate this expertise.'