Weblogs: Supporting the creation of learning networks in the technology classroom

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Introduction

This research aims to demonstrate that weblogs have the potential to be valuable learning tools that support both reflective practice and collaborative learning. An initial study was performed involving a group of technology students in a third-level institution. This study examined the use of weblogs as a tool to support their learning, in addition to using traditional teaching methods and WebCT. Although this research is still in its early stages, initial results have been promising.

Literature Review

There are several features of weblogs that enable learners to converse with and support each other as part of a learning community; these include permalinks, trackbacks (or backlinks) and commenting. In the area of e-learning and online education, a communication tool such as this can prove very useful. Piaget (1928) identified collaborative argumentation as one of the key ways in which learners develop their cognitive processes. The collaborative aspect of weblogs allows tutors and students to interact, and commenting capabilities mean that tutors can easily answer students' questions, or that students can perform peer-reviews of one another's work (Richardson, 2004).

Weblogs can also be useful as a tool for personal reflection (Chen *et al.*, 2005). In e-learning, this provides a platform for a student to reflect on his/her learning. Reflective practice increases active involvement in learning, enhances problem-solving skills and aids the development of critical thinking skills (Moon, 1999). Reflection can also encourage metacognition by helping students to understand how the learning process works; this has a positive effect on their learning (Schön, 1987).

There are several established models that can provide guidelines for learning support in an online environment. Laurillard's Conversational Framework states that learning should occur as an iterative dialogue, which must be discursive, adaptive, interactive and reflective (Laurillard, 2002). Figure 1 shows the Conversational Framework; steps 1 to 4 are discursive, steps 5 and 10 are adaptive, steps 6 to 9 are interactive and steps 11 and 12 are reflective. For the purpose of this study, Laurillard's framework has been adapted to demonstrate the areas where weblogs provide support for learning. In the above diagram, the shaded arrows (steps 7, 8, 9, 11 and 12) represent the steps where weblogs may be incorporated into the Conversational Framework.

The Conversational Framework

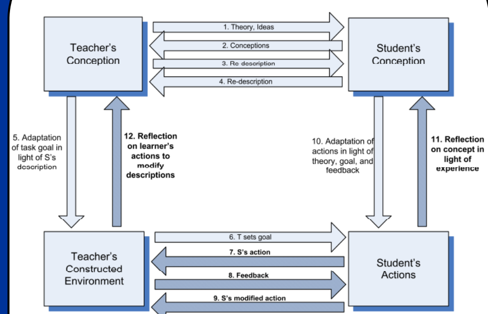


Figure 1: The Conversational Framework with Weblogs (adapted from Laurillard, 2002)

Initial Pilot Study

In this initial study, each student was asked to set up his/her own weblog as part of their networking studies, and to make a post to their weblog each week for a 10-week period. The tutor viewed weblog posts using Bloglines (a web-based RSS aggregator), and was able to comment on student weblogs to give feedback or answer any questions on the material. Students were also encouraged to comment on one another's weblogs. Both the tutor and the researcher were actively involved in the learning community.

Each of the tasks completed by students during the 10-week study was designed to promote either interaction or reflection, as described by the Laurillard framework. The tasks that the students completed are as follows:

Interactive tasks:

- Create permalink to another student's weblog
- Create backlink to another student's weblog
- Set up link to site feed using Blogger
- Subscribe to other feeds using Bloglines
- Peer review of class presentations
- Leave a feedback comment on presenter's weblog
- View other students' weblog posts

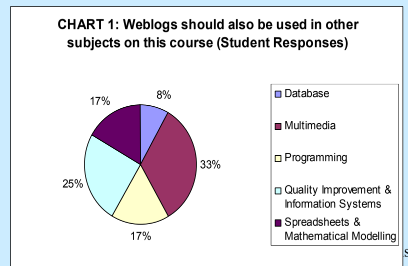
Reflective tasks:

- Weekly weblog post reflecting on weblog technology learned that week
- Reflection on own learning resulting from each class presentation
- Review personal experience with weblog

Results

Initial results from the pilot study have been promising. In the questionnaire administered at the end of the study, 90% of students found the weblog was easy to set up, and 100% of students found the weblog was easy to use.

Students were also asked if they thought weblogs should be used in other subjects on their course (besides the Networking & Communications subject). Chart 1 below indicates which subjects students felt weblogs could be incorporated into.



are the two subjects which students selected most often in the questionnaire. Both of these subjects require students to complete a research project as part of their continuous assessment. Several students commented that weblogs could be a useful tool when completing these research projects.

During the pilot study, students reviewed one another's class presentations of their research material. In the questionnaire, 100% of students agreed that this peer review process helped their overall understanding of the topic presented.

"For subjects where students research their own topics weblogs would be beneficial."

However, several students felt that the reviews they gave each other were not critical enough.

"Helped recall the topic and allowed me to revisit the topic at intervals if I wished"

"Sometimes feedback can be restricted when the reader knows who messages are from, i.e. overly nice"

"We were either afraid to criticize or inexperienced in the art of constructive criticism"

Conclusions

The aim of this pilot study was to gather students' initial impressions of weblogs, and gain some insight into how weblogs could be utilized in technology courses in third-level institutions. Preliminary findings show that students found weblogs both easy to use and easy to setup. Students felt that weblogs could be a useful research tool, and that using weblogs to peer-review other students' work was helpful to them. Several students commented that the reviews they gave each other were not critical enough; this may suggest that students should be provided with critical-thinking skills training before beginning the peer-review process.

Overall, initial feedback from the students is positive; they readily engaged with the new technology and were enthusiastic about its use. The next phase of the research will analyse the content of weblog posts. Also, as the sample size was limited in the initial study, it is planned to conduct a further study on a larger scale.

Literature cited

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For further information

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