

## A Survey of Use of Weblogs in Education

**S. Luján-Mora**

Department of Software and Computing Systems, University of Alicante, Carretera de San Vicente del Raspeig s/n, 03690 San Vicente del Raspeig, Spain

Using weblogs (or blogs) for courses, as an enhancement to the traditional class or for a fully online course, is becoming more and more important and popular. In this paper, we describe the technology behind weblogs, we present the basic functionality of weblogs, and we discuss the different roles weblogs can play in teaching and learning: instructor blogs and student blogs. From the instructor's point of view, a blog can be used to share knowledge, to provide instructions for students (course announcements, tips, and resources), to publish a list of annotated links, and to review and check students' work. From the student's point of view, a blog can be used as a group work tool, to share course related resources, and to submit assignments and home work. Blogs can help to change the academic discourse and to achieve a real student centered learning. Finally, we also present some case studies of use of weblog.

**Keywords** weblog; blog; online education; e-learning

### 1. Introduction

Learning logs, traditionally paper-based, have been used in education for a long time. However, the use of weblogs (or *blogs*) in education (and new learning technologies in general) translates into the need for new software and hardware for instructors and students. Moreover, it also creates a challenge for time-management, because instructors that use web-enhanced or online courses report large increases in the time it takes to manage online/web-enhanced courses compared to traditional courses [1].

In this paper, we present the basic functionality of weblogs, and we discuss the different roles weblogs can play in teaching and learning: instructor weblogs and student weblogs. From the instructor's point of view, a weblog can be used to share knowledge, to provide instructions for students (course announcements, tips, and resources), to publish a list of annotated links, and to review and check students' work. From the student's point of view, a weblog can be used as a group work tool, to share course related resources, and to submit assignments and home work. Weblogs can help to change the academic discourse and to achieve a real student centered learning. For both the instructors and the students, weblogs can be an enhancement to the traditional class or for a fully online course.

The rest of the paper is structured as follows. In Section 2 we briefly present some of the most important related work. In Section 3, we provide an overview of weblogs. In Section 4, we offer possible uses of weblogs in education. In Section 5, we present some cases of use of weblogs in education. Finally, we summarize the main conclusions and the future work in Section 6.

### 2. Related work

Unfortunately, there is not many published material on the subject of weblogs in education. In [2], it is described an interesting teaching technique whereby students document their learning activities and learning results in a concurrent journal (log). According to the author, "*A learning log is a tightly focused academic journal that is created as the student becomes knowledgeable on an individually assigned topic. The log can serve as the basis for generating Frequently Asked Questions (FAQs), support class discussion, and provide the basis for the creation of a class presentation and web site*".

In [3], the authors explore the idea of turning learning logs into weblogs. The authors provide an overview of weblogs. Weblogs are defined as "*personal web pages written in chronological diary form*".

and maintained through weblogging software". The authors argue that the benefits of weblogs include "ease of publication, sharing of results, and instructor monitoring".

In [4], the authors explore the potential of blogs as learning spaces for students in the higher education sector. The authors believe that "blogging has the potential to be a transformational technology for teaching and learning".

In [5], the authors investigate the impact of weblog use on individual learning in a university environment. This study indicates that learning with weblogs enhances students' cognitive and social construction of knowledge.

### 3. Weblog overview

According to the Wikipedia [6], "A blog is a website where entries are made in journal style and displayed in a reverse chronological order. [...] A typical blog combines text, images, and links to other blogs, web pages, and other media related to its topic". A weblog entry typically consists of the following:

- *Title*, the main title, or headline, of the post.
- *Body*, main content of the post.
- *Permalink*, the URL of the full, individual article.
- *Post Date*, date and time the post was published.

A weblog entry optionally includes the following:

- *Comments*, for weblog visitors.
- *Categories*, subjects that the entry discusses.
- *Trackback*, links to other sites that refer to the entry.

Regarding the weblog software, the leading weblog sites are Blogger (<http://www.blogger.com/>) and the leading weblog software are WordPress (<http://wordpress.org/>) and Movable Type (<http://www.movabletype.org/>). A complete weblog software comparison chart can be found in [7].

### 4. Possible uses of weblogs in education

Several models of use of weblogs have appeared during the last few years. The use of weblogs in education can be evaluated in different dimensions with regard to who writes the weblog, who reads the weblog, what is the objective of the weblog, and other aspects.

With regard to who writes the weblog:

- **Instructors:** instructors may write weblogs to provide instructional advices and instructions for students, to offer additional material (links, downloadable material), and to provide a place to extend conversations past the school day.
- **Students:** students may write weblogs as learning logs (a log that documents their learning), as project logs (a log kept for the duration of the project that reflects the progress and findings), or as a medium aimed at learning web technology.
- **Others:** whoever in the Internet.

With regard to who reads the weblog:

- **Instructors:** instructors may read students' weblogs as coursework and others' weblogs to keep current in a specific knowledge field.
- **Students:** students may read weblogs as a coursework and others' weblogs as group work.
- **Others:** a weblog may be private to a concrete group of people or may be public to the entire world.

With regard to the objective of the weblog:

- First person authoring tool.
- As a collaborative learning activity.
- A way of knowledge sharing.
- For reflection and debate.

- A medium to link to other resources.

With regard to other aspects:

- Number of authors: individual or a group.
- Voluntary or compulsory.
- Non-graded or graded.
- Anonymous or named.

## 5. Case studies

The following subsections depict three case studies about the use of weblogs in education.

### 5.1 American History at South Valley Jr High in Liberty, Missouri, USA

Eric Langhorst, an 8th grade *American History* teacher at South Valley Jr High in Liberty, Missouri, moderates a weblog (<http://www.guerrillaseason.blogspot.com/>) to enhance the reading of the book "Guerrilla Season". In Fig. 1 the main page of the weblog is shown. The weblog allows the teacher and the students to extend conversations and discussions past the school day, to link to resources in the Internet about the book or the history presented in the book, and to directly interact with the author of the book. The weblog offers the possibility to students and teachers all around the USA to participate and collaborate.

The teacher published a suggested number of pages to read for the week each Sunday night. In addition, each week several different discussion questions are posted on the weblog. Students have to read the book and are required to post at least two weblog comments during the duration of the project and complete one project based on the novel.



Fig. 1 Main page of "The Guerrilla Season Book Blog"

### 5.2 Global economy at the University of Alicante, Spain

Professor Andrés Pedreño maintains a weblog for his course *Global economy* (<http://economia-globalizacion.blogspot.com/>). In Fig. 2, the main page of the weblog of the course is shown. The goals of the weblog are:

- To create a favorable atmosphere for students taking part in the course.
- To acquaint students with new technologies, and specifically, weblogs and open source software.
- To encourage an activate participation in the course.

- To promote the creation of a “community of the course”.
- To evaluate the use of weblogs as a teaching tool.

Moreover, the students have as a project to create and maintain a weblog through the duration of the course. Two students may work together and administer the same weblog. The weblog is evaluated at the end of the course and the students obtain a grade. In Fig. 3, an example of a student weblog for the course Global economy is shown.



Fig. 2 Main page of the "Global economy weblog"



Fig. 3 A student weblog for "Global economy"

### 5.3 New technologies for education at the University of Santiago de Compostela, Spain

Adriana Gewerc keeps a weblog for her course *New technologies for education* (<http://novastecnologias.blogia.com/>). One of the objectives of this weblog is to analyze the learning processes in the context of the new teaching and learning technologies. In Fig. 4, the main page of the students' weblog section is shown.

Moreover, students have to keep a weblog to document the carrying out of the coursework. In Fig. 5, an example of a student weblog for the course New technologies for education is shown.



Fig. 4 Main page of the students' blogs section



Fig. 5 A student weblog for "New technologies for education"

## 6. Conclusions and future work

This paper provides a snapshot of the use of weblogs in education. The use of weblogs can help instructors to require students to interact and study on a daily, weekly, or monthly basis, rather than leaving all the study to the time of the final examination. One of the main benefits of weblogs is that the content is published on the web at the time the content is written.

Unfortunately, there is a lack of support of weblogs in popular learning platforms. Course software companies should include weblogging modules into their products.

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