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The use of blogs, wikis and RSS in education: A conversation of possibilities

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Abstract

In a 'socially mobile learning environment', it is no longer sufficient to use online learning and teaching technologies simply for the delivery of content to students. A 'digital literacy' exists where flexible and mobile technologies must be explored for collaborative and (co)creative purposes, as well as for the critical assessment and evaluation of information.

This paper will focus on the educational possibilities of blogs, wikis and RSS feeds. Blogs and wikis are two new content development and management technologies that enable an interactive and intercreative engagement amongst students and between students and teachers. RSS is a technology for syndicating information such as the content of websites. These technologies enable desirable practices such as collaborative content creation, peer assessment, formative evaluation of student work, individual as well as group reflection on learning experiences, and up-to-date information regarding changes in collaborative spaces, and can be used in the development of authentic learning tasks. An overview of each technology will be presented with pragmatic suggestions for their incorporation into the student learning experience.

Keywords

information and communication technologies; knowledge economy; blogs; wikis; collaboration; co-creation; RSS feeds; assessment

Introduction

The rapid development of digital technologies and their use in education enable individuals to interact within the educational domain in new ecologies of learning. Specifically, social networking adaptive technologies like blogs, wikis and the RSS process involve students in situations that require them to employ a growing assortment of cognitive skills in order to perform and solve problems in these digital environments. These skills can be referred to as 'digital literacies' (Gilster, 1997; Inoue et al., 1997; Pool, 1997). An overview of these technologies and the digital literacies needed to incorporate them into the educational domain will be explored within this paper. Some pragmatic suggestions for their incorporation into the student learning experience will be discussed.

The focus within this paper will be what conceptual understanding is necessary for the authentic implementation of these collaborative and co-constructed technologies within education. The effective use of these technologies implies that the user — the student — has a set of skills or literacies that provide a skill set for effective use.

Equally implied is a set of skills or literacies from a lecturers' perspective. The clear focus of the conversation within this paper will be on a pragmatic exploration of blogs, wikis and RSS within the educational domain.

These technologies enable desirable practices such as collaborative content creation, peer assessment, formative evaluation of student work, individual as well as group reflection on learning experiences and user-centric up-to-date information regarding changes in collaborative spaces (Gilster, 1997; Tapscott, 1998; Eshet-Alkalai, 2004; 2005). In order to enable users to perform intuitively in digital environments and to easily and effectively access the wide range of knowledge embedded in these environments, the teacher must have some conceptual understanding of the possibilities of their use. New technologies, such as a blog or wiki, make new demands on learning and provide new supports to learning, even as they also dismantle some of the learning supports upon which education has depended in the past. If we agree that there are new literacies and new conceptualisations required to use these emerging technologies, then some care should be taken to think deeply about the impacts of digital technologies on the processes and practices of pedagogy.

What is a blog?

Paquet (2003) refers to the term 'blog', initiated by Barger in 1997, as a log of the web — or weblog. In its simplest form it is a website with dated entries, presented in reverse chronological order and published on the internet. The word 'blog' is both a noun and a verb. People who maintain a blog are called *bloggers*. The act of posting to a blog is called *blogging* and the distributed, collective, and interlinked world of blogging is the *blogosphere*.

Characteristics of a blog

A weblog or blog can be described as an online journal with one or many contributors. Besides straight text and hyperlinks, many blogs incorporate other forms of media, such as images and video. A blog is usually made up of the following components:

- Post Date — date and time the post was published
- Category — category the post is labelled with (can be one or more)
- Title — main title of the post
- Body — main content of the post
- Trackback — links back from other sites
- Comments — comments added by readers
- Permalink — the URL of the full, individual article
- Footer — usually at the bottom of the post, often showing post date/time, author, category, and stats such as number of reads, comments or trackbacks.

Blogs differ from traditional websites and provide many advantages over traditional sites, including:

- Easy creation of new pages, since new data is entered into a blog usually through a simple form and then submitted with the blogger (or person adding the entry to the blog website) updating the blog with little or no technical background — blogs have thus become the novice's web authoring tool.
- Filtering of content for various blog entries, for example by date, category, author, or one of many other attributes.
- Most blog platforms allow the blog administrator to invite and add other authors, whose permissions and access are easily managed.
- Providing a personal writing space that is easy to use, sharable, and automatically archived.
- Ability to link and inter-link to form learning communities.
- Opportunity to serve as a digital portfolio of students' assignments and achievements.
- Extensions into fully featured content management systems.

Educational benefits of blogs

Potential benefits as identified by learning specialists Fernette and Brock Eide and cited by Will Richardson (2006) in *Blogs, wikis, podcasts, and other powerful webtools for classrooms* include the following:

- Can promote critical and analytical thinking.
- Can promote creative, intuitive and associational thinking (creative and associational thinking in relation to blogs being used as brainstorming tool and also as a resource for interlinking, commenting on interlinked ideas).
- Can promote analogical thinking.
- Potential for increased access and exposure to quality information.
- Combination of solitary and social interaction.

Within the structure of a blog, students can demonstrate critical thinking, take creative risks, and make sophisticated use of language and design elements. In doing so, the students acquire creative, critical, communicative, and collaborative skills that may be useful to them in both scholarly and professional contexts. The growing popularity of blogs suggests the possibility that some of the work that students need to do in order to read well, respond critically and write vigorously might be accomplished under circumstances dramatically different from those currently utilised in higher education.

Educational uses of blogs

The following are some possible uses of blogs in education:

Within a personal academic perspective a blog can support:

- reflection on teaching experiences
- categorised descriptions of resources and methodologies for teaching
- ramblings regarding professional challenges and teaching tips for other academics
- illustration of specific technology-related tips for other colleagues.

Within an organisational perspective a blog can support:

- a common online presence for unit-related information such as calendars, events, assignments and resources
- an online area for students to post contact details and queries relating to assessment.

Within a pedagogical perspective a blog can support:

- comments based on literature readings and student responses
- a collaborative space for students to act as reviewers for course-related materials
- images and reflections related to industry placement
- an online gallery space for review of works, writings, etc. in progress, making use especially of the commenting feature
- teachers encouraging reactions, reflections and ideas by commenting on their students' blogs
- development of a student portfolio of work.

A commonly asked question relates to the difference between blogs and discussion fora. While similar in some respects, however, there remain substantial differences in user experience in both spaces. Discussion fora are predominantly shared community spaces in which individual voices may make themselves heard but are afforded no specific space of their own. First and foremost, blogs provide a platform for individual expression and also support reader commentary, critique, and interlinkage as subsequent steps. In other words, blogs foreground the individual, while discussion fora foreground the group. The suggestion here is that this makes blogs the more useful tool, especially in cases where there is no strong sense of group belonging or loyalty, or there is a lack of group turn-taking and communication skills. An example of this could be large classes or at early stages of students' semesters and/or degrees.

Further questions to be explored

Consider asking your students how much reflective writing they do. Then, for comparison, ask them how much time they spend writing emails, using ICQ or MSN Messenger, and surfing the internet. Most will be heavily involved in the latter: to the current generation of students, the internet and other forms of electronic discourse are not necessarily associated with their concept of 'reading and writing' in an educational sense, but rather are tools for social interaction. Blogging, as a socially driven public written reflection, can change the dynamic of teaching rhetorical sensitivity and reflection. Many students are already highly socially active in internet-based environments, interacting with and commenting on one another's written materials — even without formally realising that they are doing so. The proclivity and popularity of websites such as the photosharing site *flickr.com* and the blogging space *blogger.com* indicate a growing impetus towards personal expression and reflection, and also the sharing of personal 'spaces' — it is now possible to harness these developments in an educational context.

Is the blog a new genre of learning journal? Is there a difference between writing for personal expression, and writing for an educational purpose? If the process of writing is viewed as a means of reflecting upon issues and content that is being delivered in a learning context, and of attempting to create meaning, then does the style of writing also influence the depth of this process? And do we need to provide for students with clear guidelines and model effective blogging to promote higher order thinking skills?

Boud (2001) advises that the use of learning journals can have many purposes and promotes reflection in many ways. A learning journal is defined as an analytical record of a person's learning. This may be tied to an individual subject in a course or a particular topic within a subject, or it may be about the experience of learning in general. A learning journal can be online and open to the public or paper-based. And so, if a blog is a new genre of learning journal, what is different about the blog experience? What are the characteristics of this genre?

Walker (1985) believes that 'creative interaction with one's own development helps to ensure that new knowledge is incorporated in, and integrated with existing knowledge' (p. 65). A blog offers interaction with reflective comments and also the ability to interlink to related ideas. Also, other members of the community can comment on blog entries to suggest additional considerations and explorations of the idea presented and promote further reflection and thought regarding a stated viewpoint.

Considered should be that within the development of conceptions regarding knowledge and the reformulation of ideas to clearly state a position or argument, does blogging have the potential to encourage reflection and deep learning? How can we design activities to support the current sense of excitement associated with participating in the blogosphere?

What is a wiki?

A wiki is a group of web pages that allows users to add content, similar to a discussion forum or blog, but also permits others (sometimes completely unrestrictedly) to edit the content (Arreguin, 2004). The term is adopted from the Hawai'ian language, where 'wiki wiki' means 'fast'. What distinguishes wikis from blogs, discussion fora, or other content management systems is that there is no inherent structure hard-coded into wiki technology: wiki pages can be interconnected and organised as required, and are not presented by default in a reverse-chronological, taxonomic-hierarchical, or any other predetermined order.

This makes wikis a highly flexible knowledge management space. Indeed, in comparison with the temporal information structure of blogs, it is useful to conceptualise wikis as spatial structures that are infinitely expandable. In essence, then, the wiki offers a vast simplification of the process of creating HTML pages, and thus is a very effective way to build and exchange information through collaborative effort.

Characteristics of a wiki

The following are some typical characteristics of a wiki:

- Where a blog is (usually) the writings of one person to be read by many, a wiki is a website that allows a user to add content, but also allows that content to be edited by any other user.
- Wikis can be personal, but are usually open to collaboration.
- They involve the creation of documents (individual pages as well as the entire wiki) without a detailed technical knowledge of HTML being required by the user.
- They tend towards expressing ideas as relationships between pages, thus creating a network of interrelated topics that is based on a 'topical' approach.
- Wikis are a-temporal; that is, the nodes (or interlinking textual references) change not according to time, but by way of development of the evolving and edited text.
- They track the changes to individual pages over time and allow users to browse the development history of a page.
- They encourage cross-linking and are dominantly spatial in structure.
- Wikis provide a space where knowledge becomes networked (situated, contextualised) but remains ephemeral: it changes, and can be changed and mediated by the community.

Educational benefits of wikis

In essence, wikis offer an online space for collaborative authorship and writing. They are available online for all Web users or for members of specific communities, and include version control tools that allows authors to track the history of specific pages, and the history of their personal contributions. Using wikis, students can easily create simple websites without prior knowledge or skill in HTML programming or current software used for website authoring, thus eliminating the time overhead necessary to develop these skills. Also, as more organisations adopt the wiki for internal and external collaboration and information, work with wikis at the tertiary level builds crucial skills for the workplace.

A wiki also offers the ability to interact with an evolving document over time. It allows teachers and learners to see the evolution of a written task, and to continually comment on it, rather than offering comments only on the final draft. Considering students' busy schedules, a wiki can also be very useful for tracking and streamlining group projects.

Educational uses of wikis

The following are some possible educational uses of a wiki:

- Students can use a wiki to develop research projects, with the wiki acting as ongoing documentation of their work.
- Wikis can be used for students to add summaries of their thoughts from the prescribed readings, building a collaborative annotated bibliography.
- In distance learning environments, the tutor can publish course resources like syllabus and handouts, and students can edit and comment on these directly (for all to see).
- Wikis can be used as a knowledge base for teachers, enabling them to share reflections and thoughts regarding teaching practices and allowing for versioning and documentation; essential to the usability of such a resource is that it is searchable, has easy navigation and categorisation, and file management, all of which current wiki environments provide.
- Wikis can be used to map concepts: they are useful for brainstorming, and authoring a wiki on a given topic produces a linked network of resources.
- A wiki can be used to facilitate a presentation in place of conventional software, like Keynote and PowerPoint, and (given a suitable working environment) students are able to directly comment on and revise the presentation while it takes place.

- Wikis are tools for group authoring: often groups collaborate on a document by sending it on to each member of the group in turn, emailing a file that each person edits on their computer, and some attempt is then made to coordinate the edits so that everyone's work is equally represented; using a wiki pulls the group members together and enables them to build and edit the document on a single, central wiki page.
- Wikis are being used for course evaluation: students at Brown University have started CAW, the Course Advisor Wiki (n.d.), a place for students to collaboratively write reviews of courses they've taken. CAW gives readers a flexibility to articulate their impressions, and enables richer reviews that combine multiple impressions and perspectives.

For a further exploration of some of these ideas, see also Pearce (2006), *Wikis in education*, and *ExamplesWikiUse* (2006).

Further questions to be explored

Just as there are strengths in collaborative, co-authored online spaces there are also some challenges. Some wikis have no page locking system, so if two people edit the page simultaneously, one set of changes will be silently deleted. Some wikis do not include a versioning system, making them inappropriate for the task. Also, there are the social issues that occasionally crop up, particularly on very large projects such as the Wikipedia. Some pages on Wikipedia, dealing with controversial topics such as abortion or religious perspectives, can exhibit a phenomenon known as an 'edit war' (Wikipedia, 2006). This is the continuous editing and re-visioning of content by a community member with a particular agenda. The easiest way to circumvent such disagreements is to place a block on the page edit functionality for a period of time.

Asking students to develop new wiki pages can present considerations — from an educational perspective — that are comparable to teaching students the processes of authorship in any other written task. Depending on the nature of the task at hand, wiki entries may be structurally and procedurally different from standard writing tasks that students may be already used to. Therefore, it is important that teachers provide sufficient help and instruction to learners as they come to understand the requirements of the wiki writing genre, much as it is important in standard academic practice to teach the genre of academic essays to students who will be required to write such essays for assessment.

What is RSS?

RSS variously stands for 'Rich Site Summary' or 'Real Simple Syndication', and is a standardised format that allows users to subscribe to a website's content using tools such as newsreaders or aggregators. The RSS information available from blogs and other frequently updated websites is usually referred to as a feed. A feed lists site content that has changed or is new. Feeds are collated for the user by an aggregator. When subscribed to a feed, users no longer have to visit many individual sites in order to obtain up-to-date information about their content; instead, the updated information from the subscribed sites is collected and organised by the aggregator.

Characteristics of RSS



The image to the left shows the universal feed icon and a selection of other indicators that point to the fact that an RSS feed is available from a given website. RSS is an XML format for easily distributing online content. RSS feeds are designed for computer-to-computer communication and are not usually viewed directly, but parsed by newsreaders and displayed to users in an easily accessible format. It should be noted that RSS is only one standard for expressing feeds as XML; others, such as Atom, are also available. Both formats have their proponents and it does not appear that consolidation towards a single standard is imminent. However, newsreaders for all formats are readily available for all major operating systems, and for most RSS feed subscribers the underlying protocol is irrelevant; it is the ease of use and content that it is important.

Educational benefits and uses of RSS

There are a number of different ways in which RSS feeds can be useful in an educational context (adapted from Harrsch, 2006).

- Lecturers and students can keep track of their favourite websites from one convenient location, without any interface clutter.
- Lecturers and students can be notified of updates from many websites that are relevant to the course topics. This is a very efficient use of time. Whatever the lecture topic, there will be a large number of blogs, wikis, news, research and media sites that are consistently publishing material relevant to the topic; rather than re-visiting all of these sites on a daily basis, using RSS technology learners and teachers can easily track new developments on each of these sites.
- RSS is a better solution than an email list subscription, as it does not require users to give out their email addresses, avoiding the potential for spammers to obtain their email details.
- In using blogs with students, instead of visiting each student's individual blog teachers can subscribe to an RSS feed that allows them to obtain instant notifications and updates relating to any new content added. This will dramatically reduce their workload. Additionally, students themselves can also subscribe to the feeds of their friends, peers and teachers.
- Lecturers and students can establish RSS feeds relating to assignment topics and areas of research interest. This allows access to up-to-date content on a wide variety of subjects automatically.
- From an administration perspective, higher education portals often offer targeted collections of links for students, staff, parents, visitors, and alumni. Most users start their portal experience with a time sensitive task to accomplish. Users typically 'pull' down information from a site. Within the RSS model users can have information 'pushed' to them that is customised to their personal interests.

Conclusion

This paper provides only a brief overview of the main benefits and opportunities inherent in using blogs, wikis, and RSS feeds as teaching technologies in an educational context. The uses of these technologies — and the technologies themselves — are still developing rapidly, and teachers as well as learners need to keep track of new tools and approaches emerging both in the wider internet community and specifically in educational contexts.

Which tools are used by learners and teachers, and whether such tools will be used at all, will always depend on the specific pedagogical needs of a teaching situation. An emerging impetus for the incorporation of these new technologies is the increasing use of these tools in the workplace. This places an obligation on educational institutions to facilitate for their students the development of the critical, creative, collaborative, and communicative capacities that graduates will require in their future professions.

Common to all of these technologies is that they are strongly social and community based. The blogosphere offers ongoing distributed expression of and interaction with personal news, views, and ideas. Wikis emphasise a more task-oriented collaborative editing of content and development of 'collective' interlinked knowledge. RSS enables user-friendly syndication of content for further consideration and interaction well beyond the initial place of publication.

Such socially based technologies sit well with the understanding of learning as socially constructed, which has been a cornerstone of recent pedagogical theory. Blogs, wikis, and RSS provide a means to encourage, live, and make visible the social construction of knowledge that such theory postulates, and it is incumbent on teachers to embrace such tools where their use is beneficial to learners and teachers alike. They provide a useful prompt for the further rethinking of teaching practices in the pursuit of supporting socially constructed learning practices.

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