‘E-learning can either be a lonely and isolating experience or a real online community connection.’ A participant in an online course I recently facilitated made this astute observation when reflecting on her experiences as a learner separated from her facilitator and peers by the barriers of time and distance.

Thanks to the wonders of modern information and communications technologies, we have already managed to overcome the confines of the physical classroom, but today still remain unknowing prisoners of the instructor-centred online classroom. To move further ahead, we will need to demolish these virtual walls so as to create social learning spaces, in which learners and facilitators become associates in a community of practice, participating in networks of interaction that transcend the old-fashioned constructs of institutions and organisations.

A new wave of e-learning tools and technologies may be what it takes to enable us to do this. The World Wide Web that emerged in the 1990s was a ‘read-only’ Web on which you needed a hosting plan with an Internet Service Provider (ISP), specialised authoring tools and/or HTML expertise to create a decent web site (Gillmor, 2004).

The birth of the ‘read-write’ Web, epitomised by blogs, wikis, RSS and podcasting, heralds a movement that Canadian expert Stephen Downes (2005) calls ‘E-Learning 2.0’.

BLOGS

Blogs (short for weblogs) were originally intended to allow individuals to maintain their own personal journals or diaries and make them available for public viewing. Blogs are typically easy to use and adopt an informal, journal-entry style, making them much more convenient to update and add to than traditional web sites.

One recent variation on the blog theme is the ‘vlog’ or video blog. Many systems now also incorporate mobile blogging or ‘moblogging’ capabilities, that is, the ability to update a blog while on the move. For example, one can add a blog entry simply by sending an e-mail to an address monitored by the blog server software, or better still, transmit text, graphics, sound...
and video captured on a mobile phone directly to a blog via the multimedia messaging service (MMS).

Blogs lend themselves to a variety of learning applications. Facilitators can develop blogs for purposes ranging from providing instructional content to disseminating administrative information and directing learners to additional resources, but the real power is in allowing learners to create their own content. For example, learners can build blogs to house reflective journals and online learning portfolios, or simply to serve as ‘sandbox’ pages for personal self-expression. Shared or group blogs are also possible, which can serve as powerful collaborative and shared publishing tools for generating dialogue and promoting the sharing of ideas (Fig. 1).

The ‘blogosphere’ is a term used to describe the cultural and social milieu surrounding blogging and its users, conceived by observers who liken blogging communities to a large, intricate ecological network or biosphere. The power of the blogosphere is having a profound effect on contemporary mass media and journalism in particular, and society in general. When applied to learning, the public nature of blogs and their ability to be interlinked can lead to the formation of complex social networks that extend far beyond the reaches of the classroom, institution or organisation.

**WIKIS**

A wiki is a web site whose content any user can edit. It operates on a principle of collaborative trust, as visitors are free not only to create new content as on a discussion board, but also to edit one another’s contributions. The name ‘wiki’ is of Hawaiian origin, ‘wiki wiki’ meaning ‘quick’ or ‘informal’. The best-known example is Wikipedia (Wikimedia Foundation, 2005), a free content encyclopaedia written collaboratively by volunteers that has grown to become one of the most popular sites on the Internet.

A wiki provides a simple web-based interface that can be accessed through a standard browser. Contributors need not know HTML and can conveniently view the web page they are editing as it appears to other visitors, before and after applying the changes they have made. The simplest wiki applications enable users to edit text and hyperlinks only, while the more advanced versions allow the adding and changing of images, tables and even interactive components like Java applets.

Although the open nature of wikis can result in inaccuracy and vandalism, change histories, rollback facilities and other mechanisms are built-in to the system to ensure information integrity. In addition, most wiki sites contain a ‘sandbox’ page to let new users experiment and practice their editing skills without running the risk of affecting the rest of the site.

Wikis are increasingly being employed to facilitate collaborative knowledge building amongst learners. The philosophy that underpins this approach is that not only do learners, as newcomers to a community of practice, engage in ‘legitimate peripheral participation’ (Lave & Wenger, 1991) to develop mastery of knowledge and skills through interaction with ‘old-timers’ or experts (such as their facilitators, in the case of a dedicated learning environment), they also have a responsibility – an obligation – to play a part in the continued evolution and advancement of the community’s existing body of knowledge, as they move toward full participation in the socio-cultural practices of this community. This is related to knowledge building in the workplace, where staff must make responsible actions as managers or ‘curators’ (Eustace & Hay, 2000) of an organisation’s knowledge artefacts.

**RSS**

RDF Site Summary (RSS – formerly Rich Site Summary, and sometimes also known as Really Simple Syndication) is revolutionising the way we view web-based information, in particular dynamic content. RSS-enabled web sites generate a feed of text-based Extensible Markup Language (XML) data summarising the content of the site, which may be anything as diverse as news headlines, stories, weather and stock market data, community-specific announcements and discussion board postings. The clickable, orange ‘XML’ logo now appears on many popular web sites such as CNN.com, ESPN, Apple, Time Magazine and the Sydney Morning Herald, as an indication that an RSS feed is available.

Programs called aggregators periodically poll one or more subscribed feeds for updates and deliver or ‘syndicate’ them to the user’s desktop. RSS content can be filtered based on user-defined criteria, and content can be aggregated from across multiple feeds to suit the specific needs and interests of the user. RSS promises to be a time saver as the user does not have to manually plough through a plethora of sites for relevant content, nor is there a need for the even more tedious process of continually monitoring these sites for updates and additions.

Most blog software now allows the author to syndicate content via an RSS feed, with major browsers such as Netscape, Mozilla Firefox and Apple Safari beginning to include built-in RSS aggregation capabilities. (Microsoft will soon follow suit with its new operating system, Windows Vista, previously codenamed Longhorn.) Learners can receive fresh content from their facilitators and peers, as it becomes available; nevertheless, this technology’s real promise lies in its ability to act as the connecting glue that puts together the various components of the read-write Web. RSS can act as the conduit, the pipelines that interconnect (traditional) web sites, discussion boards, blogs, wikis and so on, both within and beyond the formal learning environment.

**PODCASTING**

Podcasting is essentially an audio form of the above technologies. As with RSS, modern blogging systems now also come with built-in podcasting features, or can be modified relatively easily to incorporate these capabilities. The term ‘podcast’ was coined from the iPod, Apple’s popular portable music player. Podcasts may be thought of as web-syndicated, time-shifted radio broadcasts. Using a specialised aggregator known as a ‘podcatcher’, audio content from one or more subscribed feeds (channels) is automatically downloaded to one’s computer as it becomes available via RSS as an ‘enclosure’, then later transferred to an iPod or other portable media device, to be listened to at a time and place convenient to the learner. Users who do not have access to a portable music player can simply enjoy the content on their PCs.

Podcasting provides a low-cost, low-barrier tool for disseminating content to a large, dispersed audience across the Internet. The prohibitively large bandwidth requirements
of streaming audio and video, which by definition involves playing media as it downloads from across the Internet, often result in poor performance for many users, leading to a ‘click and wait’ situation that adversely affects the listening or viewing experience. Podcasting overcomes this through what Adam Curry (2004), of MTV fame and one of the pioneers of podcasting, calls ‘The Last Yard’. This involves having a computer continuously connected to the Internet so that bandwidth-intensive content can be ‘dripped in’ and made available when ready. Because the content need not be viewed live, this process of time-shifting does not pose a problem.

Other advantages of podcasting include the fact that it is subscription-based and therefore not subject to unsolicited material like spam, and that subscriptions can be added or cancelled at any time. Because podcasting is based on RSS, users can filter and search content downloaded from a single feed, or across multiple feeds, opting to listen to only those podcasts that are of interest to them. Last but not least, of course, podcasts are able be transferred to iPods or other mobile devices to be listened to on the move, for example, in the car, on the bus, at the gym or while walking the dog.

Strictly speaking, RSS enclosures can be any type of media file, and as such podcasting is not restricted to audio content. It is entirely possible to ‘vodcast’ video content; however, it will be some time before video-capable portable media players attain the level of market penetration currently enjoyed by MP3 players. Moreover, learning by listening ‘frees eyes and hands’ from the tyranny of the screen and can therefore coincide with other activities rather than replacing them, making it a form of true mobile learning.

As with blogs and RSS, although there is massive potential for podcasting in the way of content delivery, its true potential lies in the sharing of learner-generated content. By utilising the RSS syndication capabilities of a group blog, a shared podcast feed can be established that acts like somewhat of a cross between an audio wiki and a time-shifted community radio station, thereby empowering and giving a voice to learners.

‘COOL’ NEW TECHNOLOGY OR TRUE EDUCATIONAL VALUE?

A question that is frequently deliberated in instructional technology spheres is one raised by the debate between Richard Clark (1983; 1994a; 1994b) and Robert Kozma (1994a; 1994b; 1994c): Is it the technology itself that creates the learning (Kozma), or is it the instructional strategies used to implement the technology to facilitate learning (Clark)? Clark contends that ‘media will never influence learning’, whereas Kozma insists the technology choices made for a particular type of learning activity have a profound impact on its success or otherwise.

The novelty factor can often cause us to be tempted to implement the latest and greatest technology, sometimes without thinking carefully enough about whether or not this is actually going to result in meaningful learning. Sceptics have dismissed nascent technologies like blogs, wikis, RSS and podcasting as simply being old goods in shiny new packaging. Other than speed and ease of use, do they really add anything we did not already have with traditional web sites, discussion boards, mailing lists and the like? Maybe, maybe not. Either way, we as learning and development professionals need to make a conscious effort to evaluate both new as well as existing technologies and how we use them from a pedagogical point of view, taking into serious account both the cognitive as well as the affective and social factors that contribute to a successful learning experience.

The ultimate learner-centred paradigm is one in which facilitators veer completely away from information dissemination, directing all their attention towards creating a conducive online environment – a community – for learners to build their own content and take ownership of their learning. The e-learning model of the future will have at its heart and core the social interactions between members of a learning community. Indeed, instructor-generated materials such as course notes and lectures, and even interactive multimedia content like games and simulations, will be relegated to resources (learning objects) that simply lie at the periphery of this model, for ‘on demand’ access by learners to support specific tasks, alongside content that is produced by the learners themselves as part of their social obligation to the community.

Whilst the ‘cool’ new technologies of the read-write e-learning Web may or may not
possess inherent educational value, they certainly will make us stop and think about what we are doing to create that real online community connection for our learners.

REFERENCES

CGCC – see Chandler-Gilbert Community College.


ERADC – see ePortfolio Research and Development Community.


Mark J.W. Lee is an Adjunct Lecturer with the School of Information Studies, Charles Sturt University, and managing director of his own consultancy, Enable Learning Solutions. Mark has had managerial as well as teaching/training and instructional design experience in the corporate, VET and higher education settings. He serves on the NSW Council of the AITD, in addition to being a director of the International Board of Standards for Training, Performance and Instruction (Ibstpi) and a member of the Executive Committee of the Open and Distance Learning Association of Australia (ODLAA).

Mark welcomes feedback and questions on the article and can be contacted via email at malee@csu.edu.au.