

Three Pillars of Educational Technology: Learning Management Systems, Social Media, and Personal Learning Environments

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Part 2: How Social Media Support and Expand Teaching and Learning

All post-secondary faculty and students use educational technology— whether for classroom-based, blended or fully online learning and teaching.

This three-part series, *Three Pillars of Educational Technology: Learning Management Systems, Social Media, and Personal Learning Environments*, explores the learning management system (LMS), social media, and personal learning environments – and how they might best be used for enhanced teaching and learning.

- The first instalment, *Getting the Most from Learning Management Systems*, looks at the ubiquitous Learning Management System to uncover the many ways this multi-functional tool is used to support teaching and learning, as well as some of the challenges.
- In this second instalment, ***How Social Media Support and Expand Teaching and Learning***, a variety of social media and networking applications are explored to highlight their strengths and limitations.
- The final instalment, *How Personal Learning Environments Contribute to Success in Teaching and Learning*, looks at the expanding uses of personal learning environments by students and faculty.

A recent EDUCAUSE paper [1] announced that: “The LMS is both ‘it’ and ‘not it’ —useful in some ways but falling short in others.” As described in the first instalment in this series, the learning management system (LMS) has become ubiquitous in higher education and serves a variety of both pedagogical and administrative tasks. However, EDUCAUSE notes, the pedagogical challenges of living within an educational “walled garden” – an environment tightly controlled and closed to all but selected users. They argue the requirement for a Next Generation Digital Learning Environment “is to move past this either/or view and, instead, enable a learning community to make choices about what parts are public and what parts are private.”

Social network sites and tools share some of the same characteristics as learning management systems. They are, of course, all online, accessible from most anywhere and available 24/7. However, unlike LMS systems which are largely populated (and controlled) by the institutions and faculty, the content and organization presented in a social network sites are generated by all users – perhaps even by users not enrolled in the course.

Moving Outside the LMS

The research literature is filled with case studies describing how faculty have left the security of the LMS to teach the online components of their courses using social media. One of the frequent arguments for this relocation is they are merely going where the students already are – or at least seem most comfortable - based upon the near ubiquitous use of major social media platforms like Facebook, Twitter and Google Groups. These activities move the learning beyond the virtual classroom owned and controlled by the institution into the commercial world. However, openness

itself creates not only opportunities, but also new challenges, including the recalcitrance of some students to use commercial social media like Facebook and the potential for misuse and academic misconduct.

Using Social Networking Sites

Facebook: Perhaps the most common exploration beyond the LMS is the creation of Facebook groups. Many programs, courses and institutions have Facebook groups that can be created by administrators, library and student support staff, and faculty, or by the students themselves.

When used by the faculty as a component of the course, the Facebook group is almost always closed and accessible only to registered students. An American Delphi study[2] found students' most valued use of Facebook was (as expected) for communicating with other students, but they also used it to create and support study groups, receive reminders of exams and assignments, and send messages to faculty members.

Student-created Facebook groups are often used as a "faculty-free" space to ask questions of classmates, vent frustration and share tips and expertise. A key advantage of the open, student-led group is it can persist beyond the class and morph into a network of both current and past students, benefitting both next term students and those wishing to retrieve or contribute content or opinion after class. In addition, guests can easily be invited to join the group.

Twitter: In a similar fashion, a Twitter microblogging feed can be set up and used by faculty and students to push announcements, promote events and activities or instantly link to emergent resources that are shared by the class. A [Seneca College course](#) in Marketing offers an example of using Twitter and Facebook for content, communication and assessment. At the [University of Windsor](#), open Twitter debates in an Ethics in Sports class often trended in the top ten Twitter events and continued long after class time.

Curating Tools: Opening a window beyond the LMS can also be done through the use of curation tools that allow students or faculty to create collections of web-based artifacts (pictures, articles, media clips, etc.) that are sorted and annotated to create learning resources. This curation is supported by general tools like [Pinterest \(link is external\)](#), a website that mixes photo sharing and social networking, or those specifically designed for learning such as [Learnist. \(link is external\)](#) With the increasing availability of open and commercial educational resources in video and other formats, it becomes challenging to organize these resources into topic lists for class use and re-use. Helpful services include playlists on YouTube and using tools such as [Delicious \(link is external\)](#) for social bookmarking.

Blogs: Another commonly used social network tool is the blog. To enhance connectivity, many faculty members create blogs using tools outside the LMS such as [EduBlogs \(link is external\)](#) or [WordPress \(link is external\)](#). Students can gain proficiency and perhaps their first public web presence by posting their own artifacts, reflections or productions. These can be shared with only the class or, more broadly, with the entire college and university or even internationally. [Durham College](#) now offers online courses in Social Media especially tailored to the specific needs and interest of students in several faculties; the original version used blogs, wikis and other social media tools so students learned through active participation.

Wikis: Another set of now venerable social network tools are wikis, Google Docs and other networked tools that allow students to work together to create documents. The value of collaborative work has long been recognized and new web tools attend to many of the mechanical details of collaboration, such as storing of earlier versions, allowing for multiple and simultaneous entry and, of course, 24-hour global access. Collaborative tools are not limited to text as collaborative drawing, concept mapping and even music composition tools are available.

Interactions beyond text: One of the challenges of online discussion forums is the reliance on text and still image interchange which lacks some of the social presence and immediacy of video or audio interaction. This live interaction usually comes with the necessity of real time or synchronous engagement which often fails to meet the

demands of busy faculty and students. However, some social network tools such as [VoiceThread \(link is external\)](#) support the sharing of video, audio and text and images for non-synchronous interaction that takes place at times convenient to each participant.

Social Studying Sites: Among the most popular and fastest growing social networking sites are the so-called 'social studying sites' such as [Piazza \(link is external\)](#). Piazza works by creating a space where students and faculty can post questions and answers related to courses, addressing students' needs for instant help, including from other students, to keep progressing in their assignments. Studying sites offer sophisticated features such as anonymous questions,

e-mail or text notification of new questions or answers, delays in posting of faculty answers until a number of students respond, and student analytics. Many of these features go beyond the possibilities of the raised hand in a classroom. One faculty user expressed surprise that students began taking over the class. "They started to create their own learning environment, organized their own learning sessions and maintained and kept order in this virtual environment."^[3] This activity resulted in an increase in participation in not only the Piazza site, but in the classroom as well.

Facing the Challenges

Social networking has many potential advantages, but also presents challenges. As with any innovation, it is often best to start small, with an application that provides interest, content relevance and hopefully excites the users. Often an incentive (a small mark or bonus award) is needed to motivate learners and to reward contribution. Like gardens, successful social websites are thoughtfully designed and regularly cultivated, weeded and thinned by the engaged faculty member. Finally, providing opportunities for students to reflect upon, provide feedback to, and develop new learning activities in the social media environment supports their continuing active engagement.

Although many of us perceive students are already spending too much time on social networking sites, a recent study^[4] showed the more students use social media, the more they are interested in using these powerful new tools to aide their formal education activities.

Reaping the Benefits

In summary, effective use of social networking sites provides a number of benefits to both faculty and students. The LMS provides a secure environment, supported and sanctioned by the institution that can effectively store and manage copyright content and confidential student data, as well as provide a variety of communication tools. However, the LMS comes with some drawbacks that can be compensated for with social networking tools.

Firstly, contributions do not disappear at the end of the term. Secondly the audience and the participants can grow beyond those registered in the course. Finally, and perhaps most importantly, the process of creating, sharing, commenting upon, and evaluating content empowers and challenges learners to be owners and co-creators of knowledge in the networked classroom.

Thus, the most effective faculty (and also the bravest) use the LMS for what it does best – effective managing of the educational process – while using social media for what they do best – allowing students and faculty to create, explore, and communicate across the world wide web.

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He taught for many years at Athabasca University and the University of Alberta. In addition to his extensive research publications, he served as the Director of the Canadian Institute for Distance Education Research and Editor Emeritus with the International Review of Research on Open and Online Learning.

For more than a decade, Terry held the Canada Research Chair in Distance Education.



[1] Brown, M., Dehoney, J., & Millichap, N. (2015). The next generation digital learning environment, a report on research. *EDUCAUSE Learning Initiative paper*.

<http://er.educause.edu/articles/2015/6/whats-next-for-the-lms> (link is external)

[2] Magro, M. J., Sharp, J. H., Ryan, K., & Ryan, S. D. (2013). Investigating ways to use Facebook at the university level: A Delphi study. *Issues in Informing Science and Information Technology*, 10, 295-311.

[3] Qasem, A. (2012). Using Piazza to Encourage Interaction. Retrieved from <http://chronicle.com/blogs/profhacker/using-piazza-to-encourage-interaction/39317> (link is external)

[4] Lim, J., & Richardson, J. C. (2016). Exploring the effects of students' social networking experience on social presence and perceptions of using SNSs for educational purposes. *The Internet and Higher Education*, 29, 31-39. <http://www.sciencedirect.com/science/article/pii/S1096751615300075> (link is external).

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