

## **THE SNAP! PLATFORM: SOCIAL NETWORKING FOR ACADEMIC PURPOSES, PEER LEARNING, AND COMMUNITIES OF PRACTICE**

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### **Abstract**

E-learning platforms are being reconceptualized. There is a move away from the repository-style LMS towards one of increased communicative and collaborative potential that empowers the learner and leverages the learning experience. At Victoria University, the SNAP! Platform is being designed to support peer exchange and collaboration in developing learning skills. This platform includes social networking communication and profiling, shared bookmarking, student mentor blogs and commentary, RSS feeds, tagging, and the creation of peer-generated learning resources. The SNAP! Platform hopes to establish self-generating academic learning communities of practice in which students learn to take an active and dominant role in their own and each other's learning.

### **Introduction**

The Web has undergone a transformation. It is no longer only or even primarily about disseminating and linking information; it is about linking and empowering people. Staley (2009) claims that Web 2.0 technologies “represent as important a historical phenomenon as the birth of bureaucracy” (p. 38) in that “they signal a participatory turn in our culture” (p. 39). Far from being a passing fad represented by MySpace, Facebook, YouTube, Twitter, or any other individual instantiation, Web 2.0 is an evolution in the social architecture and functionality of the Web (Limpens, Gandon, & Buffa, 2008) representing the potential of the individual, or individual node of the network, to contribute equally to the whole. This is what Staley calls “wikinomics” — after the collaborative writing platform of the wiki — a new form of social economy based on a truly participatory framework. About the future of the tertiary institution, he asks: “How will the logic of wikinomics affect [the] time-honored arrangement between teachers and students” (p. 38)?

E-learning platforms are also undergoing a transformation in response to the communicative and collaborative opportunities that Web 2.0 technologies afford. Learning Management Systems (LMSs) such as Sakai and Moodle have integrated many of the popular tools and functionality of Web 2.0: blogs, wikis, RSS feeds, bookmarking — and even Blackboard has learned that these can be important learning tools. Despite these added tools, LMSs remain at core institution-centric. The focus of these platforms, in design as well as functionality, is primarily

administrative. But does it make sense, from a pedagogical perspective, to have the student learning platform married to the administrative needs of the institution — especially when these systems are locked into access regimes that stifle rather than support the platform's learning potential? Some educators are now asking what a truly learning-centered platform would look like — one that was fundamentally in the service of learners.

At Victoria University, the SNAP! Platform is being designed to support the development of students' academic skills. It is based on the principles of wikinomics and incorporates Web 2.0 tools, communicative and collaborative potential between staff and students, the opportunity to discuss and share resources, peer engagement and mentoring, the creation of learning communities of practice and — at its core and as its acronym indicates — *social networking for academic purposes*. This paper will discuss the pedagogical foundations of this platform in light of the personal and social affordances it seeks to support. It will then describe the components of the platform and how it may be extended into broader resource sharing and other enterprise-wide systems.

### **The Personal-Pedagogical Dimension**

As a lecturer in learning support at Victoria University I have individual consultations with students about their academic work. In the morning I might see a philosophy major engaged in researching a paper about economic paradigms of the European Enlightenment. In the afternoon I might be helping a history student organise her thoughts about a project on the early Industrial Revolution and the rise of the concept of consumerism. It would be evident to me that their topics converge, and even more evident that these two students should be talking to each other, sharing their ideas and their research, and engaging in an intellectual conversation together that might spark further ideas and mutual interests. But I am these students' only node of possible connection and for reasons of privacy I can't help them find each other.

The above example highlights for me the need for a platform through which students could locate each other and share their ideas, research and experiences, through which informal learning communities might develop out of mutual interests and needs. Many students spend a lot of time on Facebook engaged in social networking, but where is the venue for them, as learners, to engage in social networking for academic purposes? And if one existed, would they use it?

In a knowledge economy the principles of active learning are paramount: students need to learn how to become arbiters of their own education, and how to negotiate and filter the increasingly complex and contradictory digital information and social environments to which they now have access (Hase & Kenyon, 2000;

Huijser, 2006). Critical thinking and discriminatory skills are an essential part of the learning toolkit. One could argue that this is not a new need; indeed, the passive, teacher-led model of mass education that has developed over the previous century supported an industrial-age labor economy, the unchecked and irresponsible actions of which has recently brought the world to its knees and led to mass global unemployment and unrest. As governments rebuild and rethink priorities around their citizen-base, so too should the education sector now develop strategies to establish and support the learning-centered pedagogies it has espoused in theory.

Constructivist pedagogy supports the notion that learning happens when students are engaged in producing knowledge and not simply absorbing knowledge created and divulged by the teacher. In this sense the constructivist classroom is like a Web 2.0 platform in which everyone is invited to participate in content-creation, and peer production is central to the intrinsic value of the platform. According to Staley (2009), the constructivist classroom is transformational, and teachers “must cede some of the control of the direction of the learning” to allow for the emergent learning that takes place when students are allowed to interact. Yet despite the social and cognitive benefits of constructivist learning, the teaching paradigm of universities is still overwhelmingly that of the lecture and the lecture hall.

There are other educational philosophies that are useful in developing a pedagogical framework for Web 2.0 learning platforms. Among these are Heutagogy (Hase & Kenyon, 2000), Connectivism (Siemens, 2004), Multiliteracies (Huijser, 2006), and Media Literacy (Wesch, 2009). As described by Hase and Kenyon (2000), heutagogy is a model of proactive and self-directed learning that does not necessarily progress linearly through a prescribed set of learning resources, is not always planned or conscious on the part of the learner, includes intuitive processes and is experiential and socially interactive. Central to this model is the development of a student’s capability, both during formal education and after, as an effective, involved and empowered element of society. Connectivism (Siemens, 2004), a learning theory that has been gaining popularity and momentum over the last few years, also informs the learning design of the SNAP! Platform. Siemens maintains that learning is dependent upon a diversity of opinions, that the knowledge landscape is constantly shifting and that learners must be able to accommodate those shifts, that being able to make and maintain connections and link ideas is an essential skill, and that the health of a knowledge network is dependent upon the flow of information. According to him, “the starting point of connectivism is the individual. Personal knowledge is comprised of a network, which feeds into organizations and institutions, which in turn feed back into the network, and then continue to provide learning to individual [sic]. This cycle of knowledge development (personal to network to organization)

allows learners to remain current in their field through the connections they have formed” (n.p.).

As does Siemens, Wesch (2009) maintains that knowledge is always and necessarily incomplete and subject to negotiation: “it becomes less important for students to know, memorize, or recall information, and more important for them to be able to find, sort, analyze, share, discuss, critique, and create information” (n.p.). Participation in the world is inevitable; how we participate defines us. And participation in media and content creation increases students’ social and literacy skills, as well as their ability to communicate information and co-create knowledge.

With the development of new media and the exponential increase of information on the Web, there is a need for new literacy skills. Like Wesch and Godwin-Jones (2006) and Huijser (2006) point out the need for students to engage critically with not only the textual but also the visual and video media of the Web. Huijser, like Hase and Kenyon, maintains that teacher-directed, text-based, linearly-sequenced learning paradigms are “inadequate to prepare students for a changing world” (p. 30). Clearly, new modes of teaching and new pedagogies are needed to address what Wesch (2009) perceives in his students as a “crisis of significance” about their education. These new modes need to address the disjunction students feel between their online environments — where they are engaged as social, creative and exploratory agents — and their academic environments, in which they are too often passive, controlled and bound by institutional regulations.

## **The Social Dimension**

As Godwin-Jones (2006) points out:

There is a clear social dimension to electronic literacy; reading and writing on-line are often collaborative activities. As educators we not only need to facilitate literacy skills in this new environment, we also need to be creating language learning media or applications which mirror the kind of online world students experience — student-centered with collaborative opportunities, allowing plenty of space for creative and reflective processes (p. 13).

The SNAP! Platform intends to be an environment in which peer learning, sharing, and collaboration are the key factors. At Victoria University, the School of Learning Support Services has a robust Student Mentoring Program, as well as Student Rovers in the University’s Learning Commons. These students will provide online mentoring in the form of blogposts, podcasts and vodcasts, and other forms of learning skills resource creation. Online peer-assisted learning approaches have received recent attention in Australian/New Zealand tertiary

institutions (Huijser, Kimmins, & Evans, 2008; Ladyshevsky & Gardner, 2008; van der Meer & Scott, 2008), and face-to-face peer learning approaches have been well established there with the PASS (Peer-assisted Study Support) and PALS (Peer-assisted Learning Support) programs, as well as peer-assisted writing support programs at various universities.

Peer-assisted online learning has become much more possible with the advent of Web 2.0 technologies and services. As Benkler (2006) maintains, “[t]hese architectures and organizational models allow both independent creation that coexists and coheres into usable patterns, and interdependent cooperative enterprises in the form of peer-production processes” (p. 106). Van der Meer and Scott (2008) see peer-assisted learning approaches as particularly important for first-year tertiary education, and argue for “shifting the balance from an instruction focus of learning support staff to facilitating or supporting peer learning” (p. 73). They call for “peer learning primacy” in learning support services. Peer mentors play an important power-levelling role in a learning community of practice: they are authoritative without being an authority. And they are the intermediaries between the relative novices (the students) and the experts (the lecturers).

Chatti, Jarke and Frosch-Wilke (2007) stress the importance of the social aspect of learning and knowledge management, and the need for learning management systems to be people-driven rather than institution- or learning-object- driven. They suggest a shift towards the personal learning environment in which the instructor becomes “a knowledge broker, knowledge co-creator, mentor, coordinator and facilitator of the learning experience” (p. 412). There are several ways in which students, mentors and teaching staff can participate equally in the co-creation of resource-building on the SNAP! Platform. One is through sharing bookmarks to useful Web resources through a Delicious or Diigo feed. Another is by commenting on blogposts. Another is by asking and answering questions and sharing ideas on the threaded discussion forum.

The creation of shared metadata on e-learning objects through social tagging is another promising aspect of collaborative content creation in e-learning environments (Dahl & Vossen, 2008; Limpens et al., 2008; Lux & Dosinger, 2007; Maier & Thalmann, 2008). Rather than relying on established top-down ontologies and directories, bottom-up ‘folksonomies’ support the learner by providing a cognitive tool for knowledge building and negotiation: to tag a learning object, the learner needs to develop a sufficient-enough understanding of it to be able to summarize it by a set of keywords. Tagclouds, as a visual view of a set of tags, can help reveal relationships between learning objects that “do not have any usual metadata fields like author, title, format, or location in common” (Dahl & Vossen, 2008, p. 45). In addition, tagging — along with other user metadata such as comments and reviews, polls, etc. — establish a database of

information to which students can refer to find useful information, and that can be instrumental in helping students find each other and co-locate into communities of shared interest (Godwin-Jones, 2006, p. 10; Limpens et al., 2008). My students at the University of Melbourne could have found each other through tagged resources and bookmarks.

Social folksonomies can be fraught, however, with the problem of ‘noise’: falsely-unique tags that are often created by misspellings, plurals, synonyms, homonyms and ambiguities, and the percentage of these ‘errors’ can rise as more tags are created (Limpens et al., 2008; Maier & Thalmann, 2008). One way to minimize this is by the initial seeding of a controlled vocabulary of tags (Limpens et al., 2008, pp. 74–75) — a combination of ontology and folksonomy that albeit may compromise the cognitive benefits of solely student-generated tags. Dahl and Vossen (2008) describe the difference between a broad folksonomy, in which each user contributes his/her own tags (e.g. Delicious), and a narrow folksonomy in which the object creator or administrator sets the tags (e.g. Flickr). The E-Learning Repository of the University of Muenster uses a version of both broad and narrow tagging: its *share.loc* repository creates initial tags and users can add additional ones, while in the *Learnr* platform users set their own tags to which they alone have access (pp. 38–39). In this way the benefits of a seeded ontology with user contributions and a personal folksonomy can complement each other.

Social tagging is a way for learning resources to be organised by students themselves, in ways that are personally useful and that provide the platform with organization and coherence. Broad tagging is a form of peer-to-peer (P2P) collaborative exchange. Bostrom, Gupta and Hill (2008) describe the potential for true P2P networks to support collaborative learning. The client/server computing relationship is a technological metaphor for traditional teacher/student paradigms: information flow is controlled by the server, not the client. Shouldn’t learners be free to interact directly and informally with each other without having to go through an intermediary or authority? The problem with early P2P technology has been with issues of authentication, network control, metadata creation and security (p. 52) — all issues important to institutional enterprise systems; nevertheless, future iterations of P2P architecture may hold promise as collaborative learning platforms — especially in conjunction with traditional client/server systems.

## The Platform

In an effort to remove the ‘management’ aspect of Learning Management Systems, some educators (Bogdanov, Salzmann, Helou, & Gillet, 2008; Chatti et al., 2007, p. 412) prefer the use of the term Personal Learning Environments (PLE) — a reflection of a more learning-centered approach to enterprise systems. As the

LMS evolves both conceptually and technically, a flurry of acronyms, habitats and atmospheres has been advanced: Virtual Learning Environment, Personal Learning Environment, Personal Learning Network, Learning Platform, Learning Ecosystem, Cloud. The progression is indicative of a move towards open systems; even Blackboard now calls itself a VLE rather than an LMS, has developed an 'open architecture' that provides developers the opportunity to develop third party integration; in the spirit of the times, it has even developed an i-phone application.

Farmer (2009) considers openness, flexibility and extensibility in LMS architecture to be critical components for creating a system that supports learning-centered pedagogies. He proposes an 'Open Learning Architecture' that contains four elements: 1) an IT Core combining backend and system integration with a content management system; 2) an LMS that provides course and ad hoc groupings; 3) a Presentation component that provides the user interface; and 4) an 'Open Adapter Framework' that allows developers to extend the functionality of the system with seamlessly integrated plug-ins from popular Web-based applications such as Google Docs, Twitter, Facebook, Delicious, and RSS feeds. Such architecture could maximize the means for students to engage in the collaborative and social opportunities that Web 2.0-based applications, or *cloud computing*, affords. Tertiary students are increasingly opting for cloud applications over enterprise systems (Brown, 2009, p. 66), and this trend is likely to continue. And yet most current institutional e-learning systems cannot or will not engage with cloud applications, social networking sites like Facebook, and even YouTube — despite the popular video sharing site having surpassed Yahoo! as the number two popular search engine (Hill, 2008) .

Victoria University currently supports a number of discrete, commercially-licensed enterprise e-learning systems: Blackboard as its LMS/VLE, ELGG as a social networking platform, and PebblePad as an e-portfolio platform. In contrast, the proposed SNAP! Platform is a non-commercial e-learning environment purpose-built for student learning support. As Farmer (Farmer, 2009) suggests, the presentation of the platform will be built with an open-source, content management system such as WordPress or Drupal. This is to make the platform as flexible and extensible as possible, as well as to allow automatic integration of core read/write (Web 2.0) technology. The central column will contain a group blog to which staff can post their latest thoughts and resources on academic learning. Students will have the opportunity to comment on these posts and to rate them for usefulness. The side columns will contain widgets with a calendar of learning support workshops and events, Diigo or Delicious bookmark contributions from staff, student mentors and students, a tagcloud for online learning resources, with a seeded vocabulary folksonomy to which students can contribute, links to student mentor blogs, links to a threaded discussion board where students can post questions and answers about academic skills issues,

concerns and recommendations, and to which staff and mentors as well will contribute. The idea for this central component of the platform is to present students with the human side of the institution, with a community of teachers and learners who are engaged and active in student learning and open to sharing ideas and resources. By modelling this engagement and active interest it is hoped that students will learn how to become self-directed and self-reliant learners.

In addition to the main presentation, the SNAP! Platform could be extended by further student resource creation. One project could be a wiki-based platform in which students would collaborate in developing a resource for particular academic skills issues (for example, science report writing, or problem-based learning, or successful group work). This part of the platform could potentially result from integration with courses, in which the wiki project served as students' assessment.

The SNAP! Platform will also contain a widget library. Widgets, or Web-portable frames containing feeds and applications that get pushed to the user, are part of the growing ecosystem of the cloud-based Webscape (Mashery, 2009). The work of Scott Wilson (Sharples, Griffiths, & Wilson, 2008; Wilson, 2009; Wilson, Sharples, & Griffiths, 2008) to provide a W3C widget standard and the open standards widget engine Wookie is a promising addition to the functionality and extensibility of a personal learning environment. Widgets can be gathered and shared by students, and are not bound by a single platform or web page: a student can import a useful widget into his/her own iGoogle, Netvibes, or PageFlakes page, or into an LMS. A widget can be an RSS feed of the latest electronic articles on a particular topic, or shared bookmarks, a feed of course podcasts, or the latest contributions to a group project's online document. Mike Wesch uses widgets and Netvibes to great effect in the delivery of his courses at Kansas State University, and harnesses the involvement of his students in course content creation (<http://www.netvibes.com/wesch>).

There are additional ways to extend the notion of the SNAP! Platform. Jennings (2009) describes the JISC TILE (*Towards Implementation of Library 2.0 and the e-Framework*) Project, in which library IT architecture automatically harvests and aggregates library user behaviour to create tools such as Amazon-style automated recommendations, user bibliographies, shared reading lists, and so on. This may be a way to involve students in useful learning support metadata creation without their explicit participation. And libraries have the opportunity to provide users with metatagging opportunities through applications such as LibraryThing and Encore 2.0. Varas-Vera and Lytras (2008) describe a semantic web-enabled learning portal in which students have access to a number of generated technologies, such as a question/answer function and an annotation tool. Their idea is to develop a semantic social platform that employs metadata to create a highly personalized learning environment that matches learner profile to learning object, and ultimately supports a "humanistic vision for the knowledge society" (p. 15).

## Conclusion

While many tertiary educators and educational designers are proposing more open-ended, learner-centric, flexible learning platforms, and some are employing the abundant and innovative learning tools of the Web to great success, institutional demands often require educators to work within commercial enterprise systems, licensed at great expense, that do not serve their pedagogical, or their students' learning, needs. And yet we aim to create students — and ultimately citizens — who are self-directed, self-reliant, responsible and efficacious. In order to nurture these qualities in our students, we need to first empower them by giving them voice and agency. The SNAP! Platform at Victoria University aims to provide this kind of empowerment.

Central to the success of the platform, however, is the engagement and participation of its users (Benkler, 2006; Hase & Kenyon, 2000; Sharples et al., 2008; Wilson, 2009; Wilson et al., 2008). The primary hurdle to *academic* social networking may not, in fact, be the constraints of the platform; it may rest, rather, in the academic culture itself — a culture that, from lectures and lecture halls to learning management systems, encourages student passivity. The current redesign of the hallowed halls and ivory towers into learning spaces and learning commons is a necessary start; the transformation of the lecture into a social learning event will be another. And assessment, in a heutagogical paradigm, must become “more of a learning experience rather than a means to measure attainment” (Hase & Kenyon, 2000, n.p.). If traditional universities will not evolve to provide the teaching and learning platforms necessary for a 21<sup>st</sup> century knowledge economy and a globalized world of great complexity and flux, then perhaps Staley's wikinomics will take over, and the university will become a fluid and self-organising platform of students and teachers. The SNAP! Platform will not be out of place in such a university.

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