Portals and Platforms: Does the technology matter when developing an online community?

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Abstract: Many education providers grapple with “where” to host their online education community. While many have invested significant funding and time into developing a user specific solution, others are using alternative open source software solutions that provide a just in time response. This research paper reports on the importance of the engagement of an online community within an open source learning management system, presents the key aspects of communication occurring and romanticizes the notion that a user specific solution is not a necessary consideration.

Keywords: online communities; open source software

Introduction

Running a project within a variety of educational organisations including schools, universities and government departments can be technologically challenging; as most use separate systems for human resources, learning management and communication systems. Most of these systems require a user to be an employee with a particular employee identification number and user acceptance contract. In order to engage such a wide variety of users within an online community, one needs to consider the avenues available to provide a platform both on time and on budget.

While technological solutions provide the avenue to host an online community, the pedagogical underpinning is by far the most important aspect. This paper will consider the engagement of an online community within an open source learning management system and present

Background

Increasingly, the literature refers to the notion of a professional learning community within an e-learning environment, where teachers have convenient access to ongoing support, collaborative learning, and meaningful and stimulating discussion (Davies, Ramsay, Lindfield & Couperthwaite, 2005; Henderson, 2006; Herrington & Herrington, 2001; Rabin, 2007). A professional learning community, whether face-to-face or online, is an effective form of professional learning as the focus is on the teachers as members of a wider community of learners (Lloyd and Cochrane, 2005).

Over a number of years, the largest employer of teachers in Western Australia, the Department of Education (DoE), developed an e-learning strategy with Oracle Corporation. This was trialled in 2006 and aimed to be fully rolled out to around 800 schools within Western Australia by 2012. The aim of the project was to “increase education across the board and reduce the disparity between remote areas and metropolitan
Perth” (Oracle Corporation, 2008, p. 1). The solution consisted of five tools connected within an online curriculum service that links into a portal environment for students, teachers, administrators, and parents (see Figure 1). The portal environment was a gateway customised to the requirements of the individual user. Katz (2002) considered portal environments were designed to provide power and authority to the individual use of a learning community. Unlike a regular webpage or site, a portal requires authentication of the user to gain access. On successful authentication, a default view of the web-based information appropriate to the individual user is built (Lightfoot & Ihrig, 2002). Each user with access to the DoE portal offered was attributed a designated role by the administrator of the system which then defines what each user can see, and have access to, within the portal.

![Conceptual framework of DoE portal system (DoE, 2009).](image)

Figure 1 displays the users of the system as students, teachers, administrators, and parents. Through the portal these stakeholders are able to access only the system they require for their purpose. The suite of tools available through the portal includes the Online Teaching and Learning System (OTSL); Collaboration; Online Professional Learning (OPL); School Information System: Curriculum Information Management (SIS); and Digital Content.

In terms of a learning management system, the OTSL provides an online environment to plan, deliver, monitor and evaluate online and blended learning programs. In relation to regional and remote education; this might be used to provide online curriculum to small schools that do not have access to a specialist teacher in the area. Bevan Doyle, Chief Information Officer (CIO), at DoE states this proposition within a metropolitan context:

ICT is providing a significant point of difference in the way children live and makes changes. If only two students in a school in Perth wanted to learn Mandarin, we could not justify allocating teaching resource to enable them to do so. But if we can get a virtual class together across several schools, then it becomes a different proposition (Oracle Corporation, 2008, p. 3).

Communication tools were housed in the collaboration suite within the portal and include email, instant messaging, and web conferencing. The vast distance between schools in Western Australia was recognised as a challenge by Bevan Doyle, CIO, who includes “building the skills of teachers at schools in remote areas of the state” as one of those challenges (Oracle Corporation, 2008). This collaboration system aimed to enable teachers to share resources, ideas, and experiences, allow communications with students, and foster online communities.

Online professional learning was purported to be hosted within the portal to deliver flexible professional learning – anytime, anywhere (DoE, 2009). It aimed for teachers to expand their professional knowledge, share ideas, and gain practical skills that impact on their teaching programs. This is where mandatory professional development was placed for teachers to undertake in their own time. Professional development available to users in late 2010 showed mandatory professional development such as child protection professional learning program, copyright for teachers and students, and online policy course.

Furthermore, the OPL section of the portal housed a link to the voluntary professional development available through Teachers Have Class housed in School Kit’s pd21 program. This program, initially started in 2004 to trial online professional learning as a strategy to support ICT co-ordinators in the 100 Schools Project,
was to develop the technology skills of teachers using Microsoft Office applications in the classroom (Microsoft PiL National Evaluation Team, 2007). It was designed to build teacher capacity in order to assist with engaging students in ICT. Further, a reflective strategy of questioning after each module aimed to give teachers a medium to explain how they would apply these new skills into classroom integration.

The Department of Education aimed to roll out their e-learning project, based on the Oracle L360 application, to all schools in the state by 2012. The importance of upgrading and maintaining the infrastructure, including the network and internet connections, to those schools had been addressed within their partnership with Cisco Systems.

In 2007, three-quarters of the schools in the DoE network had 10 megabytes per second (Mbps) broadband service. Others were between 1Mbps and 10Mbps, with 37 schools using satellite links (Cisco Systems, 2007). These schools using satellite connections are in the remote communities, which is of importance to this study.

The large numbers of users in the DoE network has been a challenge in terms of managing high volume bandwidth and traffic flow being pushed through a single core. In 2007, internet traffic downloads were between 11 and 17 terabytes of data and around 122 million inbound emails per month (Cisco Systems, 2007). The upgrade of the networking system is allowing DoE to look at “peer to peer network traffic between schools rather than the hub and spoke system that pushes everything through a single core” (Cisco Systems, 2007, p. 3).

Research Context

In June 2011, the Department of Education in Western Australia called for tenders to address a National Partnership for Improving Teacher Quality: Training Schools Project.

The combined universities training schools project, more regularly known as WACUTS, included three universities in Western Australia. A conceptual framework of the project is depicted in Figure 1. The project prides itself on a strong professional learning model where induction, formalized mentor training, CMS certification and rural field experience for interns and ongoing portal reflections are key to the quality of the project.

The WACUTS project is based on an innovative internship program where 50 high achieving (top 15% of cohort) final year Bachelor of Education and Master of Teaching students were selected from within the teacher education programs at the three universities. The interns (n=50) were then placed in 21 training schools, where 50 specifically selected mentor teachers were identified between the three universities and school leaders. Each training school appointed a school coordinator who facilitated the project within the school environment and was considered the conduit between the school and university staff.

The professional portal, developed using Coursesites, is an imperative platform to enhance the online
learning community that has evolved between all stakeholders within this project. While the DoE have an internal portal solution, as previously described, this project involved a wide network of individuals and organisations that were not directly employed within the DoE and therefore would not be granted access to such a portal environment. Further, the portal solution needed to host the online community outside of a specific university or school environment due to the diverse range of participants.

Methodology

An open source Learning Management System (LMS) known as Coursesites, referred to as the portal within this project, was selected to host the online community to be engaged in the project. This system is powered by the latest technology from Blackboard 9.1 and was selected for the suite of collaborative tools available, to ensure synchronous and asynchronous communications were possible. All project participants were emailed an invitation to the portal and self-registration was required at that point.

In order to ascertain the success of the online community interactions, data were extracted from the course statistics within the portal to ascertain user statistics, number of discussion board posts and number of blog posts.

Results

Within the 2012 portal environment, there were 109 valid users. The total (n=112) included one test user established by the portal manager, one Blackboard administrator user and one valid user that had registered with two different email addresses, causing one of his logins to be considered invalid. In 2013, there were 75 valid users within the portal environment. Table 1 depicts the number of users enrolled in the portal within 2012 and 2013 and their role in the WACUTS project.

Table 1: Portal users by title and role.

<table>
<thead>
<tr>
<th>Title</th>
<th>Brief Role Description</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intern</td>
<td>Final year Bachelor of Ed. or Master of Teach student who is placed in one school for final year of studies.</td>
<td>50</td>
<td>38</td>
</tr>
<tr>
<td>Mentor</td>
<td>Classroom teacher who mentors and establishes a co-teaching relationship with intern.</td>
<td>27</td>
<td>22</td>
</tr>
<tr>
<td>School Co-coordinator</td>
<td>Facilitates and co-ordinates the project within the school.</td>
<td>15</td>
<td>8</td>
</tr>
<tr>
<td>Principal</td>
<td>School leader.</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td>University Co-coordinator</td>
<td>University placement officer; school experience or practicum coordinator.</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Project Team</td>
<td>Three academics from three universities; project manager, portal admin.</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Department of Education representative</td>
<td>Training School Project Team employed within the Department of Education central office.</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>109</td>
<td>75</td>
</tr>
</tbody>
</table>

This section will outline the key aspects of the portal that demonstrate the rich community that was developed within the WACUTS portal. The portal was used to connect all participants in the project at all levels and was the main forum for dissemination of information; to ensure consistency in communication is received by all interns, mentors, school based co-ordinators, university co-ordinators and principals. More importantly, the portal has provided a platform for a community of practice around the combined universities training schools project.

1. Intern Reflection blogs were the largest utilised communication tool within the portal. Students were required to address the seven National Professional Standards for Teachers (Australian Government, 2012). While a total of 21 reflections were expected throughout the year from each of the 50 interns. Actual blogging figures were Standard 1 (n=71), Standard 2 (n=61), Standard 3 (n=62), Standard 4 (n=59), Standard 5 (n=58), Standard 6 (n=58) and Standard 7 (n=58). This amounted to a total of 428 reflective
blogs within the learning community of interns.

2. The Announcements tool was highly utilised by the project team in order to provide important information regarding professional development sessions, university commitments, professional standard blog reminders and general communications.

3. Outside of the Intern Reflection blogs and the Announcements tool, the most utilised section of the portal are the Coffee Lounges. These informal discussion boards are split into the different user roles as mentioned in Table 1, however interns have a personal discussion thread, and all other users have a shared discussion thread. At the time of writing this paper, there were 114 posts in the Intern lounge and 23 posts in the ‘other’ users lounge.

4. The portal section, In The News, has developed a sense of wider community engagement through newspaper articles, school newsletters, community radio shows and digital videos that have showcased the interns, mentors and schools within the project. In the first six months, there were four artefacts loaded into the portal.

5. The course menu entitled Partnership Schools, provides the specific school logo and a web link to each school that is engaged within the WACUTS project. Users are able to connect quickly to other schools within the project and view the website of that school.

6. As timely topics for discussion arise, the section Education Topics for Discussion, is used to host youtube videos, journal articles, news links and websites. Of importance are the professional dialogue that arises from viewing such material. In order to encourage this dialogue to occur, a discussion board forum is attached to each topic of interest.

Discussion

The number of users enrolled in the portal closely reflected the number of people participating in the project. One challenge faced by the project team, was the issue of timely self-registration by participants. Due to the self-registration process the full number of enrolments was not achieved from the first email invitations, this meant further portal invitations including reminders were required throughout Term 1. In fact, there is evidence to show that some school-based staff had still not registered. This causes some concern in terms of ensuring regular updates of professional development and communications are being delivered to all school-based staff. Further, due to the total number of mentor teachers enrolled, it would appear they are the group least represented from their total numbers i.e 27/50.

The collections of intern blogs are paramount to documenting the success of interns moving toward the Graduate level of the professional standards. The blog tool within the portal appears to be the most appropriate tool to support the ongoing reflections of interns over one full year. Currently, university staff provide feedback to interns regarding the content of the blogs. This raises the notion of collegiate responses from others in the project and the possibility of mentor teachers or school based co-ordinators contributing to such valuable professional discourse. Consideration would need to be given to the impact on the demands already placed on teachers and workload issues associated. Currently, there are some cases of interns providing peer review of intern blogs and this could be further encouraged and developed in Term 3 and 4.

The five initiatives within the portal to develop the online community have proven to be highly successful to this point. It is clear from the Coffee Lounges that interns use informal connections more than mentors. Anecdotally, a small number of mentor teachers within the program have been attempting to drive a more networked collegiate approach to mentoring, however have been less than successful to this point. In the future, the use of synchronous technologies, such as the virtual classroom, will aim to provide a better connection point for mentor teachers.

Conclusion

The very nature of the online community described in this paper, which resonates with Davies et.al. (2005), allows for collegiate networking and support across all key stakeholders including university lecturers, Department of Education central administration staff, school principals, school co-ordinators, practicum supervisors, mentor teachers and pre-service teachers.

Through the richness of the portal environment, a community of practice has evolved around the central notion of building a mentoring internship program. This online community not only links the key stakeholders within the project, it facilitates the nexus between theory and practice often missing in our pre-service teacher placements.

The ever present challenge of where to host the online community is understood by many educational organisations that are working collaboratively, however as can be seen in this paper, is often overstated. Open source software solutions that are easily accessible on the internet can provide an
adequate technological base; as the focus must really be on the engagement of the online community rather than the technology.

References


