A case study of P2PU: New models for open and peer-focused learning

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Abstract: Supporting life-long learning is gaining in importance around the world. Collaborative peer-led open courses can potentially play an important role in this field, and Peer 2 Peer University, offers a unique platform for design-research aiming to improve students abilities to engage in collaborative deep inquiry-based learning. This paper introduces a course that ran on P2PU, discusses the unique affordances of open courses, and how these can be preserved while promoting students’ integrative work on ideas.

Introduction

The advent of the “knowledge society” has resulted in the creation of educational programs dedicated to promoting so-called “21st century competencies” in traditional classrooms (e.g., Partnership for 21st Century Skills, the 21st Century Learning Initiative). As society shifts from an “information” to a “knowledge-based” economy, demand for increased access to meaningful learning opportunities for people at all ages, and in all life-situations, has grown dramatically (Hargreaves, 2003). This rise in demand for non-traditional forms of education is a global phenomenon—the Obama administration recognized the hundred thousands of workers who need retraining due to the shifting nature of the US economy, through the creation of a $2 billion fund for the creation of Open Educational Resources (US Department of Labor, 2011) and China is creating a range of programs to reach their goals of 350 million people involved in life-long learning by the year 2020 (Gu, 2010).

Open courses that use Open Educational Resources and take advantage of the affordances of new network technologies to enable people to learn together in a peer-to-peer fashion have been developing for several years. Technological development and innovation in the area of Open Educational Resources has proceeded at a very quick pace, so that careful and systematic research about the specific challenges, opportunities and problems that open courses face is needed, particularly with respect to how these new educational platforms can support student achievement and help them develop competencies integral to success in the 21st century.

The research site, Peer 2 Peer University

The Peer 2 Peer University (P2PU) provides an interesting platform for research projects designed to tease out the new challenges and opportunities inherent in open courses. P2PU is a grassroots open education project that embodies a model for lifelong learning based on the principles of openness, community, and peer learning. It has developed rapidly in the three years since its inception, both technologically and in terms of its user-base. However, fundamental questions about how the P2PU model supports learning and challenges conventional educational structures have yet to be systematically explored, and research into how Open Educational Resources can support 21st century competencies like collaboration and knowledge creation are in their infancy.

For example, although research dedicated to exploring automated learning analytics and forms of assessment in open courses is growing (see for example Liddo, et al., 2011), innovative methods for tracing and assessing the growth and spread of ideas in these environments, as exhibited in the discourse students generated online, remains scarce. The research reported in this paper seeks to contribute to this objective by exploring the unique affordances of open courses in facilitating and supporting the sharing of ideas and deep discussions in a distributed, networked educational environment. More specifically, this study focuses on a case analysis of an experimental P2PU course that ran in the spring of June 2011 entitled “Introduction to the field of Computer-Supported Collaborative Learning (CSCL)”. The main objectives of this study are as follows: i.) to determine the extent to which ideas and concepts spread across the various platforms that were available to course participants, including P2P forums, twitter, blogs, and etherpad (a collaborative writing platform), ii.) to test designs for tracing, aggregating and visualizing the key ideas that students are engaging in their dialogue.

Method

The research reported in this paper is, at this stage, exploratory in nature. It represents the first steps in a larger program of research that adopts a design-based approach (Brown 1992) dedicated to improving the P2PU learning model. For this particular case study, we will adopt a “grounded theory” (Glaser & Strauss, 1967) approach in order to identify and categorize types of ideas, related to key concepts that emerged through shared discourse. The goal will be not only to investigate how the sharing of key ideas and concepts between the
individual students and across distributed platforms could be encouraged, but also to engage in the iterative design of innovative tools to help give feedback to students about the nature and content of their discourse.

Course Design
Students were offered the opportunity to apply to become “core members”, who committed themselves to participate actively, and were the only ones with write-access to the P2PU platform, or to “follow” the course. For followers receive automatic updates, but no approval is necessary, and no social commitment is made. We were interested in whether ideas and contributions from the course members would be taken up and amplified through the online networks of the followers hoping to hear from some of the followers (who resemble lurkers, as mentioned in for example Meiszner, 2010).

Participants and Dataset
Participants for this study include 55 participants, include 8 students, 2 two course facilitators, and 45 “followers”. The dataset for this study is comprised of all output generated from participants during the eight-week course. Data includes student written contributions in various forms, including blog entries, tweeter feeds, all contributions to approximately six discussions as archived on Etherpad documents, postings on the P2PU discussion forums, and group emails. All students also wrote a public reflection on their participation during the final course, and a survey was conducted among the followers.

Results and Future Work
Our preliminary findings showed very little engagement by the formal “followers”, although one person reported having followed the entire course closely, and going so far as to change his MA thesis topic based on new ideas gained through the passive participation in the course. However, we also found numerous examples of course “amplification” through participants’ existing social networks, extending the reach of the course to individuals that would not have been reached otherwise, and bringing new perspectives into the discussions.

Preliminary analysis of the discussions also shows strong student engagement and a high level of engagement with the weekly topics, but a lack of integration of knowledge across topics and time. Students also reported that they found that the distribution of the discourse among multiple open platforms, such as the built-in discussion forum, the students’ individual blogs, and the weekly chats contributed to this difficulty. Given the strong advantages of using open platforms, and the ability of students’ individual blogs to tap into students’ existing social networks, this calls for research on how to enable knowledge integration across a number of distributed Web 2.0 platforms.

Next steps will include a second iteration of the “Introduction to Computer-Supported Collaborative Learning” course on P2PU, incorporating a custom-built RSS feed reader, capable of aggregating content across both blogs (uniquely including blog comments), discussion forums and text chats. This will be combined with an interface allowing students to quickly visualize the discourse around different keywords, regardless of where the contributions were made. This research will contribute to broader discussions dedicated to developing emerging innovations for open learning by exploring the extent to which this course was “successful” at supporting the spread of ideas and networked interaction in open, distributed learning environments.

References