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Reconsidering Instructional Design with Web 2.0 Technologies

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Reconsidering Instructional Design with Web 2.0 Technologies

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Introduction

Emerging technologies such as Web 2.0 afford interconnections, content creation and remixing, which provide rich opportunities to for more personally meaningful, collaborative, and socially relevant learning (Greenhow, Robelia, & Hudges, 2009). Web 2.0 and other emerging technologies offer new possibilities of designing collaborative activities that engage learners in meaningful learning (Chai & Tan, 2009; Cress & Kimmerle, 2008).

Despite the enthusiasm of integrating Web 2.0 technologies into learning environment design, researchers found that few instructors know the pedagogies that could lead to productive innovation (Collis & Moonen, 2008). This symposium consists of one theoretical paper and three case studies that investigated how emerging technologies such as collaborative web annotation tools, microblogging tools, and collaborative multimedia content creation tools can impact teaching and learning in higher education settings. The purpose of the symposium is to

investigate the affordances and constraints of the emerging technologies, and discuss opportunities for optimal technology integration.

Enhancing Classroom Interaction by Microblogging

Microblogging tools such as Twitter have been frequently adopted in educational settings to facilitate learning. This study examined how a microblogging tool, Twiducate, was incorporated into a graduate-level class. During the 1.5 hour lesson, students participated in a series of Twiducate-supported collaborative and reflective activities. The analysis of in-class discussion transcripts, text-based posts on Twiducate and a pre- and post-test survey results revealed that students were highly engaged in classroom collaborative learning and there was a high level of interaction. Students also reported the challenges of using microblogging tools, such as the possibility of creating distraction and disorder from formal classroom learning. The study suggests that instructor's careful planning, continuous monitoring and control of the class are crucial when microblogging tools are integrated.

Using VoiceThread for Self, Peer, and Instructor Critique

This study investigates the use of VoiceThread, a Web 2.0 application, for self, peer and instructor critique. The tool, which allows individuals to create, share, and comment on multimedia slideshows containing any combination of images, videos, and documents, was utilized in a beginning musical conducting lesson in a blended learning environment. It was selected for its diverse media options, interactive nature, and provisions for social presence. The lesson was conducted with 10 participants as part of a doctoral course on technology and cognition. Learner perceived affordances and constraints of this tool for critique were recorded via an online questionnaire, and reflective blog posts and one on one interviews were utilized to provide greater insight into participant perceptions. Findings demonstrate high levels of usefulness, usability, motivation, interest, engagement, social presence, and certain level of reflection produced. A disconnect is uncovered in examining the frequency of use and perceived usefulness of specific features of the application. This contradiction is discussed, and implications for future applications are presented.

Threaded Forum VS Web Annotation: Which Is Better for Online Discussion?

This study explored the use of collaborative web annotation as an online discussion tool by comparing it to a traditional threaded discussion forum. Ten graduate students who participated in the study were provided with opportunities to use a web annotation tool and a discussion forum for discussion on a given topic. They were free to choose either tool or both to post their discussions. A questionnaire was conducted at the end of the lesson asking participants' experiences of using the different tools. The posts in the discussion were also analyzed to determine the differences. The results showed that while web annotation had advantages in locating specific information on the websites, the discussion forum was more suitable for posting summarized discussion. Although participants reported that they had more fun and were more actively engaged in web annotation environment, the posts in discussion forum were longer and more organized, indicating that web annotation had positive effects on triggering thinking and motivating participation, but less suitable for long and summarized discussions.

Reconsidering Instructional Design with Emerging Technologies

The paper aims at exploring instructional design models or strategies that guides the design of learning environments with emerging technologies. Based on an overview of current research on the integration of emerging technologies, the paper points out the unique affordances of emerging technologies and identifies the challenges for designers and instructors on effective integration of these technologies. Such challenges include how to design learning activities that fully harness the benefits of the technologies, and how to support the learning processes by providing ongoing guidance, facilitation and evaluation. To address these challenges, the paper reviews existing instructional design models that are related to the design, development, implementation and evaluation of technology supported learning activities, and discusses the limitations of current models in guiding instructional design. Finally, a few promising models are considered and directions for developing suitable instructional design models are suggested.

List of Papers
list of paper titles and authors, with their organizations, and countries in the order they will be presented and indicating which will be presented the first and second hours

First Hour:

1. Enhancing Classroom Interaction by Microblogging
Tian Luo, Ohio University, USA
Fei Gao, Bowling Green State University, USA

2. Using VoiceThread for Self, Peer, and Instructor Critique
Jamie Smith, Ohio University, USA

Second Hour:

3. Threaded Forum VS Web Annotation: Which Is Better for Online Discussion?
Yanyan Sun, Ohio University, USA
Fei Gao, Bowling Green State University, USA

4. Reconsidering Instructional Design with Emerging Technologies
Fei Gao, Bowling Green State University, USA
Ke Zhang, Wayne State University, USA

Outline
Welcome & Introduction (2 minute)
Overview (24 minutes)
Short presentations introducing the three technologies involved in the three case studies. The goal is to familiarize the audience with the three technologies, have them consider the affordances and constraints of these technologies and prepare them well for the subsequent presentations.
Presentations (64 minutes)
Paper 1: 16 minutes
Paper 2: 16 minutes
Paper 3: 16 minutes
Paper 4: 16 minutes
Discussion and interaction with the audience (30 minutes)
A discussion focusing on the challenges and opportunities of integration emerging technologies in teaching and learning. The goal is to solicit active participation by symposium attendees, and attendees will be invited to share their own experiences and extend the discussion beyond the four presentations.

References
Chai, C. S., & Tan, S. C. (2009). Professional development of teachers for computer-supported collaborative learning: A knowledge-building approach. *Teachers College Record, 111*(5), 1296-1327.
Collis, B., & Moonen, J. (2008). Web 2.0 tools and processes in higher education: Quality perspectives. *Educational Media International, 45*(2), 93-106.
Cress, U., & Kimmerle, J. (2008). A systemic and cognitive view on collaborative knowledge building with wikis. *International Journal of Computer-Supported Collaborative Learning, 3*(2), 105-122.
Greenhow, C., Robelia, B., & Hudges, J. E. (2009). Learning, teaching, and scholarship in a digital age: Web 2.0 and classroom research--What path should we take "now"? *Educational Researcher, 38*(4), 246-259.