Web 2.0–Based E–Learning: Applying Social Informatics for Tertiary Teaching

Mark J.W. Lee
Charles Sturt University, Australia

Catherine McLoughlin
Australian Catholic University, Australia
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Section 1
Emerging Paradigms and Innovative Theories in Web-Based Tertiary Teaching and Learning

Chapter 1
Back to the Future: Tracing the Roots and Learning Affordances of Social Software ................. 1
  Nada Dabbagh, George Mason University, USA
  Rick Reo, George Mason University, USA

This chapter describes the evolution of social software and related pedagogical constructs from pre- and early Internet networked learning environments to current Web 2.0 applications, as well as examining the theoretical underpinnings of social learning environments and the pedagogical implications and affordances of social software in e-learning contexts. The authors also offer a framework to guide and inform the use of social software to facilitate customized and personalized e-learning experiences in higher education.

Chapter 2
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  Tony Bates, Tony Bates Associates, Canada

This chapter explores how the new range of web-based tools and services provides learners with opportunities to create their own digital artifacts, personal learning environments, and social networks, and discusses the integration of established educational principles with the application of these tools and services. The author argues that new the tools enable new design models that will better serve the cause of preparing learners for a knowledge-based society, but rejects the notion that the tools themselves will revolutionize education and make formal institutions redundant.
Chapter 3
Pedagogy 2.0: Critical Challenges and Responses to Web 2.0 and Social Software in Tertiary Teaching

Catherine McLauchlin, Australian Catholic University, Australia
Mark J. W. Lee, Charles Sturt University, Australia

This chapter looks at how scholarship and pedagogy are being challenged and redefined in the Web 2.0 era, and the accompanying need for students to develop new skills and competencies to prepare them for work and lifelong learning in the changing societal and economic landscape. The authors propose a pedagogical framework, “Pedagogy 2.0,” which addresses the three P’s of participation in networked communities, personalization of the learning experience, and productivity through active knowledge creation. They discuss how emerging social practices, ethos, and modes of communication influence the roles of teachers and learners.

Chapter 4
Learner-Generated Contexts: A Framework to Support the Effective Use of Technology for Learning

Rosemary Luckin, Institute of Education, UK
Wilma Clark, Institute of Education, UK
Fred Garnett, Institute of Education, UK
Andrew Whitworth, University of Manchester, UK
Jon Akass, Media Citizens Ltd, UK
John Cook, London Metropolitan University, UK
Peter Day, University of Brighton, UK
Nigel Ecclesfield, Becta, UK
Tom Hamilton, University of Sussex, UK
Judy Robertson, Heriot-Watt University, UK

This chapter introduces the concept of learner-generated contexts (LGCs) and offers it as a potential framework for encouraging and supporting more effective use of technology for learning, particularly in light of the emergence and growth in popularity of Web 2.0 and social software. The focus of the chapter is on the theoretical grounding for consideration of LGCs as a context-based model and an organizing principle for designing learning. The authors also consider how institutional factors that act as enablers or barriers to development of LGCs for effective learning can be identified and addressed.

Chapter 5
Considering Students’ Perspectives on Personal and Distributed Learning Environments in Course Design

Terje Väljataga, Tampere Technical University, Finland & Tallinn University, Estonia
Kai Pata, Tallinn University, Estonia
Kairit Tammets, Tallinn University, Estonia
This chapter considers the notions of personal learning environments (PLEs) and distributed learning environments (DLEs) as examples of approaches that place students at the center of the learning process, drawing upon and developing their ability to organize and configure their own learning environment(s). It reports on a study in which an experimental course design supported by Web 2.0 tools and social media applications was evaluated by applying an ecological approach to affordances, and distills from the findings a number of key issues relevant to practitioners.

Section 2
Towards Best Practice: Case Studies and Exemplars of Web 2.0-Based Tertiary Teaching and Learning

Chapter 6
Personal Knowledge Management Skills in Web 2.0-Based Learning

Maria Elisabetta Cigognini, University of Florence, Italy
Maria Chiara Pettenati, University of Florence, Italy
Palitha Edirisingha, University of Leicester, UK

This chapter addresses the issue of personal knowledge management (PKM) skills and their importance in a Web 2.0-based e-learning environment in tertiary education. A classification of PKM skills consisting of basic competencies and higher-order skills is presented, including examples, along with a learning design model for activities aimed at developing students' PKM skills.

Chapter 7
Teaching and Learning Information Technology through the Lens of Web 2.0

Mark Frydenberg, Bentley University, USA

This chapter describes the techniques and strategies used to create authentic learning spaces and activities for the teaching of Web 2.0 concepts in a first-year undergraduate information technology course. Based on his experience, the author seeks to make a contribution to best practice by offering guidelines and advice for fostering learning by using Web 2.0 tools to create connections between people, ideas, and technology.

Chapter 8
University Students' Self-Motivated Blogging and Development of Study Skills and Research Skills

Shailey Minocha, The Open University, UK
Lucinda Kerawalla, The Open University, UK

This chapter reports on a study into the self-motivated course-related blogging activities of undergraduate and Master's students, and research-related blogging activities of doctoral students. The main data collection methods used were content analysis of blog posts and semi-structured interviews. The emphasis of the chapter is on how blogging may assist in the development of students' key study and
Chapter 9
Using Wikis in Teacher Education: Student-Generated Content as Support in Professional Learning

Steve Wheeler, University of Plymouth, UK

This chapter gives an account of an initiative involving the use of wikis to facilitate blended learning activities to support multiple cohorts of students undertaking a pre-service teacher education program. A five-stage wiki activity framework is proposed, which was used to help scaffold and structure the participants' professional learning. Data obtained from an analysis of software logs, responses to discussion board-based stimulus questions, and the results of a summative survey were used to evaluate the adopted framework and approach.

Chapter 10
Mobile 2.0: Crossing the Border into Formal Learning?

John Pettit, The Open University, UK
Agnes Kukulska-Hulme, The Open University, UK

This chapter explores how a combination of Web 2.0 and mobile technologies can be used to support and enhance learning and teaching. It draws on data from interviews with six experienced tertiary practitioners to describe and analyze a number of examples that are representative of the power and potential of “Mobile 2.0” to blur the boundary between formal and informal learning, examining the benefits and challenges from both a theoretical and practical perspective.

Chapter 11
Meeting at the Wiki: The New Arena for Collaborative Writing in Foreign Language Courses

Ana Oskoz, University of Maryland, Baltimore County, USA
Idoia Elola, Texas Tech University, USA

This chapter introduces the use of wikis and written and voice web applications as supporting tools for collaborative writing in the foreign language learning domain. In particular, the authors report on a study in which advanced Spanish foreign language learners' used these tools to complete a group writing assignment. Empirical evidence collected from students' essays, wiki drafts, chat transcripts, and questionnaire responses attest to the outcomes and effectiveness of the authors' recommendations.

Chapter 12
Podcasting in Distance Learning: True Pedagogical Innovation or Just More of the Same?

Mark J. W. Lee, Charles Sturt University, Australia
Catherine McLoughlin, Australian Catholic University, Australia
Belinda Tynan, University of New England, Australia
This chapter focuses on the use of podcasting in tertiary-level distance education contexts. It reviews the rationale behind the use of podcasting and digital audio for distance teaching and learning, critically examining the unique and distinguishing features of the technology. A number of international exemplars involving the use of podcasting in distance e-learning and blended learning are showcased and discussed with respect to a number of common themes.

Chapter 13
Using Web 2.0 Tools to Enhance the Student Experience in Non-Teaching Areas of the University
Lisa Cluett, The University of Western Australia, Australia
Judy Skene, The University of Western Australia, Australia

This chapter is concerned with the nexus between student learning and student engagement outside the classroom, and more specifically the importance of non-teaching units such as libraries, guilds, and student services in contributing to student satisfaction. Using the case of a project at a major Australian university as an example, it discusses the role of these units in creating online communities based on Web 2.0 tools.

Chapter 14
"You Can Lead the Horse to Water, but...": Aligning Learning and Teaching in a Web 2.0 Context and Beyond
Henk Huijser, University of Southern Queensland, Australia
Michael Sankey, University of Southern Queensland, Australia

This chapter deals with the question of whether and how the use of institutionally controlled and administered learning management systems (LMSs) can be reconciled and aligned with the Web 2.0 philosophy and ethos. Drawing on cases from an Australian university that is one of the country’s largest distance education providers, they discuss options and success factors for the integration of Web 2.0-based e-learning tools, technologies, and strategies with LMS-based pedagogy.

Chapter 15
Facebook or Faceblock: Cautionary Tales Exploring the Rise of Social Networking within Tertiary Education
Peter Duffy, The Hong Kong Polytechnic University, Hong Kong

This chapter investigates the use of social networking sites in tertiary education, using the popular site Facebook as an illustrative example. The author contends that while these sites can enable different forms of pedagogy, they also challenge and bring into question more traditional, longstanding teaching and learning approaches. The potential and problems associated with incorporating social networking sites into tertiary teaching and learning are considered, in addition to the ways in which educators and their students can leverage them for collaborative, (co-)creative, and authentic learning activities.
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Thomas Ryberg, Aalborg University, Denmark
Lone Dirckinck-Holmfeld, Aalborg University, Denmark
Chris Jones, The Open University, UK

This chapter reviews literature and evidence questioning the validity of claims relating to the existence of a “digital native” generation of students, while lending support to the assertion that today’s students need to be equipped with new digital and information literacy skills and competencies. It features a case involving the use of Web 2.0 and social software tools with supposedly digital native students, the outcomes and findings of which reflect the need for educators to be wary of making assumptions about their students’ familiarity with technology, including Web 2.0 tools, and more importantly their ability to apply the technology for academic purposes.

Chapter 17
Activating Assessment for Learning: Are We on the Way with Web 2.0? 319
Denise Whitelock, The Open University, UK

This chapter examines both the possibilities and imperatives for assessment in the age of Web 2.0. It outlines a number of cases of peer, self, and other online or e-assessment activities and strategies, used to depict and explain how in order for e-assessments to be successful in contributing to learning, they must be embedded within a solid pedagogical framework and supported by a robust infrastructure.

Section 3
Web 2.0 and Beyond: Current Implications and Future Directions for Web-Based Tertiary Teaching and Learning

Chapter 18
Dancing with Postmodernity: Web 2.0+ as a New Epistemic Learning Space 343
Henk Eijkman, University of New South Wales at the Australian Defence Force
Academy, Australia

This chapter discusses the epistemological shifts that are occurring in the Web 2.0 era, and the resulting consequences for learning, teaching, and research, as well as for the ways in which tertiary teachers and their students approach the creation, distribution, and evaluation of knowledge. A number of strategies for critical engagement with new, “postmodernist” epistemic learning spaces are recommended, before putting forward a series of questions to be contemplated by researchers and practitioners.
Chapter 19
Web 2.0 and Professional Development of Academic Staff

Belinda Tynan, University of New England, Australia
Cameron Barnes, University of New England, Australia

This chapter considers the implications of Web 2.0 for academic staff development. With the aid of fictional accounts, the authors portray the shortcomings of currently predominant institutional approaches to the training of tertiary teaching staff. They offer suggestions on how these need to change in order for the transformative potential of Web 2.0 for online learning to be realized, and for truly student-centered, constructivist learning experiences to be achieved.

Chapter 20
When the Future Finally Arrives: Web 2.0 Becomes Web 3.0

Matt Crosslin, The University of Texas at Arlington, USA

This chapter contains the author’s predictions of what lies ahead for the World Wide Web over the next decade, taking into consideration recent and emerging developments, and the likely impact on tertiary education. It provides coverage of “Web 3.0” concepts such as cloud computing, the Semantic Web, and the three-dimensional (3-D) Web. A possible future online learning scenario is described and analyzed as a means of helping readers visualize the educational possibilities afforded.

Chapter 21
Stepping over the Edge: The Implications of New Technologies for Education

Gráinne Conole, The Open University, UK

This chapter revisits the fundamental characteristics of Web 2.0 and attempts to place into perspective the implications for learners, teachers, and institutions, following the discussion in the preceding chapters. The author shares two approaches for understanding and leveraging the power of the new technologies. The first of these is an example of applying Web 2.0 practices to catalyze dialogue and the sharing of learning and teaching ideas, and the second advocates greater use of metaphors as a mechanism for meaning making with regard to the use of the new technologies for learning.

Compilation of References

About the Contributors

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