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Editorial – Michele Jacobsen

CJLT: A Fully Online Journal with Roots in its History

Welcome to the first exclusively online version of the *Canadian Journal of Learning and Technology*. Beginning with this 35th Volume in Winter 2009, CJLT completes the transformation from dual media to a fully open-access, peer-reviewed academic journal. Volume 34 in the 2008 calendar year marked the seventh year of the journal as a dual media publication, using both print and online delivery (i.e., CJLT / RCAT website [www.cjlt.ca] launched February 2002). As a fully online journal, CJLT provides immediate open access to its academic content on the principle that making research freely available supports a greater global exchange of current knowledge in the educational technology field. CNIE members will be notified by e-mail as new issues of CJLT are published online.

As I have written in previous editorials, the *Canadian Journal of Learning and Technology* is unique in the international field of educational technology in that manuscripts are accepted and published in either English or in French. Abstracts for each article are published in both of Canada's two official languages. CJLT has both an English and a French editor. I am grateful for the opportunity to work closely with Dr. Francois Desjardins, UOIT, who is CJLT's French Editor. As an open access journal, CJLT will continue to accept and to publish articles in either English or in French.

In this first issue of the 35th Volume of CJLT, I present 10 articles that reflect both a national and an international perspective on educational technology research and current issues. The first five papers (four research papers and a position paper) were submitted in response to an open call for manuscripts, and have been prepared by eighteen researchers from across Canada and one from Botswana, Africa. The final five papers in this issue of CJLT, prepared by eight researchers from Canada, Australia and China, share a focus on knowledge building, and were shepherded through the peer review and editing process by special issue editors, Dr. Bill Egnatoff and Dr. Marlene Scardamalia.

Before I turn to a review of the papers that make up this Winter 2009 issue of CJLT, I offer this update on a project has been happening "behind the scenes" with CJLT in past months.

The *Canadian Journal of Learning and Technology* has been regularly published as a dual medium, peer reviewed journal by AMTEC from 2002 – 2007, and then by the Canadian Network for Innovation in Education (CNIE) from 2007 to present. Since 2002, all issues of CJLT have been published online. The print history of CJLT stretches back to its roots in the *Canadian Journal of Educational Communications* (CJEC) in the 1980s and 1990s, and *Media Message* in the 1970s. The Canadian Education Media Council first published the print newsletter *Media Message* in January 1972, which eventually became the print journal, the *Canadian Journal of Educational Communications* [CJEC], published by AMTEC from 1979–2002, which became the dual-media *Canadian Journal of Learning and Technology* in 2002.

Those who browse the www.cjlt.ca website will notice that fourteen volumes of *Canadian Journal of Educational Communications* [CJEC] have been added to the CJLT archive. Forty (yes, 40!) back issues of CJEC from V. 15 in 1986 – V. 27 in 2001, have been archived and are now available online at the CJLT website. A heartfelt thank you to Ross Mutton, Carleton University (retired), for rescuing the precious files from the defunct AMTEC website, and to Barb Brown, educational technology doctoral student, University of Calgary, for working with this editor to make this archiving project a success.

The CJLT archive of CJEC back issues is an absolute treasure because it makes several years of past research newly available to graduate students, researchers and historians who are interested in educational technology research. As a prelude of things to come, I send a big thank you to Gary Boyd, Concordia University, who sent ten back issues of vintage *Media Message* (which was published by The Canadian Education Media Council in the late 1970s), that capture research and perspectives from assorted volumes and issues between 1976 - 1981.

The archiving of back issues is an ongoing project to which members of the educational technology community can contribute. If members of the former AMTEC community and present CNIE community, can help this editor locate CJEC back issues from between 1979 – 1985, and earlier versions of *Media Message*, these will be scanned and electronically archived on the CJLT website. If you are interested in contributing to the archiving project, either through good ideas and or sweat equity, please contact this editor at: cjlt@ucalgary.ca.

I am grateful for the contribution of two team members who helped to prepare this issue of CJLT for online publication: Maureen Washington, our copyeditor and layout designer, and Marie-Claude Plourde, our English to French translator. CJLT's tireless copyeditor is a full-time instructional designer, in the Center for Instructional Technology and Development at the Southern Alberta Institute of Technology (SAIT), who manages to serve the journal extremely well in her 'free' time! Many thanks to Krista Francis-Poscente, for her work getting the issue online.

Diverse Educational Technology Perspectives

In the first paper in the open issue, entitled "**Exploring Individual Differences in Attitudes toward Audience Response Systems**", Robin Kay and Liesel Knaack address a gap in the research on the use of audience response systems with high school students. Kay and Knaack examined individual differences, such as gender, grade, subject area, computer comfort level, participation level, and type of use, in secondary students' attitudes toward Audience Response Systems (ARSs). A few differences emerged, such as males holding more positive attitudes towards ARSs than females, comfort level with computers being associated with positive attitudes, and regular participation being linked with positive attitudes. Students were more positive about ARS use with formative learning tasks as opposed to summative (for grades) assessment.

A team of Canadian researchers collaborated on the second study, entitled "**How Research Moves into Practice: A Preliminary Study of What Training Professionals Read, Hear, and Perceive**", which was focused on better understanding the research-practice gap in the area of training and development. Authors Saul Carliner, Regan Legassie, Shaun Belding, Hugh MacDonald, Ofelia Ribeiro, Lynn Johnston, Jane MacDonald and Heidi Hehn designed and administered a survey to professionals in the field to explore: (1) Which published sources in the field are practicing professionals reading? How frequently do they read these materials? (2) Which conferences and meetings do practicing professionals attend? How frequently do they attend these events? (3) In what formats are research content most usable to practicing professionals? (4) What are practicing professionals' general perceptions of research publications and presentations? Key findings suggest that publications have a wider reach among practicing professionals than conferences and, of those publications, professional magazines have a wider reach than peer-reviewed journals. In terms of the manner in which the content is presented, practicing professionals

prefer case studies from the workplace to other types of content.

The Carliner, et al., paper, that finds that instructors, instructional designers, planners for training departments, and managers prefer case studies to guide and inform practice, is complemented by the third paper in this issue, **"Using Interactive Technology to Disseminate Research Findings to a Diverse Population"**, that offers a method for translating case study research into case stories for practitioners. In this study, Denise Stockley, Wanda Beyer, Nancy Hutchinson, Jennifer DeLugt, Peter Chin, Joan Versnel and Hugh Munby demonstrate how case stories can be used to disseminate the findings of several case studies on negotiating accommodations in the workplace. The authors describe the process of designing an interactive web-based case story for the purpose of disseminating research findings. The interactive case story is an extension of both the case study and the narrative case story. As part of a larger research project, it is the authors' goal to use interactive case stories to investigate the impact of essential skills training on workers with disabilities who negotiate with employers for workplace accommodations.

The rapid growth and modernization of economies in developing countries like Botswana creates new and unmet demands for certain kinds of educated and skilled labour. The growth of Information and Communication Technologies (ICTs), globalization and the digital divide like wise, have together put new pressures on developing countries to accelerate their development to meet these demands. In the fourth paper, entitled **"Relative levels of eLearning Readiness, Applications and Trainee Requirements in Botswana's Private Sector"**, Paul Nleya reports results of a survey of these levels of readiness and offers baseline data that can inform policy makers and researchers and promote the transformation required of private sector companies to become learning organizations. Nleya's findings suggest that eLearning readiness (e-readiness) levels were moderate to low, and that archaic technology (i.e., overhead projection) was used by more than half of the private sector organizations for training (with far less than half using digital eLearning applications). While the overall findings suggested low levels of eLearning readiness, applications and trainee requirements in Botswana's private sector, 70% of trainers reported that their organizations encouraged them to acquire basic computer skills to facilitate eLearning. The current eLearning situation in Botswana, and the literature reviewed, demonstrates that the integration of ICTs in both developing and developed countries is a gradual process.

In the fifth paper in this open issue, entitled **"Monkeys on the Screen?: Multicultural Issues in Instructional Message Design"**, Debbie McAnany presents a case for instructors and instructional designers to know and better understand diverse learner characteristics in order to create effective instructional messages and materials. Recognizing how culture might shape cognition and learning, and given the increased number of international students in post-secondary classrooms, McAnany suggests we can value and design for the diversity of students and maximize their learning while improving the learning environment for all students. To celebrate cultural diversity and meet the challenges associated with designing for diverse learning styles and educational experiences, this paper offers a review of the literature and proposes a systematic three-fold approach to the creation and evaluation of multicultural instructional messages and materials: first, *"Do no harm"*; second, *"Know your learner"*; and third, *"Incorporate global concepts and images into instructional messages."*

Knowledge-Building Research

A while back, the editorial team received a proposal for a special issue of CJLT devoted to Knowledge Building, a topic of research of particular interest in the field of educational technology. The five knowledge building papers in this issue of CJLT, were shepherded through the peer review and editing process by Dr. Marlene Scardamalia and Dr. Bill Egnatoff. It has been a pleasure to work with Dr. Scardamalia and Dr. Egnatoff to prepare these manuscripts for the Winter 2009 issue of CJLT. Our initial contact was in person with all other communication, review, editing and production tasks being conducted entirely online. Drs. Scardamalia and Egnatoff present five articles that reflect state of the art and diverse research on Knowledge Building. The nine authors who contribute their research and critical perspectives on knowledge building hail from post-secondary institutions in Canada, Australia and China.

In the first knowledge building paper, entitled, **"Participation in Knowledge-Building Discourse: An Analysis of Online Discussions in Mainstream and Honours Social Studies Courses"**, Hui Niu and Jan van Aalst examined student participation in knowledge-building discourse in two implementations of a short inquiry unit focusing on environmental problems. Participants in each implementation consisted of students taking a mainstream or an honours version of a tenth grade social studies course. Niu and van Aalst retrieved data about students' actions in Knowledge Forum® (e.g., the number of notes created and the percentage of notes with links), and conducted a content analysis of the discourse by each collaborative group. The findings provide cause for optimism about the use of knowledge-building discourse across academic levels: there was moderate to strong evidence of knowledge building in both classes by Implementation 2. The authors conclude with suggestions for focusing online work more directly on knowledge building.

Alexander McAuley, University of Prince Edward Island, authored the second knowledge paper, entitled **"Knowledge Building in an Aboriginal Context"**, in which the potential of knowledge building and knowledge-building technologies to support powerful bilingual (Inuktitut/English) and bicultural learning experiences for Aboriginal students is explored. Historical challenges to Canada in dealing with the 500-year history of European contact with North America's original inhabitants provide a context for this study. While not without its challenges, the creation of Nunavut in 1999 stands apart from this history as a landmark for Inuit self-determination in Canada and a beacon of hope for other Aboriginal peoples. Building on the idea that educational change takes place within the intersecting socio-cultural contexts of the school and the larger world around it, and drawing from data from an eight-year exploration of the potential of knowledge building and knowledge-building technologies in Baffin classrooms, findings illustrate how the knowledge building space becomes one in which the relationships between teacher and students can be negotiated across differences of language, culture, and power. The data provide evidence that students in the knowledge building classrooms participating in the study acquired the skills and motivation to select, plan, and conduct investigations in Inuktitut and English.

In the third knowledge building paper, Elizabeth Hartnell-Young, University of Melbourne, takes a large-scale social perspective in describing a national project in Australia that was premised on local school communities working together and contributing ideas for the benefit of their students, and potentially, the whole country. In **"Learning for Teaching: Building Professional Knowledge on a National Scale"**, Hartnell-Young describes a project that was intended to improve schools' capacity for educating boys, and in the long-term, the learning outcomes of under-performing boys, using evidence-based and action research methods. The project was supported by the web spaces and tools of the National Quality Schooling Framework and Think.com. Hartnell-Young emphasizes the structures and processes teachers engaged in while building knowledge through their daily work, where the resulting ideas became the property of the whole community. Analyses focus on the extent to which an underlying social structure for knowledge building developed in various parts of the nation during the project, making it possible to characterize a process for innovations in education with commitment to continual idea improvement.

In the fourth paper on knowledge building, Clare Brett, Bruce Forrester, and Nobuko Fujita examine the

instructional and assessment effects of using learning journals in three distance asynchronous computer conferencing courses. In this paper, entitled "**Online Learning Journals as an Instructional and Self-Assessment Tool for Epistemological Growth**", learning journals refers to online learning journals that are used by graduate students to document aspects of learning during particular courses. A design-research methodology was used by the instructor in each iteration of the course to examine how learning journals were used and modified by graduate students. Modifications included: a) use of orienting questions; b) question content, c) journal assessment and d) amount of scaffolding. Protocols were analyzed with a view to characterizing students' epistemic cognition from two perspectives: belief mode (rationalist epistemology, self analysis, norms of inquiry to defend competing beliefs) and design mode (knowledge-building epistemology, collective responsibility, norms of inquiry to support idea improvement and explanatory coherence). Changes in metacognitive reflection and learning journal activity were related to measures of learning. As a pedagogical tool, learning journals with directed questions (scaffolding) were found to encourage self-awareness of learning and epistemological reflection.

Technology offers promising opportunities for creating new types of classroom learning environments. In the fifth and final knowledge building paper, entitled "**Models for Building Knowledge in a Technology-Rich Setting: Teacher Education**", Greg MacKinnon and M. Lynn Aylward of Acadia University, describe three technology models used by teacher education interns: electronic portfolios, negotiative concept mapping, cognote-supported electronic discussions. As implemented in MacKinnon and Aylward's study, these models invoke graduated attributes of knowledge building and as such serve as a useful continuum of examples of the potential of technology to assist in promoting progressive knowledge construction. A description of the models is followed by a discussion of the relationship of these classrooms to knowledge-building principles.

Final Remarks

With the transition to open access, the CJLT Editorial team is in a great position to consider educational technology research and scholarship that goes beyond a primarily text and graphics rich print medium. While print journals continue to serve the research community well, it seems fitting for scholars in educational technology to chart and explore new Web 2.0 and Web 3.0 capabilities in its academic, open access publications. Therefore, at the choice of the authors and at the discretion of the editors, online CJLT manuscripts may contain selected graphics, animations, multimedia elements, or resource links that may help to illustrate a concept or amplify a project that could not, by their nature, be included in a print version.

Authors and editorial board members interested in exploring different approaches to using multiple media and social networking for academic publishing should contact the editor at cjlt@ucalgary.ca