

What is the Literature Telling Us About Educational Technology and Professional Practice Outside the U.S.A.?

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Abstract

The findings of the analysis in “*Twenty Years (and More) of International Review: A Retrospective View*” (Seo, Eastmond, & Cain, 2002), indicated that articles were consistently current with emerging media at the time of publication, shifted from being authored by Americans to having a broader spectrum of authors with a variety of citizenships, initially conveyed ideas from a U.S. perspective on internationalism and “facilitated communication among international professionals working in the field of instructional technology.” This statement prompted the query that if communication has been consistent, then what exactly has been communicated? The current article discusses what overall ideas, concerns, and information this particular body of literature is trying to convey. In essence, the question pursued is “What is the literature saying about educational technology and professional practice outside the U.S.A.?”

Introduction

In the fall of 2005, I was awarded a fellowship with the Institute for Ethics in Public Life at SUNY Plattsburgh. During that semester, I studied various ethical theories and ideologies by such individuals as Immanuel Kant, Aristotle, and Alexis d’Tocqueville. The implications of these theories on public policy decision-making and civic responsibility were explored with other fellows at the institute through readings, debate and discussion. In addition to these professional development studies, each fellow worked on his/her own project investigating an ethical issue or issues within his/her field.

The field in which I work currently is educational technology. Essentially, educational technology is the systematic use of hardware and/or software tools or products to enhance teaching and learning, primarily at the K-12 level and in higher education. The idea for my particular project grew from readings from Educational Technology Research and Development (ETR&D) that I assigned to my graduate students in various teacher preparation courses that I teach. Some of the most lively in-class and online discussions surrounded articles that were published in the International Review section of Educational Technology Research & Development (ETR&D). As my students became intrigued with these articles, I found myself increasingly engaged in this body of literature as well. During the regular semester, my students and I would read specific works from particular volumes and issues in ETR&D. However, at that time, I had not yet read enough in the International Review to really acquire a sense of what the journal, my professional association (the Association for Educational Communications, and Technology [AECT]), and/or my professional community were trying to tell me about international issues and educational technology.

While I was reviewing readings to assign to my graduate students, I became intrigued by the 2002 article written by Seo, Eastmond, & Cain, entitled “*Twenty Years (and More) of International Review: A Retrospective View*” (volume 50, issue 4). The findings of the 20 year analysis indicated that articles were consistently current with emerging media at the time of publication, shifted from being authored by Americans to having a broader spectrum of authors with a variety of citizenships, initially conveyed ideas from a U.S. perspective on internationalism and, due to its long-standing existence in the journal, the International Review section had

“facilitated communication among international professionals working in the field of instructional technology” (Seo, Eastmond, & Cain, 2002). As I read this last finding, I wondered if communication has been consistent, then what exactly has been communicated? I questioned if there were slowly-emerging findings that over the years could inform current practice or if there were simply many scattered but interesting topics (much like a quilt with many beautiful squares, but no discernible pattern). I therefore set out to find out what overall ideas, concerns, and information this particular body of literature was trying to convey. In essence, the question I began to pursue was “What is the literature telling me about educational technology and professional practice outside the U.S.A?”

The Project

In order to make this endeavor manageable, I established some parameters for who the community was and specifically, with what literature I would work. I regarded individuals belonging to AECT as practitioners, researchers, educators, and students involved with various aspects of the field of educational technology. I therefore defined my professional community as colleagues and peers who were members of AECT. As such, I considered AECT supported and sponsored publications vehicles for communication among the professional community.

One of these sponsored publications, ETR&D, is well-respected and peer-reviewed, with a history of publishing articles in the International Review section such as the ones I was looking to read and consider. ETR&D, and the International Review section of the journal in particular, was chosen because it is considered one of the premier, if not the premier journal in the field of educational technology. It carries a global readership of both academics and practitioners, and is edited and reviewed by some of the prominent leaders in educational technology. While this article could have been expanded in scope to consider international articles in other journals, limiting the study to ETR&D attempted to ensure quality in the types of articles published as well as establishing the intended readership at the outset. If this article is meant to inform a specific readership on a specific topic, then targeting this journal and its readership seemed like an efficient method.

Method

To keep the project current, I restricted my readings to the articles published in the last five years, 2000-2005 (the new millennium), volume 48 through volume 53, in ETR&D’s International Review.

In order to categorize the articles, I employed a quasi-qualitative content analysis methodology. Holsti (1969) organizes fifteen uses of content analysis into three basic groups. One of these groups defines the purpose of content analysis as describing and making inferences about the characteristics of a human communication. A communication is defined as a book, conversation, artwork, website, journal article, etc. It is for the purpose of describing and making inferences about the articles in the International Review section of ETR&D that I conducted my analysis.

Initially, I reviewed each article in order to establish some emergent overall themes. I based the themes on the dominant messages and main subjects within each article, focusing on the stated implications and conclusions. I then read each article a second time in order to accurately classify it. At times, an article would appear to fall into more than one area, but in general it discussed or reported more strongly one type of information over another. Thus an article would be sorted according to its main topic.

In general, virtually all of the articles appeared to fall into one of four categories: a description of a country/region-specific technology initiative and/or a survey of available hardware, broadband, etc.; a research study specifically investigating a cultural issue and technology; a recommendation paper supported by a literature review and/or personal experience; or a research study conducted in an international setting or with an international population, but without conclusions that deeply consider those conditions.

Findings

A total of 57 articles were published in the International Review section of ETR&D from 2000-2005. Table 1 illustrates a classification of these articles, from volume 48 through volume 53, into four categories. The majority of the articles are found either in the first category, a description of a country/region-specific technology initiative and/or a survey of available hardware, broadband, etc. or in the last category, a recommendation paper supported by a literature review and/or personal experience. Each of these two categories contains 19 articles. The next highest accumulation of articles, 11 out of 57, occurs in the second category, research studies specifically investigating a cultural issue and technology. The least amount of articles, 8 out of 57, is in the third category, research studies conducted in an international setting or with an international population, but without conclusions that deeply consider those conditions.

Table 1

Categories of Articles in the International Review section of ETR&D, from 2000-2005

Description of a country/region-specific technology initiative and/or a survey of available hardware, broadband, etc.	Research/Instructional Design study specifically investigating a cultural issue and technology	Research/Instructional Design study conducted in an international setting or with an international population, but without conclusions that deeply consider those conditions	Recommendation paper supported by a literature review and/or personal experience
Yu, S., Wang, M., & Che, H. (2005). <i>An Exposition of the Crucial Issues in China's Educational Informatization</i> . ETR&D, 53(4), 88-101.	Marchessou, F. (2004). <i>Training Students in Information Technology for the Corporate World: The French Side of a European Union Survey</i> . ETR&D, 52(2), 92-97.	Chen, C.J. & Toh, S.C. (2005). <i>A Feasible Constructivist Instructional Development Model for Virtual Reality (VR)-Based Learning Environments: Its Efficacy in the Novice Car Driver Instruction of Malaysia</i> . ETR&D, 53(1), 111-123.	Eastmond, N. & Bentley, J.P.H. (2005). <i>Democratic Technology Advancement for All: Contrasting views of American and International Students</i> . ETRD, 53(4), 107-113.
Perkins, R.A., Gwayi, S.M., Zozie, P.A., & Lockee, B.B. (2005). <i>Distance Education in Malawi</i> . ETR&D, 53(4), 101-108.	Leh, A.S.C. & Kennedy, R. (2004). <i>Instructional and Information Technology in Papua New Guinea</i> . ETR&D, 52(1), 96-101.	Looi, C.-K., Hung, D., Bopry, J., & Koh, T.-S. (2004). <i>Singapore's Learning Sciences Lab; Seeking Transformations in ICT-Enabled Pedagogy</i> . ETR&D, 52(4), 91-99.	Bentley, J.P.H., Tinney, M.V., & Chia, B.H. (2005). <i>Intercultural Internet-Based Learning: Know Your Audience and What It Values</i> . ETRD, 53(2), 117-127.
Kim, C. & Santiago, R. (2005). <i>Construction of E-learning Environments in Korea</i> . ETRD, 53(4), 108-115.	Burniske, R.W. (2003). <i>East Africa Meets West Africa: Fostering an Online Community of Inquiry for Educators in Ghana and Uganda</i> . ETR&D, 51(4), 105-113.	Burniske, R.W. (2004). <i>Acts of Inquiry in Digital Dramas: A Study of Student-Generated Questions in a Global, Telecollaborative, Learning Activity</i> . ETR&D, 52(4), 99-115.	Mogahaddam, F.M. & Lebedeva, N.M. (2004). <i>Carriers, Dual Perceptions, and the Information Communication Revolution</i> . ETR&D, 52(1), 83-87.

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Uchida, H. (2004). <i>Information Technology-Driven Education in Japan: Problems and Solutions</i> . ETR&D, 52(3), 91-100.	Walsh, S.L., Gregory, E., Lake, Y., & Gunawardena, C.N. (2003). <i>Self-Construct, Facework, and Conflict Styles Among Cultures in Online Learning Environments</i> . ETR&D, 51(4), 113-122.	van der Spa, M. (2004). <i>Cyber-Communities: Idle Talk or Inspirational Interaction?</i> ETR&D, 52(2), 97-105.	Ku, H.-Y., Pan C.-C., Tsai, M.-H., Tao, Y., & Cornell, R.A. (2004). <i>The Impact of Instructional Technology Interventions on Asian Pedagogy</i> . ETR&D, 52(1), 88-92.
Nakayama, M. & Santiago, R. (2004). <i>Two Categories of E-Learning in Japan</i> . ETR&D, 52(3), 100-111.	Shih, Y.-C., D. & Cifuentes, L. (2003). <i>Taiwanese Intercultural Phenomena and Issues in a United States-Taiwan Telecommunications Partnership</i> . ETR&D, 51(3), 82-90.	Visser, L., Plomp, T., Amirault, R.J., & Kuiper, W. (2002). <i>Motivating Students at a Distance: The Case of an International Audience</i> . ETR&D, 50(2), 94-110.	Miller, M., Lu, M.-Y., & Thammetar, T. (2004). <i>The Residual Impact of Information Technology Exportation on Thai Higher Education</i> . ETR&D, 52(1), 92-96.
Lee, D. (2004). <i>Web-Based Instruction in China: Cultural and Pedagogical Implications and Challenges</i> . ETR&D, 52(1), 101-104.	Hsieh, Y.-C., J. & Cifuentes, L. (2003). <i>A Cross-Cultural Study of the Effect of Student-generated Visualization on Middle School Students' Science Concept Learning in Texas and Taiwan</i> . ETR&D, 51(3), 90-95.	Lee, I.-S. (2002). <i>Gender Differences in Self-regulated On-line Learning Strategies within Korea's University Context</i> . ETR&D, 50(1), 101-111.	Loewer, A. (2003). <i>Preserving, Restoring, Integrating: Educational Practices of the Yanomamo, Ojibway, and Aborigines in Contemporary Society</i> . ETR&D, 51(2), 83-87.
Aydin, C.H. & Mclsaac, M. S. (2004). <i>The Impact of Instructional Technology in Turkey</i> . ETR&D, 52(1), 105-112.	Ku, H.-Y. & Lohr, L. (2003). <i>A Case Study of Chinese Students' Attitudes Toward Their First Online Learning Experience</i> . ETR&D, 51(3), 95-102.	Voogt, J., Gorokovatschky, Y., & Pourycheva, N. (2000). <i>The Integration of ICT in Preservice Teacher Education: A Pilot Project at Three Teacher-Training Colleges in St. Petersburg, Moscow, and Amsterdam</i> . ETR&D, 48(3), 121-125.	Barta, J., Jette, C., & Wiseman, D. (2003). <i>Dancing Numbers: Cultural, Cognitive, and Technical Instructional Perspectives on the Development of Native American Mathematical and Scientific Pedagogy</i> . ETR&D, 51(2), 87-97.

Description of a country/region-specific technology initiative and/or a survey of available hardware, broadband, etc.	Research/Instructional Design study specifically investigating a cultural issue and technology	Research/Instructional Design study conducted in an international setting or with an international population, but without conclusions that deeply consider those conditions	Recommendation paper supported by a literature review and/or personal experience
Johari, A. (2002). <i>Internet Use in Iran: Access, Social, and Educational Issues</i> . ETR&D, 50(1), 81-84.	DeBry Sr., D. P. (2002). <i>Analysis of Emerging Practices in Globalizing Instructional Materials</i> . ETR&D, 50(4), 73-82.	Young, S. S.-C., Huang, Y.-L., & Jang, J.-S. R. (2000). <i>Pioneering a Web-based Science Museum in Taiwan: Design and Implementation of Lifelong Distance Learning of Science Education</i> . ETR&D, 48(1), 112-123.	Seo, K.K. Eastmond, N., & Cain, H. (2002). <i>Twenty Years (and More) of International Review: A Retrospective View</i> . ETR&D, 50(4), 82-93.
Rho, K.S. (2002). <i>Use of the Internet in Korea</i> . ETR&D, 50(1), 84-88.	Chen, H., Sullivan, H.J., & Savenye, W.C. (2002). <i>Perspectives on the Future of Computer Use in China</i> . ETR&D, 50(1), 92-101.		Johari, A. & Bradshaw, A. (2002). <i>Dual Academic Careers: Issues and Personal Perspectives</i> . ETR&D, 50(3), 98-104.
Zheng, R., Ouyang, J.R., & Rui, F. (2002). <i>Instructional Use of the Internet in China</i> . ETR&D, 50(1), 88-92.	Anderson, E., du Plessis, J., & Nickel, T. (2001). <i>Participation in International Teleconferences and Discussions: Implicit Assumptions</i> . ETR&D, 49(3), 118-123.		Curda, L.K. & Curda, S. K. (2002). <i>International Couples in Instructional Technology: The Curdas</i> . ETR&D, 50(3), 104-112.
Bradshaw, A.C. (2001). <i>Internet Users Worldwide</i> . ETR&D, 49(4), 112-117.	Mittelman, T. (2001). <i>The Establishment of a Virtual High School in Israel</i> . ETR&D, 49(1), 84-93.		Moonen, J. & Collis, B. (2002). <i>Core Connections</i> . ETR&D, 50(3), 112-118.
de Freitas, C.V. & Valente, L. (2001). <i>Uses of the Internet in Portugal</i> . ETR&D, 49(4), 117-120.			Visser, J. (2002). <i>Technology, Learning and Corruption: Opportunities and Hurdles in the Search for the Development of Mind in an International Development Context</i> . ETR&D, 50(2), 85-94.

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Aydin, C.H. (2001). <i>Uses of the Internet in Turkey</i> . ETR&D, 49(4), 120-123.			Hayden, R., Rientjes, R., Ryder, W., & Wall, R. (2001). <i>Wireless Technologies: A Knowledge Opportunity in Developing Countries</i> . ETR&D, 49(3), 115-118.
Albrechtsten, K., Mariger, H. & Parker, C. (2001). <i>Distance Education and the Impact of Technology in Europe and Japan</i> . ETR&D, 49(3), 107-115.			Merrill, M.D. (2001). <i>Distance Education in South Africa</i> . ETR&D, 49(3), 123-125.
Gunn, C. & Recker, M. (2001). <i>New Zealand Higher Education in the Age of the Global Virtual University</i> . ETR&D, 49(2), 107-116.			Yeaman, A. (2000). <i>Coming of Age in Cyberspace</i> . ETR&D, 48(4), 102-106.
Mioduser, D. (2001). <i>Internet-in-Education in Israel: Issues and Trends</i> . ETR&D, 49(1), 74-83.			Johari, A. (2000). <i>Ethical Concerns of Educational Technologists in Iran</i> . ETR&D, 48(4), 107-109.
Kommers, P. (2000). <i>Information and Communication Technology (ICT) for Education: Research and Development for the Educational Integration of Technology in Eastern European Countries</i> . ETR&D, 48(3), 104-111.			Eastmond, N. (2000). <i>Second-hand Equipment and Social Responsibility</i> . ETR&D, 48(4), 109-110.

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Pelgrum, W.J. & Voogt, J.M. (2000). <i>Information and Communication Technology (ICT) in Lower Secondary Schools in Bulgaria, the Czech Republic, Hungary, Lithuania, and the Russian Federation</i> . ETR&D, 48(3), 111-121.			Marchessou, F. (2001). <i>Some Ethical Concerns in Ed-Tech Consultancies Across Borders</i> . ETR&D, 48(4), 110-114.
Mizukoshi, T., Kim, Y., & Lee, J.Y. (2000). <i>Instructional Technology in Asia: Focus on Japan and Korea</i> ETR&D, 48(1), 101-112.			Eastmond, D. (2000). <i>Realizing the Promise of Distance Education in Low Technology Countries</i> . ETR&D, 48(2), 100-111.

Note:

- Starting with volume 52 (1) of ETR&D to the present, Abbas Johari became editor of the International Review Section.
- For volume 51(4) of ETR&D, Sandie H. Waters was editor of the International Review Section; Karen L. Murphy was guest editor
- For volume 51(2 & 3) of ETR&D, Laurie Miller Nelson was editor of the International Review Section; for 51(3) Karen L. Murphy was guest editor
- For volume 48(1) - 51(1) of ETR&D, J. Nicholls Eastmond was editor of the International Review Section; for
 - 50(4) David P. DeBry Sr. was guest editor
 - 50(3) Abbas Johari was guest editor
 - 50(1) Amy Bradshaw was guest editor
 - 49(4) Amy Bradshaw was guest editor
 - 49(3) Jacques du Plesis was guest editor
 - 49(2) Mimi Recker was guest editor
 - 49(1) Naama Sabar was guest editor
 - 48(4) Annette Sherry was guest editor
 - 48(3) Plon Verhagen was guest editor
 - 48(2) Dan Eastmond was guest editor
 - 48(1) Youngsoo Kim was guest editor

Conclusions

The majority of the articles published from 2000-2005 were either descriptions of the connectivity of a specific country or region, and any resulting initiatives, or recommendation papers arising from specific projects or experiences in which authors engaged. Quantitative, qualitative, or mixed design research investigating various issues surrounding educational technology and international concerns were published to a lesser extent.

Several possible reasons for the trends in this current literature arise. First, it is undoubtedly the intent of the editors and guest editors of the International Review in ETR&D to construct themes in specific issues where certain types of articles are included. For several issues, editors published articles detailing connectivity and projects or reforms in specific countries. It was the intent of the journal to group the literature in this way to make it more meaningful and interesting to the readership. Second, the AECT webpage that lists submission guidelines for ETR&D does not offer editor information for the International Review (see <http://www.aect.org/Intranet/Publications/edtech/subguides.html>). Omission of manuscript submission information may well account for a portion of the lack of articles or article variety.

It would also appear that while investigations emerge as important activities, perhaps not enough is yet known about the state of technology and/or educational technology in other cultures or countries for good quality research to occur frequently. An implication for our current practice may lay in the wealth of publications simply reporting the state of technological advancement in specific global communities. This is supported by the fact that so many papers were published simply detailing the percentage or types of hardware, software, connectivity, etc. in various countries. While these sorts of reports are vital, they generally do not contain details of investigations or ideas about deeper issues concerning educational technology and other cultures. This implies that while we are aware of and interested in these sorts of complex concerns, we, as a body of professionals, are not yet at the point where we are ready to explore them consistently in a reasoned, deliberate manner. However, knowing the stage(s) of technology awareness or adoption at which society is situated is important baseline information for conducting any subsequent study of that culture and its use of technology. One suggestion to facilitate this process is to include a small section in each issue of the International Review in ETR&D for updates on the current state of technological adoption and connectivity in various countries and regions. These updates do not need to be long, but they could provide a constant information base from which researchers and practitioners can draw before engaging in projects or investigations. By having this information constantly available, we can then take initial steps in exploring deeper issues about the introduction/implementation of technology and educational technology into other societies. This is a positive circumstance from which our profession can only progress and grow in understanding.

Another trend in this body of literature that was revealed is that many large- and small-scale initiatives are being described and published, with authors making important recommendations regarding implementation and sustainability. These types of articles are often case studies and communicate important information to other practitioners engaged in or considering technology-projects in foreign locations. However, many of the recommendations made by single authors or groups of authors seem to duplicate recommendations found in other articles outlining different technology initiatives. It may be valuable to conduct an analysis to see how many of the same types of recommendations are made by educational technology practitioners engaging in these projects so that perhaps a more broad-based set of guidelines can emerge. In this way, colleagues and peers who collaborate on international technological initiatives will have a body of “best practice” recommendations from which to draw. A dedicated section in the International Review could also contain brief write-ups of projects and initiatives that are implementation reports, in-progress bulletins, or “lessons learned” and interweave them into the body of “best practice.” By consistently having a subsection of this nature, it may be easier to discern trends in the literature which will help to inform practice and guide research.

Implications for the Future

Overall, what do these outcomes tell us about educational technology outside of the U.S.A? Where do we, as professionals, go from here? What would we like investigate and tell each other? Deliberate reflection must occur as the future of this body of literature is considered. While the conclusions above indicate current publication trends and suggest ideas for organizing articles in the International Review section of Educational Technology Research and Development, there may be broader implications for educational technologists. Perhaps the most complex issue which is rarely addressed in publications in the International Review, but yet is of rapidly growing concern to our membership is that of ethical practices in the field of educational technology. This topic has a clear intersection with initiatives that introduce or further technological innovations in other countries and cultures around the world. There is no body of “best practice” for these types of issues. It is imperative that we, as a premier organization of educational technology professionals, set unequivocal examples as ethical practitioners in our field. To that end, our journals should premier and maintain

publications that communicate this important ideal to the global readership. Perhaps by maintaining a consistent body of literature concerning ethical practices in the field of educational technology, the ETR&D and the International Review section may truly have the most impact on professional practice.

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