Michael Orey
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Editors

Educational Media and Technology Yearbook

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Preface

The audience for the *Yearbook* consists of media and technology professionals in schools, higher education, and business contexts. Topics of interest to professionals practicing in these areas are broad, as the Table of Contents demonstrates. The theme unifying each of the following chapters is the use of technology to enable or enhance education. Forms of technology represented in this volume vary from traditional tools such as the book to the latest advancements in digital technology, while areas of education encompass widely ranging situations involving learning and teaching which are idea technologies.

As in prior volumes, the assumptions underlying the chapters presented here are as follows:

1. Technology represents tools that act as extensions of the educator.
2. Media serve as delivery systems for educational communications.
3. Technology is *not* restricted to machines and hardware, but includes techniques and procedures derived from scientific research about ways to promote change in human performance.
4. The fundamental tenet is that educational media and technology should be used to:

   (a) Achieve authentic learning objectives
   (b) Situate learning tasks
   (c) Negotiate the complexities of guided learning
   (d) Facilitate the construction of knowledge
   (e) Aid in the assessment/documenting of learning
   (f) Support skill acquisition
   (g) Manage diversity

The *Educational Media and Technology Yearbook* (EMTY) has become a standard reference in many libraries and professional collections. Examined in relation to its companion volumes of the past, it provides a valuable historical record of current ideas and developments in the field. Part One, "Trends and Issues," presents an array of chapters that develop some of the current themes listed above, in addition

to others. Part Two, "Library and Information Science," concentrates upon chapters of special relevance to K-12 education, library science education, school learning resources, and various types of library and media centers – school, public, and academic among others. In Part Three, "Leadership Profiles," authors provide biographical sketches of the careers of instructional technology leaders. Part Four, "Organizations and Associations in North America," and Part Five, "Graduate Programs in North America," are, respectively, directories of instructional technology-related organizations and institutions of higher learning offering degrees in related fields. Finally, Part Six, the "Mediagraphy," presents an annotated listing of selected current publications related to the field.

The Editors of the *Yearbook* invite media and technology professionals to submit manuscripts for consideration for publication. Contact Michael Orey (mikeorey@uga.edu) for submission guidelines.

For a number of years we have worked together as editors and the eighth with Dr. Michael Orey as the senior editor. Within each volume of the EMTY we try to list all the graduate programs, journals, and organizations that are related to both Learning, Design, and Technology (LDT) and Information and Library Science (ILS). We also include a section on trends in LDT, trends in ILS, and we have a section profiling some of the leaders in the field. Beginning with the 2007 volume, we have attempted to generate a list of leading programs in the combined areas of LDT and ILS. One year, we were able to compose an alphabetical list of 30 of the programs that people told us were among the best. However, each year we have worked on being more systematic. Instead of following the *US News and World Report* model and have one top program list, we decided to use some of the same numbers that they use and generate a collection of top-20 lists, rather than attempt to generate a statistical model to generate the rankings list. One thought was to rank programs according to the number of publications that were produced; however, deciding which journals to include was an issue. We decided to use 2007 through 2009 as the years to count (since at the time of writing, it is still 2010 and so we do not have a complete year). Furthermore, we decided to only count actual research reports that appeared in one of two journals, *Educational Technology Research and Development* and the *Journal of the Learning Sciences*. These two journals were primarily selected based on the general sense that they are the leading journals in the area of LDT. Noticeably absent is the area of information and library science. So, while these numbers are pretty absolute, choosing to only count these journals is somewhat arbitrary.

The other top-20 lists are based on self-report data collected as part of the program information in the EMTY. Every year, we collect general information about programs in LDT and ILS and publish this information in the Yearbook. This year we opted to collect some additional data. We asked the representatives of each of the institutions to enter the US dollar amount of grants and contracts, the number of PhD graduates, the number of Masters graduates, and the number of other graduates from their programs. We also asked them for the number of full-time and part-time faculty. We then generated a top-20 list for some of these categories. The limitation in this case is that it is self-report data and there is no real way of verifying that the

Table 1 Top 20 Graduate Programs in the area of Learning, Design, and Technology as measured by the number of publications in *Educational Technology Research and Development* and the *Journal of the Learning Sciences*

Rank	Institution	Pubs
1	University of Georgia	7.65
2	Indiana University	6.66
3	Arizona State University	5.32
4	Nanyang Technological University	4.33
5	University of Wisconsin	4.1
6	University of Colorado	2.83
7	Stanford University	2.5
7	University of New Mexico	2.5
9	University of Toronto	2.3
10	Sultan Qaboos University	2
10	SUNY-Buffalo	2
10	University of Hong Kong	2
10	Wayne State University	2
10	Florida State University	2
10	Open University of the Netherlands	2
16	Brigham Young University	1.83
16	UCLA	1.83
18	SRI International	1.81
19	University of Northern Colorado	1.75
20	University of Memphis	1.7

data is accurate. So, while the list of the 30 top programs from the first year lacked hard data, and the lists this year are based on numbers, those numbers may be just as unreliable. In the end, we have a collection of lists that we hope will be of use to our readers. Many of the universities that appeared in the list last year are here again, in addition to many others. More information about many of these universities can be found in part five of this edition.

There are six top-20 lists in this preface. The first of these top-20 lists is based on a count of publications. We used every issue from the 2007 through 2009 volume years of the *Educational Technology Research and Development* journal and the *Journal of the Learning Sciences*. We eliminated all book reviews and letters-to-the-editor and such. We only used the primary academic articles of these journals. Each publication counted 1 point. If the article had two authors, then each authors' institution received 0.5 points. If there were three authors, then 0.33 was spread across the institutions. Also, as an additional example, if there were three authors and two of them were from the same institution, then that institution received 0.66 points and the institution of the remaining author received 0.33. Finally, the unit receiving the points was the University. So, in the case of Indiana University where they have both a Learning Sciences and an Instructional Technology program, all of the points for IT and LS were aggregated into one variable called Indiana University. Table 1

shows our results. The University of Georgia came out as the top LDT program in the world. They were not in the top 5 last year; they were tied for sixth. Moving to the top program moved the University of Colorado to the sixth position. Since we are now counting publications across 3 years, we are getting a bit more variance. Last year, we had a 28-way tie for twentieth. This year we still have a large number of institutions in a tie (six tied for tenth), but we do have a list of just 20 schools. Even with large number of ties last year, we had the University of Toronto not make last year's list and come out as the ninth-ranked LDT program this year. Others that made the top 20 this year that were not in last year's top 20 included Florida State University, SRI International, and the University of Northern Colorado. While we did this list to rate universities, it is interesting that a research center comes in eighteenth place on the list even though they are not a university. We included them because of the way we counted the data.

We would love to hear your feedback on this approach for the future. Are there other journals that ought to be included? Is it unfair that there are more publications in ETRD than IJLS? What about recent graduates publishing with their new institution when the work was done at their previous institution? I am certain there are many other issues, and we welcome constructive feedback.

The two primary measures of research achievement are publications and grants. While choosing ETRD and IJLS was somewhat arbitrary, the numbers are verifiable. In Table 2, we present the top-20 programs according to the dollar amount of grants and contracts for that program over the academic year of 2009–10. While Table 1 was constrained to LDT, Table 2 has both LDT programs and ILS programs which resulted in the University of Calgary being number one in the grants and contracts list, but not appearing at all in the publication list. In fact, the only institutions that are both on the list for publications and grants are the University of Wisconsin (five for publications and ten for grants) and Wayne State University (ten for publications and fourteen for grants).

Tables 1 and 2 are measures of research productivity. The remaining four tables are more related to teaching than research. The first, Table 3, shows the top-20 programs in terms of the number of fulltime faculty. You will notice that the list is ordered by the number of full-time faculty (FT), but number five, The University of Hong Kong has 102 total faculty members. We decided that full-time faculty was more important than part time as a measure and so only generated one list for number of faculty. We just thought it would be interesting to see the total number of faculty as well. For example, it is interesting to see The University of Hong Kong and the University of Calgary with very large numbers (102 and 83, respectively), while the University of North Carolina has 31 full-time and only one part-time faculty members.

Table 2 Top-20 LDT and ILS programs by the amount of grant and contract monies

Rank	University	Department/Program	Monies
1	University of Calgary	Office of Graduate Programs, Faculty of Education	$20,000,000.00
2	University of North Carolina	School of Information and Library Science	$6,843,136.00
3	George Mason University	Instructional Technology Programs	$2,500,000.00
4	University of Massachusetts, Amherst	Learning, Media and Technology Masters Program/Math Science and Learning Technology Doctoral Program	$2,300,000.00
5	Virginia Tech	College of Liberal Arts and Human Sciences	$1,800,000.00
6	Georgia State University	Middle-Secondary Education and Instructional Technology	$1,600,000.00
7	University of Missouri-Columbia	School of Information Science & Learning Technologies	$1,585,885.00
8	New York University	Educational Communication and Technology Program, Steinhardt School of Culture, Education, and Human Development	$1,500,000.00
9	The Ohio State University	Cultural Foundations, Technology, & Qualitative Inquiry	$1,200,000.00
10	University of Wisconsin-Madison	Curriculum and Instruction, School of Education	$1,000,000.00
10	Lehigh University	Teaching, Learning, and Technology	$1,000,000.00
10	California State University Monterey Bay	Master of Science in Instructional Science and Technology (IST)	$1,000,000.00
13	Texas A&M University	Educational Technology Program, Department of Educational psychology	$876,000.00
14	Wayne State University	Instructional Technology	$750,000.00
15	Utah State University	Department of Instructional Technology & Learning Sciences, Emma Eccles Jones College of Education and Human Services	$642,000.00
16	University of Virginia	Department of Curriculum, Instruction and Special Education, Curry School of Education	$500,000.00
16	University of Geneva	Master of Science in Learning and Teaching Technologies	$500,000.00
16	Rutgers-The State University of New Jersey	School of Communication and Information	$500,000.00
16	Ohio University	Instructional Technology	$500,000.00
20	Valley City State University	School of Education and Graduate Studies	$450,000.00

Table 3 Top-20 LDT and ILS programs by the number of fulltime faculty (also shown is the total faculty which includes both full and part-time faculty)

Rank	University	Department/Program	FT	Total
1	University of North Carolina	School of Information and Library Science	31	32
2	Rutgers-The State University of New Jersey	School of Communication and Information	22	37
3	Valdosta State University	Curriculum, Leadership, & Technology	20	30
4	University of Bridgeport	Instructional Technology	14	35
5	Anadolu University	Computer Education and Instructional Technology	12	21
5	Valley City State University	School of Education and Graduate Studies	12	17
5	The University of Hong Kong	Faculty of Education	12	102
5	Fordham University	MA Program in Public Communications in the Department of Communication and Media Studies	12	16
9	University of Georgia	Department of Educational Psychology and Instructional Technology, College of Education	11	11
9	University of Louisville	College of Education and Human Development	11	25
9	The University of Oklahoma	Instructional Psychology and Technology, Department of Educational Psychology	11	11
12	Taganrog State Pedagogical Institute	Media Education (Social Pedagogic Faculty)	10	30
12	University of West Georgia	Department of Media and Instructional Technology	10	14
12	California State University Monterey Bay (CSUMB)	Master of Science in Instructional Science and Technology (IST)	10	22
12	Indiana University	School of Education	10	14
12	Utah State University	Department of Instructional Technology & Learning Sciences, Emma Eccles Jones College of Education and Human Services	10	11
12	University of Missouri-Columbia	School of Information Science & Learning Technologies	10	18
18	Hacettepe University	Computer Education and Instructional Technology	9	19
19	Western Illinois University	Instructional Technology and Telecommunications	8	11
19	University of Calgary	Office of Graduate Programs, Faculty of Education	8	83
19	Ball State University	Masters of Arts in Curriculum and Educational Technology	8	12

The next top-20 list is the number of PhD graduates. This list might be a good measure of research productivity as well as teaching productivity. The number of graduates is self-reported. The number of publications is verifiable, so it is interesting to compare who is on both lists. None of the top four are on the top-20 publications list, but there are six institutions on both lists. Wayne State, Florida State, Indiana, Northern Colorado, Georgia, and Memphis are on both of these lists. The top school in terms of PhD graduates is also on the list for the top grant-awarded institutions, George Mason (Table 4).

Our next top-20 list is based on the number of master's graduates. In our mind, we might consider this an indication of whether the program is more practitioner-oriented than say the number of PhD graduates. Interestingly, George Mason comes in fifth here whereas they were number one in PhD graduates. So, this differentiation may be meaningless. It is interesting to note that schools like University of Bridgeport, University of Calgary, Rutgers, NYIT, George Mason, and North Carolina are all producing more than 100 graduates per year. It appears that for profit institutions such as Walden University and the University of Phoenix are very active; however, neither of these two schools chose to complete the form. We are not implying that the large numbers are necessarily because these programs are online, but online degree programs certainly allow many more people to further their education (Table 5).

The final top-20 list is the combined degree graduate list. It is very similar to the master's list, but since the online form only had entries for PhD graduates, masters graduates, and other graduates, I thought it might be most useful to just show the total number of graduates from each of the programs who chose to update their information in our database. It is very interesting to see the University of Bridgeport come out on top here with 426°! This is nearly double the number of second place University of Calgary with 261 graduates (Table 6).

We acknowledge that any kind of rankings of programs is problematic. We hope you find our lists useful. If you have suggestions, please let us know and we will try to accommodate those changes in future publications of the *Yearbook*. If your program is not represented, please contact one of us and we can add you to the database so that you can be included in future issues.

Athens, GA, USA — Michael Orey
Statesboro, GA, USA — Stephanie A. Jones
Athens, GA, USA — Robert Maribe Branch

Table 4 Top 20 LDT and ILS programs by the number of PhD graduates

Rank	University	Department/Program	PhD Grads
1	George Mason University	Instructional Technology Programs	15
1	University of Bridgeport	Instructional Technology	15
3	University of Central Florida	College of Education - ERTL	12
4	University of Calgary	Office of Graduate Programs, Faculty of Education	11
4	Wayne State University	Instructional Technology	11
6	University of Missouri-Columbia	School of Information Science & Learning Technologies	10
6	Florida State University	Educational Psychology and Learning Systems	10
6	Illinois State University	Curriculum and Instruction	10
6	Ohio University	Instructional Technology	10
10	Indiana University	School of Education	7
10	Virginia Tech	College of Liberal Arts and Human Sciences	7
12	The Ohio State University	Cultural Foundations, Technology, & Qualitative Inquiry	5
12	The University of Texas at Austin	Curriculum & Instruction	5
12	Kent State University	Instructional Technology	5
12	University of Louisville	College of Education and Human Development	5
16	Utah State University	Department of Instructional Technology & Learning Sciences, Emma Eccles Jones College of Education and Human Services	4
16	University of Northern Colorado	Educational Technology	4
16	Texas A&M University	Educational Technology Program, Dept. of Educational psychology	4
16	University of Toledo	Curriculum & Instruction	4
20	Rutgers-The State University of New Jersey	School of Communication and Information	3
20	University of Georgia	Department of Educational Psychology and Instructional Technology, College of Education	3
20	University of North Carolina	School of Information and Library Science	3
20	University of Memphis	Instructional Design and Technology	3
20	University of Virginia	Department of Curriculum, Instruction and Special Education, Curry School of Education	3
20	Georgia State University	Middle-Secondary Education and Instructional Technology	3

Table 5 Top 20 LDT and ILS programs by the number of master's graduates

Rank	University	Department/Program	Masters
1	University of Bridgeport	Instructional Technology	294
2	University of Calgary	Office of Graduate Programs, Faculty of Education	235
3	Rutgers-The State University of New Jersey	School of Communication and Information	144
4	New York Institute of Technology	Department of Instructional Technology and Educational Leadership	130
5	George Mason University	Instructional Technology Programs	130
6	University of North Carolina	School of Information and Library Science	111
7	University of Colorado Denver	School of Education and Human Development	84
8	The University of Rhode Island	Graduate School of Library and Information Studies	80
9	University of Central Florida	College of Education - ERTL	65
10	University of Missouri-Columbia	School of Information Science & Learning Technologies	59
11	San Francisco State University	College of Education, Department of Instructional Technology	50
11	Buffalo State College	Computer Information Systems Department	50
11	Illinois State University	Curriculum and Instruction	50
14	Wayne State University	Instructional Technology	48
14	Emporia State University	Instructional Design and Technology	48
16	University of Nebraska-Omaha	Department of Teacher Education	41
17	University of Georgia	Department of Educational Psychology and Instructional Technology, College of Education	40
17	Georgia Southern University	College of Education	40
17	Lehigh University	Teaching, Learning, and Technology	40
17	University of West Georgia	Department of Media and Instructional Technology	40
17	University of Central Arkansas	Leadership Studies	40
17	Bloomsburg University	Instructional Technology & Institute for Interactive Technologies	40
17	University of Nebraska at Kearney	Teacher Education	40
17	Michigan State University	College of Education	40

Table 6 Top 20 LDT and ILS programs by the overall total number of graduates

Rank	University	Department/Program	Total Degrees
1	University of Bridgeport	Instructional Technology	426
2	University of Calgary	Office of Graduate Programs, Faculty of Education	261
3	Illinois State University	Curriculum and Instruction	260
4	Valley City State University	School of Education and Graduate Studies	191
5	Rutgers-The State University of New Jersey	School of Communication and Information	147
6	George Mason University	Instructional Technology Programs	145
7	University of North Carolina	School of Information and Library Science	136
8	New York Institute of Technology	Department of Instructional Technology and Educational Leadership	130
9	University of Missouri-Columbia	School of Information Science & Learning Technologies	87
10	University of West Georgia	Department of Media and Instructional Technology	85
10	University of Colorado Denver	School of Education and Human Development	85
12	University of Central Florida	College of Education - ERTL	84
13	California State University Monterey Bay (CSUMB)	Master of Science in Instructional Science and Technology (IST)	80
13	The University of Rhode Island	Graduate School of Library and Information Studies	80
15	Wayne State University	Instructional Technology	67
16	University of Central Arkansas	Leadership Studies	60
17	University of Nebraska-Omaha	Department of Teacher Education	54
18	University of Georgia	Department of Educational Psychology and Instructional Technology, College of Education	53
19	San Francisco State University	College of Education, Department of Instructional Technology	50
19	Buffalo State College	Computer Information Systems Department	50

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Part I
Trends and Issues in Learning, Design, and Technology

Introduction

Liz May and Michael Orey

Storytelling is not a new phenomenon; nor is using education as a way of fostering socialization and identity. However, pairing storytelling with technology as a way to solve social problems is new, and therefore *Storytelling among Israeli and Palestinian Children in the Era of Mobile Innovation* by Buckner and Kim provides us with a glimpse into an innovative way to enhance peace education. This Stanford University project provided *TeacherMate* handheld devices to 185 Palestinian children to record their own stories. Having access to firsthand accounts from children in a war-torn area provides a way to enter their perceptions and experiences into the record, bypassing the nation-state political, religious, or military rhetoric that is often the only information available. Such accounts may increase understanding of the Other, also help both sides to establish a global identity that acknowledges the dignity and worth of all individuals. Peace education has many challenges; perhaps innovative technology can overcome some of them, as it opens up avenues for collaboration across cultures that have long held conflicts.

The next article explains a project that was collaborative across cultures, and across levels of expertise. In *Self-regulated Learning as a Foundational Principle for a Successful Strategy in Teaching Educational Research Methods to Doctor of Philosophy Students*, Dousay, Igoche, and Branch share the particulars of their project-based research model in a way that may inspire other faculty to follow suit. Even though those pursuing doctoral studies are often self-motivated and self-regulated, it could be that some teaching methods do not exploit these qualities. Research classes, for example, that teach students about research without affording them opportunities to conduct it leave much to be desired. With a commitment to learning by doing, the Sentence Period Spacing (SPS) project members became involved in self-regulated learning, as well as mentoring, and practicing all aspects of the research process. With the aid of a tenured faculty who provided support and advice,

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the SPS team was able to take ownership of the project from its conception all the way to publication of findings. Surveys of past participants of this ongoing project have indicated that it helped them to be adequately prepared for their faculty positions as they learned how to do something by actually doing it.

No matter whether one is a novice or expert faculty member, facilitating meaningful class discussions can be a challenge. In *Fostering Student Cognition in Computer Supported Online Collaborative Learning Environment*, Hew, Tan, and Cheung tackle the formidable task of fostering more robust online discussions. As anyone who has facilitated such discussions knows, it is often a challenge to get students to post comments beyond polite exchanges or surface knowledge sharing onto more critical knowledge building. With this goal in mind, the authors reviewed two vignettes that provide guidelines and techniques to develop deeper discussion levels, as well as an examination of how levels of knowledge building are influenced by the nature of assigned tasks. Their thorough review would be helpful for those who have wondered how to raise the level of online discussions (or perhaps even face-to-face discussions). Since discussions will most likely continue to be an integral part of online learning, this article would be a useful for both novice and expert faculty.

As they have done in previous years, Brown and Green reviewed the current state of instructional technology across three sectors: corporate, K-12, and higher education. In *Issues and Trends in Instructional Technology: Lean Times, Shifts in Online Learning, and Increased Attention to Mobile Devices*, one finds some good news and some bad news. The bad news is that all sectors have had to tighten their fiscal belts, although the corporate sector had a slight increase in spending. The good news is that even in difficult financial times the internet affords enough low-cost options to still be used effectively. In higher education, for example, mobile devices are now owned by virtually all students, and now have broader capabilities and applications. Brown and Green's thorough review provides areas to watch for future growth, namely cloud computing, and collaborative learning platforms, but of course both of these tools have privacy and security issues that must be successfully managed. They also mention growth in digital textbooks as a way to cut costs, but these also will come with new problems to be managed. It will be interesting to see if future trends will include development of innovative ways to deal with the new issues that arise from the new technologies.

Web 2.0 tools have already been mentioned as a useful collaborative learning tool; but how can faculty use them for their own professional development? Although instructional technology is a relatively young field, the internet has made it a field that is difficult to keep up with. Therefore, the faculty of Eastern Michigan University have developed a knowledge management wiki for professionals to share, interact, and collaborate with each other. In their article *Enlisting the Collaboration of the Educational Technology Professional Community to Develop a Knowledge Management System of the Field: edu-teKNOWiki*, Bednar and Copeland explain how the wiki came about, its theoretical foundation, and its potential for connecting those interested in all facets of educational technology. The project is an open source that is not connected to any vendor, but welcomes links to organizations such as

AECT and ISTE as way to foster mutually beneficial dialogue. Due to its nationwide contributors, the wiki was designed to serve a broad audience, and is even open to an evolving design as user practices are permitted to influence its functionality. It is easy to see how such a tool would help anyone interested in educational technology, and we should not be surprised to see this helpful resource expand to international contributors as well.

While virtual resources will continue to grow, and libraries will follow suit as they digitize, Knapp makes a very good case for the importance of onsite librarians in *Concierges, Sherpas, and Cruise Directors: The Vital Role(s) of School Librarians in Literacy Learning.* She skillfully demonstrates a correlation between literacy and school librarians who maintain a full service facility, and an active, collaborative role with faculty and students. For example, librarians are often the gateway to selection of quality books that hook young readers, and even challenge them to eventually branch out. They also function as guides for those who need help navigating the vast amount of resources that can overwhelm today's students. Finally they can foster a social component into literacy as they plan with teachers how to get students collaboratively involved in reading. Knapp concludes with relevant suggestions for both schools and library education programs that will bring the promotion of literacy to the forefront of librarianship.

Sorting through vast stores of information is not limited to school librarians. Ku, Plantz-Masters, Hosler, Diteeyont, Akarasriworn, and Lin have undertaken a daunting task in their article *An Analysis of Educational Technology Related Doctoral Programs in the United States.* The fact that programs differ in name, emphasis, and curriculum makes the analysis a bit difficult, but Ku and his team have managed to wade through these somewhat murky waters to aid those who are interested in pursuing a doctoral degree in the field. This very informative article includes information about number of programs, as well as variation in titles, credit hours, delivery method, and dissertation requirements. It also offers explanations on why the variations exist, such as marketing, and economic necessities that impact when, where and how programs are offered. Anyone who is reviewing programs will find much helpful and relevant information in this article.

While evaluating doctoral programs is an authentic problem-based learning scenario, it is not nearly as much fun as using the *Alien Rescue* program to learn middle-school science. In their article *Examining the Design of Media Rich Cognitive Tools as Scaffolds in a Multimedia Problem-Based Learning Environment*, Liu, Horton, Toprac, and Yuen set out to examine technology-enhanced scaffolding. Using a series of studies, the authors examined how and when the cognitive tools were used in the problem-solving process, as well as the effect of group use of cognitive tools on individual performance. Apparently there was a connection between the use of cognitive tools and high performance on problem-solving tasks. Since both problem solving and technology use are important in today's schools, it is important to know how to design multimedia programs that assist students in problem solving, but that are also fun enough to keep students engaged.

Keeping games both fun and educationally sound is not easy, as Reese points out in *An Instructional Design Approach to Effective Instructional Game Design*

and Assessment. She proposes that instructional designers need to work with content experts for sound game design, but notes that challenges exist. Some of these challenges have to do with budgetary concerns, and some have to do with insufficient interaction of game design with education theory. Using the CyGaMEs research game *Selena* as an example, she proposes the use of instructional design principles to build a repository of similar games that can aid in the development of future educational games. Reese also calls for the field of instructional technology to continue to develop instructional game design since the use of educational games will continue to grow.

Storytelling Among Israeli and Palestinian Children in the Era of Mobile Innovation

Elizabeth Buckner and Paul Kim

Introduction

Research in the field of educational media and technology has tended to focus on the intersection of technology and learning. Some of the major themes in the field include: how to improve technological design; how to expand access to technology for disadvantaged populations; and how to use technology to improve instructional design and promote learning objectives (AECT, 2009; Kozma, 2000). These are important areas of research; however, promoting academic learning is only one of the many roles educational institutions play in our societies. We must recognize that formal education is an incredibly powerful institution in every society, which not only educates children, but also socializes them and instills them with national identities and values (Dewey, 1938; Meyer, 1977; Ramirez & Boli, 1987). Just as we do not limit our definition of technology to mere computers or connectivity, neither can we limit our definition of education so narrowly as academic achievement – or even learning.

This study emerged out of a desire to understand how educational technology can not only promote academic achievement, but also improve other social problems through its impact on education. Prior research has shown that schools are powerful socializing agents, and that educational media and technology, namely television, can influence children's attitudes, beliefs, and behaviors (Sanders, Montgomery, & Brechman-Toussaint, 2000; Zimmerman, 1996). Building off of this literature, we advocate a research agenda that investigates the role that newer educational technologies can play in socializing young people and shaping their identities, values, and characters, as well as their knowledge about the issues that shape their lives. Recognizing that technological innovation is re-defining the social

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world, condensing the time-space continuum and altering traditional boundaries, in this article, we explore how educational technology might be utilized to improve entrenched social problems, such as poverty, political conflict, and oppression by altering the way that young people think about, learn about, and experience these phenomena.

Prior literature is complete with myriad ways that technology is contributing to improving larger social problems, including by promoting small loans and entrepreneurship (Yunus, 1998), improving access to information about health (Istepanian, Laxminarayan, & Pattichis, 2005; Kaplan, 2006; Vilella et al., 2004), improving women's safety in regions of conflict, encouraging citizen journalism (Palen & Liu, 2007), and promoting cross-border dialogue among individuals (Austin et al., 2009). However, very little literature focuses on how these technologies can be combined with educational initiatives to improve the future of generations of children. With this in mind, we narrowed in on one specific social problem – entrenched political conflict – and questioned: how can we use educational technology in the service of peace education?

This paper presents a model for how educational technologies can be leveraged to promote peace education, by traversing national boundaries and encouraging the development of mutual understanding and a global sense of identity through storytelling. It presents initial findings from fieldwork conducted in Palestine in March 2010 and offers theoretical contributions to future studies on the role educational media and technology can play in supporting other intersections between education and social movements, including health education and financial literacy.

Borders and Conflict: The Case of Israel and Palestine

The idea that technology can link people across borders has become a platitude in the popular media today; but the focus on how technology can connect individuals across borders tends to obscure the fact that borders of all kinds still shape our social world and our lived experiences (Evans, 1997). In fact, for most of the world, movement across political boundaries is still highly restricted, and even accurate information about others beyond one's borders is difficult to obtain.

Moreover, in a world where the prevalence of inter-state conflict is largely declining (Sarkees, Wayman, & Singer, 2003), certain decades-long cross-border conflicts stand out as particularly glaring examples of where real and imagined categories between "us" and "them" are clearly delineated. The border between Israel and Palestine is one such border – a striking example of a political, cultural, religious, and militarized border. It is also the site of an ongoing, decades-long inter-state conflict, and as a result, its borders are laden with violence and struggle.

In such conflicts, violence becomes a constant part of young people's lives. For example, the Palestinian Ministry of Health reports that in the violent clashes in late 2008 and early 2009, more than 400 children in Gaza were killed by violence and 1,800 were wounded (UNICEF, 2009). As the victims and witnesses of violence,