

Guest Editorial: The State of the Field: Technology, Social Studies, and Teacher Education.

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A “Concise Discussion” on a Sprawling and Evolving Field: The Phone Call

David:

Okay, Adam, here’s the plan – the SITE social studies content strand needs a paper that focuses on the state of the field. The paper will be posted on the SITE Web site and also published in *Contemporary Issues in Technology and Teacher Education (CITE Journal)*. We hope that it will serve as a foundation, guide, or point of entry (and contention) for social studies teacher educators and researchers who are “interested in the creation and dissemination of knowledge about the use of information technology in teacher education” (Society for Information Technology and Teacher Education Mission Statement, see <http://site.aace.org>). Simple enough job, me thinks.

Adam:

Sounds good. Totally do-able.

David:

Yes, I think we could probably knock this baby out in an afternoon.

[Silence from Adam and David, which is pretty unusual for those of you who know Adam and David]

Adam:

Definitely. [Pause] Well any ideas on direction? I mean "the state of the field," that is a bit of a broad topic isn't it. It could be a book: *Technology, Social Studies, & Teacher Education*. I mean, there are competing definitions of social studies to start with, and within social studies I would say there are competing definitions of the nature and purpose of technology integration. We are a cantankerous bunch you know.

David:

Good point. This project is starting to look a little more complex and messy than I first thought...

[No response and yet another long pause]

Adam:

We are bound to miss something or upset someone... Well, I suppose we could start by looking at previous papers for the social studies content strand from the SITE conferences. Lots of stuff there, from Digital History Projects to GIS to portable handheld devices to digital images. In fact, did you know that at the 2005 SITE conference there were 24 social studies content papers? I would personally divide them into three basic types:

1. Technology's promise or potential in terms of teaching social studies.
2. A "personal account" of what happened in a particular methods class/work in school.
3. A small scale, qualitative study of how K-12 social studies teachers/students use technology

The results were the following: 10 papers (42%) described technology's potential; 5 papers (21%) described a personal account; 9 papers (38%) were small-scale studies.

[Long pause as David wonders whether Adam truly has a life.]

David:

Er, yes.... Well, I guess we could also look at the *CITE Journal* social studies section (<http://www.citejournal.org/socialstudies>). That section is focused on integrating technology within social studies teacher education. It includes the College and University Faculty Assembly of the National Council for the Social Studies' guidelines for teacher educators (Mason, Berson, Diem, Hicks, Lee, & Dralle, 2000), and the resulting commentaries and discussions that explore the need for a conceptual framework for the use of technology in the social studies (Crocco, 2001; Doolittle, 2001). There is also a literature review on the effectiveness of computers in social studies instruction and learning (Whitworth & Berson, 2003).

Then there are a range of papers by teacher educators detailing their efforts to seamlessly integrate technology within and through methods courses (Merryfield, 2003; Rock & Passe, 2004), as well as papers examining the impact of technology infused methods courses on preservice teachers' perceptions and uses of technology (see Bennett & Scholes, 2001; Molebash, 2004). Within this category of papers, it is possible to pull out articles that examine how preservice teachers have utilized digital history sites (Calandra, Lang, & Barron, 2004; Maloy & Getis, 2002), GIS (Alibrandi & Palmer-Moloney, 2001), and virtual reality (Sherman & Hicks, 2000). Together the papers illuminate the complexity and range of interests of social studies teacher educators. One paper specifically talks about teaching global studies and encouraging women teachers to use

technology to study the status of women worldwide (Crocco & Cramer, 2005). And let's not forget those research papers examining the role technology plays in fostering discussion (Larson & Keiper 2002), crosscultural connections (Merryfield, 2003), and multicultural democratic education (Marri, 2005).

There is a wide variety of stuff just within the social studies section of *CITE Journal*, and it is not all "look at how great technology is." I believe that there is a developing discussion that recognizes the complexity of schooling, the existence of the digital divide, gender related technology issues, and the limited use of technology by social studies teacher educators in general (see Bolick, Berson, Coutts, & Heinecke, 2003)...

Adam:

Additionally, last summer the *Journal of Computing and Teacher Education* published a social studies and technology themed issue. This issue included Crowe's (2004) piece on a social studies teacher educator's modeling of technology in order to promote its use, as well as Crocco & Cramer's (2004) report on the effect of the digital divide on technology integration, as "few resources existed" in many of the schools in which their student teachers were placed (p. 137).

David:

Cheryl Mason Bolick (2004) edited that particular themed issue, and she made the statement that "a review of the publications in the field reveal that, indeed, we have amassed not only a long list of research and practitioner publications, we also have a focused group of social studies scholars dedicated to investigating the integration of technology into the social studies" (p. 130). She also acknowledged the growing number of articles examining the uses of technology within *Theory and Research in Social Education* and the *Social Education* technology themed issue every April.

And it is important to note that we indeed seem to have begun to shift our gaze from simply talking about the potential of technology to transform the social studies to not only investigating how teachers and teacher educators are integrating technology, but also designing and examining how associated technology-enhanced instructional strategies can scaffold student learning. For a while we were acting like kids in a candy shop. We were excited about the range of technologies just in reach and how sweet they all looked; yet all they really did was give us a quick rush and left us feeling a little bloated and overwhelmed. A result of this, I think, is that the concept of marginal propensity to consume has taken hold with regard to salivating over the potential of all the different types of digital technologies to reform the social studies.

Adam:

Well, sharing news and ideas about the latest technology has occurred for the better part of a century. The term "technology in schools" has long been viewed as an educational panacea in which students would be able to learn almost in spite of their teacher, and countless school reform measures have been suggested and mandated that advocate state of the art technology. "State of the art technology" has evolved from motion pictures, to radio, television, microcomputers, educational software, and static Web pages to Internet sites that foster interaction and communication between students and teachers. For each development, there has been a parallel prediction that its use would revolutionize teaching and learning. However, their promises and potential have not always proven true—not just today but in the past.

A great example is Thomas Edison's 1913 quote about the instructional potential of motion pictures, "Books will soon be obsolete in schools. Scholars will soon be instructed through the eye. It is possible to teach every branch of human knowledge with the motion

picture. Our school system will be completely changed in ten years" (Saettler, 1990, p. 98).

Over the last decade or so social studies education has been a microcosm of this evolution of technology and its associated possibilities; both in terms of use by practitioners and examination and reflection by researchers. The mid-1990s spawned a vast expansion of Internet sites and users, and this brought with it an accompanied, yet perhaps unexpected boon for social studies education. Internet sites began to host electronic versions of primary sources, which were subsequently termed digital primary sources. This development was coupled with virtually every public school in the United States obtaining an Internet connection (Tabs, 2003). As a result, this availability offered teachers and students an unprecedented opportunity to search for and utilize primary source documents (VanFossen & Shiveley, 2000; Warren, 2001) and explore the potential of other technologies such as GIS, virtual field trips, and the like. Many of us saw technology as offering the potential for social studies to become an active subject, as students could utilize technology in order to engage in inquiry learning and constructivism (Doolittle & Hicks, 2003).

And I think to a great extent many of these discussions will continue. Technology keeps changing all the time—and we do need to hear about possibilities and products that support preparing teachers for social studies—including history, government, economics, geography, etc. But we need to approach this work more critically and systematically. As you mentioned the technology themed issues in *Social Education* go a long way toward providing teachers with visions of the possible and great new ideas. I think we need such pieces as a way to encourage and support our colleagues in the social studies. But in order to support our colleagues, I think it is also important that we are more critically aware of and pay attention to the realities of educational change and reform in our papers.

David:

I wonder how many of those articles and themed issues really resonate with the educational needs of teachers, or were actually written with teachers? Well, it is always nice to think that there is a panacea, remember the New Social Studies in the 1960s? Academics came in with all the skills of the discipline programs like MACOS and contended that they were going to transform the nature of social studies as a school discipline. It did not. They forgot about (a) the realities of schooling with regard to the organizational, political, historical and social contexts of teaching; (b) the grammar of schooling (Tyack & Cuban, 1995), or what Sarson (1990) called the deep seated regularities of the classroom, that contextually constrain teacher choice; and (c) the educational needs of teachers.

As teacher educators interested in the integration of technology I wonder if we forget about the complex and messy nature of teaching. And in our own excitement about the possibilities of technology for the social studies, we often, it seems, work in splendid isolation, spending a lot of our time not necessarily in research and development but in development with a little bit of quick, one-stop "research." How many of us have developed an ongoing research agenda or program that has sought to connect with educational users, or even bothered to ask teachers what their questions and needs are? Maybe Saye and Brush's work does this; they appear to be methodically developing a sustained research agenda that examines how their multimedia based instruction scaffolds student learning (Saye & Brush, 1999; Brush & Saye, 2002; Brush & Saye, 2004).

I think that in terms of the development of a technological infrastructure in schools, funding like PT3 was a double-edged sword. Although it did elevated technology to the

forefront of educational arena, how many of us in social studies actually worked collaboratively with teachers and technologists to not only develop products but thoughtfully and meaningfully research and evaluate the impact of the use of technology and technology enhanced instructional designs within classrooms? When that much time, money, and funding is put into an educational endeavor, politicians want to see evidence of transformation and success—as measured by increases in student achievement. The problem is that minimal systematic and sustained research of this type was conducted in social studies (or across the board for that matter). Another repercussion of receiving such funding and attention, and the resulting lack of evidence of educational change is the creation of a distracting and dichotomous debate between advocates and detractors of technology. While the concept of “you’re either with us or against us” is simplistic at best, it is not a new phenomenon in education, politics or science, as Maxine Greene noted in 1968:

There has always been a doubleness in American attitudes towards science and machines. Some men welcomed their advance from the beginning and found in them the ripest fruits of progress, the true fulfillment of the ancestral dream. Others looked upon them as alien invaders, intruders in the mythic "garden" where Adamic free men were intended to dwell.

Adam:

I think Larry Cuban in his book *Oversold and Underused*, falls into this debate. Just from the title you kind of get a feel for which camp he is in. This does not mean that he would not love to see classrooms where technology is seamlessly integrated to facilitate inquiry, foster democratic ideas, and forge stronger communities and citizens as Mason et al. (2000) also advocate. I think he is reacting to the cheerleaders who argued that the seamless integration of technology would transform classrooms and schools. There are always cases of innovative teachers, but we are not seeing wholesale transformation, or research, and as result there is the danger of falling into the trap of computers being viewed as good or bad. The result it appears for Cuban is that he has to dismiss computers as being worthwhile simply because they have failed to meet the optimistic claims of computer advocates.

So are there correct answers? If yes, what are they? What proof is there? We do need research that re-frames and reconceptualizes the implementation and uses of technology in schools. We also need research that results from collaboration between teachers and researchers and which to a great extent is directed by the questions and needs of teachers.

David:

I agree. Cuban’s body of work as a whole recognizes the difficulties associated with innovation, transformation, and change. All exciting terms, but they are becoming clichés that appear to mean little when facing the realities of teaching and learning to teach. Judi Harris (2005) has recently written on the importance of separating the goals of technology integration from the goals of educational reform and change. It is an important point that we need to address in social studies. I personally struggle with conceptualizing educational change and understanding what transformation could possibly look like in reality when I am visiting schools and observing my teachers, especially when technology in schools is used as a presentation or administrative tool. One of the key problems of connecting technology integration with educational reform and change is that more often than not the concept of innovation is broken down into phases/stages (see Naisbitt, 1982; Rogers, 1995). The danger of delineating phases, as part of incremental change theory and/or a slow revolution, is that it assumes that there is a rational, visible endpoint: “Look everyone, we are here, we have reached the final stage.”

Dewey, however, (1922/1983) insisted, “Ends are in fact, literally endless, forever coming into existence as new activities occasion new consequences. ‘Endless ends’ is a way of saying that there are no ends—that is no fixed self-enclosed finalities” (p. 159). In this sense it helps to see “the educational process is one of continual reorganizing, reconstructing, transforming” (Dewey, 1916/80, p. 50). So rather than seeing finite stages and end points, it helps me to conceptualize change and innovation as both the product and process of a constant interactional flow of ideas, forms of practices, and ongoing dialogues, (based upon ideas, practices, and evidence) that continually weave together to form evolving networks of support that can inform, sustain, and influence our future research and development activities.

To what extent these evolving and ongoing dialogues and activities resonate with teacher educators’, teachers’, and preservice teachers’ own beliefs and understandings will determine the extent to which technology will play a role in the teaching and learning of social studies. Re-conceptualizing the concept of technology integration and the role of research and development within the social studies, I think, is going to be vital if we are going to go beyond a simplistic for and against argument. And this can begin with creating and reporting on networks of collaboration between teachers, educational researchers, and technologists.

Adam:

Given what you say it is possible to see how dialogues and practices are continually reorganizing, reconstructing, and transforming, as there has been a transition in regards to the literature on technology integration in the social studies. The guidelines themselves evolved out of work done by a number of teacher educators in response to what Martorella (1997) deemed the “sleeping giant,” and to a great extent sought to give some framework and guidelines to continuing the decades-old trend of describing technology (including imagined visions of the possible) as a teaching and learning tool. However, in their review of the social studies and technology literature from 1996-2001, Whitworth and Berson (2003) found that “Internet use and accessing information on the Web” was “the most common use of technology in the social studies” and that there was “a concern that technology is simply a more sophisticated and expensive way to meet the same learning outcomes as produced by more traditional methods.” This echoed the results of VanFossen’s 1999-2000 study of social studies teachers in Indiana, in which he discovered that many teachers use the Internet for little more than “glorified information gathering” (p. 104).

David:

I do think that we are seeing the growth of overlapping areas of dialogue, in a field that Berson and Balyta (2004) saw as coming out of its “adolescence” (p. 148). I hope that this is the case as I do feel that at the moment we can easily be criticized as being a field that is “research light,” which is not a strong place to be with calls for scientifically based research.

Adam:

It could actually be a great place to be—if the pressure for empirical research helps teacher educators/researchers and teachers begin more thoughtful and meaningful research dialogues that go beyond simplistic dissociated efforts. And I do think that we have some powerful ongoing dialogues that are evolving within the social studies field. Dialogues that I think can help build and sustain networks within and amongst social studies educators. For example there is a need for more contextually sensitive and inclusive dialogues that: (a) recognize the digital divide and its impact on teaching and learning social studies; and (b) examine the digital disconnect between teachers’ and students’ abilities and expectations with regard to using technology.

We have seen national studies that focus on how social studies teachers obtain technological resources (Hicks, Doolittle, & Lee, 2004), as well as a survey of social studies methods faculty in regards to their use of technology in their instruction (Bolick, Berson, Coutts, & Heinecke, 2003). Both of these studies demonstrated that technology was less frequently used than traditional methods of instruction, but Bolick et al.'s (2003) study demonstrated that the Internet was used to a much larger degree than it had been in the past. There have also been smaller scale, qualitative studies that focus on social studies students' use of technology (Lee & Calandra, 2004), and studies have also explored the effect of social studies-specific technology training on whether teachers used technology in their classroom (Friedman, 2006).

The bottom line is that I agree with what you said in terms of the field's adolescence, which provides us a great opportunity to advocate for advancing the type of research that is conducted within social studies and technology. According to Moore's Law, every 18 months technology available will double and its price will decrease by half (McCain & Jukes, 2001). That being said, there will always be newer and faster technologies on the horizon. Rather than continuing to imagine what this technology's potential can be, our field should take the next step in terms of studying what this technology actually does. In other words, does technology "work?" Is it better in terms of instructional outcomes? Also, as Berson and Balyta (2004) pointed out, what is and what will become of the impact of the instantaneous availability of information through cell phones, digital cameras, and personal digital assistants on social studies education?

David: We need to take seriously what Roblyer (2005) described as "the five pillars of good educational research" and seek to develop the meaningful and powerful studies that will move the field forward. As Harris (2005) noted, we have come to a point where all of us interested in the technology integration, including social studies teacher educators, must make a choice: "Should we, as educational technology leaders, concentrate our efforts upon developing, testing, and disseminating a wide range of educational technology uses that support a broad spectrum of pedagogical approaches? Or should we recommit—and state publicly—our intention to help schools change the nature of teaching and learning through particular applications of digital technologies?" Harris (2005) pointedly contended

Considering the latter choice has been the largely unstated (and, arguably, unsuccessful) agenda for the past 20 years of educational technology work, perhaps a new approach is warranted at this point in time—one that genuinely respects pedagogical plurality and honors teachers' academic freedom. In choosing differently, we would also commit our efforts in a different direction: to broaden our research and development work to encompass many different digitally supported instructional strategies while trusting our colleagues to consider and choose appropriately among them. (p. 121)

Within our content strand we need to seriously consider the path that should be taken and the tools that will allow us to navigate the path successfully. In making this choice we need to engage in dialogues that examine where we have been with regard to research and development in the social studies; re-conceptualize the debate regarding technology integration and educational change; examine how the contextual constraints and realities of schooling serve to influence how teachers and students are using technology in the classroom; and develop, describe, and carefully research products and processes that use technology-enhanced instructional strategies to support teacher needs and scaffold student learning within and across the social studies disciplines.

Adam:

We also need dialogues that detail how teacher educators are using technology as a means not only to enrich the learning experiences of preservice teachers, but are taught ways in which it can be used as a tool to foster technology integration in their own instruction. And we still really need to begin developing dialogues that go beyond the possibilities of technology in the social studies and instead are grounded in the reality of K-12 classrooms. It is a natural progression that technology in the social studies should evolve from a description of its potential, to in-depth case studies, to larger scale research in order to gauge its effects. Within this research, the realities of the K-12 classroom and role of teacher educators should be considered in terms of standardized tests and heterogeneous grouping.

Additionally, research should take an instructional design perspective, where the needs of teachers and students are analyzed, specific learning objectives are designed in which there is then a “seamless” integration of technology into social studies instruction as Mason et al. (2000) suggested, alongside measurable outcomes as to whether or not the learning objective was achieved. I feel that this approach fits well with the undergirding principles of the 2002 *No Child Left Behind* (NCLB) Act, which advocates the testing of students in order ensure their progress and achievement. This will take place through “Annual statewide assessments” so as “to provide an external, independent measure of what is going on in the classroom” (U.S. Department of Education, n.d.). Whether as educators we agree with the NCLB act in terms of the format of these tests, the inherent pressure placed on students and teachers, and the repercussions of not achieving a passing score, from a purely instructional design standpoint, it is beneficial, as it provides a measurable benchmark by which achievement may be measured across teachers and schools.

David:

You are opening up a whole can of worms here, Adam.....

Adam:

Agreed... But the question of the applicability of this notion to social studies then becomes paramount. The nature of research in social studies education, in which researchers are in the field making meaning of what is transpiring in different classrooms among teachers and students, makes it difficult at best, unethical or nearly impossible at its worst, to incorporate experimental design into research with technology and social studies. However, there is a need to clearly think about direction and appropriate research agendas, questions, and methods in social studies education and technology research in order to examine the extent to which technology leads to improve learning. It is more difficult to set up valid experimental design studies in an educational setting, as it might prove unpopular among parents if their child is not the “control” group, and administrators might be reluctant to allow researchers to undertake this task. Berson and Balyta (2004) noted that there is a lack of “empirical evidence” as to technology’s added value in the social studies (p. 148). Therefore, it is necessary to embark on studies that incorporate more of a mixed methodology approach in which technology use in the social studies can be measured as to its effect on student achievement.

David:

Roblyer’s (2005) and Harris’s (2005) recent articles are key here and should inspire a dialogue that needs to continue at SITE within and across the content strands if we are “to advance the professional and scholarly field of technology and teacher education” (Thompson, Bull, & Willis, n.d.). At SITE there is a need within and across the content strands to see papers that (a) discuss, model, and evaluate appropriate and relevant research questions—that are both ethical and doable; (b) use appropriate methodologies,

whether quantitative or qualitative to answer the research questions at hand; and (c) clearly describe the implications of the findings for improving teacher education by meeting teacher needs and/or fostering student learning.

Adam:

Should be an easy job.... Just as simple as this paper is turning out to be [comment rife with sarcasm].

David:

Yes, it is going to be a complex and messy process, but it is important within our field to be ready, willing, and able to shift our gaze and change our perspectives with regard to our work; while also encouraging and promoting ongoing sophisticated and systematic research, as well as recognizing the interconnectedness of different types of innovations and research within the sprawling and evolving field of the social studies.

Adam:

Sounds good. So how are we going to get this conversation—our dialogue—into one short paper?

David:

Not got a clue... Let's think about it and touch base later.

[Phone call ends.]

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