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Revisiting the "Sleeping Giant" Metaphor: Is It Still Sleeping in the Commonwealth of Virginia, and Is It Still Really a Giant?

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Abstract

In order to revisit Martorella's metaphor of technology as a sleeping giant this paper analyzes data collected over multiple years in order to provide a portrait of how preservice teachers make sense of and choose (if at all) to integrate digital technologies within their internship classrooms. Findings indicate that in the Commonwealth of Virginia, within our data set, the sleeping giant is awake (technology is being used), but in the hands of our preservice teachers it is a myopic traditionalist who is the "servant" to the "master" of standards-based assessment.

Revisiting the "Sleeping Giant"

In 1997, Peter Martorella memorably described technology as the "sleeping giant in the social studies curriculum" (p. 511) and called on the field to "wake the giant" (p. 514) through meaningful infusion of technology in the social studies curriculum, as well as to engage in more research and reflection. In the years since this article was published, a growing body of social studies educators has sought to wake the giant—or at least give it a good prod—as part of the process of researching the potential of digital technologies to shift the terrain of teaching and learning in the social studies classroom (see Berson & Balyta, 2004; Berson, Lee, & Stuckart, 2001; Braun & Risinger, 1999; Whitworth & Berson, 2003). However, little evidence actually shows that digital technologies have been seamlessly integrated into any content-specific classrooms, especially within the field of social studies (see Cuban, 2001; Swan & Hofer, 2008).

The literature is replete with examples of the disconnect between the idealism of the advocates for the use of digital technologies, who have long been waiting for the metaphorical giant to awaken and transform children's learning experiences and the realities of the social studies classroom (Ehman & Glen, 1991, Berson et al., 2001; Swan & Hofer, 2008).

As Hammond and Manfra (2009) observed, "Technology typically plays a marginal role in most social studies instruction…[and] the technologies that have been widely used…have reinforced rather than challenged the existing curriculum" (p. 161; see also, Whitworth & Berson, 2003; McGlinn Manfra & Hammond, 2010). Similarly, DeWitt (2007) argued that instructional use of digital technologies typically reinforces "technology enhanced traditionalism," or the transmission of chunked information to students (see also Dede, 2008; Harasim, 2012; Sheffield, 2011; Zhao, 2007).

For many teacher educators who continue to advocate for the meaningful integration of digital technologies in the social studies classroom, such findings have provoked a sense of frustration and incongruence, for as Cantu and Wilson (2003) noted, "It is rather inconceivable to think we would still be engaged in a discussion of how to integrate technology and the Internet into the history teacher education curriculum. However, this is the reality of the situation" (p. 35). Such a reality reveals the necessity for research that examines the complex relations and processes that impact why and how teachers learn to utilize digital technologies as part of their pedagogical activity within the social studies classroom (see Doppen, 2004; Lipscomb & Doppen, 2004; Manfra & Hammond, 2006; Wright & Wilson, 2005/2006; Zhao, 2007).

Currently, few studies have explored how preservice teachers conceptualize and use digital technologies as they move within and through their teacher preparation programs and internships (Swan & Hofer, 2008; Wilson, 2003; Zhao, 2007). In response, this study utilizes data that has been collected over multiple years in order to provide a portrait of how preservice teachers make sense of and choose (if at all) to integrate digital technologies within their internship classrooms. The study was guided by the following questions:

- How do preservice teachers describe and explain their use of technology, in terms of their own practice within their internship classrooms?
- How have preservice teachers' understandings of the purpose and use of digital technologies within the social studies changed, if at all?
- What factors influence preservice teachers' understandings and uses of digital technology within their respective social studies internship classrooms?

Many themes emerged from analysis of data. However, in order to revisit Martorella's metaphor of technology as a sleeping giant, this paper explores one facet of these findings—that in the Commonwealth of Virginia, within our data set, the sleeping giant is awake (technology is being used), but in the hands of our preservice teachers it is a myopic traditionalist who is the "servant" to the "master" of standards-based assessment.

Metaphors and Context

As Lakoff and Johnson (1980) said, metaphors play a central role in how people think about, understand, and experience their everyday lives. Metaphors are powerful conceptual tools that shape and are shaped by people's understandings and experiences of their lived worlds. Culturally and contextually determined, and while hard to dislodge

within their systems of understandings, "new metaphors, like conventional metaphors, can have the power to define reality" (p. 133).

Martorella's (1997) oft-cited metaphor—the call to wake the giant—captures an unquestioned and pervasive belief in the potential of digital technologies to transform the landscape of social studies teaching and learning and education. This metaphor, which serves as the initiating framework for this paper, clearly reflects what Selfe (1999) would contend is the "the very human habit of understanding the world as a series of problems amenable to technological fixes" (p. 140).

In the late 1990s Martorella was lamenting the dearth of sustained and systematic technology integration in social studies classrooms and that fragmented efforts contributed to "social studies on the sidelines" in the late 20th century. He called for deliberation, reflection, and research into the utility of digital technologies as pedagogy, process, and products. Martorella's problem—the sleeping giant—existed in a particular time and space, before the rise of a national obsession with standards, accountability, and high-stakes testing.

Given such changes in context combined with the power of metaphors to shape understandings and experiences, revisiting and evaluating the concept of the sleeping giant within the current context is worthwhile. This research explores how well the metaphor holds up within the context of a teacher education program that must prepare teachers to negotiate high stakes tests and detailed history and social science standards.

The shifting terrain of both digital technologies and the field of social studies reveals the necessity for research that examines the complex and deeply contextual relations and process that impact why and how teachers learn to utilize digital technologies as part of their pedagogical activities within social studies classrooms. Our research is situated within and extends work that explores social studies teaching and learning within high-stakes testing contexts (e.g., see Grant, 2003; Grant & Gradwell, 2010; Grant & Salinas, 2008; van Hover, Hicks, & Sayeski, 2012; van Hover, Hicks, Stoddard, & Lisanti, 2010; van Hover, Hicks, & Washington, 2011) and the extant work in technology and social studies education (see Swan & Hofer, 2008).

Methods

Ours is a qualitative study of graduate level preservice social studies teachers in terms of how they represented themselves as users of digital technologies in their classrooms. The study is bounded by time and space and is designed to provide multiperspective explanations of events. It presents detailed insights into the essence of schooling and shows how complex processes and relations fit together and develop over time (as in Bullough, Knowles, & Crow 1991; Feagin, Orum, & Sjoberg 1991; Nespor, 1997; Yin, 1989). Reflecting our debt to institutional ethnography, our data collection was designed to "bring into view the relations of ruling that enter and shape their daily worlds, and the ways our daily experiences participate in and construct those… social relations" (Griffiths & Smith, 2005, p. 2-3).

Context

The participants (six cohorts of secondary social studies preservice teachers) were enrolled in a National Council for Accreditation of Teacher Education accredited 5th-year graduate secondary history and social science licensure program (grades 6-12) within a large land-grant university in the southern United States. Students can choose a 2-year

program or enroll in the spring/summer as 15-month completers. Graduates from this program earn a master's of education degree in Curriculum and Instruction and postgraduate professional licensure in History and Social Science, grades 6-12.

The program includes required professional studies licensure coursework, as well as a series of classes and field experiences that focus on the teaching of social studies. In the fall semester of their final year, all students enroll in a social studies methods course and in a course entitled Teacher as Inquirer. These classes are taught in conjunction with an early field placement, in which students spend a minimum of 150 hours in middle or high school classrooms.

During the spring, students participate in the second social studies methods course that meets intensively for the first 5 weeks of the semester. During the first 5 weeks students spend 2 days a week in their internship schools while also participating in the methods course. After week 5 of the semester, all students begin full-time teaching within their internship schools, which are predominantly high schools. State licensure requirements mandate that students are to have 150 direct teaching hours during the internship. Altogether, students complete 300 hours in the schools over the fall and spring semesters, with 150 hours defined as direct teaching.

While technology use is infused throughout the two methods courses, students also take a course entitled Teaching Inquiry in the Digital Humanities. Team-taught by a social studies and an English methods instructor this course, guided by the belief that teachers are curricular-instructional gatekeepers (Thornton, 2005), explores how to critically evaluate emerging technologies for instructional uses, the literacies they evoke (and potentially, supplant), and openings for content exploration.

Preservice teachers also explore methods of producing evidence of student understanding of the curriculum and investigate, research, and analyze classroom practice and student learning for impact of Web 2.0 tools and "learning 2.0" pedagogies (see Kajder & Hicks, 2012). The syllabus noted,

We do not want you to succumb to cultural inertia and just recreate and blend with what you see in the classroom, but have you become change agents in terms of how you and your students interact and use digital technologies to support the teaching of humanities.

Assignments included creating multiple artifacts and exemplars for the use of digital technologies and reflecting on the impact of the grammar of schooling (and the deep seated regularities of schooling) on the preservice teachers' actions and decisions with regard to the use of digital technologies.

Data Sources and Analysis

Data collection occurred during methods courses and internships during the fall and spring semesters. Systematic data collection started in 2001 and is ongoing. This paper focuses on data from 2007-2011. These cohorts were selected because at that time the 2006-2007 cohort students began taking Teaching Inquiry in the Digital Humanities. We collected data from 26 participants over four cohorts (8 in 2006-2007, 7 in 2008-2009, 13 in 2009-2010, and 8 in 2010-2011). No data were collected in 2007-2008, as the first author was on sabbatical.

The collection of data utilized the following methods of qualitative research: preservice teacher reflections and online discussions, interviews, observations of lessons, and the

collection of such documents as lesson/unit plans (as in Emmerson, Fretz, & Shaw, 1995; Hammersley, 2000; Hammersley & Atkinson, 1995; Kvale, 1996; Silverman, 1993). Narrative/discourse analysis requires multiple readings of data. Analysis began by opening up the data to such questions as the following:

- How did the preservice teachers organize their discussions and reflections?
- What themes emerged across participants?
- How does the story explain how events came about and why they came about?

We read through the data corpus multiple times, coding by theme, comparing/contrasting reactions and responses to these themes. This reading led to an examination of how participants each told their stories, how they referred to themselves and others, where they began and ended their stories, and how they talked about their choices and decisions regarding their understanding and use of digital technology (as in Coffey & Atkinson, 1996; Polkinghorne, 1995).

Is the Sleeping Giant Awake?

Fifteen years ago Martorella noted, "How little the social studies curriculum has been affected by the technology changes sweeping the nation" (p. 511). Arguing that the giant had much to offer for the discipline of social studies in terms of serving as "a dynamic and forceful agent for change" (p. 512), Martorella lamented the lack of access and use of technology in social studies education. Our data analysis indicated that, in the eyes of our preservice teachers, the giant has been roused to a certain extent. He is "awake" in that Virginia classrooms appear different from the past, that the tools of instruction have changed, that use of those technological tools is apparent, and that our preservice teachers perceive technology as a portal to engaging social studies instruction.

Across cohorts, preservice teachers expressed the view that the landscape of the social studies classroom had fundamentally changed (in contrast to their own schooling experiences) in terms of technologies available and the power of that technology to illuminate the past. M (2008-2009) reflected this view:

When I was in school and we learned history, we relied greatly upon the teacher's ability to describe an image, technology, painting, or event in history. With the use of the Internet and digital history sites, images, firsthand accounts, primary sources, and documents can be located quickly and incorporated into a lesson. I personally used images, primary sources, and other documents pulled from the Internet and digital history sites for every lesson I taught.

D (2009-2010) said,

> The differences from the time I was in school till now are amazing. While the Internet was around when I was in school many of the functions that teachers now have the capability to use the Internet for today were not around then.

G (2009-2010) also talked about the availability of technology:

> I graduated from high school in 2006. That wasn't too long ago. However, I didn't have all the technology my current students have access to. In my [student teaching placement], sophomores through seniors had their own laptops that they could take home or use in class. Not to mention, every classroom had a

> SMART board and Internet access….[It was] all a far cry from the white board and PowerPoint that I had in high school.

Similarly, C (2010-2011) stated,

> In only five years since graduation, the use of technology in the classroom has exploded….Gone are the archaic overhead projectors where teachers hovered over with their dry erase markers…Smartboards and Mimio technology brings projections….Students can now see history firsthand just as people did in the past. Want students to see the footage of the Vietnam War that was being broadcasted live on national television and increasing resentment at home? Then find a clip online or from a variety of videos on the subject. Compare primary source evidence such as a news report to a secondary video summary of the Vietnam War, which can increase critical thinking skills, but keep students engaged….No longer will social studies teachers rely on paper atlases when Google Maps and Google Earth give accurate and up-to-date political boundaries, physical features, and an assortment of other features such as roads and historical markers.

The participants were also able to describe the importance of access to and use of hardware (interactive whiteboards, projectors, and laptop carts), as well as pedagogical tools (PowerPoint, Prezi, Mimio, clickers, digital libraries, digital history sites, etc.). H (2009-2010), for example, talked about his use of "extensive PowerPoints of images, key facts and data" and that "in addition, I used lots of video clips that I pulled from United Streaming, TeacherTube, and YouTube."

G (2010-2011) talked about using Mimio, "a white board capturing software," when teaching about geography and cultural landscapes. B (2010-2011) described Prezi presentation software as a way to draw the kids in, because "it's not simply the slide magically sliding, fading in fading out, so there is something more to it."

More recently (in the past 2-3 years) attention has been placed on the Web 2.0 sites such as Flowgram, Edmodo, GoogleEarth, VoiceThread, YouTube, Twitter, and Diigo. J (2009-2010), for example, stated, "Google Earth was my absolute favorite technological application. It enabled me to show students any particular area of the world we happened to be studying and even to zoom down to the ground level for a firsthand view of the landscape" (J, 2009-2010).

D (2009-2010) commented,

> Education blog sites such as Edmodo allow students to continue communicating with their instructor outside of the classroom. Students are able to write reflective pieces on what they have learned in class, answer question to prompts from the instructor, ask question to the instructor and other students, and other students can read their responses and reflect on them as well.

R (2010-2011) used ArcView GIS software from ESRI to explore the fault lines and where earthquakes occur. J (2010-2011) used Diigo as a tool for students to collect and take notes on arguments to support the mock trial of Galileo Galilei. He also used Sporcle and WallWisher to develop economic vocabulary and concepts. S (2010-2011), mentioned using Prezi, Glogster, and Edmodo.

Across all cohorts, most of the preservice teachers attempted to use technology in their instruction. In fact, in most cases, it became part of their everyday pedagogical performance. They felt they were very different and much more "interesting" than what they had experienced or saw their clinical instructors do. The participants repeatedly associated technology use with "engaging" student attention. J (2008-2009) noted that "using the projector like a SmartBoard allowed me to gain some of the student's attention….They perked up [when we used it]." M (2009-2010) commented that "new technology can foster greater student engagement." She provided a specific example from a lesson on landmark Supreme Court cases dealing with the freedom of religion. Through the use of polleverywhere.com, M was able to

> create a poll for each case in which I asked if the Court should rule the case constitutional or unconstitutional. In order to respond to the poll, students would send text messages to the website. As soon as a text is received the poll shows immediate results. This particular lesson fostered the highest level of student engagement I had experienced all semester.

She continued by observing that "this new form of technology provided immediate and visible results that helped draw the students' attention to the material and the class" and that, from this experience, she learned that "providing students with new experiences through the use of technology helps engage even the most uninterested student." This emphasis on engagement and attention pervaded students' reflections on their use of technology in instruction, whether discussing the use of PowerPoint with videos and images or the use of classroom performance systems (i.e., clickers), WebQuests, VoiceThread, and more.

In summary, over the years, across cohorts, use of technology was evident. Although certain schools had better access to technology than others, nearly all participants had access to and used technology on a regular basis. Thus, in reference to Martorella's sleeping giant, our sample indicates that while he might be groggy, there is evidence he is present.

The data illustrate, however, that presence or absence of technology is not sufficient—to use Martorella's metaphor, the giant being awake did not guarantee that technology was consistently being used in transformative ways congruent with social studies best practice. That is, when talking about instructional design or technology use, the students' interpretation and interaction with the context of standards-based assessment permeated everything. In other words, it appeared that the potential transformative power of the giant was subsumed by the all-controlling master of standards-based assessment.

Servant to the Master of Standards-Based Assessment

Virginia's high stakes standards-based context of schooling emerged as a major theme in the data. In the 1990s, the Commonwealth of Virginia implemented a massive standards-based reform effort that incorporated three components common to accountability systems across the nation: (a) aligning standards and assessments, (b) rating schools and reporting school or district performances, and (c) creating consequences for schools that fail to perform adequately (Heinecke, Curry-Cocoran, & Moon, 2003). Virginia's content-based standards, the Standards of Learning (SOLs; Virginia Department of Education, 2012b) set expectations for teaching and learning in all subject areas and list the "essential" knowledge and skills that every child is expected to learn. Virginia established general guidelines and standards for virtually all aspects of education, referred to as the Standards of Quality (Virginia Department of Education, 2012c).

Additionally, the Department of Education established Standards of Accreditation (Virginia Department of Education, 2012a) that provide benchmarks for school accreditation and put into practice "school performance report cards" that include the school's accreditation rating, comparison of school-wide and statewide SOL scores, graduation rates, enrollments in advanced academic programs, and information on teacher training, drop-out rates, school attendance rates, and school safety records (Duke & Reck, 2003).

The History and Social Science Standards of Learning at the high school level include United States and Virginia History, World History I and II, World Geography, and Virginia and United States Government. The history standards are arranged, for the most part, chronologically and can be characterized as traditional history. The accompanying SOL tests are 70-item, multiple-choice exams that largely emphasize the recall of factual content.

At the high school level, students take the SOL tests (Virginia Department of Education, 2014) at the end of each course, and they must pass each test in order to graduate. The tests are scored on a scale from 0-600. A student must earn a score of 400 or higher in order to pass the test, and 70% of students who take the SOL test must pass in order for a school to be considered for accreditation. Students also must pass a certain number of tests to earn a diploma. Thus, the tests are high stakes for teacher performance, school accreditation, and student graduation.

Upon entering schools, our participants found that the SOLs and the associated end-of-course tests pervaded every aspect of their experience. How to balance the expectations of the institution (following the standards in order to achieve high pass rates) with their own understandings of wise practice to support learning emerged as a challenge for participants across cohorts. S (2009-2010) captured this when she reflected,

> The first day of my internship my cooperating teacher not only pointed out to the students the SOLs they were going over verbally but also showed them where they could be found in the syllabus. I believe a major task I will face as a new teacher is balancing teaching in an engaging, interactive way while making sure my students are prepared for the SOLs.

Preservice teacher after preservice teacher described how they were guided (explicitly or implicitly) to cover the standards and prepare students for a high-stakes test. M (2006-2007) said, "Our middle school is so focused on standards—there are strategies for how to do well on the SOLs above all of the water fountains." Her cooperating teacher, M observed, "teaches to the standards of [Virginia] because that is what the principal demands of the sixth-grade team. She is clearly losing her energy and excitement for the profession with all of the pressure to perform well on standardized tests."

"The SOLS were controlling the way that teaching was taking place, " MC (2006-2007) observed. He continued, "It was amazing how many times I heard, 'Oh, they don't need to know this for the test, so won't get to that.'"

C (2009-2010) made similar comments when he said, "These standards almost dictate what is taught. And the standards are playing such an important role because of the test….[Students] are growing up in the age of standards."

This standards-and-accountability discourse dominated preservice teachers' reflections. This context of performativity/performance also interacted with their approach to

pedagogical decision-making and the ways they made sense of technology use. The preservice teachers repeatedly emphasized the need to cover the SOLs in a clear and efficient manner. Their use of technology consistently reflected this approach. That is, they employed technology as a means to present information or review information.

These findings are congruent with a large body of empirical evidence that explores the predominant social practices in social studies classrooms—that teachers explain their practice in terms of the need to cover the curriculum and maintain control (Barton & Levstik, 2004, p. 252). In our sample, the preservice teachers perceived the SOLs as the driving force behind their perceived need to cover the curriculum and maintain control. Their choices of how to use technology also revolved around issues of coverage and control.

As noted earlier, preservice teachers reported frequent use of technology in the classroom and utilized a variety of hardware, software, and Web 2.0 technologies. Although participants were able to list and describe multiple approaches to using technology, when talking about why and how they made instructional choices, it became clear that they viewed technology as "servant" to the "master" of standards-based assessment. They used technology as a teacher-centric tool to jazz up or add wow factor (i.e., a distinctive appeal) to their coverage, as a way to control the flow and presentation of SOL materials and to create "engaging" review games for students.

B (2009-2010), for example, talked about using Prezi in his teaching. He said, "The first thing I do is look at the SOL standards so the content stays true to the history of the past. The tool [Prezi] serves as a grip for them to remember." In this quote, he mentioned the explicit focus on SOL content, while referring to Prezi as a "grip" to help students remember. He then elaborated, "[Prezi] really draws the kids in, the motion draws their eyes to the screen."

H (2008-2009) described notes he created directly from the SOLs and "supported these notes with extensive PPTs [PowerPoint slides] of images, key facts, data, and more. In addition, I used lots of video clips that I pulled from United Streaming, TeacherTube, and YouTube." He added, "I found this [approach] worked very well and allowed me to meet my objectives and cover the SOLs."

JC (2009-2010) talked about how, when he made the decision to incorporate technology into his teaching, he "had no choice other than to keep it simple" [because of the SOLs]. He went on to say,

Technology that benefitted me most was the LCD projector. I presented almost all of my notes using the PPT and the LCD projector. This worked well for a number of reasons. First, it saved me time. Once I had outlined a chapter on my computer, I only needed to copy the outline into a PPT presentation. Second, using PPT enabled me to add spectacular images and videos to my notes. This really added some "spice" to plan-old lecture notes, and I think it aided students' understanding to be able to connect a visual to the things we were discussing.

These quotations highlight (a) the teacher-centered approaches the preservice teachers' favored; (b) the use of technology to cover content and control the flow of SOL information; and (c) the potential for technology to add wow factor to daily lessons. In many examples, preservice teachers used creative and engaging approaches to technology; however, they were not always sustainable, and the preservice teachers

always circled back to the habituated performance of standing and delivering content in order to "ensure" that students learned the requisite SOL material.

These preservice teachers did not seem to feel as though they had either the time or the trust for student-centered use of technology. J (2006-2007) described an engaging group-based jigsaw WebQuest on the effects of the Great Depression on Germany, France, and England. However, after describing this activity, J added that she made sure there was no "useless information that students had to look up or view" and that she also chose to close the activity by displaying a PPT slide with the SOL information on it that students had to write down. She reflected that this activity in conjunction with the PowerPoint presentation allowed students to "obtain the information" and "confirmed that the [SOL] content and material were learned."

J took the time to implement a student-centered, technology-based lesson but did not seem to trust that students would learn the correct information without her PowerPoint slide or structuring the activity in a way that ensured that they avoided "useless information."

D (2008-2009) alluded to the challenge of time when discussing her use of Edmodo. She said,

> It was so motivating to see students posting on Edmodo…taking an active role in their education and attempting to take an active role in others. To add to this, students were posting links to news stories about things we had discussed in class….It helped prove that students were doing research on their own outside of the classroom. Unfortunately, as class started moving [rapidly through SOL material], Edmodo became a second thought for both me and the students.

Although covering the SOL content in a timely manner emerged as a major focus of the preservice teachers, they also alluded to the need for constant review of SOL material. P (2006-2007) noted that he "quickly learned that learners cannot retain information for long periods of time. It seems that social studies teachers not only need to progress with the material covered in schools, but also need to take time to go back and review." To that end, many students used technology as tool to review SOL content.

J (2007-2008)'s cooperating teacher had a "technology day" every Friday where they went to the Lab and played SOL review games on www.solpass.org. In P (2007-2008)'s classroom, the computer and PowerPoint were used for "jumpstarters," an opening activity that reviewed SOL content by asking students to recall information they previously learned. J (2008-2009) described a review activity that consisted of projecting a PowerPoint slide of a FRAME (strategic instruction model from the University of Kansas; Ellis, 1998; Minarik & Hicks, 2011) onto the whiteboard and filling it in with important SOL information.

A Myopic Traditionalist

Throughout the examples of technology use for the purposes of coverage, control, and wow factor, an interesting underlying issue emerged. Preservice teachers used technology to reinforce the notion of history as a "knowledge" game of facts, events, and dates. VanSledright and Limón (2006) characterize historical domain knowledge as made up of first- and second-order conceptual and narrative ideas and knowledge. First-order knowledge focuses on the substance of the past in terms of who, what, where, when, and how. The conceptual knowledge required to engage in the "doing of history," the

practice of interpreting and making sense of the past, comprises second-order knowledge.

The teacher preparation program emphasized the necessity of both first-order and second-order knowledge; in assignments and class discussions, the students were able to articulate an understanding and recognition of the inferential discipline of history. However, the standards-based terrain encouraged and rewarded a view of history that was solely focused on first-order knowledge. Thus, even when describing approaches associated with inquiry (like incorporating digital historical sources and media), the preservice teachers used them to add "visual interest" while reinforcing testable content to be learned and memorized. To return to Martorella's metaphor, it seemed as though the giant enabled a myopic and traditional view of history.

When, for example, the professor of the 2007-2008 cohort pushed preservice teachers to reflect on their narrow use of technology simply to reinforce first-order historical knowledge in comparison to their colleagues in the English education program, the following conversation took place:

> J: In the English classrooms I observed, they had three projects going on at once: a novel, short story, and poem, and that is really cool, but for history that just could not happen as I could not see having that happen, as I could not take a whole day explaining Movie Maker or Flowgram, because that is a whole day of notes that they would lose. Yeah, that is the main difference, because at the end of the day, I want to use technology, but I have to teach the materials so they can pass the test. Whereas they [English students] have flexibility…
>
> P: You can't do technology if students don't have a knowledge base. Social studies is different….Like in math, you plug in numbers, in English, it is just words. But in social studies I—when I did the Depression—I had to talk about Black Tuesday—effect of World War I—but they needed a context first about what they were doing. So social studies is different. So they need content first before they do something like a podcast…
>
> J: Yeah, they have time to play and be creative [talking about commercials students made in English class], and I just don't think we have that, because at the end of the day we just don't have that, because at the end of the day you have to teach them the information.
>
> P: I ran into the limitation of time. I could not help it. I realized that the students were kind of feeling overwhelmed, but I had to move on to continue to get to World War II…to keep pace with what they needed for the SOLs, so I couldn't just take three or four days to just figure and use this technology. So I just said, "Come on guys… "Let's go, let's go." I did not like—I don't prefer that style of teaching—but I did not have an option.

This conversation highlights the perception of these preservice teachers that history is content coverage and that history is unique due to the pressure to cover so much content in so little time. Other preservice teachers also described history in this myopic and traditional manner, a perspective that feeds into a very set use of technology that revolves around presentation and review.

Lilliput vs. Brobdingnag, or Context Is Everything

While our case is bounded over time and space, the data indicate that the preservice teachers in this study used technology and perceived it as a portal to engaging social studies instruction. However, they had to negotiate a high-stakes, standards-based context that, they felt, rewarded rapid coverage of content and high pass rates on fact-recall, multiple-choice tests. In order to accomplish this, they reverted to teacher-centered pedagogical performances precisely scripted by the SOLs, focused on coverage and control of content, typically with technology serving as a prop to help present and review information.

Views of history as an inferential discipline fell by the wayside in the march to cover content in a timely manner. Preservice teachers' use of technology was shaped by this emphasis on first-order historical conceptual and narrative knowledge.

So, what about this sleeping giant? In 1997, Martorella's call for transformative technology use in social studies captured the hopes and dreams of many an educator. The challenge to embrace the potential and promise of technology to facilitate educational change and transformation has not dissipated in the years since his article, but can technology alone serve as a forceful agent for change? Based on our data, no. The sleeping giant appears groggy, but awake, myopically traditional, and a servant to the master of standards-based assessment.

We keep coming back to question the idea of technology as "giant." Martorella's choice of a metaphor is telling. The notion of technology as a sleeping giant—a potentially powerful and autonomous force that, when woken can alone foster change within classrooms stubbornly clinging to coverage and control of factual content—carries with it the essence of a fairy tale. What is missing is the influence of context, the agency and purpose of teachers, the battle against the deep grammar of schooling with its habituated routines and antecedent subject subcultures of the discipline (see Goodson & Mangan, 1995).

Over time, more and more research indicates that technology alone cannot transform classrooms, that other factors matter more, that context is everything. The rise of high-stakes testing environments has, for many, reinforced a recognizable and repeatable signature pedagogy that has been described by Cherryholmes (2006) as involving a "set of undisputed, authoritative stories" that teachers transmit to students as a uncritical chronicling of events (p. 6).

Given such changes and the power of metaphors to shape our understandings and experiences, we suggest that it is worthwhile revisiting and evaluating the concept of the sleeping giant within the current context and that any new metaphor(s) we develop regarding digital technologies and their use in our classrooms should ideally shape and be shaped by a recognition of the importance of facilitating student learning and deep processing over anything else. We appreciate Martorella's metaphor as part of a generative dialog that must take place in the field for research to move forward. However, maybe it is time to put this metaphor to rest. As Gulliver came to realize on his travels, one man's giant in the eyes of the Lilliputians is another man's small, novel curiosity in the eyes of the Brobdingnagans. [a]

Notes

[a] For a reminder of the Gulliver's Travels plotline see http://en.wikipedia.org/wiki/Gulliver%27s_Travels. See image at http://cdn.theatlantic.com/static/mt/assets/dominic_tierney/gulliver-infomatique-body.jpg. See description of the Lilliputians at http://wordsmith.org/words/lilliputian.html. See description of the Brobdingnagans at http://wordsmith.org/words/brobdingnagian.html

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