Contemporary Literacies and Technologies in English Language Arts Teacher Education: Shift Happens!

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Abstract

Three leaders of the National Council of Teachers of English (NCTE) Conference on English Education (CEE) reflect on the changes that have occurred in English language arts teacher education in the past 15 years since the first edition of *Contemporary Issues in Technology and Teacher Education* (*CITE Journal*) was published. The authors take a historical look at the development of the CEE and *CITE Journal* relationship, reflect on the inaugural article in the *CITE Journal* English Language Arts Teacher Education section and the principles it presented, and provide a history of the evolution of NCTE/CEE belief statements, resolutions, and standards for teacher preparation as they relate to 21st-century literacies and technologies. The piece provides a snapshot of current practices in English language arts teacher preparation and considers the future of the field.

When president-elect and program chair Kylene Beers announced the title "Shift Happens" for the 2008 annual convention of the National Council of Teachers of English (NCTE), she expected some members' heads would turn. When asked about why she selected this theme for the convention, Beers responded, "I wanted to capture a sense that we need to be changing—we as an organization, as a profession, and as individuals" (personal communication, October 1, 2013).

Indeed, the field of English language arts education has evolved (or using Beers' language, "shifted") a great deal since the turn of the 21st century, and much of that evolution is linked to the rapid proliferation of technologies over the past 15 years. NCTE and the Conference on English Education (CEE) have been at the forefront of helping colleagues across the varied fields of education understand the transformation of what it means to be literate in the 21st century. Evidence of the shift can be found in reflecting on the article, "Preparing Tomorrow's English Language Arts Teachers Today: Principles and Practices for Infusing Technology," written by former CEE chair Carol Pope and her colleague Jeff Golub (2000) at the turn of the 21st century and published in the inaugural issue of the *CITE Journal*.

We three past chairs of CEE draw on our relationship with the sponsor of the *CITE Journal*, the Society for Information Technology and Teacher Education (SITE), to think about the journey our field has taken over the past 15 years as it relates to evolving literacies and technologies, to consider where the field of English teacher preparation is at this time, and to ponder the future possibilities for our field.

Looking Back to the Turn of the 21st Century

The CEE and SITE/*CITE Journal* Relationship

The evolution of the relationship between CEE, which is the teacher education section of NCTE, and SITE has been a bit uneven over the past 15 years. In the late 1990s as a recent chair of CEE, Carol joined the National Technology Leadership Initiative (NTLI) funded by a U.S. Department of Education Preparing Tomorrow's Teachers to Use Technology (PT3) grant. It brought together a group of education faculty members who sought to join the major content-focused teacher education organizations in a collaborative effort to spur the next generation of teachers to embrace technology as a teaching and learning tool.

To accomplish this goal they agreed to establish a new journal (i.e., *CITE Journal)*, become active in annual SITE conferences, and participate in an annual National Technology Leadership Summit. During that first year, Jeff and Carol wrote the draft of the *CITE Journal* article, which they took to the CEE Executive Committee for revision and approval. They also sought the nonmonetary support of CEE to sponsor an English language arts (ELA) education segment of the evolving online *CITE Journal*. Theirs would be the inaugural article for the new journal, and CEE would select an editor for that section to solicit manuscripts to be sent out for anonymous review.

That visionary executive committee endorsed the process, encouraged CEE's participation, and selected an editor (the late Cindy Bowman). Thus, the ELA Teacher Education section of the *CITE Journal* was born, and the relationship of CEE with SITE and the NTLI was sealed. The ELA Teacher Education section has, since its inception, had a series of editors (Jamie Myers, Carl Young, and Melanie Shoffner), each of whom have been active leaders in CEE. Recently, chairs of CEE and sometimes its designated representatives have attended the NTLI annual summits and been involved in technology initiatives of this group.

There was a period in the mid-2000s when, despite the efforts of our *CITE Journal* section editors, the CEE-SITE relationship was not as strong and exciting, because those who had established the initial bond had moved out of leadership roles. The old adage,

"out of SITE, out of mind" (pun intended) seemed to apply. While the ELA Teacher Education section of *CITE Journal* continued to exist, CEE Executive Committee members were not engaged with the NTLI, and CEE member participation in the annual SITE conference was meager. That situation changed around 2011, when CEE chair Marshall George was reintroduced to SITE/*CITE Journal*/NTLI by Carl Young, and the collaborative relationship between CEE and SITE was reinvigorated.

Today, our relationships with the *CITE Journal* and SITE are important to the CEE membership and to the Executive Committee, which appoints and supports the *CITE Journal* editor and approves funding for the chair or a representative to attend the annual NTLI summits. Louann Reid, the CEE chair from 2012-14, became active in the NTLI summits and other aspects of the partnership, and Melanie Shoffner, new CEE chair, has been involved in the partnership for years, serving as SITE's English Education SIG chair and now as editor of the ELA Teacher Education section of *CITE Journal*. The CEE Commission on New Literacies, Technologies, and Teacher Education is an active group within CEE, and is responsible for selecting an annual NTLI Fellowship recipient, who is invited to present at the SITE conference.

We believe that the insights and ideas that we gain through collaborative publications and conferences help English teacher educators knowledgeably and thoughtfully design instruction that infuses appropriate technologies in their classes for English language arts teachers who, in turn, will be expected to do so for their students. We are eager to move forward with the boldness and excitement that accompanied the initial PT3 grant that launched our partnerships with the *CITE Journal* and SITE.

To indicate the extent of the shifts for English language arts teacher education related to educational technologies, the remainder of this article will include Carol Pope's brief summary of the context for the inaugural *CITE Journal* article, followed by a collaborative discussion by three generations of CEE chairs of the seven principles that Carol and Jeff laid out. We then provide an overview of NCTE and CEE documents published over the past 15 years that relate to the intersection of technology, English language arts education, and English teacher preparation. The article concludes with our assessment of the state of English language arts teacher education and its relationship with technology and digital literacies in 2015 and our hopes for the future.

Carol's Reflection on the 2000 Article

Just imagine…when Jeff and I first started the 2000 *CITE Journal* article, "[Preparing Tomorrow's English Language Arts Teachers Today: Principles and Practices for Infusing Technology,](#)" the World Wide Web was in its infancy. AOL was a new portal for many of us who were unfamiliar with computers and all they could bring us. We used floppy disks to load a word processing program before actually beginning to create a text, modems cluttered our desks, and email messages were few—announced by that now famous call, "You've got mail!"

At that time the phone and occasional face-to-face meetings were our primary modes of communication. I remember distinctly sitting at my home desk talking with Jeff on the phone, reading segments aloud to each other, taking notes, and placing text expansions in the evolving Word document. We had no collaborative Google doc for creating a shared text, and it was practically impossible to send attachments in email. Jeff read to me over the phone scenarios and quotations that we used to open our piece.

However, we were excited! With our piece for the ELA Teacher Education section, we had an opportunity to be on the proverbial ground floor of creating an online journal (funded, in part, by a federal PT3 grant awarded to Glen Bull and Joe Garofalo at the University of Virginia) for exploring issues at the intersection of instructional technology (IT) and teacher education.

To begin this daunting but exciting task, we sat in a hotel conference room and discussed the journal with the IT visionaries. How might it look? What would be the content? How could the journal serve our constituencies and encourage online collaboration—a professional conversation that we now take for granted in our Web 2.0 environment. These questions previewed our goals: to open our ELA teacher preparation and technology teaching experiences, research, ideas, and strategies to our colleagues and to each other. Holding those goals in mind, Jeff and I determined seven "Principles of Technology Infusion" for ELA teacher preparation. We hoped to start a national conversation with our colleagues so that we could all learn together how to explore and harness the potential that technology clearly held for the next generation of teachers. Jeff and I were trying new things in our methods classes and readily shared our challenges.

In my own attempt to move forward as a teacher educator, I embraced the new world and taught my Teaching Writing class in a computer lab fraught with program and software glitches; most students did not have their own computers and were not confident in this new writing arena. Our school-based partners, middle school students and their teachers, had few computers and had to use the one library computer to send individual documents to the university students. As part of this grand experiment, Jeff and I even set up a clunky videoconference call in specialized labs between The University of South Florida and North Carolina State University, in which we explored, alongside our students and faculty colleagues, the world of technology, focusing on issues of pedagogy and diversity.

Reviewing anything we authored 15 years ago can be embarrassing at worst, challenging at best. However, some of these principles and concepts are ones we still get questions and discussions about from our preservice and in-service teachers. For example, they always want to know about the balance of content, content pedagogy, and technology. Our 2000 introduction to the Principles section, as we see it now, actually provided a forecast for the technological pedagogical content knowledge framework (Mishra & Koehler, 2006), acknowledging the interrelationship of technology with content, pedagogy, and content pedagogy.

For example, in Principle 1, we suggested that "technology should be a naturally supporting background for both the content and pedagogical content knowledge (Shulman, 1987) of English language arts" (p. 90). Similarly, in Principle 2, we described how technology is a literacy tool, thereby influencing vocabulary, reading, and writing processes, as well as spaces where various literacies occur. Throughout the principles we reinforced the importance of keeping what we know about teaching ELA (pedagogical content knowledge) in mind as we infused various technologies. While we never, of course, used the term *pedagogical technological content knowledge* (later popularized by Mishra & Koehler, 2006), we did have all those separate, yet mutually enforcing, elements in mind as we worked through this time in our own ELA teacher preparation evolution. Following is our collective reflection on those principles, 15 years later.

The Principles in 2015

The seven principles from Pope and Golub (2000) were as follows:

We and our students who will soon become teachers need to:

1. introduce and infuse technology in context;
2. focus on the importance of technology as a literacy tool;
3. model English language arts learning and teaching while infusing technology;
4. evaluate critically when and how to use technology in English language arts classroom;
5. provide a wide range of opportunities to use technology;
6. examine and determine ways of analyzing, evaluating, and grading English language arts technology projects; and
7. emphasize issues of equity and diversity.

When we examine these seven principles today, the 2000 touchstones that were offered for infusing technology into ELA teacher preparation programs, the most obvious gaps are ones related to New Literacies, new content standards, new tools, new language, and new environments. Our collective professional stories today are different as a result of the immense changes in all of these areas. Certainly, now it is a given that we "infuse technology in context" (Principle 1). Although some tools and commercial products are terrific bling—eye-catching, attractive, and engaging—we still make decisions based on how such offerings further student learning.

The example offered for Principle 1 is dated, of course, for now students can share drafts via Moodle, Google docs, and cloud spaces. No longer do they see each other's work by moving from computer to computer (much like we used to "pass the page" for additions to a paper) or send an attachment to get feedback. However, just like in 2000, the challenge remains in how to guide students toward offering in-depth responses to their peers' writing.

Principle 2, which focused on the "importance of technology as a literacy tool," reflects how technology has expanded the educational and public rhetoric. The new, ever-evolving language still has an impact on our "reading and listening memories" and affects our contemporary communication. Words like *Google, Bing, Tumblr, Moodle, Prezi, texting*, even *digital* have replaced the old new words like *mouse, windows,* and *electronic*. Certainly, the reading/visual discourse train has become more important as comprehension of web sites, social media, YouTube, Instagram, and the like require diverse literacy skills.

New literacies focus on new ways and challenges of reading, creating knowledge, text creation, and curation (NCTE, 2005). However, neither developing teachers nor students always read in depth. Carol's own Digital Reader requirement in her Young Adult literature class, as well as website analyses with students, reveal that students read quickly but not always deeply.

Principles 3 and 4—those addressing the importance of modeling as well as of evaluating critically when and how to use technology in our ELA teacher preparation classes—remain fairly stable. It is still important that we teacher educators model and make transparent why and how technology use can enhance instruction and pedagogy. It has become increasingly important for preservice English language arts teachers to evaluate critically the appropriateness, given their instructional contexts, of various technologies they decide to utilize in their instruction, and we teacher educators can make our own technological instructional decisions transparent to our teacher candidates.

Tools like wikis, blogs, Moodle, and Smart Boards provide just such a window into our thinking, reflection, and instructional choices. It is also still true that the methods classroom is a "shared teaching/learning environment," one that can reveal how the teacher is a researcher with students in a classroom where both teachers and students are

experts—and often the student is a technology expert in different ways from the teacher. We often ask our students to BYOD (bring your own device) to our methods classes. In every class students seem to show us shortcuts and ways to display material, and they even request online formats we had not considered using. The classroom as a shared environment remains, with professors modeling for teacher candidates and teacher candidates modeling for professors.

The goal to use a "wide range of opportunities" for content-related technology (Principle 5) in methods classes remains as critical a focus now as it was in 2000. Additional tools, students' knowledge and use of those tools, digital communities and partnerships, ease of using video (via phones and cameras), and posting those videos on safe sites all have opened up the world of the classroom to multiple ways of creating and representing knowledge. We use blogs to communicate with our teacher candidates, wikis for our teacher candidates to communicate and collaborate with one another, and video conferencing platforms such as Google hangouts and Skype to interact with one another outside of the university classroom. It is astounding how quickly video images and links have taken off in our pedagogical world, a clear representation of the out-of-school world.

The final Principles (6 and 7) address evaluation and grading as well as "equity and diversity of technology accessibility." Our students are particularly attuned to both of these issues, given the continued commitment to testing, the attention to the Common Core State Standards (Partnership for Assessment of Readiness for Colleges and Careers, 2014; Smarter Balanced Assessment Consortium, 2015) for assessment purposes (including technology), and the diverse populations with whom they will work. To address those concerns as teacher educators we make our grading transparent when reviewing students' presentations (e.g., video book talks, book trailers, digital conversations with peers about literature, writing responses, comments sections on sites). In fact, because so many products are now digitally public for all in the class to view, we have noticed that students are picking up on ideas from each other readily and taking their own products to another level.

By the same token, we have noted a wide difference in availability of technologies for students in schools. While some schools have 1:1 laptop initiatives, others still have only computer labs that must be reserved by teachers in advance, thus disallowing the kind of ready availability of computers, phones, and tablets that allow an authentic infusion of technology that we would prefer.

Multiple factors limit access, such as restrictive district acceptable-use policies, lack of funding for technology in education, and lack of Internet connectivity in rural areas or areas with high populations of people in poverty. Preservice teachers have a valid concern when they question availability not only in classrooms but also for students after they leave school. While public libraries, afterschool hours, and media centers offer some respite from this challenge, they are by definition used without teacher guidance and, therefore, useful for promoting only some aspects of literacy learning.

The implications of all these changes, the ever-evolving nature of technologies (both equipment and tools), and the widening nature of accessibility (especially for children of poverty) give us great pause. Likewise, we must consider the implications of all of these changes on students with special needs and those for whom English is not their primary language. To guide and to open equal education for all children continues to demand our close attention, our clear thought, and our determination to support the evolution and availability of technologies in our pedagogy, our content, and our classrooms. In fact, through problem-based learning we can elicit the next generation of teachers to confront

this ever-evolving technology environment head on, to be designers as well as guides, mentors, and learners themselves—just as we are.

The Journey to Now: Beliefs, Resolutions, and Standards

Many factors have contributed to the ways English teacher educators now consider technologies and literacies. It is beyond the scope of this article to discuss them all, but it is worth reviewing the roles of NCTE and CEE, as our major professional organizations. A review of selected documents provides a picture of some of the points in the 15-year journey since SITE, the *CITE Journal,* and CEE forged a partnership. In an interview with Marshall, former NCTE president Kylene Beers spoke of the importance of NCTE as a leading professional association in the shifts that have occurred:

I believe that NCTE has certainly been a leader in helping us understand new literacy demands. I know that many NCTE members have, as individuals, been in the forefront of helping us all understand the literacy demands of the 21st century; and, I know that some folks are slower to understand that these new demands actually mean that we need to be helping students to learn to think in different ways than what were needed even as late as the 1980s/1990s. Shift happens, but not everyone responds to the shifts in the same ways and at the same pace. (personal communication, October 1, 2013)

A document review of all published NCTE and CEE resolutions, position statements, and teacher preparation standards and guidelines related to technology and digital literacies demonstrates the accuracy of Kylene's observation and reminds us that the journey we describe is neither direct nor linear.

NCTE/CEE Resolutions, Position Statements, and Other Documents

During the period of 2003-2008, there was a great deal of activity among NCTE members and leaders focused on 21st-century literacies. In 2003, as an update to a 1983 *Resolution on Computing in English Language Arts,* the NCTE Executive Committee ratified the *Resolution on Composing with Nonprint Media,* which "encourage[ed] preservice, inservice, and staff development that will focus on new literacies, multimedia composition, and a broadened concept of literacy" (NCTE, 2003b, p.1) That resolution also called for research and policy that would serve to promote multimedia composition, suggesting to NCTE members that much work needed to be done in this area.

Two years later, at the 2005 CEE Leadership and Policy summit, a group of English teacher educators collaborated to develop a CEE position statement articulating our beliefs about technology and English teacher preparation. A version of this document was published in *CITE Journal* (Swenson, Rozema, Young, McGrail, & Whitin, 2005) and has provided a framework for teacher education program design, research, and for the 2012 NCTE Standards for the Preparation of Teachers of English, Grades 7-12.

It appears that 2008 was a watershed moment for NCTE, with the publication of several documents focusing on the intersection of technology and literacy education, including two major position statements: the NCTE Definition of 21st Century Literacies (updated February 2013; NCTE, 2013) and *the NCTE Framework for 21st Century Curriculum and Assessment* (NCTE, 2008). About the same time, NCTE released a policy research brief focusing on 21st-century literacies (NCTE, 2007). Together, these three documents provided guidance for not only English educators, but also educators across disciplines as well as administrators, parents, and policymakers. In the introduction of the frameworks document, the writers stated,

Literacy has always been a collection of cultural and communicative practices shared among members of particular groups. As society and technology change, so does literacy. Because technology has increased the intensity and complexity of literate environments, the 21st century demands that a literate person possess a wide range of abilities and competencies, many literacies. These literacies are multiple, dynamic, and malleable. As in the past, they are inextricably linked with particular histories, life possibilities, and social trajectories of individuals and groups. (NCTE, 2008).

Indeed, the documents published by NCTE and CEE provide evidence that the field of English/literacy education evolved greatly during the first decade of the 21st century, and great attention was paid to the symbiotic roles of contemporary technologies and contemporary literacies.

English Teacher Preparation Standards

A few years before Carol and Jeff wrote the original *CITE Journal* article, NCTE approved a new set of National Council for Accreditation of Teacher Education (NCATE) Program Standards for Initial Preparation of Teachers of English Language Arts for Middle/Junior High School Teaching (NCTE, 1997). There were five major standards, each with standard indicators, totaling about 70 indicators. Of those 70 indicators, nine made reference to what we now consider to be contemporary technologies/literacies.

The content knowledge (Shulman, 1987) standards included *viewing* along with reading, writing, speaking, and listening and mentioned *visual images* in standards related to composition. In addition, the terms *non-print texts* and *non-print media* were used in three indicators, suggesting that our field acknowledged an evolution in our understanding of what texts should be studied in our discipline. The words technology/technologies appeared in four indicators. In short, at the time the original article was published, English teacher preparation programs were expected to develop both content knowledge and pedagogical content knowledge (Shulman, 1987) in our teacher candidates, but these areas were not the highest priority in the discipline.

The NCTE/NCATE standards were revised in the early years of the 21st century (NCTE, 2003a) to focus more on teacher candidates' performance rather than only on knowledge. The new standards included more emphasis on contemporary literacies and technologies with attention paid to visual and media literacies. For example, the standard that previously required candidates to demonstrate their "understanding of the influence of visual images on thinking and composing" (p. 11) evolved beyond understanding to the level of implementation. In the new standard, candidates are required to "demonstrate their ability to engage students in activities that afford them the opportunity to demonstrate their ability to create visual images for a variety of audiences and purposes" (p. 11).

Perhaps the greatest change was a new standard stating that candidates should demonstrate their ability to "help students compose and respond to film, video, graphic, photographic, audio, and multimedia texts and use current technology to enhance their own learning and reflection on their learning" (p. 11). The terms *technology* or *technologies* again appeared four times in the 2003 standards, twice in the overarching standard and twice in the subindicators for the standards. While this increase over the previous standards may not seem great, the positioning of the terms emphasize their increasing importance in the English language arts discipline.

Even though the 2012 standards were streamlined in response to new guidelines created by NCATE (2010) for the writing and approval of specialized professional association

standards, these current standards, approved by NCATE in 2012, have placed an even greater emphasis on contemporary literacies and technologies. Of the seven overarching standards, five have references to contemporary technologies or literacies. In the content knowledge standards, mention is made of multimedia texts, media texts, contemporary technologies, and digital media. Likewise, contemporary technologies/literacies are included in content pedagogy planning standards for reading, literature, and composition, as well as the instructional implementation standards.

One of the foundational principles of the new NCATE teacher preparation guidelines is that multimedia reading and composition skills are essential to contemporary literacy education. Throughout the standards, we find terms such as *media texts, digital media, multimodal discourse, non-print texts,* and *contemporary technologies* beside *grammar, interpretation, comprehension,* and *classic and contemporary texts.*

In short, the 2012 standards saw the integration of contemporary literacies and contemporary technologies on such a regular basis that it seems safe to say that technology has been part of the ELA discipline itself, not just a tool for teaching and learning. The new standards are not only guided by Shulman's notion of content and pedagogical content knowledge, but also by technological content pedagogical knowledge (Mishra & Koehler, 2006).

The State of English Language Arts Teacher Education Now

As we considered the NCTE/CEE documents, published literature in the field, and especially the seven principles from the 2000 article by Carol and Jeff, we wondered if we could identify a "shift" (a la Beers' convention theme mentioned at the beginning of this article) in the terms we use to talk about the relationship between ELA education and technologies. Could we, for example, show that we moved from *integrating* technology to *infusing* technology? Teaching *with* technologies to teaching *through* technologies?

It should be no surprise to literacy educators that nothing quite so definitive emerged. Instead, our language use in the documents reflects what Miles Myers wrote in 1996 about literacy practices: "New literacy practices are always added to a culture's range, old literacy practices rarely or never disappearing" (p. 119). We do add new vocabulary for what did not exist in 2000—*Tumblr, Twitter, texting*—but we still employ our old language as well, and we teach both with and through technology as we integrate, infuse, and implement it in our classes. Sometimes we combine the new with the old to express changing ideologies, concepts, and practices, as with the terms *digital literacy, 21st-century literacies, media literacy, multimodal literacies,* and *contemporary literacies.* Unpacking those terms is not the purpose of this article, but it is a necessity for English teacher educators and others who employ them in curriculum, instruction, and assessment. In the coming years researchers will need to document how these new literacies are enacted in methods courses, if at all.

We have found that the *roles* of the English language arts teacher have shifted greatly since 2000 and believe that they will continually shift. English teacher educators will be challenged to consider with preservice teachers not only the affordances of digital tools and a wide array of texts, including those identified as nonprint, visual, and media texts, but also the power of technologies to disrupt traditional pedagogies and promote opportunities for all students to learn in and out of classrooms, including those with special needs or those for whom English is not their primary language.

Standard 6 in the 2012 NCTE/NCATE teacher preparation guidelines speaks directly to the need for such opportunities: "Candidates demonstrate knowledge of how theories and research about social justice, diversity, equity, student identities, and schools as institutions can enhance students' opportunities to learn in English Language Arts" (p. 2).

From our vantage point in early 2015, we can best indicate the shifts we see in the last decade or so by offering examples from the methods courses and scholarship of our colleagues, as Carol and Jeff did in their 2000 article.

- Preservice teachers in a writing methods class employ blogs, Twitter, or Facebook to establish a hybrid professional learning community, following and communicating with active and influential teachers and teacher educators such as Troy Hicks, Kristen Turner, Sandy Hayes, Sara Kajder, Bud Hunt, or Meenoo Rami. They then bring those voices into conversation in their methods classroom, enriching their understanding through exploration and critique of multiple perspectives. The English teacher educator sets up the opportunity and facilitates but does not dominate or direct the discussion. (Principles 1, 2, 3, 5)
- To learn about classroom management, preservice teachers participate in a virtual classroom, created by educators at the University of Central Florida (UCF; Enterprise Florida, 2009). The technology, TLE TeachLivE™, is used in 10 universities, according to UCF (2014). On a site sponsored by the National Education Association, preservice teachers can extend their learning about specific classroom management situations in almost real time. They are invited to ask questions and can read the answers to questions others have already asked. The invitation might be seen as every teacher's dream: "You can't teach a class that's out of control. But Kate Ortiz, our classroom management expert with more than 30 years of experience, may be able to help. Describe your situation and you'll have an answer within 24 hours" (Nast, 2014). (Principles 1, 5, 7)
- After reading or reviewing *Hamlet,* preservice teachers view several remix versions available on YouTube (key words "Hamlet remix"), analyzing them for technique and interpretation. Using a software program such as iBooks Author and their iPads, the preservice teachers then apply their analyses to remix a different canonical text of their choice. They post remixes on a blog and invite comments from viewers around the world. Finally, they reflect on the project and comments, employing their insights and ideas to suggest how they will apply what they have learned to future classroom instruction. (Principles 1, 2, 3, 4, 5, 6, 7)
- After studying film and young adult literature, preservice teachers study *The Outsiders* (S. E. Hinton) and then work for several weeks with seventh graders to analyze original song lyrics that explore the literary elements in the novel (Pope, Beal, Long, & McCammon, 2011). Groups of preservice teachers and seventh graders together develop a music video that is digitally posted and presented at the last shared class time. This process integrates print and nonprint text, film, music, performance, and digital videos to reveal ways of infusing various forms of technology in the study of a novel. Throughout the project preservice teachers reflect on the power of intertwining music, video, lyrics, and technology to teach literature. (Principles 1, 2, 3, 4, 5, 6, 7)

Carol and Jeff presaged major changes in 2000 when they suggested that teachers using technology were changing the nature of instruction. Their article has been cited more than 70 times in the past 15 years, in articles, dissertations, and book chapters. Since then, the use among teenagers of social networks and various new and improved technologies and tools such as iPads and smartphones has exploded. Teachers at all levels must know that students have less need for us to be information givers or directors of

their learning; instead our roles are shifting to designers and curators, helping students maximize their learning through opportunities provided in and out of classrooms.

When teachers in 2015 consider teaching with technology, they make informed decisions about the value and affordances of various technologies, opting sometimes to focus on print texts and Socratic seminars in classroom spaces and other times to have students take their work into the world for comment. We see that more teachers are more comfortable using technologies—although not completely so—and that students are less reliant on us to teach them how to use technological tools—although not all are. In short, English teacher education in 2015 seems to be moving closer to focusing on the teaching rather than the technologies and on the design rather than the device.

Looking Forward: Where Will the Journey Take Us Next?

NCTE executive director Kent Williamson recently wrote about the "evolution of a digital discipline," which we think encapsulates the biggest shift affecting English teacher preparation into the next few decades. CEE, SITE and *CITE Journal* can productively partner in preparing English and literacy teachers to understand and advance our increasingly digital discipline. Kent began by looking back:

A few decades ago, when the digital revolution was just beginning to influence education, it was not uncommon to read enthusiastic forecasts of what computers and online communication could mean for science, math, career and technical education, foreign language study, and the social sciences. But the prevailing notion at that time seemed to be that, except for embracing word processing, English and literacy studies wouldn't change much (Williamson, 2014).

As we can well see, that notion has turned out to be completely wrong. The evidence that literacy teaching has been transformed by digital technologies is everywhere.

The brief history of our understanding of literacies and technologies in English teacher preparation demonstrates that, although we might know that changes are coming and we might even have some idea of what they will be, we do not know the depth and breadth of them until we look back. Who would have imagined, for example, that we would be using so many technologies in our methods classes or that they would be only a small percentage of the technologies available? Even now, we probably do not know how much or in what ways English and literacy studies will continue to change.

Our experience with the past, though, makes us fairly certain that English teacher preparation in the next 15 years will be more about the *transformation* of our discipline than *shifts* within it. As we have been, we clearly will still need to be adaptive teachers, ones who both anticipate and ride the curve. We cannot know all the technologies in advance, but we can do as we always have—anticipate the future, share the future with our students and our colleagues, and partner with individuals and organizations who are engaged in similar pursuits.

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