Digital writing—both as a concept in K–12 schools and in terms of particular hardware, software, and networked opportunities—has come a long way in the past ten years. For decades, of course, teachers and teacher educators had been thinking about and using technology in English classrooms, including innovations such as film, radio, and computers. By the early 2000s, there were books, articles, conference sessions, and workshops that encouraged us to use emerging technologies such as blogs, wikis, and podcasts. These were important steps, each one bringing a broader concept of digital writing to the front of our minds and into our classrooms.

With the publication of my book, The Digital Writing Workshop (2009), I blended two great ideas—digital writing (Writing in Digital Environments (WIDE) Research Center Collective, 2005) and writing workshop (Atwell, 1998; Calkins, 1994; Graves, 1983)—together. In the words of Ken Martin, Director of the Maine Writing Project, my book was able to keep the focus on the writing and the technology in ways that other texts had not done before, noting, “The result is parallel sequences, one of which substantiates our understanding of writing workshop while the other advances our understanding of technology. Together, these sequences converge to define writing in a digital context” (2010).

It is this combination of “parallel sequences” that I have maintained throughout my career and in my work with hundreds of teachers. In order to bring substantive change to our classrooms, we must keep the focus first on best practices in teaching writing and then, in a very close second, on thoughtful use of technology.

In conversations with countless teachers over the past decade, I hope that we have all brought “digital writing” into our English/language arts lexicon.

I am honored to be invited by Sara Kajder and Shelbie Witte to open this issue of Voices from the Middle, and I want to take a few paragraphs to reflect on where we have come with digital writing. Then, in the remainder of the article, I will argue that the path for the potential of digital writing doesn’t end here. Digital writing still has a long way to go, and my hope is that the examples of colleagues cited in this article will rekindle your interest, inspiring you to examine new modes, media, audiences, and purposes for digital writing with your students.

Digital Writing: From Then to Now

Just over twenty years ago, at the same time I was finishing my preservice teacher education program and preparing for my first job at a middle school, I had been introduced to the NCTE/IRA Standards for the English Language Arts (1996). Like many English majors, my love for the printed word—both creating and consuming it—led me to my chosen career. Yet, it was with this standards document that I had first discovered new ideas that valued and elevated “print and non-print texts” as well as “a variety of technological and information...
resources.” While I had tinkered with a Commodore 64 as a teen and was just starting to understand how email and a personal web space on the university’s server could be useful, these new phrases describing what it meant to be literate were unanticipated and liberating.

Additionally, the Michigan Department of Education had just released the Michigan Curriculum Framework in which they described the English language arts as a content area that “encompass[es] process and content—how people communicate as well as what they communicate” (1996, emphasis in original). The standards went on: “All students are literate and can engage successfully in reading, discovering, creating, and analyzing spoken, written, electronic, and visual texts which reflect multiple perspectives and diverse communities.”

Both the NCTE/IRA and MDE definitions gave me pause. I began to rethink everything I’d just learned about being an English teacher. Having been flooded with ideas about competing modes of literary criticism, approaching writing from a rhetorical perspective, and thinking carefully about a variety of multicultural perspectives to canonical literature, the idea that we could both study and create “non-print,” “electronic,” and “visual” texts was quite astounding.

How could we have known, just over twenty years ago, that these processes of “reading, discovering, creating, and analyzing” various kinds of texts could still require the same fundamental skills crucial to the English classroom, and yet how our world—enabled by networked technology—would have changed so incredibly much? As I made the shift from middle school teacher to graduate student and then to teacher educator, I witnessed the change . . . then I became part of it.

What it means to teach the English language arts with websites, apps, and social media continues to evolve quickly, both in terms of the tools as well as in terms of the practices. We need to approach the task carefully, critically, and creatively. In 2013, in Crafting Digital Writing, I argued,

> With digital writing, we need to think with words, of course; yet we also need to begin thinking like artists, web designers, recording engineers, photographers, and filmmakers.

Certainly, Voices from the Middle has been a space for considering these types of decisions. In a themed issue on “Remix,” Toby Emert (2014) shared ideas about creating a teaching and learning lab for students to create digital narratives and, in that same issue, Crystal Shelby-Caffey and her family described how “it is possible for educators to remix instruction in ways that use technology to bridge achievement gaps and to develop a sense of social responsibility in students while empowering them.” (p. 52). Also, within NCTE we are fortunate to count among our colleagues a number of incredible middle level teachers like Kevin Hodgson (@dogtrax on Twitter), Tony Keefer (@TonyKeefer), and Katharine Hale (@KatharineHale), among many others. On the whole, we are doing well.

Still, we are not doing enough. Realistically, how many of the digital projects we ask our students to do are pushing them to create their own knowledge and contribute thoughtfully to ongoing academic and civic conversations? Or, are they simply replicating the types of traditional academic literacies required to succeed in a formulaic essay, presentation, book report, or other perfunctory task? Are they truly engaged in the process of digital writing? If we are being entirely honest, I don’t know that we are doing enough. And, as Kristen Hawley Turner and I have argued, these skills are no longer a luxury; innovative approaches to teaching digital literacy, indeed, can’t wait (Hicks & Turner, 2013).

Thus, my goal here is to introduce a number of interesting and innovative teacher-researchers and teacher educators who are pushing us to think more carefully about when, how, and why we might integrate digital writing into our classrooms. What I want to suggest now is that we begin moving even deeper, more intentionally into multimodal composing practices. Let’s take a look at the future that’s happening right now.

Digital Writing: From Now to Next

Yes, it is amazing that so many of us are willing and able to bring digital writing tools and processes into our English classrooms. From students blogging and creating websites to the production of podcasts and digital video, there are many middle level educators who are engaging students through digital writing processes. There are also ways that we can invite students to use social media for productive purposes, including examples such as KQED’s #DoNow initiative (https://ww2.kqed.org/education/collections/ndo-now/) and to have our students share their
reading lives with #booksnaps and #shelfies. These are important literacy practices, and ones that live in parallel with more academic notions of what it means to write in school settings.

As we move into the second decade of fully exploring and enacting digital writing practices in our classrooms, my hope is that we can invite students to be knowledge creators, not just consumers and remixers. Of course, at some level, students must consume and remix materials in order to become creators. Nothing is created in a vacuum. At the same time I would agree with JuliAnna Ávila and Jessica Zacher Pandya, who argue,

> Critical literacies educators would do well to integrate the digital dimension into their work to build upon the practices and engagement that our learners already utilize as they participate in digital literacies, where they are positioned as creators and authors. (2012, p. 4)

In order to accomplish these goals, we need to provide intellectual and emotional space for students to explore new ideas, gather their own evidence, and present academic arguments through media other than just the printed word. We will need to trust our students to take the lead in guiding one another to the process of composing images, audio, maps, and other data sets. In the segments that follow, I briefly introduce five different educators with ideas for expanding digital writing practices.

**Creating Space for Critical Digital Literacies:**

**Detra Price-Dennis**

The role of the English language arts teacher has always been and will continue to be—in addition to simply teaching the “skills” of reading, writing, listening, speaking, viewing, and visually representing—someone who introduces students to critical literacy practices. Among the many teachers and teacher educators who are reinvigorating this approach across digital spaces, Detra Price-Dennis offers us one unique perspective by focusing her work on the lives of Black girls.

In her article “Developing Curriculum to Support Black Girls’ Literacies in Digital Spaces,” Price-Dennis argues that her students must be engaged deeply in a variety of literacy practices, engaging various tools with a variety of critical perspectives. She notes:

> Again, these experiences provided multiple opportunities for Black girls in the class to explore social issues across modalities and raise questions about audience, privilege, power, voice, and equity. The questions they raised in discussions and the work they produced drew on multiple literacies that were tied to their identities as Black girls. (2016, p. 357)

It is through this work that the girls are able to develop perspective-taking and empathy, along with specific digital literacy skills. By creating physical spaces in which students, in this case Black girls, could convene and collaborate outside of typical school settings, Price-Dennis and her colleagues allowed students the intellectual and emotional freedom that they needed in order to fully participate in digital literacies.

To the extent that we have a “curriculum” that we must “cover” in school, I can understand how teachers may struggle to integrate these kinds of literacy practices into digital writing instruction. Yet, if we do not, Price-Dennis’s example reminds us that the tasks we typically ask students to do, such as creating a digital poster or recording themselves reading an essay will not have the same type of purpose, nor give students as authors the agency that they require in order to be fully engaged in the process. Digital writing requires time, space, and attention, as well as an inquiry stance.

**Crafting Audio as Ethnography:**

**Jon Wargo and Cassie Brownell**

In an era when civic discourse and basic listening behaviors are being taught with increased interest, helping students become attentive to their own environments, the people around them, and the world we shape together has become incredibly important. At a time when we have so many opportunities by plugging in our earbuds and simply listening to the music or voices from our own echo chambers, we need to teach students how to engage in literacy practices that help us hear both what is being said, as well as how it is being said.

In their “#hearmyhome” project (http://hearmyhome.matrix.msu.edu/), Jon Wargo, Cassie Brownell, and many preservice teachers have documented the everyday sounds in their communities, especially urban
Snapchat have the potential to require sophisticated composition strategies. (2017, p. 91)

Put another way, there are a whole lot of design decisions that go into creating a single “snap”—much more than simply taking the photo.

Even in talking with my own daughter, currently a high school sophomore, she described to me a number of decisions that she makes including the intended receiver (whether the person is a close friend, acquaintance, boyfriend, or adult; the likelihood that the receiver will save or share the snap with others), the time (time of day, day of the week, month, during the school year or during vacation), the location (inside/outside, at home/elsewhere), the lighting, the font size and color, use of emojis or other “stickers,” duration of the conversation (and whether it is part of a “Snap Streak” of multiple days), and whether or not to use time and location tags provided by Snapchat. Again, digital writing requires that we explore all forms of media as text worthy of analysis, especially when students are actively composing texts with numerous options such as these.

Engaging in Computational Thinking: Tom Liam Lynch

Back in the heady days of the early 2000s, when we were being introduced to a variety of nifty Web 2.0 services such as talking avatars, zooming slideshows, and funky photo editors, we were quick to integrate these tools into our teaching practices. One of those tools, word clouds, has evolved quite a bit since then. At the time, yes, it was kind of cool that students could create a word cloud—from their own writing or the writing of others—and then use that as a tool for visualization. However, that was just about where the story ended. While we might have seen some essays enhanced based on the relative frequency of words copied/pasted into a word cloud generator, my strong suspicion is that most teachers did not push this kind of thinking too much further. Instead, word clouds were ultimately used as decorative features.

Over the past few years, however, these types of tools have become more sophisticated, and one voice that has emerged to help us think critically, carefully, and creatively about the role of computational thinking in English language arts has been Tom Liam Lynch. In his “Soft(a)ware” column in English Journal, he has introduced a variety of ideas for how we might bring different perspectives on literature—both the content as well as the analysis—into a sharper perspective, pushing us to think about how, when, and why computers work to present texts in the way that they do.

Crafting Snaps as Self-Identity: Jonathan Bartels

For anyone teaching at the middle level right now, it is clear that Snapchat is the social media of choice. In addition to the countless selfies posted, Pew Research reported in 2016 that “Snapchat won over a number of big news names this year for its group of Discover publishers” including CNN, NBC, and The New York Times (Shearer & Gottfried, 2017).

Even with venerable news outlets and other media producers moving toward Snapchat as a viable space for publication, we also need to consider the literacy practices that are evident and inherent in Snapchat, as based on users’ experiences. In his recent English Journal article, “Snapchat and the Sophistication of Multimodal Composition,” Jonathan Bartels discusses the way that his former and current students use the tool.

At first glance, Snapchat may not seem much different from other image sharing or instant messaging applications. However, on closer examination, it becomes clear that the ephemerality built into the software, the exclusivity assured by restricting access to mobile devices, and the relationship of visual and textual elements in

By inviting students to focus mainly on the sounds—and not worry necessarily with image or video—Wargo and Brownell build on a rich tradition in oral history, storytelling, audio engineering, and rhetoric/composition to help preservice teachers make distinct connections with their students and also to recognize areas of difference. Digital writing requires that we explore all forms of media as text worthy of analysis, including what could otherwise be dismissed as just ambient noise.

Rhythms of recent riots, pulses of contemporary protest marches, and the acoustics of American sit-ins serve as a starting point to explore the sonic intensities and politics of sound. In recent weeks, individuals have taken to the streets to demonstrate alliance with and affinity for making their collective voices heard. (Wargo & Brownell, 2016)

Communities. In doing so, they have created a number of “soundscapes” where preservice teachers themselves and their own students are able to create rich, ethnographic portraits of their homes, neighborhoods, schools, stores, and other spaces.

Each week, Wargo and Brownell framed a prompt for a different “sonic event,” such as the one in which they explored “the politics of sound.”

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In one of his 2015 columns, “Counting Characters: Quantitative Approaches to Literary Study,” Lynch describes the ways that he uses Voyant Tools (https://voyant-tools.org/)—described as “a web-based reading and analysis environment for digital texts”—to analyze text in a variety of ways including word clouds as well as a number of other methods. Lynch argues, “We can treat as evidence not only language from the texts but also numerical data and visualizations that result from inviting software to read and respond with us” (2015, p. 73).

For instance, when exploring canonical literature that is available in the public domain through websites such as Project Gutenberg, students could take a small selection, a chapter, or the entire book and, quite literally, copy and paste the text into Voyant. Then, students could use the evidence from the text—in the form of a chart for word frequency—to make an argument about particular themes, characters, metaphors, or other types of literary analysis. Digital writing requires us to rethink our approach to text, textual analysis, and the ways in which we build our arguments from evidence that was, heretofore, invisible.

**Mapping Literacy: Lincoln A. Mullen**

When I was learning to drive, we still had to use an atlas, a folding map, or even handwritten directions, along with the basic skills of figuring out a map. In our modern age, where GPS now lives in our pocket and is embedded in our vehicles, and when self-driving cars are on the verge of mass-market breakthrough, our need to read and interpret maps has become even more essential. Historian Lincoln A. Mullen reminds us of the cultural, historical, and political significance of learning how to read maps for a variety of purposes:

How does one read a map? This can mean quite literally introducing students to the basic conventions of maps. But more importantly it means learning how to read maps the past as primary sources, and how to read maps from scholars as secondary sources, and how to read texts with an eye to their spatial contexts. (Mullen, n.d.)

At one level, we as English language arts teachers could look at mapping literacy as a task best left for social studies teachers. However, to do so, we ignore existing resources available on sites like Google Lit Trips (http://www.googlelittrips.org/) or photo/storytelling sites such as History Pin (https://www.historypin.org/en/) that can significantly enhance our language arts curriculum. More importantly, there are a number of ways in which we can build maps and mapping literacy into the narrative, informational, and argument pieces that our students are developing. For instance, the Pulitzer prize-winning *New York Times* multimedia feature, “Snow Fall: The Avalanche at Tunnel Creek” (Branch, 2012) is an excellent example of how interactive mapping can eliminate the story being told.

Digital writing requires us to rethink interdisciplinarity and the ways that students can integrate numerous tools in their effort to create dynamic, multimedia texts.

**The Next Decade of Digital Writing**

In closing this conversation, thinking about what else we need to do in order to rethink digital writing, I strongly encourage readers to explore the 2016 revision of the [ISTE Standards for Students](http://www.iste.org/standards/for-students), all of which have implications for literacy instruction in the next decade. In addition to the work of the teachers and teacher educators noted here, if there was one other source that I would encourage readers to review for inspiration, it would be the Educator Innovator site, powered by the National Writing Project, which includes webinars, blog posts, and a variety of other resources for teaching writing in a digital age: https://educatorininnovator.org/

Finally, the KnightLab at Northwestern University (http://knightlab.com/) offers a variety of interactive storytelling tools, for free, that are in use by professional journalists around the world. They include tools such as StoryMap JS (which allows users to connect places on Google Maps with text, images, and video), Juxtapose (which allows users to make framed comparisons of similar images), Souncite (which allows users to insert “inline audio” into web-based text), and Timeline (which allows users to connect text, images, and video into a seamless timeline). These tools may take a bit of time to master, but the results will demand higher-order thinking, effective writing, and applications of visual literacy.

Digital writing has come a long way in the past decade, but let’s be sure to integrate it into our classrooms and our students’ writing lives even more strategically and creatively in the years ahead. If there were ever a time to get all of our colleagues, and I mean all of our
colleagues—even the most reticent, device-averse, “shoe organizer hanging in the back of the classroom to collect cell phones as kids walk in the door” type of colleague—to recognize that literacy and technology are intricately interwoven and a part of our students’ lived lives, that digital writing does, indeed, matter, the time is now. Let’s begin our next decade with a generative sense of purpose, creativity, and renewal. Please join me—and the other contributors to this issue—and continue the conversation.

**REFERENCES**


