The Common Core State Standards [CCSS], now adopted by 45 U.S. states and 3 territories, do not include a standard for technology and media (CCSS, 2010; www.corestandards.org). The standards assume that being literate means being digitally literate. To be prepared for school, work, and life in a multimodal, technological society such as ours, students must be able to “analyze and create a high volume and extensive range of print and nonprint texts in media forms old and new” (CCSS for English Language Arts, 2010, p.4; www.corestandards.org/assets/CCSSI_ELA%20Standards.pdf). Information communication technologies (ICTs) and media are not considered supplementary, but rather are deeply infused throughout teaching, curriculum, and learning.

Personally, I welcome the open-endedness of the CCSS and the wide latitude they offer to integrate technology and literacy in ways that matter for students’ learning and engagement. At the same time, I know that it is a challenge to keep up with the explosive growth of digital tools, devices, and Internet resources. A recent survey shows that many teachers feel unprepared to integrate literacy and technology into their classrooms (Hutchison & Reinking, 2011). Others have tried-and-true ways of using technology and are eager to move to a more advanced level of integration.

My goal for this column is to highlight strong examples of digital literacies instruction and technology integration that teachers can remix and customize for their students and teaching contexts. I am particularly interested in how we can take advantage of flexible digital texts, tools,
“One of the biggest communication changes happening today is the shift from the printed word on a page to multiple modes of image, sound, movement, and text on a screen.”

and media to scaffold the diverse learning needs and interests of all students. I invite you to contribute to this effort by posting your teaching ideas, resources, and comments to The Reading Teacher’s Facebook page. If we work together as a community, we can accelerate progress in remarkable ways!

When Writers Become Multimodal Composers

Over the years, I have worked with many students who dislike writing. Those who do like to write often write outside the classroom; school writing is boring! In contrast, I have yet to meet a student who says he doesn’t like multimodal composing. Or, rather, who doesn’t like designing, which is the way I frame the creative communication work they are doing.

One of the biggest communication changes happening today is the shift from the printed word on a page to multiple modes of image, sound, movement, and text on a screen (Kress, 2003). The fixed display of the printed page is being transformed on the screen, into an interactive, dynamic experience that can be manipulated across time and space by the reader/viewer and the author.

Although we often point to youth’s engagement in Internet literacies such as Facebook and gaming (Jenkins, 2008), there is a growing acceptance of the relevance of multimodal composition for academic purposes. Consider recent moves by colleges to expand options beyond the traditional application essay to include videos (Zwang, 2011), as well as popular competitions for students’ digital book trailers (Storytubes, www.storytubes.info/drupal/) and video essays (U.S. Department of Education “I Am What I Learn” video contest, 2009; www2.ed.gov/news/pressreleases/2009/11/11162009a.html). The rapid expansion of tablet and iPad use in schools is also fueling interest in digital composing, especially in elementary schools where even the youngest learners are able to express themselves with easy-to-use tools and apps. With the CCSS emphasis on creating savvy digital composers and the growing availability of composing tools and media, the time is ripe to make some important headway in this arena.

Given the relatively new emergence of multimodal composing in schools, it’s not surprising that recent reviews of effective writing instruction (Graham & Perin, 2007) and writing to read methods (Graham & Hebert, 2010) have focused on technologies that have been around for a long time, such as word processing to support students’ writing process and graphic organizers to support concept learning. There is guidance, however, from a growing body of qualitative research and practice that demonstrates the rich and varied ways youth compose with digital tools and media (Ito et al., 2010; O’Brien, Beach, & Scharber, 2007). Teachers integrating multimodal projects often bridge from familiar print-based literacies to multimedia projects, rely on writing as a way of planning for multimodal compositions, and directly instruct students in the technical skills required (Smith, 2011).

Much of the work on multimodal composition is broadly situated within multimodality theory, which is based on the assumption that all meaning making is multimodal, including linguistic, visual, audio, gestural, and spatial elements (Kress, 2003; Kress & van Leeuwen, 2001). A multimodal framework acknowledges that modes offer certain affordances, and the interaction between modes is significant for communication.

For example, although a process such as the formation of a tsunami over the open ocean can be communicated in any mode, video or animation lends itself particularly well to illustrating temporal sequences. The multiliteracies notion of design has also been very influential in helping us understand how composers use available modes, media, discourses, and tools to create their own digital compositions (New London Group, 1996).

A “Big Picture” of Literacy and Technology Integration

Integrating technology and media in ways that matter for students and that are manageable for teachers to enact in their classrooms is not a simple endeavor. Consider Mishra and Koehler’s (2006) proposition that effective technology integration occurs at the intersections of teachers’ knowledge about technology, pedagogy, and content, or T-P-A-C (see Figure 1).

Although each area of intersection is useful, the more powerful applications occur where there are multiple overlaps. For example, I may know:
How to compose with Paint and PowerPoint (technology)
About NASA’s beautiful collection of space photos available on its website (technology)
How to use models to guide my students’ learning (pedagogy)
About poetry genres and figurative language (content)

I fully integrate TPAC, however, when I put it all together to design and teach a lesson on visual poetry using the NASA space photos, Paint, and PowerPoint. I use PowerPoint to introduce the activity, illustrating how images and figurative language can work together to convey dramatically different tones and messages. I project a photo in Paint and lead students through a series of image/text manipulations and explicit talk about how design decisions influence communicative impact. Students use the same tools and NASA resources to design and present their own visual poetry, including online publication to a class blog where friends and family can read and respond to their work. TPAC brings it all together, not for technologies’ sake, but in service of meaningful teaching and learning.

Your Turn: Situate Yourself in the TPAC Framework
How do you situate yourself in the TPAC framework? What can you leverage? Where do you need support? Perhaps you love teaching poetry but have never tried creating a visual poem. That suggests focusing on the technology–content connection. Or maybe you are skilled at photo illustration and have your own photography stream on the photo sharing site Flickr, but you haven’t tried it out with students. That would suggest focusing on the pedagogical connections. Choose an entry point you are comfortable with and then reach out and connect to the other components so that you are effectively integrating TPAC for your students.

Make a Difference
Opportunity: Expand Writing to Include Multimodal Composition
Kress (2003) said we are all designers. I find this notion both compelling and liberating. The students I work with accept as a matter of course that they are designers who are able to create with words, images, sound, and movement. I think it is a less familiar notion to those of us who grew up thinking that design was what folks with very specialized training did, such as fashion designers, graphic designers, and so forth. The availability of inexpensive and easy to use composing and production tools, access to media resources on the Internet, and opportunities to publish work online has democratized who, what, and how design production and distribution happens. In the next section, I offer some general principles for

“Students will have modal preferences and talents, which they can pursue in depth while they are also developing a broad range of composing and technical skills.”

www.reading.org
developing a digital writers’ workshop, followed by an example of a multimodal composition project illustrating how to scaffold students as they are developing design and communication skills (Dalton & Smith, 2012).

**Digital Designers’ Workshop**

**Develop Students’ Design Identities**

From the beginning, encourage students to think of themselves as designers. We live in a multimodal world where being an effective communicator involves composing with media. Students will have modal preferences and talents, which they can pursue in depth while they are also developing a broad range of composing and technical skills.

**Build a Designers’ Workshop Community**

Adapt your writers’ workshop model to reflect an emphasis on design and media. Just as the writing process is fluid and recursive, involving planning, drafting, revising, editing, and publishing, the multimodal design process also involves a recursive movement across modes as we work to create a complete piece where the modes work together in creative, powerful ways.

Expand your minilessons about author’s craft to include the craft of multimodal composition, using a projector with speakers to display featured pieces and to illustrate processes. Transform students’ author chair into a designer stand, where students also use the projector to display their work, describe design decisions, get feedback from classmates, and showcase final products. Connect these opportunities for feedback with online posting of work-in-progress using a blog or other online tool.

Multimodal work often involves a pair or small team, rather than an individual writer. Thus part of the teaching and learning in a digital designers’ workshop centers on learning how to be a contributing member of a creative partnership. Finally, provide routines, structures, and timelines so that students can focus on being creative while they are meeting deadlines and project goals.

**Scaffold the Composing Process**

The flexibility of digital tools and media offers new options for scaffolding students’ composing and production. When introducing a new composing skill or technical tool, think about how to constrain the larger composing task so that students are able to focus attention on the new thing to play with and learn. You can scaffold with partial products, with media resource collections, and with peer collaboration.

For example, providing students a partially completed product to enhance with media allows them to focus on how the new mode enriches the existing piece to say something unique (e.g., here is a 30-second video that needs music—be the music editor and develop the soundscape). Collecting media resources in a folder placed on students’ desktops or online focuses students on the selection process related to that mode while asking them to add something original to it (e.g., here is a folder with 20 photos from our field trip to the zoo—be the zoo publicist and create a factoid to insert into the photo of your favorite animal or scene).

Collaboration is also an important scaffolding tool. It’s often useful to start out with partners, so not too much negotiation is needed for students to think out loud together and draw on their respective interests and skills to compose a joint product (e.g., two students take turns narrating their digital story so that each character has a distinct voice).

**Go “Meta” and Teach Students Metalanguage and Technical Vocabulary**

There are lots of terms we use in writing and writers’ workshop to help us understand composition and to give us a way to work together and talk...
about our writing. Connect your ways of talking about composing and writers’ craft to multimodal composition, teaching students the metalanguage and technical vocabulary they need to discuss composing, production, and distribution of work. Vocabulary will draw on film, music, art, and graphics, as well as writing.

For example, soundscapes involve sound effects, audio narration, and music, as well as tempo, style, beat, and so forth. Images involve photos and graphics, as well as focus, intensity, and contrast. Both sound and images are designed and manipulated to convey a mood or tone, a setting, character, or conflict. Develop terms within minilessons and students’ design reflections. For easy reference, have students contribute to a digital glossary or classroom display. Students may even invent their own words to capture some of their processes or products!

**Publish Beyond the Classroom Walls**

We know that writers need authentic audiences for their work, and the same is true for multimodal composers. Encourage students to select work to publish online. Create a class blog or website, use one of the many online student publishing websites, or set up a class YouTube account or Flickr photo sharing account. You will want to consider privacy issues and restrict access as you deem appropriate. For example, YouTube allows you to restrict access to your students’ videos so that only students and families can view them. This is also a good opportunity to teach them about Creative Commons licensing and copyright, because they will want to indicate how they would like others to use their work, as well as acknowledge their use of others’ content.

“**It’s helpful to set up a blog or wiki for students to post strategies, cool tools, and media resources, and to present them in designer’s workshop.**”

**Pitfalls Alert!**

My own research and teaching focuses on digital literacies, so I am always trying out new tools and strategies. Some of the most valuable advice I get is from DIY books and online experts in the form of things to avoid, or common pitfalls. Therefore, here are a few pitfalls to watch out for (and if you have your own pitfall warnings to share, please post them on The Reading Teacher Facebook page).

**Avoid Relying on Writing First, Multimedia Second**

Perhaps because we are more comfortable with writing and understand its importance, we often ask students to write first and then to enhance what they’ve written with media. For many multimodal compositions, this is not the way to go. Some students may choose to start with writing, and that is fine; for others, this will not be the pathway that inspires them or supports them in creating their composition.

Observing students as they design and produce digital stories, I’ve seen some who type in their narration for each scene and then add images; others drop in the images first, sequence them, and then audio record their narration, with nary a written word to be seen. Even more common is a back-and-forth process across modes and scenes of the digital story, perhaps inserting an image, adding text, going back to add a few more images, audio-recording dialogue, writing closing credits, adding music, changing an image sequence, deleting music and adding in a new song, and so forth. Although I might recommend a starting point for students, I am careful to let them know that they may have a different way into their composition and that they can share their process during the design reflection session.

**Scaffolding Is Valuable; Too Much Scaffolding Can Be Limiting**

Successful learning depends on customization, and scaffolding is essential to making it work for each child. However, scaffolding can limit growth and actually cause students to disengage if it is too constraining or if there is no progression toward increasing independence. For example, I may start with an activity that is highly constrained, yet still offers creative choices around the skill that is the focus of the lesson.

For example, in the multimodal shoe poem example described in the next section, I use a template with illustrated examples of three different types of multimodal shoe poems to introduce students to the activity and provide a folder full of shoe images for them to consider using in their poem. This constrained activity is then followed by a wide-open composing opportunity in which they can apply the design and technical skills they’ve been developing in the first scaffolded poem activity to their own poem. When products start to look the same or students lose their creative energy, it’s a sign that there may be too much scaffolding!
Don’t Wait to Be the Expert Before Teaching Multimodal Design

It is important to understand the basics of the tools and media that children are going to be using for a particular composition project. Otherwise, a lot of valuable teaching and learning time can (and will!) be wasted. I usually try creating a version first, without worrying about it being perfect. I don’t try to master all the tool features, having learned that it’s simply not possible to be the expert on the range of tools and resources that you are going to want to use with your students. Instead, let students know that everyone will be sharing their expertise as they figure out how to use different tool features and media to accomplish their particular design and communication goals.

It’s helpful to set up a blog or wiki for students to post strategies, cool tools, and media resources, and to present them in designer’s workshop. As students are working, they will identify what they want to learn next (e.g., “How do I…?”). Often, they will notice what a peer is doing and follow their lead (e.g., “How did you darken the photo like that?” “Where did you get that scary music?”). An important part of learning the “how” is learning how to use one another and the Internet as resources. I rely on the Internet to get “just-in-time” answers to technical questions and to be inspired by wonderful examples of multimodal design!

Classroom Spotlight: Multimodal Shoe Poems

Shoe poems are a fun and easy way to engage students in multimodal design and tap into their knowledge of popular culture. Figure 2 shows an example drawn from a PowerPoint presentation including examples, directions, and templates that Blaine Smith and I designed to teach students participating in our Digital Writers Workshop (Dalton & Smith, 2012). Of course, the impact of the visual design is muted in a black and white print format, and sound effects are lost. You may view the original PowerPoint and download it to use and adapt for your students on Literacybeat.com, a blog that some friends and I write about literacy and technology.

Bringing It Back to the Common Core Standards

This multimodal shoe poem may appear simple on the surface, but consider the ways in which students mix words, image, color, and sound to express themselves and affect an audience. They have produced a digital text using print and media and are developing a critical understanding of how modes carry meaning and interact with one another to communicate a message, skills that the CCSS identifies as important to 21st-century literacy.

Figure 2 Multimodal Shoe Poem

My Black Converse
by Ms. Blaine

Q: I’ve missed you shoes. Where have you been?
A: In your backyard, in your dog’s mouth, and trapped under your bed

Q: Where should we go tonight?
A: Let’s go dancing! But I haven’t been worn in so long, so I might be a little rusty on the dance floor.

Q: That’s OK! I’m just so glad to have found you again.
A: Me too, but can you wash me soon?

This is an example of a question-answer poem. Have a conversation with your shoes!

Note: This is one of three shoe poem types: Question-answer, Shoe Memory, and Shoe Conversation. Sharing different poem formats and illustration styles gives students choice and heightens engagement. Sneaker photo by gardnernewf, Creative Commons permission to reprint and remix.
In service of the CCSS Writing Standards for K–5, students have used language, media, and narrative techniques “to develop real or imagined experiences or events” (p. 20). Descriptive detail is shown not just in words, but also through image and sound; character is developed through shoe dialogue, as well as visual illustration. Mood is evoked across modes, and both language and design reflect knowledge of conventions. Importantly, students are deeply engaged by the options for creativity just in words, but also through image

**Where Are You Now?**

After reading this column, what do you find yourself thinking about in relation to developing your students as writers and multimodal composers? How will you use and adapt the strategies and examples to create a digital workshop for your students? What equipment and software do you need? Who is available in your school to provide technical assistance? Crowd sourcing is a popular way to fuel innovation—just consider the thousands of apps that have been developed in the last few years. The Internet is making it more possible for teachers to crowd source by sharing lesson plans through websites such as the International Reading Association/

National Council of Teachers of English’s ReadWriteThink.org, which includes many lessons integrating literacy and technology. Let’s crowd source around digital literacies and technology integration. Please post a comment, share a resource or strategy, or ask a question on The Reading Teacher’s Facebook page. I also welcome e-mail.

**REFERENCES**


**Supporting Information**

Additional supporting information may be found in the online version of this article:

**Online Supplement: Multimodal Shoe Poem.**