Beyond Words in Word
Tables and the New World of Writing

By Annette Lamb and Larry Johnson

The 21st-century learner needs communication skills that transcend writing essays and technical skills that go beyond setting up margins for printing.

Young people must learn to write using a variety of technological tools, from iPad apps to multimedia generators. In addition, they need to be able to write cooperatively and collaboratively across subject areas.

If you're still teaching the basics of Microsoft Word and helping students with paper-based reports, it's time to think beyond 8.5 x 11 with 1-inch margins. Today's teacher-librarians must collaborate with classroom teachers to transform mundane writing assignments into engaging opportunities for 21st-century communication.

How can traditional writing assignments change through the use of new tools and technologies?

THE NEW WORLD OF WRITING

Let's start by going back in time to join the Lewis and Clark Expedition. They shared their adventure across America through journals filled with words, drawings, and maps. Although the original journals are safely stored away, anyone can access them online in the form of web pages or downloadable e-book documents. The Library of Congress has even created a website called Fill Up the Canvas: Lewis and Clark, where learners can explore the journals through an interactive timeline. Students using the U.S. Westward Expansion iPad app can journey on the Lewis and Clark expedition.

Today's young people have an ever-expanding set of tools for sharing their understandings and explorations of the world. An iPad app like Momento or MaxJournal brings journal writing alive for today's high-tech student by allowing writers to incorporate images and easily share their work online.

The History of Digital Writing

Let's explore the history and current state of digital writing through five technology tools:

Word-Processing Tools. Word-processing software was one of the first popular software applications for the microcomputer. It allowed writers to easily enter, edit, and revise text.
FOLKTALES UPDATED


Princess Zelda and the Frog. Carol Gardner, Ill. Shane Young, Feivel & Friend. 2011. $16.99. 978-0-312-80328-0. Grades 3—3. “Once upon a time there lived a princess named Zelda. She was so beautiful, her smile had been known to stop villagers in their tracks.” A free spirited version of “The Frog Prince,” hilariously illustrated with photos of bulldogs in a frog costume and sumptuous court dress.

Figure 4. Strip Designer app by Vivid Apps.

cessing software evolved to include images, audio, and even multimedia elements. However, the software is still primarily used to create pages that can be printed or shared electronically. Microsoft Word remains the most popular tool. However, such software as Pages for the iPad incorporates some of the unique features of the new technology, including online sharing.

As you work with teachers to develop word-processing assignments, consider the features of word-processing tools. Does the assignment need to be printed, or could students submit a PDF file for grading? Could the page set-up be adjusted to generate trading cards, posters, or other interesting sizes of output? How could the sticky and audio notes features be used as part of writing, editing, or assessment?

Although some of the tools for tablets lack features, an app like MyWriting Spot contains the full range of writing tools, including a dictionary and thesaurus, spell-checker, and sharing. The app SmartNote provides a wide range of tools for writing, along with highlighting, sticky notes, audio notes, and other elements.

Visual Layout Tools. With the introduction of Mac and Windows operating systems in the 1980s, the computer became a more visual tool. Software such as page-layout tools, presentation tools, and multimedia tools allowed writers to infuse visual elements into their work. Designs included complex print materials like folding brochures. By the 1990s, multimedia tools like PowerPoint and HyperStudio were created for the computer screen without the need for printing.

Think about the visual aspects of your assignments. Could the iPad camera be used to record still and motion images of a science experiment or a puppet show? These graphic elements could spice up a lab assignment or script-writing project.

Keynote is a popular iPad app that combines words, images, and multimedia elements for presentations. Prezi is a tool that allows users to create presentations online then view them on an iPad app.

Many students find it easier to write small chunks of text rather than paragraphs of information. Use comic creators to practice writing dialogue or enhance a foreign-language assignment. Educators familiar with Comic Life for the computer desktop can find the same tool in the form of an iPad app. However, there are many other apps that provide comic tools, such as Strip Designer, ComicStrip, and Comics Creator.

Correspondence Tools. In the past, remote written communications between people took the form of letters. In the
Students need skills in collaborating across digital formats. Google Docs is a collaborative word processor, spreadsheet, and presentation tool allowing learners to work together on a single document. Because it's available online, it can be accessed with any web browser on any type of web-enhanced device from a laptop to an iPad or iPhone.

Some tools are available as both websites and as apps. For instance, Edmodo provides a way for teachers and students to work together through file sharing, forums, and messages. It can be accessed through a web browser on a laptop or a downloaded app on an iPad.

The key to collaboration is the ability to seamlessly share and edit documents in real-time. Sundry Notes is an app that allows real-time collaboration including notes, links, and images, while Doodle Buddy allows users to draw, stamp, color, and write, as well as connect with others, for collaborative writing over the Internet. Poppel allows real-time online or through wifi. Users can explore ideas, plan projects, record thoughts, collect inspirations, create galleries, and take notes.

Transmedia Tools. Traditionally, writing was conveyed through the paper format. Increasingly there are many different ways to experience a story, explore ideas, or interact with others. Transmedia writing involves creating communications

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**Figure 5a,b. Journals by Louise Palanker.**
Photo Peach. (http://photopeach.com/). Gr. K - 12. Here is a wonderfully easy-to-use Web 2.0 publishing tool. PhotoPeach acts a lot like Microsoft’s PhotoStory and iMovie. Simply upload the 20 or less pictures they want to use. Then select music from the options available at the site or upload a copyright friendly MP3 file of 20MB or less. Enter a title and an optional description to complete the creation. The slideshow is quickly put together and ready for editing (if wanted).

Editing options include the ability to change the title and music; put captions on a slide; and make a quiz slide. A quiz slide includes a multiple choice option with three answers. The slide appears on the screen with the question and waits 5 seconds for the answer to be said aloud or written down. Then the correct choice is displayed. Text on each picture can be centered and/or placed at the bottom of the screen. The edit option also allows for the creator to make the slide show private, available to the public, or require an invitation. The shows can be shared via Facebook, MySpace, Twitter, email, or embedded in a blog or webpage.

All of these features are free of charge, once you have registered with the site. For a premium subscription, you have the ability to change the transition effects for each picture; download the creations for use without Internet access; and have no ads on the creations. There is also an education option which does not require a student email for registration and allows for restricting the social media features. Both the subscription options have a nominal monthly fee.

Use this software/site for creating:
- vocabulary quizzes
- book trailers
- concept trailers
- unit introductions
- quick formative assessments.

Figure 6a,b. iTunes list for the book Countdown.

![Image of Countdown book cover]

that bridge different media. A story may be told through a written narrative along with other forms of communication, such as text messages, audio, video, and collaborations.

Journals: Middle School Love and War is an e-book and digital diary. It’s also a podcast and advice column. There’s a seamless connection between reading, writing, and participating. The unique connection between reading and writing will be expanded with the increased availability of these types of interactive and social apps.

In addition to app-based books and e-books, the traditional book market is enhancing the resources available to go with their print books. Countdown is a wonderful book for young people by Deborah Wiles set in the 1960s. The author provides media resources to accompany her book. For instance, Duck and Cover shared on YouTube is an educational film from the early 1960s. An iTunes playlist allows readers to purchase and listen to music as they read the book. There’s also a Scholastic guide and a slideshow that enhance the use of the book in teaching.

These transmedia storytelling experiences challenge teachers and students to think about how multimedia elements can be woven into writing assignments. For example, students might incorporate historical video clips that connect with their story or take digital camera pictures to integrate into their report.

DE-DEFINING WRITING

The notion of writing has changed over the past several decades. It’s time to re-define what we mean by “writing” and the emphasis we place on writing in school. Writing can take many forms. It can be text on a page and in paragraphs, but it can also be text on a screen and in bubbles. For instance, the app Cartoon Studio allows users to create cartoons.

Does the definition of writing need to
Figure 7. Storyboards for iPad app.

be limited to text? What about all those student communications that involve images, audio, video, and animation? Aren’t those equally important skills? The app Skrappy allows users to add text, music, movies, web pages, audio, and more into virtual pages. If text is writing, what are all the other elements students incorporate into the project?

Writing is simply a representation of language through the use of symbols.

Story Patch is an app for creating books for the iPad. Text is combined with images. Writing with words is only a small part of what a student can do with this program. He or she can compose and create as well as illustrate and imagine.

Now it’s your job to decide what’s a “representation of language” and how symbols are used to convey language. What does this really mean? Do we need to expand our thinking to meet the needs of today’s communicators?

What’s involved with the writing process? A writer brainstorms ideas, organizes thoughts, creates, and edits a draft, and revises the communication to serve some purpose. Does each step need to take the form of text to be “writing”? What about lists of ideas, concept maps, and storyboards? How do they fit into our understanding of the writing process?

Storyboards app is a great tool for creating storyboards. It helps a writer visualize the characters, plot, sequencing, setting, and action of the story. Do you need to enter words on a keyboard to write? Can writing be an auditory expression of language that is transcribed into text? Or can text be brought alive through computer speech?

i-Prompt Pro is an app teleprompter that can be used for all kinds of writing projects. Writing on a teleprompter is a form of writing intended to be read aloud, like poetry or a speech. Speak It! is a text-to-speech app that allows students to write, then listen to their writing aloud. What about typing the words and letting the computer do the reading? It’s still writing. Dragon Dictation is an app that records and transcribes audio. Do you need words on a keyboard to “write”?

Does writing need to take a text form, or can it be infused with other forms? Infographics combine text with other symbols to convey meaning. Tools such as comic creators interweave words with images to create meaning. Video productions may include audio narration to go with still and motion images. Are these still considered writing?

WordFoto is an app that turns photos into typographic works of art.

SCIENCE EXPERIMENTS

FOR EDUCATORS:

OMSI Classroom Activities www.omsi.edu/lessonplans. The Oregon Museum of Science and Industry provides classroom activities on a variety of science topics. Chemistry for the K-8 classroom is “hands-on, no-hassle messy science” using common household supplies.

The Particle Adventure http://particledadventure.org. Answer timeless questions like, “What is fundamental?” and “What is the world made of?” through illustrated click-through explanations of atoms, quarks, and neutrinos. Then read about unsolved mysteries like dark matter and how to experiment with tiny particles.

Periodic Table of Elements www.periodictable.com. The University of Nottingham has created a video describing each element of the periodic table, many with experiments. Watch a hydrogen balloon explode while listening to a professor explain what is happening on a molecular level. Requires access to YouTube.

The pH Factor www.miamisci.org/ph. Debunk the tongue taste map myth, use acids and bases to write secret messages, and access a wealth of lesson plans and experiments.

Whelmers—McREL's Accessible Science Series www.mcrel.org/whelmers. Classroom science demonstrations promise to catch the eye of your most indifferent student. Predict how many pretzels you can eat in a minute, shoot an air cannon up to 100 feet, or display the Bernoulli Principle by using a leaf blower to rapidly unroll an entire roll of toilet paper.
What about adapting and rethinking works? From retelling stories to reimagining worlds, writers often revise and revisit the work of others.

StoryKit allows writers to add to or expand on traditional stories. For instance, a child might write a story about the stages of salmon or the history of an invention.

Educators often focus on the traditional definition of a writer, stressing the use of text symbols to convey meaning. However, much of today’s writing is associated with other types of composers, such as videographers, graphic designers, and web authors. Aren’t these equally important if the mission is communication?

Should we adjust the definition to meet these changing demands or begin emphasizing words like “composing” and “creating” to describe information creation and sharing?

NEW ENVIRONMENTS FOR WRITING

Social media has introduced a spectrum of new environments for writing. Let’s use the social networking site called Figment as an example. It’s a popular meeting place for writers of all ages.

Favorite, Vote, Tag, or Categorize. Many social networks allow participants to actively think and participate without the need for lots of words. Users can add their ideas in other ways, such as voting, tagging articles, or favorite-ing pages.

Comment or Reply. At Figment, participants are encouraged to post their writing as well as contribute to the work of others through comments and replies.

Create and Share. Use social media as a way to share student writing. Figment
Figure 10. Toontastic.

has many opportunities to participate in writing contests and interesting writing activities. For instance, Kate diCamillo asked participants to use a line from one of her books in a story. She also encouraged students to read The Chronicles of Harris Burdick, which includes 14 popular authors writing about images.

Collaborate. Groups and forums are places where people can make contacts for collaborations. The discussion groups are a great way for teens to share their writing, gather ideas, and collaborate with other writers.

Moderate or Lead. Participants may become moderators of groups or leaders in collaborative activities. Many high school classes are designing their own areas in Figment. They set up and monitor their own group's activities while the teacher observes.

New Tools for New Worlds of Writing

As you explore and evaluate electronic writing environments, look for features that meet your needs. Ask yourself how these tools will help you address standards and meet the needs of 21st-century learners.

Planning Tools. Many apps assist writers in planning, organizing, and note-taking. For instance, Idea Sketch, MindMeister, and SimpleMind+ provide tools for creating concept maps, flowcharts, and other ways to visualize ideas for writing. Note-taking tools like NotesHelf allow students to handwrite notes and organize them on virtual shelves. Many homework organizers like myHomework help students keep track of assignments.

Support Tools. Some students need scaffolding to support their writing activities. My Editing Buddy is an app-based word processor built for elementary students. Teachers can use the built-in editing symbols and sticky notes to provide student feedback. Storybuilder also provides scaffolding for writing. It helps improve paragraph formation, integration of ideas, and inference. Some apps build support into their writing tools. For instance, Toontastic involves drawing, animating, and sharing cartoons. Students learn about building a story arc.

Multimedia Tools. Encourage students to combine written words with other types of communication. Storyrobe allows users to create and share digital stories by combining images and narration. They can be published to YouTube, emailed, or saved.

CONCLUSION

As you collaborate with classroom teachers to weave the American Association for
School Librarians Standards for the 21st Century Learner and the International Society for Technology in Education National Standards for Students into the curriculum, notice the many references to multimedia communication, collaboration, and innovation. These standards emphasize technology as a tool for creating a wide range of written expressions, from comics to animated stories. They also stress the importance of inquiry as a process that may involve concept mapping, note-taking, and storyboarding for planning communications.

The graphic history Lewis and Clark by Nick Bertozi isn’t intended to replace the experience of reading the journals. Instead, it provides a way to experience the adventure in a different way. In the same way, the wide range of apps for hand-held devices, tablets, and laptops aren’t intended to replace paper and pencil or the traditional word processor. Instead, they provide opportunities to explore a new world of writing and 21st-century communication.


RESOURCES

Websites

AASL Standards for the 21st Century Learner http://www.ala.org/aasl/guidelinesandstandards/learningstandards/standards


Fill Up the Canvas: Lewis and Clark http://www.loc.gov/teachers/classroom-materials/presentationsandactivities/presentations/lewisandclark/

Google Docs http://docs.google.com/

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