Internet usage has grown exponentially, thanks, in part, to the increasing popularity of handheld devices, such as cell phones, tablet computers, and e-readers. Today’s 21st-century children and teens are surrounded by a mediasphere of visual and textual resources. According to the Teens and the Internet report (Pew Research Center’s Internet & American Life Project 2006, 2), over eleven million teens go online daily, compared to about seven million in 2000. Increasingly, whether it is through computers, televisions, cell phones, or gaming devices, children and teens are accessing online resources to meet their social, recreational, and informational needs.

Due to the development of new 21st-century technologies, the world of children’s and young adult literature is continually changing. For example, one of the fastest-growing multimodal formats that today’s visually literate youth embrace is the digital graphic novel. For the purpose of this article, digital graphic novels are defined as graphic novels produced on and/or accessed on some form of digital device, including computers, mobile devices, and e-readers. This engaging literary medium is expanding our definition of children’s and young adult literature, as well as the ways in which we teach.

Often referred to as online graphic novels, Web comics, or long-play comics, the digital graphic novel first appeared on the scene in the 1980s. Initially, the conversion from print to Web presented numerous challenges; however, the medium improved greatly in the 1990s with advances in Web 2.0 technologies. Since digital graphic novels are relatively inexpensive to produce compared to print novels, graphic novelists have more incentive to publish their work online, especially independent and beginning illustrators (Rousseau 2009, 206). Furthermore, publishing online enables graphic novelists to make their work accessible more quickly and to larger audiences. Some digital graphic novels and comics have since come out in print editions. For example, Gene Yang originally published American Born Chinese (2006) as a digital comic on the website Modern Tales before publishing the award winning graphic novel edition. Also, Americus by M.K. Reed and Jonathan Hill (2011) first began as the serialized Web comic, “Save Apathea”, part of the To Be Continued line of Web comics by First Second Comics. Americus is about a teenager’s quest to keep his favorite fantasy series, The Chronicles of Apathea Ravenchild, from being banned from the Americus public library.

Why Use Digital Graphic Novels in Schools?

Although print graphic novels are an established literary format in school libraries and classrooms, digital graphic novels are a relatively new medium in school settings. The visual nature of digital graphic novels is the way many 21st-century learners prefer to read; therefore, it is important for school librarians and teachers to recognize the value of digital literacies for engaging student learners. Unfortunately, findings from the 2010 Speak Up National Research Project reveal...
a "persistent digital disconnect between the tech-intensive lives of students outside of school, and the unsatisfactory experiences provided by many schools to use technology meaningfully" (Project Tomorrow 2011, 3). For that reason, as E. Sutton Flynt and William Brozo noted, "We must design instruction that reflects the mediasphere in which children and youth live" (2010, 528).

Digital graphic novels provide new ways for students to experience reading, and/or learn new content, using the comic format. In terms of curriculum, the Common Core State Standards Initiatives include the following statement, "To be ready for college, workforce training, and life in a technological society, students need the ability to gather, comprehend, evaluate, synthesize, and report on information and ideas, to conduct original research in order to answer questions or solve problems, and to analyze and create a high volume and extensive range of print and non-print texts in media forms old and new" (2010).
Through the use of multiple resources, such as digital graphic novels, school librarians and teachers can strengthen their lessons by teaching literacy skills, such as comparing and contrasting. Using digital graphic novels also enables educators to allow for differentiated instruction. In the words of John Shableski, president of Four Color Perspective and board member of Reading with Pictures, “We are in the midst of a cultural shift. Educators, librarians, publishers, and parents are beginning to realize that literacy has multiple access points and the comics medium, aka graphic novels and digital graphic novels, are opening doors for so many readers who traditionally have been overlooked” (2011).

Apps and Digital Graphic Novels

Digital graphic novels are still a relatively young medium, compared to digital comic books; however, subscription services and applications (apps) for digital graphic novels are on the rise. In 2010, IDW Publishing (a division of Idea + Design Works, LLC) introduced a digital graphic novel series available for use on iPads and other mobile devices. IDW’s digital graphic novels include the ever-popular Star Trek series, as well as James Patterson’s series Witch and Wizard: The Battle for Shadowland. Furthermore, comiXology recently introduced Jeff Smith’s Bone and RASL graphic novel series as apps for the iPad, iPhone, iPod, and the Android. Additional comiXology digital graphic novel titles for children and teens include the Mouse Guard series (David Petersen), the Scott Pilgrim series (Bryan Lee O’Malley), The Walking Dead series (Robert Kirkman), and Return of the Dapper Man (Jim McCann and Janet Lee). Through partnerships with Marvel Comics, DC Comics, Archaia Entertainment, BOOM! Studios, Dynamite Entertainment, and Image Comics, comiXology hosts over 10,000 digital graphic novels and comics (some free) on its website <https://comics.comixology.com>.

Other companies that distribute comic apps and digital graphic novels include Cognito Comics, Comics, Comics+, ComicZeal, Graphicly, iVerse Media, Panelfly, Viz, and Yen Press. Please see the companies’ websites for a complete list of their apps and digital graphic novels, available platforms, and costs per volume. Several of these companies offer the first chapter or two of their products for free, in the hopes that consumers will return to purchase future chapters.

E-Book Readers and Digital Graphic Novels

E-book readers are joining the digital graphic novel bandwagon, adding titles for children and teens such as the Graphic Universe series (Lerner Publishing) on Amazon’s Kindle Fire, as well as the Archie Comics series and Sonic the Hedgehog series, both by Archie Comics, on the Barnes & Noble NOOK. Free Spirit Publishing and Electric Eggplant recently partnered to produce the app Be Confident in Who You Are: A Graphic Novel based on Book 1 of the award-winning Middle School Confidential series by Annie Fox and Matt Kindt. The series for middle school students addresses bullying and other social issues. Originally an app for the iPad, the digital graphic novel is now available on the NOOK Color Reader’s Tablet. Depending on the application, the price to download digital graphic novels currently ranges anywhere from $1.99 to $10.99 per title. As is the case with
comic and digital graphic novel apps, some of these titles are available for free to whet consumer’s appetites.

Online and Interactive

Along with digital graphic novels, which can be read online or through devices such as iPads, NOOKs, and Kindles, there is also a growing body of interactive Web 2.0 sites and apps that encompass the digital graphic novel style. These sites and applications take readers into a two-way interaction with the graphic novel, where the book may be read aloud to them; they can choose outcomes or options for the characters, help create stories as well as read them, or complete activities after reading Web comics. One option for sharing these sites is through the use of interactive whiteboards. John Shableski describes how they can be used with digital and interactive graphic novels for a great collaboration: “The best partnership possibility is via SMART Board applications... When the entire class can view the same images displayed on a screen, the interaction opportunities multiply ten-fold” (2011).

The following digital graphic novels are free, and can be used in your libraries and classrooms.

Inanimate Alice <www.inanimatealice.com> is a multi-chapter, interactive digital graphic novel set in the early years of the twenty-first century. Readers can interact with Alice’s adventures as she travels in search of her father throughout remote areas of northern China. Full of beautiful images and fun activities, Inanimate Alice not only will hook readers, but teachers and school librarians will be able to use the education packs and standard alignment pages on the site. (Grades 4–6, and possibly higher)

Toon Books <http://toon-books.com/> will help emerging young readers in multiple languages through these interactive, fun-to-read comic books. The books come in three levels for grades K–3, and are available in five different languages. Students can read the graphic novels themselves, or have a Toon Books narrator read the comics to them by moving the mouse cursor over the words. Books can be read in each student’s chosen language. Available languages are English, Spanish, French, Chinese, and Russian. (Grades K–3)

Myths and Legends <http://myths.e2bn.org> is an interactive site for those who like a good story, and for those who enjoy telling a fine story. This resource not only lets students read stories based on folktales and fables from the British Isles, but it also has a separate section where users can create their own tales and share them. Teachers and school librarians can incorporate the resources page, as well. (Grades 3–6)
Digital Graphic Novels and Your Library

As stated in AASL's Standards for the 21st Century Learner, "Multiple literacies, including digital, visual, textual, and technological, have now joined information literacy as crucial skills for this century" (AASL 2007, 3). However, teaching 21st-century literacy skills through digital resources can be challenging for school librarians and teachers. Mark Siegel, editorial director of First Second Books, points out, "The Internet often changes the nature of connection between author and readers" (Brothers 2011). Therefore, it is important for school librarians to learn how digital graphic novels use image and text in multiple ways to produce meaning for children and teens. School librarians must also become knowledgeable about equipment and licensing issues pertaining to digital graphic novels. Then, by sharing their knowledge regarding digital graphic novels with fellow educators, school librarians can further establish themselves as technology leaders in their schools. Last, but not least, adding free digital graphic novels to their repertoire of digital resources can help school librarians expand their library collections during tough economic times.

Heather Moorefield-Lang is the education and applied social sciences librarian at Virginia Tech. She is currently the chair of the AASL Best Websites for Teaching and Learning Committee. The focus of her work is on technology in libraries and arts in libraries. To read more of her work, see her website at <www.actingintheLibrary.com>.

Karen Gavigan is an assistant professor in the School of Library and Information Science at the University of South Carolina. A primary focus of her research is using graphic novels in schools. She is the author of the article "More Powerful than a Locomotive: Using Graphic Novels to Motivate Struggling Male Adolescent Readers" in the Journal of Research on Libraries and Young Adults. She and Mindy Tomasevich are coauthors of Connecting Comics to Curriculum: Strategies for Grades 6–12 (Libraries Unlimited 2011).

**Howtoons** <www.howtoons.com> calls itself the world’s greatest Do-It-Yourself Comic Website. On Howtoons, students can read about the adventures of Tucker and Celine, and learn how to create useful (or silly but fun) projects from lists of everyday materials. School librarians can use Howtoons to get ideas for activities and science projects. Currently Howtoons is a read-only online comic strip; however, it will soon be available as an interactive e-reader app, as well. (Grades 3–6)

**BB Brothers** <www.blunderbrothers.com> (which is short for Blundernagging Brothers). This story is solely an iPad, iPod Touch, and iPhone application. The story, with gorgeous illustrations, is read to users by an expressive narrator. As with many comic book and graphic novel apps, the company gives readers the first three chapters (60 minutes) free and then requests payment to finish the story ($2.99 for the full story). Students will enjoy the narration and interaction with the story. (Grades 3–6)
“Adding Free Digital Graphic Novels to Their Repertoire of Digital Resources Can Help School Librarians Expand Their Library Collections During Tough Economic Times.”

Works Cited:


