

## Pixels and Print: Effects of the Digital Age on Children's Literature

The impact of the Internet and technology on children today is unavoidable: children are increasingly immersed in the digital world through a variety of media. One of my cousins, a happy eighteen-year-old living with Down syndrome, carries her Leap Frog Leap Pad everywhere she goes. When she first received the Leap Pad, she had been reading well below her grade level and hated how difficult it was for her to get through a book. The Leap Pad provided my cousin with an opportunity to see interactions with print as fun, exciting, and relevant: just as she loved watching her DVDs and playing computer games, she grew to enjoy her interactive storybooks. My cousin is only one of millions of children affected by the growth of the digital age in children's literature. The development of the digital environment, including interactive books, graphics, websites, games, movies, and television, has dramatically expanded the realm of children's literature and has influenced the way that children interact with reading and language.

Studies of the technology movement in children's literature began at the birth of the Internet and continue as technology becomes more and more applicable to different formats in children's literature. At the turn of the twenty-first century, *Theory Into Practice* magazine published a series of articles entitled *Expanding the Worlds of Children's Literature*. In one article, children's literature critic and technology analyst Eliza Dresang wrote about a way of thinking she titled Radical Change, a "theoretical construct [that] identifies and explains books with characteristics reflecting the types of interactivity, connectivity, and access that permeate our emerging digital society" (Dresang, 1999, 160). While children are still interpreting information through language, they are approaching these "new" texts with an expectation of connections and meaning that is much different from linear, traditional texts. Dresang explores such texts as David

Macaulay's *Black and White* and *The Stinky Cheese Man* by Jon Scieszka, books that exemplify the interconnectivity of perspectives, plots, and meaning. *Black and White* is a four-paneled picture book that uses pictures and text to tell four stories with unlimited connections. *The Stinky Cheese Man* is a collection of scrutinizing challenges to classic fairy tales that requires the reader have an understanding of the original tales, of story structure, and of comedy. According to Dresang, the way in which children interact with text and meaning has also shifted with the literature they read: "They are interactively and freely organizing information and making their own connections, not from left to right, not from beginning to end, not in the traditional straight line, but in any order they choose" (Dresang, 1999, 162). Children have begun to own their reading, looking actively for meaning in places and frameworks that did not exist before the digital age.

The format of the classic children's picture book has also been challenged as a result of technology. The children's sections of modern bookstores are filled with more than bright colors and graphics; stores sell interactive books, books with characters from TV shows, portable audio books, books that come with stuffed animals, and books that talk back to the reader. In 1999, historian Gloria Skurzynski described the birth of a new kind of book, the "portable electronic book" that has "screens rather than pages" (Skurzynski, 1999, 179). She writes, "They are easier to read than a laptop screen...and they advance one page at a time with a button push rather than by scrolling" (1999). Certainly a technological leap at the time, these portable books paved the way for other "book" formats to emerge. Eight years later, children are clamoring for their Leapsters and Leap Pads, their books with interactive CD-roms attached, and books downloadable to their PSP or Nintendo DS. One educator compiled a list of technology tools that

includes websites like BooksJust4Me and StoryPlace: The Children's Digital Library, which make it easy for children and parents to enjoy a children's story without physically turning the pages (Edyburn, 2007). The BookBox website, which guarantees "Education and Fun," allows parents to download e-Books in a variety of languages at reasonable prices (Edyburn, 2007). Even Scholastic Inc. and other publishing companies have sections of their websites dedicated to interactive games with students' favorite storybook characters (Edyburn, 2007).

One format in particular has librarians and bookstores rushing to fill the shelves: the graphic novel. Bickers, asserting that publishing companies are taking what the students want to heart, writes, "Graphix [a division of Scholastic Inc.] is arguably the first imprint dedicated exclusively to graphic novels for kids, but it is certainly no longer the only one" (Bickers, 2007, 63). Publishers realize that putting words and pictures in a format that draws the reader through a story as if he was watching TV or a movie is an effective way to encourage students to read; graphic novels are now being used to retell classic literature like *Beowulf* or *Oliver Twist* as well as popular series like *Babysitter's Club* and the *Hardy Boys* (Bickers, 2007, 62-63). The *Magic School Bus* series by Joanna Cole, a favorite among both teachers and students, fills pages of scientific learning with speech bubbles, post-its, and compelling illustrations. While not technically a comic-style graphic novel, there is very little white space in a *Magic School Bus* book, and that's the way kids like it (Bickers, 2007, 63). In addition, the *Bone* comic book series by Jeff Smith, published into graphic novels for kids, is one of the most popular items in bookstores, libraries, and book fairs across the country (Bickers, 2007, 63).

There is no denying that digital interpretations of children's literature are being encouraged in a variety of places and media, but the effects of this digital hurricane are under the gun in research around the world. One research project proposed that preschoolers would benefit from digital read-alouds as opposed to the traditional print read-aloud. Not surprisingly, the project produced favorable results. Researcher L. Collen summarizes her interpretation of one of the project's results: "That children in the traditional storytimes asked no picture-based questions and children in both digital storytimes did ask picture-based questions suggests that...the digital storytimes may have resulted in an enhanced understanding of the story, based on an enhanced visual experience" (Collen, 2006, 14). In imagining a class of preschoolers in front of a large screen, one does not need to ponder long on how enthralled the students would be with the enlarged graphics. After all, many preschool-aged children have already been exposed to television and other media. The question remains whether the students were asking questions because they noticed more, or whether the traditional read-aloud format did not adequately encourage these kinds of questions.

Continued research and reflection will be necessary if teachers, parents, and society at large wish to determine whether the immersion in digital media that is occurring in schools and homes across the country—and the world—is benefiting our youth. Undoubtedly, the world is becoming more inter-connected with the evolution of the Internet and an exponential increase in communication. Children are clamoring for texts that are graphically appealing and have an element of technology, whether it is a website they can visit, a game they can buy, or an attached CD-rom. Books themselves are changing both in format and in content to meet the increasing demand for

interconnectivity, and children are changing as they interact with text in multi-directional, multi-media ways.

### References

- Bickers, J. (2007). The young and the graphic novel. *Publisher's Weekly*, 254(8).  
Retrieved November 18, 2007 from Wilson Select Plus database.
- Collen, L. (2006). The digital and traditional storytimes research project: Using digitized picture books for preschool group storytimes. *Children & Libraries*, 4(3). Retrieved November 16, 2007 from Wilson Select Plus database.
- Dresang, E.T. & McClelland, K. (1999). Radical change: Digital age literature and learning. *Theory into Practice*, 38(3). Retrieved November 18, 2007 from JSTOR database.
- Edyburn, D. & Davis, D. (2007). Technology Tools for Academic Success – Books in the Digital Age. *Panhandle Area Educational Consortium*. Retrieved November 18, 2007 from <http://www.paec.org/fdlrstech/books.htm>.
- Skurzynski, G. (1999). It's a wired world after all: Children, books, and the Internet. *Theory into Practice*, 38(3). Retrieved November 18, 2007 from JSTOR database.