

contain more than 550 billion pages, of which the search engines have indexed about 40 percent. And while those billions of pages contain some of the most useful information known to mankind, much of it amounts to the mindless minutia you find stuck on a refrigerator—the kind of stuff that magnetizes the attention of juveniles.

An essential part of the Internet superstructure is its “links” system, those underlined words connecting you to subjects related to your present location. When arguing in behalf of the information highway, you may not realize the shelf-life of Web pages can be much shorter than that of books because of “link rot” — that dreaded “Page Not Found — Error 404” message, meaning the page has moved or been taken down.

How common is “link rot”? A 27-month study tracking of 515 links to educational material on the web found one-third of them were dead in 2.25 months and half were dead in five years. Are half the books in a library completely out of date in five years? Hardly. Internet “link rot” amounts to having half the exit ramps on American highways ceasing to exist in five years but no one told the map makers or GPS people.

Books vs. Blogs

Of equal concern is the unvetted nature of Web material. Before a book is printed, multiple editors study it for grammar, accuracy, logic, and legal issues. Can the same be said of Web pages? No. Blogs abound with instant authorities, many (though not all) unchecked and unrestrained, pontificating on the issues of the day. Most of it is displayed without the oversight of a fact-checker—far from the standards of a school or public library, never mind a newspaper or traditional magazine.

What about the online reading kids do for their PowerPoint projects?

While educators and critics decry the state of student writing, many schools are busy adopting a computer program almost designed to hide writing deficits: PowerPoint, a favorite for corporate business presentations. These presentations contain slides with built-in charts, animated graphics, and sound effects—just like video games. Needless to say, classmates and parents are impressed. In suburbia, PowerPoint is fast replacing the traditional book report.



The downside is that content often takes a backseat to bells and whistles. As one principal described it to *The Wall St. Journal*, “You can make a pretty crappy presentation look good.” Writing becomes sentence fragments with bullets and sound effects, and without depth.

Another observer got to the heart of the matter in a letter to the editor: “When I was working in a school technology department, I watched eighth-grade students present PowerPoint projects to an obviously proud superintendent. Curious, I counted the number of words that each student had actually written. On average, each eighth-grade student had spent two weeks writing 77 words.”

For more pros and cons, see:

<http://opinionator.blogs.nytimes.com/2010/01/27/icountry-news/>

<http://roomfordebate.blogs.nytimes.com/2010/02/10/do-school-libraries-need-books/>

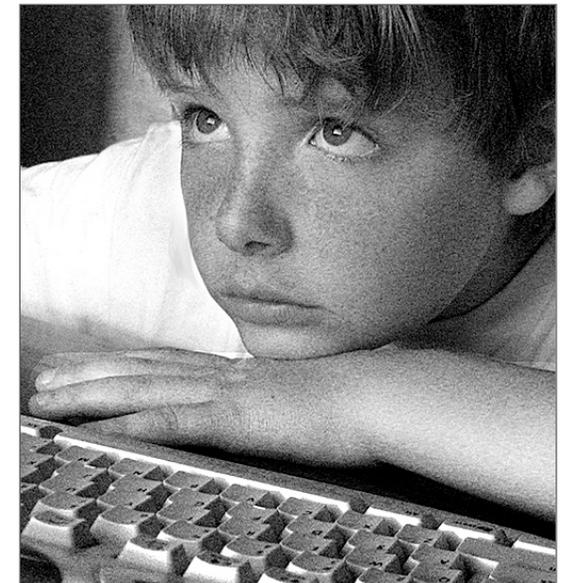
Most of the statistics and facts included here are footnoted in Trelease’s *Read-Aloud Handbook* (Penguin 2006). © Jim Trelease 2010. For details see www.trelease-on-reading.com/brochures.html

REAL BOOKS Vs. E-BOOKS AND COMPUTERS?

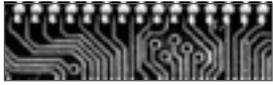
WHY NOT DIGITIZE THE
LIBRARY AND SAVE
MONEY? NOT SO FAST.

BY JIM TRELEASE

Author of the New York Times Bestseller
The Read-Aloud Handbook



In the spirit of full disclosure, I confess to owning four Apple computers, an iPod, a Kindle, and average several hours a day working, creating, and shopping on my computers via the Internet. I'm a big fan of technology—but not a blind one. I'm also 69 years old. Is there a difference between an easily distracted 12-year-old and a senior?



Digital is the future. Who needs old-fashioned printed books?

In 2009, a high school library (Cushing Academy) outside Boston went all-digital, raising the expected clamor. If cooler heads were to prevail, the choice would be a happy medium between the two extremes. This short brochure attempts to explain why.

One obvious red flag against abandoning books is their “staying power.” Books that were published 50 or even 150 years ago can still be read today. The book I bought for a nickel at the library book sale on my way home from kindergarten in 1946 (which turned out to be a high school textbook with pirates on the cover) can still be read today. No batteries and no special decoding or translation applications needed. The same can't be said for technology like: a 78-rpm record album; an 8-track recording; reel-to-reel or VHS tapes. These were household items 20 to 40 years ago that are now largely inaccessible. The same is true for Word documents written 15 years ago; current technology won't open them.

Will today's digital books or journals eventually become tomorrow's 78-rpm albums—unreadable? Rather than take the chance, we'd better hold on to our print editions for another decade at least.

One further concern relates to books as a social experience; that is, the ones we love so much we're compelled to pass them on to a friend: “You're going to love this!” Impossible to do with an e-book. Only you can enjoy it, thus short-circuiting the social aspect.

Which is easier to read: a screen-page or print-page?

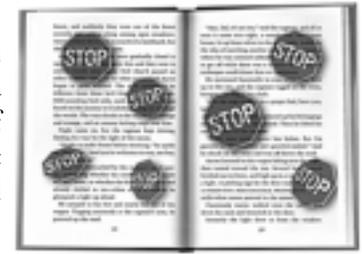
Anyone who's tried reading with an “old” pair of reading glasses instead of their new prescription can tell you about eye-strain and reading fatigue. Much the same problem is met when reading a shiny digital screen versus a non-glossy paper page.

Text lettering on a printed page is sharper (resolution) than that of an e-book. Furthermore, the Apple iPad is very difficult to read in daylight because of reflections. The consensus today is there is much less eye fatigue from a printed page than from e-book text. That may improve with time and is certainly helped by technology like the Kindle's that allows the reader to easily increase text size.

Do computers help student grades?

Nate Stulman was a sophomore at Swarthmore College (one of the U.S.'s top-ranked small colleges and universities) when he monitored how his classmates were using their computers. Stulman discovered Swarthmore's students were using their computers in the same way millions do at lesser schools: playing games, emailing friends, killing time in chat rooms, but mostly uploading and downloading music. Endlessly. Writing for *The New York Times* op-ed page, Stulman concluded that many students are too immature to handle the distractions and temptations of the Internet. Kids are kids, and sophomores behave sophomorically, even when there is Wi-Fi. If you're receiving 25

instant messages in the course of a half-hour of reading, most students will be too distracted to dig very deeply into the reading, each interruption amounting to a stop-sign on the page.



In a 2003 study of 1,680 school-aged children's time diaries and home computer use, researchers found “moderation” to be a key factor in students' scores. Computer users had more reading time than did non-computer users and eight hours a week of computer use did not damage school achievements. More usage lowered scores.

An international study of 15-year-olds in 32 countries found achievement negatives connected to excessive computer access. With home usage, researchers found the *more* computers in the home, the lower the math and reading scores. This suggests multiple computers become more of a distraction or hindrance than help for the student.

By the end of the decade the Kaiser Family Foundation found students spending 7 hours *a day* with electronic media. Months later the 2009 National Assessment of Educational Progress report showed only marginal improvement in teens' reading scores during the previous 17 years, leading many to surmise that increased screen distractions were blocking reading gains.

Why do we need book print if we have the Web — the Information Highway?

Growing at a rate of tens of millions of pages a day, the Internet is now estimated to