Steven Johnson

Don't Fear the Digital

It's dumbing down our kids? Hardly. Why plugging in is good for you

MY HANDWRITING SKILLS PEAKED SOMETIME IN MY 12TH year, shortly after I took a summer typing class. A few months later my parents bought a personal computer. Before long my writing life migrated to the keyboard, and my handwriting began its steady decline to the pained, barely legible scrawl that it is today.

A penmanship expert would look at that sorry trend and say, "What a disaster! The adoption of the personal computer has led to a marked deterioration of an important communication skill." But that assessment would be meaningless without factoring in all the benefits I've enjoyed from switching to the keyboard. Not only can I put words together at 10 times the speed of using pen and paper, but I can also transfer those words to the digital realm, where they can be edited, spell-checked, e-mailed, quoted, blogged and Googled.

In fact, the benefits so dramatically outweigh the costs that if I had to do away with either handwriting or typing for the rest of my life, I'd give up handwriting in a heartbeat. I suspect many others would do the same.

Any time a new technology comes along, an implicit cost-benefit analysis gets made. The trouble with the current debate about Generation M is that we have a phalanx of experts lined up to measure the costs but only a vague, intuitive sense of the benefits.

Start with the costs. Is all this screen time diminishing the kids' face-to-face social skills? Hardly. Remember, the total number of hours spent in front of a screen has not increased over the past 10 years. Teenagers are irrepressibly social animals; it's in their DNA. They're not using the technology to replace their real-world social life; they're using technology to augment it.

No doubt there is some truth to the belief that multitasking in front of a screen (or screens) can make it harder for us to focus on contemplative single-task projects like reading a book or solving quadratic equations. But are there benefits that might outweigh those costs? The crucial trend is not the number of hours teenagers spend in front of the screen but rather the dramatic increase in cognitive engagement that the screen demands of them.

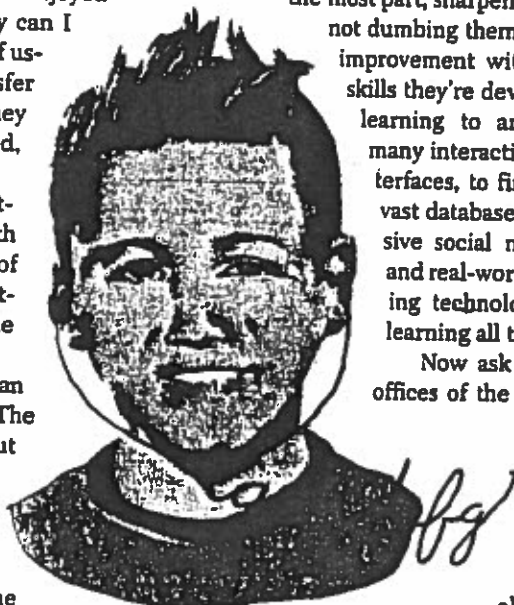Twenty or 30 years ago, we sat in submissive wonder soaking up the magic of TV sitcoms. Today's kids see the screen as an environment to be explored, inhabited, shared and shaped. They're blogging. They're building their MySpace pages. They're constructing elaborate fan sites for their favorite artists or TV shows. They're playing immensely complicated games, like *Civilization IV*—one of the most popular computer games in the world last autumn—in which players re-create the entire course of human economic and technological history.

I believe this dramatic spike in digital participation is, for the most part, sharpening the minds of Generation M, not dumbing them down. But it's hard to see that improvement without the right yardstick. The skills they're developing are not trivial. They're learning to analyze complex systems with many interacting variables, to master new interfaces, to find and validate information in vast databases, to build and maintain extensive social networks crossing both virtual and real-world environments, to adapt existing technology to new uses. And they're learning all this in their spare time—for fun!

Now ask yourself this question: In the offices of the future, which skill set will today's kids draw upon in their day-to-day tasks? Mastering interfaces, searching for information, maintaining virtual social networks and multitasking? Or doing algebra? I think the answer is obvious. It's a good bet that 99% of kids will never use algebra again after they graduate from high school. And yet thanks to the testing establishment, we know a staggering amount about the algebraic skills of today's teenagers but next to nothing about the skills they're actually going to use.

None of this means that schools should give up Intro to Calculus for *Civilization IV* and Blogging 101. Kids should have a balanced media diet: surfing and gaming alongside old-fashioned reading. (Not to mention going outdoors to toss a football around.) Yes, popular culture can be addictive and time consuming. Yes, you sometimes have to draw the line. The same is true of all social interactions, as any parent of a teenager will tell you. But how can you figure out where to draw the line if you can't measure the benefits and costs? To plan a balanced diet, you need to know something about the nutrients in all the food groups, not just the ones that have tradition on their side. ■

Steven Johnson is the author of Everything Bad Is Good for You: How Today's Popular Culture Is Actually Making Us Smarter

"Don't Fear the Digital" by Steven Johnson

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1. State the thesis and rationale (what is Johnson's point, and what main argument he uses to support it) of this article.
2. Does the writer feel strongly about the argument he's making in this essay? How do you know? Find examples of language choices in this article that support your answer
3. Does the writer base any of his arguments in research or scientific fact? Does this affect the validity of his arguments? Explain.
4. This article about technology is now six years old. In technological terms, that's a long time ago. Identify some dated references he makes in the article. Do the dated references negatively affect the message he wishes to get across?
5. Has the passing of time since this article was written strengthened or weakened Johnson's argument? Explain.