

Is Educational Technology Shortening Student Attention Spans?

Yes

We are a Game Boy, instant message, instant gratification culture. Life moves fast, and if you don't multitask, you can't keep up with it. There's no time to focus too much attention on one thing. The earlier we learn that lesson the better. That is why we pop our kids on "educational" technology at an earlier and earlier age. We teach them facts and reward them with digital candy and then wonder why they can't sit still to learn without that candy.

In *Amusing Ourselves to Death: Public Discourse in the Age of Show Business* (1985), Neil Postman reminds us that for one of the Lincoln-Douglas debates in 1854, the debate had to break for dinner because each side's



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opening arguments were three hours long. That audience wasn't brought up on digital candy. Imagine an audience today sitting for three hours at a time listening to complex arguments about the issues of the day. Imagine our students sitting for three hours at a time attending to anything. We have been trained by our technology

No

Today's students live in a digital world. They communicate, share information, network, and create content online at an ever increasing rate. These students spend their afternoons and evenings blogging, playing video games, creating videos, and socializing with friends on networking sites. Why should we expect our students to live two different lifestyles?

Students today are born with "mouse in hand." They learn to use a computer sometimes before they learn to walk. They also have an uncanny ability to multitask. Students today can listen to their iPod, chat with friends, research on the Internet, and type a paper all while playing an online game. This ability to multitask only enhances the learning



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opportunities. However, most K-12 environments prefer to teach one item at a time, thus limiting the students' learning capacity.

Educational technology, if presented to students in a format that gives them freedom to express themselves, will engage our students far beyond a pencil and paper.

that learning takes place in short, quick bursts with sweet, stimulating rewards.

Does that mean that educational technology is all bad? Of course not. There are great things that can be learned with technology. But Postman teaches us that every technology is a Faustian Bargain; for every positive benefit, there is an often unseen and very serious downside. We know our guess-and-test technology teaches facts at the expense of training students to answer without thinking. But even the best educational technology teaches the hidden lesson of short attention. Our scientific simulations allow students to explore rich worlds, growing generations of plants and animals in an instant, watching them die, changing the parameters, and then doing it all over again. The upside is tremendous, but don't forget about the downside: attention. After seeing the flower bloom in a minute,

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who has the patience to wait for it to bloom in real time? We are blinded by the positives as we systematically train our children for the quick reward and the quick transition to the next event.

In his book *The Cult of Information: A Neo-Luddite Treatise on High-Tech, Artificial Intelligence, and the True Art of Thinking* (1986), Theodore Roszak says,

I have come to value the few remaining quiet places in the world. They remind us that there are things that must be thought about in the privacy of one's own mind, not in the presence of fragmented, graphical interfaces, or chattering printers, or beeping, blinking video displays. Thought about—with an investment

of interpretive effort and critical skill, not simply, passively registered as a stimulus or clicked-on like a hypertext button (p. 200).

This kind of deep thought and attention to important matters is what is absent in the fast-paced world of educational technology. Our students have short attention spans because the very tools we use teach important lessons while reinforcing the hidden messages of quick rewards and short, fragmented attention.

—David Marcovitz is an associate professor and director of graduate programs in educational technology at Loyola College in Maryland. He teaches many pro-technology classes as well as a seminar that explores the Faustian Bargain of technology.

Technology has the power to capture our children's attention by making learning interactive and fun. I have walked into classrooms where students were using technology to share, create, and explore. Those students were excited and engaged in the content being presented to them. A few didn't even realize they were learning. Down the hall, in a different classroom using a lecture method, the teacher was speaking and students were taking notes with pencil and paper, with little creativity, expression, or problem solving. These students seemed disengaged and disconnected. They were only on the receiving end of the information.

Imagine a school with no library, no books—just computers. All research is done using the Internet. Instead of students typing papers, printing them off, and handing them in to a teacher, they create digital content online using a blog or wiki. Students

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listen to or watch historical events, authors, and speakers from the iPod. They tell a story using software, video, and audio on a computer. They give presentations to students sitting in a classroom 10,000 miles away. Imagine a student learning by using the tools they use outside of school. Imagine the captive audience for our teachers.

Willard Daggett, EdD, president of the International Center for Leadership in Education (<http://www.leadered.com>), says that kids today are wired differently because of technology. They can process information much faster than most of us. Because of this, we as educators must change

the way we teach and how we teach. We must adapt our teaching styles and methods to the way our students learn.

So is educational technology shortening student attention spans? Not if students are given the freedom, creativity, and ability to problem solve while using that technology on a daily basis. School leaders, teachers, and other district personnel must believe that educational technology is the vehicle to engage our students and capture their minds while delivering the school's instructional content.

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