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## Opinion

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OPINION | KYLE SHACHMUT

# Digital education shouldn't bypass disabled

By Kyle Shachmut | SEPTEMBER 09, 2013



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**The Braille terminal is one type of aid for visually impaired computer users.**

AS STUDENTS return to school this fall, most will find a plethora of new technologies and virtual environments, on which their institutions have been spending millions of dollars to bring into the classroom. Yet many of these resources will be needlessly discriminatory. What would happen if an institution constructed a new state-of-the-art building but neglected to make it accessible to the disabled? People would rightly be outraged. Yet even as new technology-rich environments revolutionize the classroom, few make provision for people who are blind, dyslexic, or otherwise print-disabled.

Just like buildings, digital resources can be made accessible to all through good design and planning. Electronic resources should be inherently accessible; for most people, the zeroes and ones that make up digital content are translated for display on screens, but the same information can be transmitted audibly or connected to an accessory that puts it into Braille. Mainstream touchscreen devices like the iPad and iPhone are fully accessible to blind users right out of the box.

Yet, the vast majority of universities, publishers, and software creators do not embrace mainstream accessibility solutions. Technology giants like Google and Amazon are making immense efforts to put their products in front of students across the country, even though Google Apps for Education, Google Books, the Amazon Kindle, and the Kindle App for mobile devices have features that blind people cannot use. As a teaching assistant this summer, I was unable to successfully read, much less critique, student assignments that were submitted in the much-used Google Docs format. The disability community has repeatedly urged these companies — some of the world's most innovative and talent-rich — to make their products accessible. But the pace of improvement has been disappointingly slow, even as educational institutions adopt these tools at a rapid clip.

Meanwhile, even though the Americans with Disabilities Act of 1990 requires postsecondary institutions to provide equal access, the burden of identifying and fixing access barriers falls to students. As a successful blind student who also works in higher ed, I've never started a semester with all of my texts and digital resources in formats that I can use. I have to seek out an alternative, which inevitably means delayed access to content that's different from what my peers get on the first day of class.

Unlike print materials, which are inherently inaccessible to blind people, digital education theoretically provides an opportunity to expand the circle of participation. And yet the worst delays I ever experienced were in an all-digital course, using highly touted digital textbooks. I had to request special permission for an accessible version of the text, and could then read only straight from cover to cover. There was no way to bookmark or highlight text, or even skip from section to section. These defects aren't just hassles; they're a form of discrimination.

My own experience isn't uncommon. A few universities, such as Penn State, George Mason, and the California state system, have made campus-wide strides toward accessibility. Others have

agreed to make improvements under legal pressure from the federal Justice and Education departments. Even stellar institutions like the [University of California at Berkeley](#) have agreed to changes under pressure from students and advocates. And what happens to students at every other postsecondary institution?

Building standards that comply with the Americans with Disabilities Act have made life easier for people far beyond the original scope of the law — the parent with a stroller, travelers bearing luggage. Setting standards for digital instructional materials would have similar benefits. The National Federation of the Blind and the Association of American Publishers have drafted a bill called the Technology Education and Accessibility in College and Higher Education Act; it would inform manufacturers of the minimum level of accessibility needed for digital platforms, clarify for schools what to seek in their materials, and relieve students of the burden of ensuring access to their own educational content. The US Access Board, which created the Americans with Disabilities Act building guidelines, would create standards for digital educational materials.

Postsecondary institutions and technology companies alike should embrace this initiative because clear benchmarks would avoid disputes, and because it would help students. If students in wheelchairs were told it was up to them to figure out a way into school buildings, we wouldn't tolerate it. As the digital revolution accelerates, blind and print-disabled students need equal access to the digital curriculum.

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*An earlier version of this page contained a misspelling of the author's name.*

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