


# Two Takes on

These pages are usually devoted to an excerpt from a faculty book or article, but in this issue we examine a pedagogical debate that's making news on campuses, editorial pages and in the blogosphere. The subject is whether computers in the classroom enhance or impede learning.

On one side is Professor David Cole, whose experience with laptop computers in his classroom (mostly negative) prompted him to ban them in his class – an experience he describes in this essay,



## Laptops vs. Learning

BY DAVID COLE

“Could you repeat the question?”

In recent years, that has become the most common response to questions I pose to my students at Georgetown Law. It is usually asked while the student glances up from the laptop screen that otherwise occupies his or her field of vision. After I repeat the question, the student's gaze as often as not returns to the computer screen, as if the answer might magically appear there. Who knows, with instant messaging, maybe it will.

Some years back, our law school, like many around the country, wired its classrooms with Internet hookups. It's the way of the future, I was told. Now we are a wireless campus, and incoming students are required to have laptops. So my first-year students were a bit surprised when I announced at the first class this year that laptops were banned from my classroom.

I did this for two reasons, I explained. Note-taking on a laptop encourages verbatim transcription. The note-taker tends to go into stenographic mode and no longer processes information in a way that is conducive to the give and take of classroom discussion. Because taking notes the old-fashioned way, by hand, is so much slower, one actually has to listen, think and prioritize the most important themes.

In addition, laptops create temptation to surf the Web, check e-mail, shop for shoes or instant-message friends. That's not only distracting to the student who is checking Red Sox statistics but for all those who see him, and many others, doing something besides being involved in class. Together, the stenographic mode and Web surfing make for a much less engaged classroom, and that affects all students (not to mention me).

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# Note-Taking

which originally appeared in the *Washington Post*. On the other side is Professor Diana Donahoe, who teaches legal research and writing at the Law Center, and whose recently published e-book, *TeachingLaw.com*, harnesses the power of the Internet. She has found a way to include laptops in her classroom quite successfully.

Their comments are part of an ongoing faculty dialogue, and we are pleased to continue this conversation in the pages of *Georgetown Law*. As always, we welcome your feedback – on this or any other article.

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## Laptops For Learning

By Diana R. Donahoe

In his piece “Laptops vs. Learning,” David Cole explains his decision to forbid his students from using their laptops during his class. I have made a very different pedagogical decision in my teaching at Georgetown University Law Center. Instead of banning laptops, I have incorporated them directly into my teaching. Through my research, I have discovered that the digital generation thinks differently from their book-oriented predecessors. By learning in a digital environment enriched with interactivity, multimedia, and new technologies, these students are engaged, not distracted, in the classroom.

I have found that this generation of learners, the digital generation, prefers to be “powered up” and actively engaged in order to learn. They crave interactivity, immediate feedback, multimedia and multitasking. In fact, these students have grown up using computers to learn, to gather information and to interact with each other. They think and learn differently from their professors, who, after all, grew up in a book age. Thus, when these digital students walk into a lecture hall, they feel as if they are forced to “power down” to a standstill pace while they passively watch the professor in front of them. Because the traditional lecture does not engage these digital students or make them active participants in their learning, they resort to e-mail, Internet poker and shopping for shoes on the Web.

Therefore, instead of fighting the technological advances and student preferences, I have decided to bridle the energy and usefulness of the laptop to engage students in the classroom at the students’ technological level. Instead of using a traditional textbook for my legal research and writing course, I developed and published an online, interactive casebook called *TeachingLaw.com*. This e-book uses interactivity, multimedia, self-assessments and multi-tasking techniques to create a paperless course.

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I agreed to permit two volunteers to use laptops to take notes that would be made available to all students. And that first day I allowed everyone to use the laptops they had with them. I posed a question, and a student volunteered an answer. I answered her with a follow-up question. As if on cue, as soon as I started to respond, the student went back to typing — and then asked, “Could you repeat the question?”

When I have raised with my colleagues the idea of cutting off laptop access, some accuse me of being paternalistic, authoritarian or worse. We daydreamed and did crosswords when we were students, they argue, so how can we prohibit our students, who are adults after all, from using their time in class as they deem fit?

A crossword hidden under a book is one thing. With the aid of Microsoft and Google, we have effectively put at every seat a library of magazines, a television and the opportunity for real-time side conversations and invited our students to check out whenever they find their attention wandering.

I feel especially strongly about this issue because I’m addicted to the Internet myself. I checked my e-mail at least a dozen times while writing this op-ed. I’ve often resolved, after a rare and liberating weekend away from e-mail, that I will wait till the end of the day to read e-mail at the office. Yet, almost as if it is beyond my control, e-mail is the first thing I check when I log on each morning. As for multitasking, I don’t buy it. Attention diverted is attention diverted.

But this is all theory. How does banning laptops work in practice? My own sense has been that my class is much more engaged than recent past classes. I’m biased, I know. So I conducted an anonymous survey of my students after about six weeks — by computer, of course.

The results were striking. About 80 percent reported that they are more engaged in class discussion when they are laptop-free. Seventy percent said that, on balance, they liked the no-laptop policy. And perhaps most surprising, 95 percent admitted that they use their laptops in class for “purposes other than taking notes, such as surfing the Web, checking e-mail, instant messaging and the like.” Ninety-eight percent reported seeing fellow students do the same.

I am sure that the Internet can be a useful pedagogical tool in some settings and for some subjects. But for most classes, it is little more than an attractive nuisance. Technology has outstripped us on this one, and we need to reassess its appropriate and inappropriate role in teaching. The personal computer has revolutionized our lives, in many ways for the better. But it also threatens to take over our lives. At least for some purposes, unplugging may still be the best response.

I assign the students “readings” that bring issues to life using video, graphics and animations, as well as text, and then in class I use the interactive features of the e-book to engage the students. Sometimes I have the students open up to five or six windows at a time during class.

As we toggle together from one window to another, they have very little opportunity — or inclination — to surf the Web. Instead of competing with their desire to use their laptops, I incorporate my material directly into their laptops. As a result, they are “powered up” in the classroom as well as empowered to learn.

By expanding my teaching methods to adapt to their learning styles, I believe I have helped these digital students become more engaged in the material, resulting in an active, exciting and enriching classroom experience. Now that I have incorporated the laptops into learning, students no longer ask me to repeat questions. Instead, I have found that my students ask more insightful questions, they often find the answers to each others’ questions in class by searching on the Internet, and they are more prepared, enthusiastic and excited about the materials. My surveys indicate that the students find that they are very engaged in the classroom, benefit from the interactive assignments, and appreciate the fact that I’m adapting to their learning style.

I have made a pedagogical decision to accept the digital students’ learning styles and embrace the inevitable wave of new technology in the classroom. Instead of turning off the wireless devices or banning laptops all together, I look forward to plugging into new technological advances that will provide me with even more untapped opportunities to bridle the students’ energy and enthusiasm for learning in the digital age. While laptops and other technology might not be effective tools in every class, they need not be obstacles to learning or attractive nuisances. They can be tools we work with, not struggle against, and I will continue to use laptops for learning in my classes at Georgetown Law.