Distractions in the Wireless Classroom

By MICHAEL J. BUGEJA

FIRST PERSON

Personal experiences on the job market

When Kevin and Mollie Cooney recently visited their daughter's psychology class at the College of William and Mary, they noted how attentive students seemed to be in the large lecture hall.

The Cooneys, who are both news anchors of the CBS affiliate in Des Moines, Iowa, who sit on the advisory council of the journalism school I head at Iowa State University, were intrigued by the tapping of the laptop keys as students appeared to be taking copious notes. "As we looked over their shoulders from our back-row seats," says Mollie Cooney, "we found instead they were on Facebook, Dave Matthews Band Web sites, instant messaging friends, and e-mailing fellow classmates."

"Granted," she adds, "these students were in the minority, and our daughter swears she never takes her laptop to class for that reason. It's just too tempting to surf. But as parents who pay hard-earned money to send kids to school with better computers than we will ever own, it's a bit disconcerting as to how they are actually being used!"

That scenario is happening across the country. Cynthia M. Frisby, associate professor of strategic communication at the University of Missouri, has noticed students on MySpace and eBay during her lectures. She has also noticed more failing grades. The final straw, she says, came in an e-mail from a student "complimenting my outfit, failing to realize that the time stamp was on the e-mail, further suggesting that he was not paying attention to my lecture."

Now she bans laptops in her large lecture courses and has a clause in her syllabus about the inappropriate use of technology. The result? "Huge increases in attention and better performance on exams," she says. "Students have even mentioned that they feel like they are doing better without the laptop."

Syllabus clauses warning against the misuse of technology are increasingly common. In my own school of journalism, about 20 percent of syllabi contain such warnings. Some examples:

- "Anyone who engages in rude, thoughtless, selfish behavior, such as use of a cellphone for instant messages, games, etc., will have his or her cell phone confiscated until the next class session and will be excused from the class. The cell phone will be returned after the student apologizes to the class at the next class session."
- "If your cellular phone is heard by the class you are responsible for completing one of two options: 1. Before the end of the class period you will sing a verse and chorus of any song of your choice or, 2. You will lead the next class period through a 10-minute discussion on a topic to be determined by the end of the class. (To the extent that there are multiple individuals in violation, duets will be accepted)."

As more and more classrooms go wireless, technology warnings on syllabi soon will be as standard as the ones about cheating (which laptops also facilitate). In 2004, only about a third of classrooms

provided wireless Internet access, according to the annual Campus Computing Survey. Wireless networks now cover more than half (51.2 percent) of college classrooms.

My own university, one of the most wireless in the country, may be experiencing those problems ahead of the curve. As the number of wireless access points has increased on the campus, so has the number of reports of Web surfing, text-messaging, and gaming during class.

Other high-tech institutions are seeing the same phenomenon. I became acquainted with Ione DeOllos, an associate professor of sociology and vice chairwoman of the University Senate at Ball State University, after *USA Today* interviewed me about her institution's purported status as the most wireless in the nation.

Last year, she says, the Senate adopted a policy "that allows professors to limit technology use in classrooms. Senators had received complaints from faculty about students who were using computers to play games, watch videos, and e-mail and instant message others." The Senate decided it needed to make a clear statement "to students that inappropriate use of technology would not be tolerated."

DeOllos added a warning about in-class use of cell phones to her own syllabi, and plans to extend it to include laptops, banning them on a case-by-case basis.

Shutting off the Wireless

You can't. In a few short years universities have moved from dial-up, to wired Ethernet, to controlled Ethernet (which could be switched off), to wireless.

Dennis Adams, chairman of the information-sciences department at the University of Houston, wrote about shutting off wireless networks in the September 2006 issue of *Communications of the ACM,* the flagship journal of the Association for Computing Machinery. "While classroom access to the Internet may be a wonderful teaching tool," he wrote, "it can also be a barrier to learning."

Adams admitted in an interview that turning off wireless is nearly impossible. But you can see why he is tempted. In "The Laptop Backlash," an article published in the October 14, 2006 issue of *The Wall Street Journal,* a reporter who sat in on Adams' "Management of Information Systems" course observed: "While Prof. Adams lectures, five students use an online chat room to post comments on his lecture. ... Another student spends nearly two-thirds of the three-hour class playing computer chess, instant messaging and viewing photos of a fraternity party posted on the Web." The reporter also saw another student buying shoes on eBay.

In his *Communications* essay, Adams cites a 1972 work by Eda LeShan on "The Sesame Street Syndrome." She argued that, by overemphasizing the idea of right and wrong answers, the show taught children that thinking and questions are irrelevant because adults do the asking and answering. Nowadays, the syndrome "has come to describe students who expect to be entertained as they learn," Adams wrote, adding: "If the entertainment doesn't come from the front of the wireless classroom, it comes from the Internet."

Theodore Roszak, whose books include *The Making of a Counter Culture* and *The Cult of Information,* has sounded that warning for decades. When cell phones started ring-toning in his classroom at California State University's East Bay campus, the professor of history retired.

"What kids need to learn," he says, "and what teachers must commit themselves fiercely to defending is the fact that the mind isn't any sort of machine, that thinking with your own naked wits is a pure animal joy that cannot be programmed, and that great culture begins with an imagination on fire. We should

remind our children at every turn that more great literature and more great science were accomplished with the quill pen than by the fastest microchip that will ever be invented."

Roszak's greatest fear is that technology "will reduce the mind to the level of the machine."

The Google Syndrome

If Sesame Street taught generations that there are right and wrong answers, Google reinforces that lesson but makes no claim to the accuracy of the answers.

Certainly, search engines and databases are vital in many disciplines, especially the medical sciences.

"In the setting of the medical school, particularly clinical encounters, wireless access is actually beneficial," says Lawrence H. Phillips, a professor of neurology at the University of Virginia. "There is often competition between students on rounds to see who can access clinically useful information the fastest.

"On the other hand, I think my 16-year-old and her friends text message each other continuously during class and other times when they should be studying," he adds. "The IM function on the computer goes continuously when she is working on the computer at home. This type of behavior will certainly carry over into the college classroom in a few years."

Will the emerging distracted generations be able to meet complex challenges on the horizon, like global warming and pandemics?

David D. Ho, chief executive officer of the Aaron Diamond AIDS Research Center and a professor at Rockefeller University, is best known for his work in suppressing viral replication through the use of multiple-drug therapies. Early in his AIDS-related research he would come upon treatments that succeeded in the lab but failed in humans, "but that's science," he has said, noting that wrong answers help hone the discovery process. Soon he came to understand that the AIDS virus mutates rapidly, resisting each individual drug. That's when he and his team turned to mathematics, calculating probabilities of the virus mutating simultaneously around multiple therapies. Odds were in the patient's favor.

Computers can calculate those odds in a nanosecond, but they cannot formulate the question nor conceive the process by which to do so. Neither can Google. "We should be teaching our students to think creatively or to become innovators, not just test takers," he says.

That goal is increasingly difficult to attain. We deal with legislatures holding school districts "accountable" through multiple-choice testing as they cut budgets to higher education, resulting in ever-larger classes where digital distractions are most common and where we rely again on computer-graded bubble tests emphasizing right answers rather than process.

David J. Skorton, president of Cornell University, says that students have been doodling since the days of chalk and slate, "but the ability to check the weather or game scores or the headline news from their laptops during class puts an unprecedented barrier between the student and the instructor."

Coping Methods

Dennis Adams at the University of Houston is adapting to the wireless classroom. When he makes an important point, he asks students to close their laptops and listen. "I don't abuse this," he says, "but use it as a way to summarize or to communicate a difficult concept." He admits, however, the problem is

probably more in changing how professors teach.

That is predictable. According to the French philosopher, Jacques Ellul (1912-94), technology is autonomous and "radically modifies the objects to which it is applied while being scarcely modified in its own features."

Apply technology to the economy, and the economy henceforth is about technology. Apply it to journalism, and journalism is about technology. Apply it to education, and education is about technology. All must adapt, and in so doing we lose centuries of erudition because principles no longer apply in practice. Worse, because autonomous technology is independent of everything, it cannot be blamed for anything.

That includes expenditures at universities.

"In the past," Theodore Roszak says, "there was never much money to be made on education even by textbook publishers and audiovisual promoters. In the days when children made do with pencils and blackboards, school budgets were small potatoes. With the advent of the computer, that has changed radically. Setting up computer labs and selling software to schools or to whole school systems are worth a mint and now drain far too much away from teachers' salaries."

DeOllos at Ball State believes institutions should reinvest in professors. "Regardless of how good the technology is, there is still a need for a well-trained expert to be in front of the class and discuss the substantive areas of their field." She adds: "Technology cannot make a poor professor a good one and the lack of it can't make an award-winning teacher a poor one."

To combat technology distractions, some universities are relying on educational campaigns to make students more sensitive to classroom etiquette. The University of Wisconsin at Madison provides information via links to Web pages that faculty members can note in their syllabi. One link encourages students to stay on task and not distract others or themselves. Another provides ground rules for wireless use and classroom laptop etiquette.

Jane Drews, information technology security officer for the University of Iowa, believes that a solution to wireless distractions is etiquette education. "From the person who endlessly chats on a phone while in a restaurant, to someone's pager or cell going off in the middle of a presentation or lecture, we are creating a society of very rude technology users. We have an online class offered to freshmen that includes a 'Responsible Computing' module, with a section on 'netiquette.' I've suggested it be expanded to include classroom etiquette, too."

I have been advocating a required orientation class, "Interpersonal Intelligence," informing first-year students about when, where, and for what purpose technology is appropriate or inappropriate.

Perhaps the best suggestion comes from my associate dean, Zora Zimmerman, who proposes that student government take the lead with a campaign to "Reclaim the Classroom."

Despite digital distractions, large classes, decreased budgets, and fewer tenured colleagues, professors still are responsible for turning students on to learning. To do so, we just may have to turn off the technology.

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