

Device Ubiquity and Off-task Behavior

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In the early 1900s, a disciplinary problem teachers faced involved male students dipping the hair of female students into ink bottles. In those days of quill pens, students dipped their quills in ink before writing. Pony tails of girls sitting in front of mischievous boys proved to be a strong temptation. This low-tech form of troublemaking continued until ballpoint pens were widely adopted, and quill pens went the way of the carrier pigeon.

In the early 1990s, I purchased my first portable cell phone. Roughly the size and weight of a brick, it came with a minute-per-month plan so expensive that I still keep cell conversations brief, despite long ago moving to much more generous plans. I recall showing up early for class in a large lecture hall, and the phone rang. My roommate had a question. Bug-eyed students arriving for class looked at me as if I had grown a second head. Now as I walk across any given university, students everywhere are chatting on cell phones a fraction the size of my first one, and no one thinks anything of it.

There has been a shift in attitude toward the cell phone corresponding to its rise in popularity. If a cell phone rings as classmates file into a lecture hall today, I daresay no one gives it a second thought. On the other hand, new social mores have formed regarding phones ringing during lectures, public performances, and religious gatherings. The offending parties are lashed with glares and negative comments.

The same roommate who called me before class later joined me in earning a master's degree in educational administration. We were both heavily involved in K-12 ed tech by that time, serving as technology coordinators for different districts. In those days, many folks interested in educational technology for public schools went for ed admin degrees, and minored in ed tech. We showed up in our ed admin classes with laptops, digital cameras, and various other gadgetry much to the astonishment of our pen and paper peers. As I wander the halls of the education department at the University of North Texas today, I see that laptops in college classes are no longer remarkable.

I bring up my experiences as a college student with cell phones and laptops to make a larger point. Everett Rogers in his book, *Diffusion of Innovations*, popularized a framework detailing the adoption of new ideas. We educational technologists love to apply Rogers' schema to our field. According to Rogers, after innovators introduce new ideas come early adopters. These people are quick to apply new ideas to their lives. If you know somebody who bought a satellite dish antenna shortly after they became available, or a satellite radio for their car, or were surfing the Web in 1994, then you know an early adopter. Next, according to Rogers, come early majority, late majority as more and more people adopt the innovation, and finally laggards as the adoption curve levels off.

The general attitude people hold toward any given technology as it progresses along Rogers' curve can shift both ways, positive and negative, depending on the use of the technology. Just as

cell phones have become ubiquitous, their use in public places sometimes prove to be irritants. The same potential for negative attitudes toward technology can be found when students use new technologies for off-task behavior in the classroom. A student engaged in electronic off-task behavior is often regarded as committing a greater offense than one who goes off-task in a more traditional manner, at least until the technology becomes so commonplace that the student's behavior is seen as no more remarkable than it would be otherwise.

In a long (boring) lecture, a college student playing Solitaire on his laptop might be given angry stares while the student nearby doing needlework will be tolerated. As more and more students adopt the use of laptops during college lectures, students who used to multitask by doing needlework, or reading magazines, or filing their nails, may find themselves surfing the Web, answering e-mail, or playing video games. Their bodies are in the chairs while their minds might be elsewhere. Professors might decry the fact that no one seems to be listening anymore. However, was anyone listening 20 years ago? Were the students passing notes with pen and paper instead of using IM or e-mail? Of course they were. They read books, they doodled on scratch paper, they did an infinite variety of things while seated in the lecture hall besides simply listening to the lecture. The only differences today are portable computers and wireless access to the Internet that provide new things to do during lectures.

As technologies become more ubiquitous, acceptance grows and distrust lessens. Teachers having cell phones in the classroom my first year teaching, what few of us who had portable ones, was generally frowned upon. Now, many teachers have telephones installed in their classrooms, complete with voicemail and call forwarding. Also, no one thinks anything of a teacher keeping a cell phone in purse or pocket anymore. According to recent news reports, even student cell phones are widely accepted now. Students are expected to keep their phones off and out of site except during emergencies, but parents are increasingly desiring their children have immediate communication in this post-Columbine, post-9/11 era.

Attitudes are one of those things social scientists love to measure. They fit easily on a scale, and short questionnaires can be filled out when surveying any given population, providing a ready set of numbers to crunch. In the field of ed tech, attitudes toward particular technologies (primarily computers and the Internet) are solicited by researchers from both teachers and students on a regular basis. This research consistently indicates that adoption and productive classroom use of technology is strongly dependent on positive attitudes held by the teachers.

Often, those attitudes don't change for the better until a technology has achieved a general level of acceptance and adoption. There will always be early adopters in schools who can see potential usefulness before others. But teachers as a group often reflect society at large, and tend to view new-fangled ways of doing things with suspicion until the innovations prove themselves and reach a groundswell of general acceptance.

Once teachers develop a comfort level with new technologies, off-task behaviors using the technologies become no more deplorable than their lower-tech counterparts. They don't become accepted behaviors, anymore than the old ways students found to go off-task. Text messaging a friend during class with a cell phone is just as bad (but no worse) than passing notes used to be. Unacceptable behavior remains just that: unacceptable.

With the push to wire our schools and integrate computers into the classroom, teachers are increasingly dealing with new ways students find to go off-task and get into trouble. Playing arcade games, accessing restricted Web sites, e-mailing test answers, plagiarizing from Internet sources: all these teachers must deal with in the connected classroom. But things really haven't changed much since the old days of schooling. As the technology becomes more ubiquitous, teachers will find the new ways of doing bad things are not all that different from the old ways. They're just faster, and usually electronic in nature. At least teachers don't have to worry much about pony tails dipped in ink anymore.