By Doug Johnson

Taming the Chaos

Is technology diverting your students' attention away from classroom instruction? Learn to use those entertaining devices to engage and challenge young minds.

The ability to distract has put the use of laptops, netbooks, cell phones, PDAs, iPod/MP3 players, and portable game players on the banned list in many schools. Educators are discovering that students are more interested in online resources, such as Facebook, game sites, chat, and YouTube, than classroom lectures and textbook chapters about the Crimean War, square roots, or past participles.

"Those darn kids are just listening to the filthy lyrics of rap music on their iPods instead of my lecture," pretty much summarizes the argument. No device, no access, no distraction, these schools reason.

As I have learned from my experiences both as an instructor and as a student, technology can indeed be a distraction in any teaching/learning environment. I find it discouraging, to say the least, when a participant in one of my "enthralling" workshops starts texting or banging out something on the keyboard instead of hanging on each brilliant nugget of wisdom emanating from the front of the room. But then, I've found reading my RSS feeds more interesting than quite a few lectures myself. How does the K–12 instructor compete with tablets, cell phones, netbooks, and text messaging? How do we manage the distractive qualities of technology in

schools? And moreover, how do we use these very technologies to actually improve learning and teaching?

Let me say up front that there is no one-size-fits-all set of practices for managing or using student technologies. Different sources of technology (one-to-one laptop projects, laptop carts, student-owned technologies) will result in different types of access, various levels of uniformity of applications and functionality, and uncertain connections to online resources. Different teaching styles, age levels, and learning outcomes will make some technology uses practical and others not so much.

Nor is there a silver-bullet solution to students tuning out. Some of us were distracted by doodling, the view from classroom windows, and classmates of the opposite sex even before there were iPads and Wi-Fi.

Just as good teachers have never relied on a single method, approach, or tool, today's good teachers will never use a single technology in a single way. Today's effective educators will use the technology that's available to them.

Here are five ways that districts, schools, and teachers manage technology distractions:

1. Ban It

This has been the first and most common approach to dealing with distractive technologies—especially student-owned devices. Simply create a policy or rule for the district, school, or classroom that forbids their use.

Keeping technologies out of classrooms and libraries is a temporary strategy that is unsustainable in the long run, however. Information/communication devices are getting smaller, more affordable, and more powerful. They are increasingly becoming an extension of everyone's brain—both adult and child.

There is a growing movement to unblock the YouTubes, Facebooks, and game sites in the libraries, labs, and districts where educators and students have learned the positive value of these resources. Where such devices are banned, student use often goes underground, with kids texting from within pockets, hiding earbuds under hair and hoods, or concealing devices behind books or in desks.

Parents see cell phones as tools for keeping their children safe and insist their kids carry them in case of an emergency. Parents who have purchased laptops, tablets, and smartphones want their children to be able to take educational advantage of them. As a growing number of educators, parents, and students see the educational value of such devices, school- and districtwide bans are less likely to be effective.

2. Do Business as Usual

It's tempting to allow distracted students to be distracted and let the chips fall where they may. We could ignore students who tune out in the classroom, allow them to focus on their Facebook pages or text messages, and let the natural consequences of such actions happen. Yet, ethically, we have a professional obligation to make sure all students are engaged in our classrooms. Besides, it's hard on the ego when students who pay no attention in class do well on our tests and assignments anyway.

3. Limit the Use of Technologies

Clear expectations of when and how students can use technology in the classroom or library should be a standard classroom management practice. Setting reasonable rules is a simple task. Your technology-use rule might read:

Student-owned technologies such as cell phones and laptops may be used in the classroom when there is not a whole-group activity, when their use does not distract other students, and when students follow the district's Acceptable Use Policy.

Many teachers find it best to develop rules and expectations at the beginning of the school year in collaboration with the students themselves.

Teachers who allow students to use their own technologies in class soon discover this practice actually helps with classroom management. Elona Harjes, who writes the Teachers at Risk blog, shares:

I have been encouraging my students to listen to music in class when I'm not giving instructions or explaining something. I let them use whatever digital gadget they have. Students who [are] only listening to music seem less distracted and stay more on task than ones who use technology that enables them to play games or text message.

4. Enhance Traditional Practices

In her book *The Digital Backpack*, Karen Henke describes 10 technolo-

gies that are entering the classroom by way of our students' backpacks. For each device, Henke describes its intended use as well as its "learning" use. For example, a cell phone, commonly used to call and text friends, can also be used to jot down reminders, due dates, and notes with alarms; share ideas and drafts; poll groups of students (locally and geographically dispersed); access assignments in visual, text, or audio formats; practice speeches using the stop watch; and photograph research documents that can't leave the library.

An increasing number of educational applications are being developed for personal mobile devices. But no technology or device is inherently educational or recreational. It's all in how students use that device. Savvy teachers will figure out how to change "distraction" to "focus" by using students' personal technologies to improve learning and teaching. One way to make individual classroom technologies less distracting and more engaging is to start with common classroom practices and add a technology "upgrade." Nearly any common teaching strategy or practice can be enhanced by the judicious use of technology. Here are just a few examples:

Lectures. Supplement lectures by polling students with cell phone response systems, such as Poll Everywhere. Or record your lessons, post them to a video streaming/downloading site, and allow students to view them multiple times on their phones, PDAs, or laptops. Some teachers allow students to record their lectures and instructions for later review.

Worksheets/study guides. Instead of distributing paper worksheets, put them in Google Docs or on a file-sharing site. Students can save and share their work online or move it to a teacher's drop box, cutting down on printing costs and modeling conservation.

Learning games. In physical form, these games have long been an educational mainstay (Spell Down, anyone?). Educational games accessible via mobile devices run the gamut from flashcard reviews to sophisticated virtual worlds.

Manipulatives. These have made a successful transition from cardboard and wood to digital formats, especially on touchscreen devices. Check out Montessori's iPad/iPhone math applications.

Assigned textbook readings. Supplement or supplant textbooks with more lively writings accessed online. E-books, both free and commercial, are increasingly available in the universal EPUB and PDF formats, and students can read them on a wide range of devices.

The written expository paper. Students can share their understanding of a subject in many other ways these days. Videos, audio recordings, and multimedia presentations created on "distractive" devices allow students to display multiple talents, are more likely to bring out creativity, and are less subject to plagiarism.

The key to any of these technology-enhanced activities is that there is a genuine benefit to adding a technology component. Some may say that these types of uses simply maintain the traditional model of education, but if the traditional model can be made more engaging and more interactive, I don't see a problem.

That said, asking students to use technology productively does not eliminate the need to monitor student activities. The best way to reduce misuse of technology may still be the occasional walk around the desks.

5. Use the Technology to Restructure the Educational Process

To many progressive educators, technology in the classroom has not been the transformative agent they had hoped for. But the increasing number of technology types available to students in the classroom may spur changes needed for schools to prepare students for academic, career, and civic success.

Using the NETS as your guide, you can turn those distractive technologies into teaching tools that:

Encourage inquiry-based problem solving. Students should access information sources from within the classroom. A student can be designated as a "Google Jockey" to research questions that come up during class discussions. Whereas younger students may research small, everyday problems, older students may independently or in groups work on genuine problems and questions related to a subject. One possible classroom structure would be to allocate a small percentage of class time to set out a problem. Then have small groups research the problem, and use the remainder of the class to discuss the findings as a whole group.

Facilitate use of primary sources. Taking polls, conducting/recording interviews, and shooting photographs are all good uses of those "problematic" cell phones.

Differentiate instruction. Using the results of formative tests, teachers can give students access to learning materials to meet specific learning styles (visual, auditory, verbal) and to meet specific learning needs. Students who need help with a math concept, for example, can complete an online tutorial/practice during class. Students with special needs have long had their particular needs met through adaptive technologies. Isn't it time we consider the special needs of all children?

Ease collaboration. Accessing social/collaborative online workspaces is possible when enough students can get to wikis, blogs, and websites such as

Buzzword or Google Docs that allow sharing and joint creation of work.

My experience is that collaborative work keeps kids on task because a certain degree of peer pressure is brought to bear on slackers. Collaborative activities do not require a one-to-one classroom; one laptop per team is often better than one per student.

The use of group editing tools, such as Google Docs or Wallwisher, enhances whole-class collaborative efforts, which are then projected for the entire class to view. Online collaborative tools enable the conversation to continue past class time—at home, in study halls, anywhere that students have access to an Internet connection. Such communication vehicles have been shown to "bring out" the comments of shy students. And publication for an audience of peers inspires many students to improve the quality of their work.

Interaction with students from other countries and cultures. Technologies such as Skype, chat, and e-mail allow students to communicate with students from around the world. Keypals create global communities of learners sharing observations and perspectives of issues from different cultural standpoints. The Flat Classroom project is a popular and powerful effort to expand this connectivity using a variety of classroom technology tools.

Charlie Roy, administrator at Peoria Notre Dame High School, left this comment on my Blue Skunk blog:

One way we've used cell phones is in our economics class during a trading unit. We constructed a mock futures pit and have customers around the world call in orders to our students using their phones. Sans phones this wouldn't work too well. We use IM as well.

Disrupting Class: How Disruptive Innovation Will Change the Way the World Learns by Clayton Christensen, Curtis W. Johnson, and Michael B. Horn suggests that technology has the potential to radically transform our current model of education. Technology will be the meteor, and many of us educators are the unsuspecting dinosaurs. Scary stuff. Yet many classroom teachers are less concerned about the disruptive technologies of an indefinite future than they are about today's "distractive" technologies.

Let's face it—personal communication and computing devices are here to stay. The horse is out of the barn, and trying now to close the barn door is futile. Instead of trying to get the horse back in, smart educators will figure out how to saddle and ride it. An increasing number of educators are writing about and sharing practical strategies for using technology productively in the classroom. Seek out those specific projects and applications and turn those "distractive" technologies into technologies that make your classroom more effective.

Resources

Buzzword: www.adobe.com/acom/buzzword
EDUCAUSE, "7 Things You Should Know about Google Jockeying": www.educause.edu/ELI/7ThingsYouShouldKnowAboutGoogl/156817
Flat Classroom Projects: www.flatclassroomproject.org
Google Docs: http://docs.google.com
Montisorium, "100-year-old way of learning at your child's fingertips": http://montessorium.com
PND Trading Project: www.vimeo.com/3513666
Poll Everywhere: www.polleverywhere.com
Teachers at Risk blog: www.teachersatrisk.com
Wallwisher, "Brainstorm in-class tech uses": www.wallwisher.com/wall/doug0077

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