WIRELESS INTERNET ACCESS IN THE CLASSROOM

If we look at the many different things that impact the university classroom, there is no doubt that the advent of wireless Internet holds the record for the single greatest impact in history. At Carleton, we’re looking at ways that wireless access in the classroom can be an accessory in the transformation and enrichment of the student learning experiences.

WHY USE WIRELESS TECHNOLOGY?

• Greatly enhanced ability to engage students during class activities through connection with limitless resources.
• The classroom gets to go easily out into the world – more easily than ever before.

WHAT ARE SOME OF THE IMPACTS ON PROFESSORS?

• Students are no longer a “captive audience”
• Many forces, both passive and active, are competing for their attention
• Students are able to communicate with each other in class invisibly (i.e., you can’t see them passing these kinds of “notes”)
• Students can (and do) use Internet resources to check the veracity of what you say in class.

CLASSROOM MANAGEMENT TECHNIQUES

Some professors do not embrace this technology and call for ways to “turn off” wireless access in classrooms, but this is a technical impossibility with wireless Internet available on such a broad scale. A common practice is to “ban” laptops in the classroom. Consider some of these classroom management techniques:

One size does NOT fit all
Instructors are able to allow or disallow the use of laptops during class time, depending on the nature of the specific class. Consider instructing students to email you the notes they took in class to ensure students are using their laptops for the correct reasons and not as a distraction.

Peer Discipline
Encourage students to monitor each other, (e.g. tell the student that if someone’s actions are distracting them that it bothers them.) Students generally respond better to other students because they’ve become more comfortable with each other.

Laptop management
• Ask students to close their laptops when notes are not required.
• Stand at the back of the class to observe laptop screens.
• If you come across a student with inappropriate screen content (e.g. games, sexually explicit material, etc.) quietly ask them to remove the content from the screen because you’re concerned it’s a distraction to OTHER students.
• If you believe that a student’s actions have crossed a line, remind them it will affect their participation grade.
Effective PowerPoint Presentations

- Have students follow PowerPoint presentations in Design Mode, rather than Run Mode.
- Show students how they can take notes at the bottom of the screen so they’re still able to take notes and occupy themselves

Interactive Exercises

- Give students exercises that require them to do Internet research, compilation of facts, or group assessment of information. This requires their attention, so they’re less apt to diverge into misusing class time online.
- If there is evidence of misuse, discuss one-on-one with the student rather than imposing some restrictive, impossible-to-effectively-enforce rule on all students.

WHAT ARE SOME OF THE IMPACTS ON STUDENTS?

- Ability to carry on numerous tasks simultaneously while in class (this is both a benefit and a detriment)
- Culturally and socially difficult for them to avoid the immediacy of online communication
- Difficult to avoid the distraction of other students’ open laptops
- They believe they are easily able to handle the multi-tasking inherent in being online in class, but can they really…?

CLASSROOM ACTIVITIES THAT USE WIRELESS ACCESS

Here are some helpful examples on classroom activities that require wireless access.

*Effective Laptop Use in Higher Education, Dr. Robin Kay & Dr. Liesel Knaack, University of Ontario Institute of Technology. Presented at EDUCAUSE 2004, Denver.*

**Debates**
Divide students into teams (3-4 students), assign teams topics (for or against), teams can post discussions online and the winning team gets bonus marks.
*Example: Should North America share one currency as Europe has done?*

**Case Studies**
Present case study (text/video), divide students into teams of 3-5 to provide a solution, post solutions on discussion boards and encourage students to respond to other team’s solutions.
*Example: Challenging business organizational problems or difficult social work case scenarios.*

**WebQuests**
Organize a web-based research activity with students in groups of 3-4, provide starting resources, defined roles for each group member who bring together work in final project.
*Example: Comparing teaching philosophies or see webquest.org.*

**Online Surveys**
Find a survey on the topic being discussed or create your own survey.
*Example: Learning styles, basic knowledge of various topics (math, science), political views.*

**Online Research**
Ask students to search for information on a specific topic (using university library resources, web resources or online databases). The key is to ensure students understand validity and quality of resources used (i.e. limitations of Wikipedia).
*Example: Survey research in any discipline, collect examples of business plans, financial reports, lab reports.*
Using Java Applets
Find related, interactive applets ahead of time and have the students interact to solve the problems. This can be used for practice, exploration and/or demonstration.
*Example:* engapplets.vt.edu (for engineering), falstad.com/mathphysics.html (for math, physics, engineering) and colorado.edu/~mcclella/java/zcalc.html (for statistics).

Viewing Streaming Video
Show short video clips on specific topics associated with the learning objectives of the day. They can be used for demonstrations or linking theory to real world knowledge.
*Example:* Youtube, TeacherTube.

Collecting Fast Feedback/Polling Students
Use free online survey tools, such as toofast.ca and create 2-3 questions that gauge student feedback on class, pace, assignments, confusions, etc. Give students time at the end of class to complete. They can also be used for quizzes, or no-or-low-point-value tests to test understanding.
*Examples:* toofast.ca. Q: Were the learning objectives appropriately addressing? Was the grading fair and appropriate? Is the pace okay?

Locating Web Articles
Find current articles, tables of statistics, websites that discuss topics to focus the class. This helps relating theory to real world knowledge and applicability.
*Example:* Announcement by government departments, article in the paper or journal and discipline-related facts or statistics.

Submitting to “pedias”
Have students research small areas that could be sent to Wikipedia or other “pedias.” Teach them how to submit the material.
*Example:* Biographical information of historical figures, details of local legal cases, or statistics regarding sports figures.

**LAPTOPS IN COURSE OUTLINES**

It’s important to actively discuss the degree in which laptop use will be accepted in class within the course outline. Consider these examples from it.nmu.edu/Faculty/laptopuse.htm

- “Computers are to be utilized for coursework and activities related to coursework. Do not use computers for entertainment during class meetings.”
- “Do not display material on your screen which may be distracting or offensive to your neighbor.”
- “Use headphones for activities that require sound.”
- “Negative participation (surfing, gaming, chatting, emailing) in class will reduce your participation grade by at least ½ letter grade – you are a distraction to others sitting nearby and to me.”

**OTHER RESOURCES**

uwstout.edu/tlc/laptops.htm
it.bridgew.edu/FacStaff/notebook/bestpractices/index.cfm
edutopia.org/tech-integration
leasttern.com/workshops/EnglishLaptop.html