We’re Going Mobile:
Apps, Activities, and Adventures

Curt Bonk, Professor, Indiana University
President, CourseShare, LLC
cbonk@indiana.edu
http://mypage.iu.edu/~cbonk/

Not this type of Mobile…
(i.e., Node classroom chair and Tribeca)
http://www.youtube.com/watch?v=Vv0saijwYc8

Not this type of Mobile…
Union Street Center “Collaborative Café”

Not this type of Mobile…
The Learn Lab Classroom
Not this type of Mobile...
IUPUI Experimental Classroom

University of Minnesota
Student-Centered Active Learning Environment with Upside-down Pedagogies
http://scaleup.ncsu.edu/MinnVideo/MinnVideo.html

But This Type of Mobile!!!
August 2011
Seeds for Empowerment in Argentina
Alex in Dar es Salaam

February 14, 2012
Per Paul Kim, Director, Seeds for Empowerment: “Children in Newala, Tanzania learning English with mobile videos and writing stories, (Mobile Task Based Learning Workshop - Seeds of Empowerment). No electricity for 3 straight days, but we keep going!”

January 23, 2011
As the Web Goes Mobile, Colleges Fail to Keep Up, Chronicle of Higher Ed, Josh Keller
http://chronicle.com/article/Colleges-Search-for-Their/126016/

“I used it to sign up for classes. I used it to check e-mails,” says Laura Patterson, a junior at Nevada State College, about her iPhone. “I used it all the time, for everything.” More than 40 percent of all college students, like Nevada State’s Laura Patterson, used mobile devices to get on the Internet every day last year, compared with 10 percent in 2008.

March 13, 2011
iPads Could Hinder Teaching, Professors Say
Chronicle of HE, Ben Wieder

At Pepperdine U. Timothy Lucas, an assistant professor of mathematics, shows a class how to use iPads for calculus. Linda Johnson, an assistant professor of biology at Chatham U., for her plant-physiology

March/April 2011
Educause Review Mobile Devices, Jim Davis and Rosemmmary A. Rocchio

“Mobile use of the Internet is on target to surpass fixed use by 2014. Three-fourths of all college/ university students have purchased or intend to purchase an Internet-enabled handheld device within the next year. The smartphone market is changing almost monthly.”

May 13, 2011
The Digital Campus
The Chronicle of HE
http://chronicle.com/article/Info-Tech-on-Campuses/127405/

Most Students Own Laptops in 2010:
- Dedicated laptop: 3%
- Notebook computer: 13%
- Desktop computer: 46%
- Internet-capable handheld device: 63%
- Tablet computer: 84%

Ahn Young-joon/AP - Teacher Yeon Eun-jung, right, helps student J eong Ho-seok study on a tablet PC during a lesson at Sosu Elementary School in Gwesan, South Korea in July. The country is now scaling back a plan to digitize classrooms by 2015.

Blazing internet speeds in South Korea

<table>
<thead>
<tr>
<th>Rank</th>
<th>Country</th>
<th>Megabits per second</th>
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</thead>
<tbody>
<tr>
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<td>South Korea</td>
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<td>3</td>
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<td>6.3</td>
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<td>3.0</td>
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<td>11</td>
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Average measured internet speed, by city

<table>
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<th>Rank</th>
<th>City</th>
<th>Megabits per second</th>
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</thead>
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<td>10</td>
<td>Utsunomiya</td>
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<tr>
<td>11</td>
<td>San Jose</td>
<td>13.0</td>
</tr>
</tbody>
</table>

Smart Education in Korea: South Korea's Making the Switch to Digital Textbooks, Sang Yoon Shin, Advanced Technology Korea, October 10, 2011 http://www.advancedtechnologykorea.com/?p=8000
Smart Education in Korea: South Korea’s Making the Switch to Digital Textbooks, Sang Yoon Shin, October 10, 2011
http://www.advancedtechnologykorea.com/?p=8000

March 27, 2012
Where are all the ultrabooks?, David Goldman, CNN Money Tech

October 5, 2011
Apple unveils iPhone 4S, USA Today

October 28, 2011
Polar Bear Cams
http://explore.org; http://www.polarbearsinternational.org/

November 2011
AERA Journals Go Mobile (e.g., Ed Researcher)
http://www.aera.net

February 2012
Smartphones: Teaching or Brain Candy?, Campus Technology
http://campustechmagazine.com
Mobile Exercise Learning

We are becoming increasingly mobile learners?

The Evolution of Smartphones

Will expert advice (and happiness) be a button away? (e.g., Live Happy Practitioner Directory)
Kakaotalk
http://www.kakao.com/talk/en

Museum of London’s Streetmuseum App Puts Historic Photos in Perspective
Written by Chris Cameron, June 1, 2010
‘Hundreds of images from the Museum of London’s extensive collections showcase both everyday and momentous occasions in London’s history, from the Great Fire of 1666 to the swinging sixties’

Constant Text Messaging

June 9, 2010
TwitterPeek:
Restricted to Twitter.

WikiReader:
Updating can be a pain.

Barnes & Noble, Color Nook

Do we need laptops anymore?
Judy Brown
Your Learners ARE Mobile: Is Your Learning?
http://www.slideshare.net/judyb/your-learners-are-mobile-is-your-learning-3404505

We Are Going Mobile!
(e.g., iPhone, low cost wireless devices)

15m people/month India
40,000/week Rwanda
60,000 earthlings/hour
(per Paul Kim, Stanford, 2009); Nokia Research Lab
http://news.yahoo.com/s/afp/20090308/bs_afp/indieconomycal

Mobile in Higher Education
and the Military

Military Mobile Learning (See: the U.S. Army Learning Concept for 2015; 2011, January 15).
http://www.youtube.com/watch?v=KD9NGAV3-3k (4:26 minutes)

The Slow-Motion Mobile Campus

ABILENE CHRISTIAN UNIVERSITY

“The in 2008, the Texas university was the first to give all
new students their choice of an iPhone or an iPod
Touch. William J. Rankin, an associate professor of
English who helps lead the project, says 85 percent of
faculty members report using the devices in the
classroom at least once a week. Such efforts have to
be about fundamentally rethinking the way we do
teaching and learning,” Mr. Rankin says. “If it’s just
about giving out a device, it’s not going to last. It
can’t be a marketing initiative or a recruiting
initiative.”

College tech ‘catching up’ with students
Kathleen Gray & Robin Erb, USA TODAY, October 6, 2009

Abilene Christian University: ...about 2,800
students and 70% of the 250 professors use the
Apple technology for instructional purposes.
- Art students use app to draft sketch and send it to the
teacher and other students for advice before starting the
real art pieces.
- A drama teacher takes video of the lead dancer in a
production and sends that along to other students for
rehearsal.
DUKE UNIVERSITY
Duke gave iPods to all incoming students in 2004 but scaled back the program two years later. Tracy Futhey, chief information officer, says campus officials are now focusing on improving Duke’s mobile application and making existing campus data available on new platforms.

SETON HILL UNIVERSITY
The Greensburg, Pa., university has drawn widespread press coverage since it gave iPads and MacBook Pros to all full-time incoming students last fall. Students pay a $500 technology fee each semester. JoAnne W. Boyle, Seton Hill’s president, calls the iPad a “magical device” that could be a “transformative learning tool on campus.”

SETON HILL UNIVERSITY
April 10, 2010: Seton Hill University, 2,100 students an iPad and freshmen a 13-inch MacBook laptop.

Some Ideas from Educause Review
March/April 2011, Scott Perkins and Michael Casdorph, Georgia Health Sciences University, “The Digital Swiss Army Knife”

1. Attendance
2. Class roster
3. Class assignment due dates
4. Course calendar
5. Deliver course videos
6. Digital flashcards
7. Course blogging
8. Internet searching

Top Smartphone Apps to Improve Teaching, Research, and Your Life
By Jeffrey R. Young, January 2, 2011, Chronicle of HE

1. Taking Attendance (David M. Reed, a computer-science professor at Capital U.). Calling roll may not seem like an activity that needs an upgrade...”I used to use a piece of paper,” he said. “What would happen is invariably I would lose that piece of paper halfway through the semester.”
2. Collecting Data
A professor at the University of California at Davis is asking drivers to help him with his research on roadkill by logging any dead squirrel, possum, or other critter they see along the highway...the research team built an iPhone app to let citizen-scientists participate at the scene. It’s more convenient, and it gives the researchers better data, because a phone’s GPS feature can send along exact location coordinates (and the app encourages users to take a picture with the phone’s camera).

3. Reading Scholarly Articles
"Instead of clicking print when saving an article for later reading, many professors now send the document to their phone or tablet computer. Those I talked with cited a range of apps designed for the task, though Dropbox was cited most frequently. The commercial app is available for iPhones, iPads, and for smartphones or tablets running Google’s Android operating system. David Parry, an assistant professor of emergent media and communications at the University of Texas at Dallas, said he uses Dropbox for both scholarly reading and keeping track of documents for the courses he teaches. " (for syllabus storage and deadlines)

4. Recording Notes
Aaron Delwiche, an associate professor of communication at Trinity, often uses the camera built into his Android phone to snap a picture of his whiteboard before he erases it. When he breaks the class into groups for a project, the photos remind him who was on each team and what they came up with. High-end whiteboards offer a function to print out or e-mail their contents, but some professors say their phone cameras do just as well.

5. Using Textbook Tools
Cellphone screens are tiny...CourseSmart, a company that sells electronic versions of textbooks from major publishers, offers a free iPhone app to read books purchased through its service. It may not be ideal for long reading sessions, but it could be a handy way for professors to look over the material to remember what their students are reading.

6. Planning Lectures
Brainstorming for classroom talks has gone high-tech with "mind mapping" software that encourages arranging thoughts and ideas in nonlinear diagrams...the touch-screen interface of smartphones or tablet computers enhances the process, letting scholars toss around ideas with a flick of the finger. Gerald C. Gannod, director of mobile learning at Miami University, in Ohio, recommends Thinking Space for Android devices, MindBlowing for the iPhone, and Popplet for the iPad. Mr. Delwiche, of Trinity University, likes MindJet. “It’s great when organizing papers or project ideas," he said.
Top Smartphone Apps to Improve Teaching, Research, and Your Life
By Jeffrey R. Young, January 2, 2011, Chronicle of HE

7. Multimedia study guides on the go.
A cellphone screen may seem too small to use as a study aid, but then again, those screens are about the same size as standard 3 by 5 index cards, an age-old format for flashcards. So the space can be just right when it’s time to cram for a test. Unlike paper flashcards, though, a smartphone can display video clips, audio, and interactive features that go far beyond flipping a card over to see an answer.

8. Medical Training
Peter H. Abrahams, a professor of clinical anatomy at the University of Warwick, in England, recently released a video reference-manual app called Aspects of Anatomy for the iPhone. The software quizzes students by presenting them with medical scenarios, and asks them to name the relevant body part…It includes 38 short films of Dr. Abrahams guiding viewers through anatomical models of human organs.

iPads in Medical Training: Videos of Procedures
- Stanford’s School of Medicine lent iPads to all new students…Medical students spend most of their third and fourth years in hospitals, working with patients…can watch a video in the hospital showing how to conduct a complex procedure right before they are about to perform it…in an emergency, they can pull up a cheat sheet on an iPad showing the steps they should follow.
Top Smartphone Apps to Improve Teaching, Research, and Your Life
By Jeffrey R. Young, January 2, 2011, Chronicle of HE

9. Clickers/Student Response Systems
Professors at the mobile-device summit at Abilene Christian stressed that more study needs to be done on whether these services improve education and are worth the cost. Some research done at Abilene Christian on the clicker application, for instance, showed that while students liked the ability to take quizzes by phone, their grades did not improve compared with those of a control group that did not use the clicker approach.

10. Mobile Dictionaries
(September 2010, Chronicle of HE)

11. Language Training
(October 27, 2011)

1. In class say “I am not sure, look it up.”
2. Have students tweet on class activities.
3. Have students text each other during class.
4. Have students take pics with phone to document cameras in their daily life, share those photos with each other, and make a map of all the cameras (http://cameraseverywhere.us/)

13. Custom News (Zite and Flipboard)
(Personalized Online News and Magazine on iPad, March 9, 2011 and August 10, 2010, USA Today)
http://www.zite.com/
http://www.usatoday.com/printedition/money/20100811/flipboard11_tn.art.htm

15. Discounts for Attending Classes
The Slow-Motion Mobile Campus

- Stanford University: Weston McBride (right) and Andrew Bellay created an iPhone application that rewards students for attending class. Students with better attendance records will receive cheaper campus meals, and eventually discounts on bigger-ticket items like student loans and car insurance. The application, which is supported by Stanford, verifies attendance by checking students' GPS locations when they check in to class.

Global Mobile Internet Coverage
(source: Dr. Paul Kim, Stanford)
February 2012
Seeds for Empowerment, Tanzania
Kids using mobile devices

February 2012
Seeds for Empowerment, Tanzania
Getting Juice for Technology (generator)

February 2012
Seeds for Empowerment, Tanzania
Getting Juice for Technology (generator)

February 2012
Seeds for Empowerment, Tanzania
Getting Juice for Technology (wiring)

February 2012
Seeds for Empowerment, Tanzania
Paul Kim getting wiring working
February 2012
Seeds for Empowerment, Tanzania
Getting Juice for Technology (connections)

February 2012
Seeds for Empowerment, Tanzania
(Paul Kim turning it on!)

February 2012
SMILE: Stanford Mobile Inquiry-based Learning Environment

February 2012
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February 2012
SMILE: Stanford Mobile Inquiry-based Learning Environment

February 2012
Seeds for Empowerment, Tanzania
Picture by Alex Bonk

February 2012
Seeds for Empowerment, Tanzania
Paul Kim and Alex Bonk

February 2012
Seeds for Empowerment, Tanzania
(Alex Bonk and the kids...)
West Bank, Palestine

Powering the device on bicycle
PocketSchool on Two Wheels

Stories about love, forgiving, unity, peace, reality in Africa

What About Mobile in K-12 in North America?
Tablet Computing
Apple Founder Steve Jobs

March 25, 2012
And Here's The Secret Reason Apple Is Crushing Google...Business Insider, Henry Blodget

March 25, 2012
And Here's The Secret Reason Apple Is Crushing Google...Business Insider, Henry Blodget

Most common universities attended

March 25, 2012
And Here's The Secret Reason Apple Is Crushing Google...Business Insider, Henry Blodget

Most common universities attended
September 12th, 2011
Adapting to the iPad, called education’s ‘equalizer’,
USA Today, Alesha Williams Boyd.

September 18, 2011
iPad-enabled students get performance boost, says ACU study
by Michael Rose, TUAW (The Unofficial Apple blog).

October 3, 2011
MCCSC 6th-graders to get iPads, Herald Times, Bethany Nolan

5 K-12 Applications
Five ways readers are using iPads in the classroom, eSchool News, May 27, 2011,

Five ways readers are using iPads in the classroom
1. For intervention.
“I found an app called Math Drills, to help students with their math facts. After a school-wide math fact program, there were a certain number of students that still didn’t know their addition facts. Essentially, they had trouble with ‘at a snap’ recall of facts,” she explained.

“Kids have grown up their whole lives with computers, but they need to be taught how to harness the technology for education,” says Mitchell Salerno, principal of the Master’s Academy in Florida.
2. For Enrichment.

“There are several apps out there for the ‘smart kids.’ I found one for the iPhone, which I use on the iPad, called Miss Spell’s Class,” she said. “It gives students a series of challenging vocabulary words, and they need to decide if it’s spelled correctly or incorrectly. I’ve seen my gifted kids get so frustrated (it shows them that they’re not always No. 1), and consequently, so proud of themselves because they’ve finally conquered it. The success is made much sweeter when you have to work for it.”

The 2Do app helps me organize groups that I’m working with during class, and what we’re doing that day. I assign due dates and stay on track. Then, I know if someone is absent because they’re shown as overdue.

“Teacher’s Assistant allows my students on behavior plans to mark their own progress as they meet (or don’t meet) their goals. They are responsible for it, and are eager to earn points during the day simply so that they can enter it on the iPad. Regardless of the motivation, I’ll take it, since I’ve seen an improvement in behavior, especially ... of fifth-grade [students].”

3. For assistive technology.

One reader, Eva, said she uses the iPad to help a boy in her classroom who has autism. Supposedly, the iPad was the only tool that could engage him for any length of time with his speech therapist.

“Upon first seeing it, he stared at it for a few seconds then reached for it,” she explained. “We gave him the iPad and he immediately started mimicking us by pushing all the right buttons to see the interactive app. We love it so much that his mother, with the help of a therapist, wrote a mini-grant to one of the local organizations so that he could have one of his own.”
Five ways readers are using iPads in the classroom
eschool News, May 27, 2011

4. For digital literacy.
Every one of the 270 students at the Master's Academy in Oviedo, Fl., will receive a school-issued iPad next school year...The Christian school is paying for the iPads, because school officials hope to teach students to "engage the digital world productively," said Mitchell Salerno, the high school's principal, in an interview with the Orlando Sentinel. School officials hope to give students the skills expected of them both in college and in the workplace. The iPads will not replace all textbooks, but they will allow students to do much of their school work online, reduce reliance on paper, and give teenagers access to resources not available in class.

Mr. Barrett's iPad
http://cvipads.wordpress.com/ipad-organization/

5. For organizing resources—and for reading.
Beau Barrett, a teacher at Crestview Elementary School, writes on his blog how to organize the iPad's various resources for classroom use with students, and the teacher, in mind. (You can see screenshots and read more about Barrett's iPad use on his blog.)

Where are we headed?

Life in the Cloud...?

Smaller, thinner, lighter, and cheaper devices
Share Your Top Ten Lists:
1. How you are using mobile.
2. How you might use mobile.

Final Poll: Is your brain mush?
1. Yes.
2. No.
3. Not sure yet...

Slides at: TrainingShare.com
Papers: PublicationShare.com
Book: http://worldisopen.com/