# We're Going Mobile... Around the Global
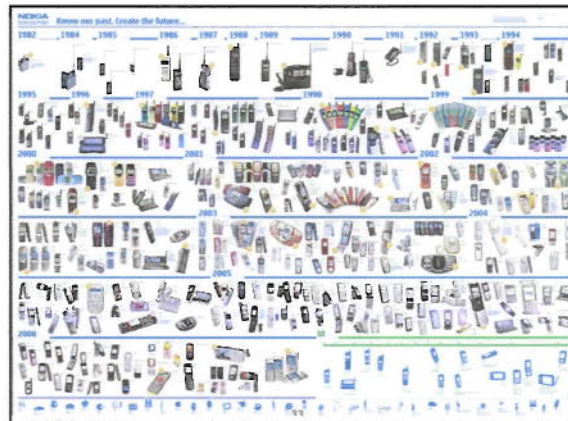
**Curt Bonk, Professor, Indiana University**
**President, CourseShare, LLC**
**cjbonk@indiana.edu**
**http://mypage.iu.edu/~cjbonk/**







# 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)

## 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
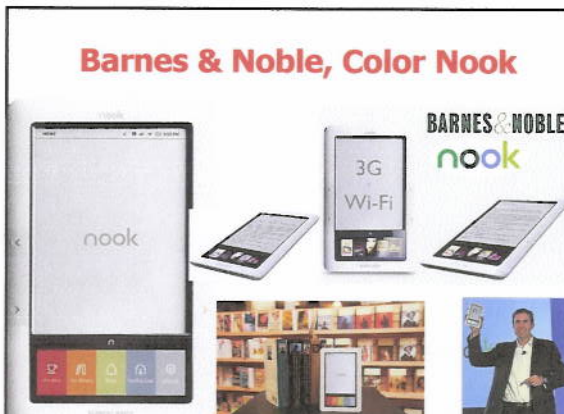




June 9, 2010

TwitterPeek: Restricted to Twitter.

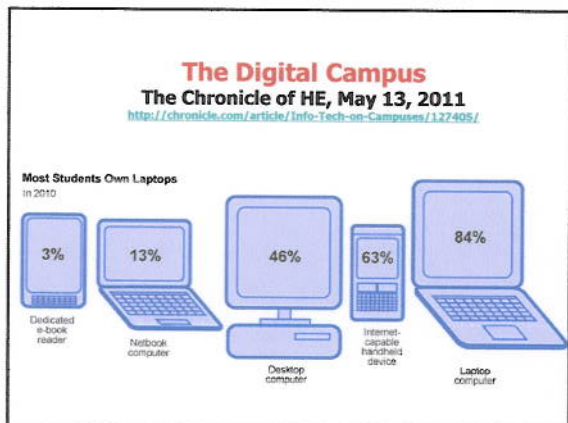WikiReader: Updating can be a pain.

## Barnes & Noble, Color Nook



## Do we need laptops anymore?



## Educause Review March/April 2011, 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."

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

Most Students Own Laptops
in 2010

3% — Dedicated e-book reader
13% — Netbook computer
46% — Desktop computer
63% — Internet-capable handheld device
84% — Laptop computer

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**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/indiaeconomytelecom

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

Your Learners ARE Mobile. Is Your Learning?

Tomi Ahonen Almanac 2010

- 4.6 billion subscriptions – 68% of planet
- 3.4 billion unique users – half the planet
- 1.2 billion PCs (including notebooks)
- 3x as many camera phones in use today than any kind of stand-alone camera, digital or film-based – ever manufactured
- 1.13 billion handsets sold last year compared to 270 million new PCs
- More internet users on mobile than on personal computers

MOBILE GROWTH

ANDROID is the best growth indicator

- Q2 2009: Android had a 2.8% share of worldwide smartphone shipments.
- July 2011: 550,000 Android devices are now activated by Google each day, with growth 4.4% per week
- August 2011: Android has about 48% of the smartphone market share.

By 2014, mobile internet consumption will overtake desktop consumption.

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**AERA Journals Go Mobile**
**Educational Researcher, November 2011**

AERA Highlights

AERA Journals Go Mobile

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**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/

Percentage of Students Who Use Mobile Devices Daily to Access the Internet

"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.

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**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

**The Slow-Motion Mobile Campus**
Josh Keller, The Digital Campus, The Chronicle of HE,
May 8, 2011

**ABILENE CHRISTIAN UNIVERSITY**

"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.""

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**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.



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**The Slow-Motion Mobile Campus**
Josh Keller, The Digital Campus, The Chronicle of HE,
May 8, 2011

**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.



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**The Slow-Motion Mobile Campus**
Josh Keller, The Digital Campus, The Chronicle of HE,
May 8, 2011

**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."



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



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**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

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

Perkins: "I think that mobility makes it a little less important for us to work on mastery of content during those class minutes."

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**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."

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**Top Smartphone Apps to Improve Teaching, Research, and Your Life**
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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).

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**Top Smartphone Apps to Improve Teaching, Research, and Your Life**
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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)

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**Top Smartphone Apps to Improve Teaching, Research, and Your Life**
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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.

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

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.

CourseSmart

Are Mobile "Classroom" Apps the Future of Collegiate Learning?

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

**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.

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**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.

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# 8. Medical Training

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

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

An app called Aspects of Anatomy brings flashcards into the YouTube age. Designed by a professor at the U. of Warwick, in Britain, the software includes three- to seven- minute videos. Medical students can, say, review a dissection of the thorax and upper limb while on a break.

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**iPads in Medical Training: Videos of Procedures**
The Slow-Motion Mobile Campus, Josh Keller, The Digital Campus, The Chronicle of HE, May 8, 2011

- 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.

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**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)



## 12. Twitter. Some Ideas from Educause Review March/April 2011, David Parry, "Teaching Mobile Literacy"

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/)



## Some Ideas from Educause Review March/April 2011, David Parry, "Teaching Mobile Literacy"



## 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_st.art.htm



## 14. Military Mobile Learning (See: the U.S. Army Learning Concept for 2015; 2011, January 15).
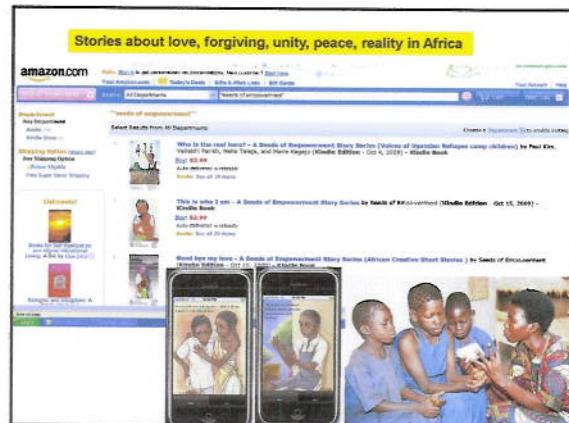http://www.youtube.com/watch?v=KD9NGAV3-3k (4:26 minutes)
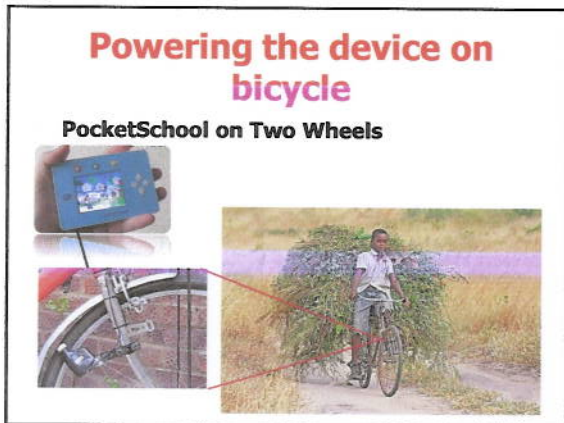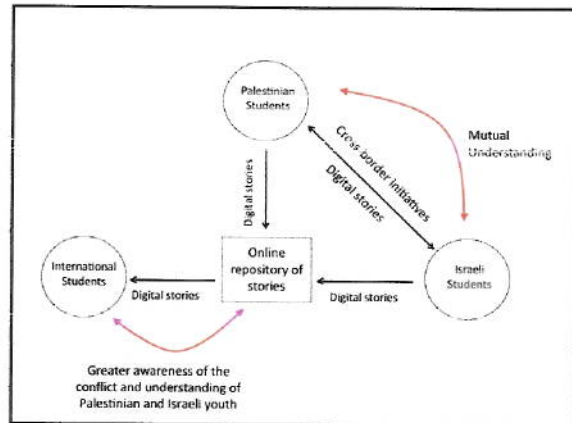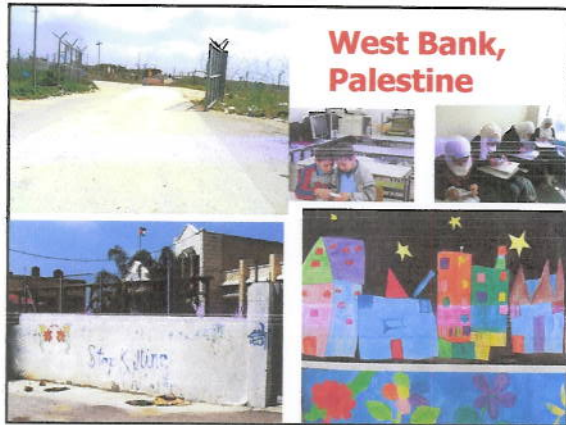
**15. Discounts for Attending Classes
The Slow-Motion Mobile Campus**
Josh Keller, The Digital Campus, The Chronicle of HE,
May 8, 2011
- **Stanford University:** Weston McBride (right) and Andrew Bellay created an iPhone application that rewards students for attending class. Students with better attendance 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)





**Pushing Mobile Around the Global...**



**Seeds of Empowerment, India, Paul Kim, Stanford**



**Seeds of Empowerment, India, Paul Kim, Stanford**

**West Bank, Palestine**



**Powering the device on bicycle**

**PocketSchool on Two Wheels**



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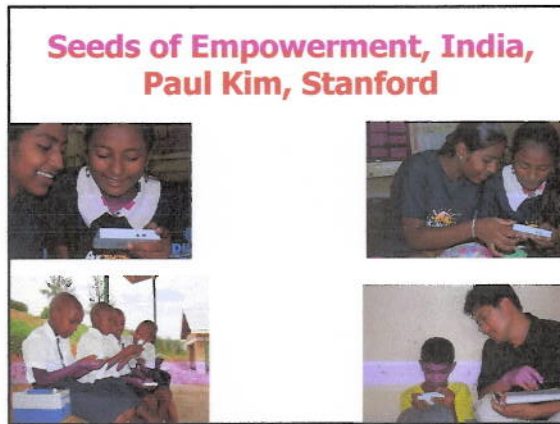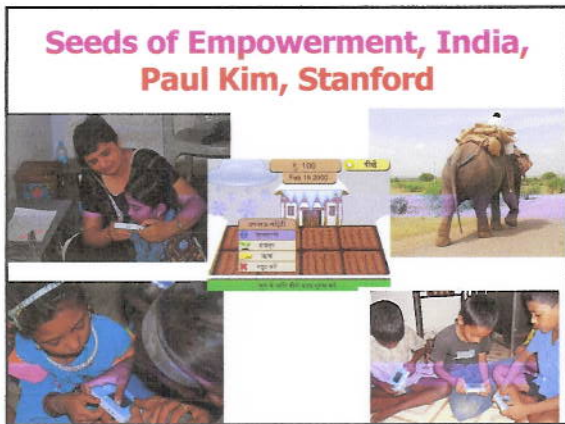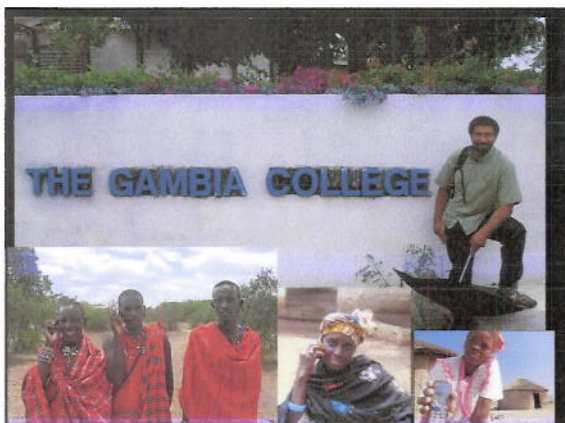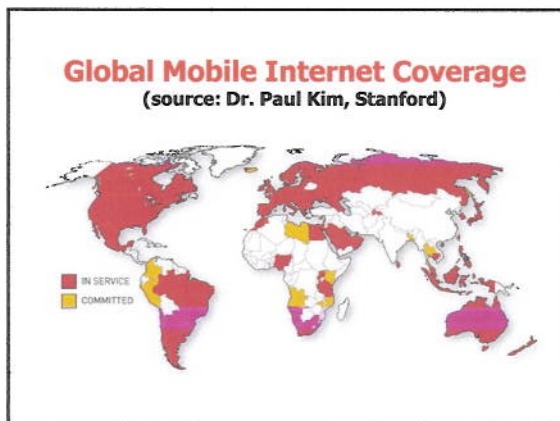


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