Gadget Avalanche

A Technology Literacy Course for Novice Adults

Drs. Dirk and Katy Luchini Colbry
Michigan State University
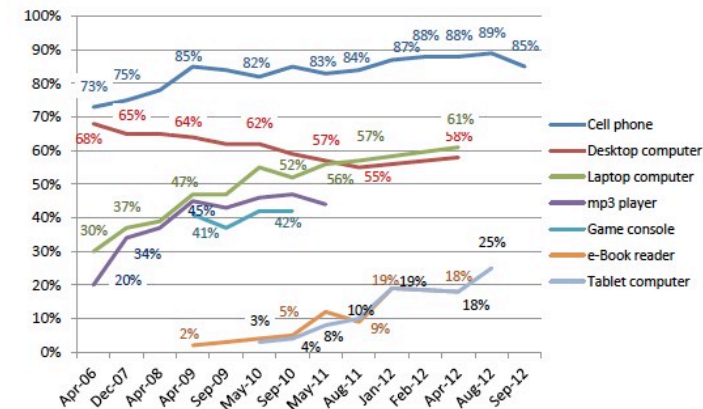
Agenda

- Background and Motivation
- Course Goals and Structure
- Example Curricula
- Lessons Learned

Increasing "Gadget" Use

Adult gadget ownership over time (2006-2012)
% of American adults ages 18+ who own each device

Source: Pew Internet surveys, 2006-2012

Knowledge Needs

▸ Two types of knowledge requirements
  ◦ Task or process
  ◦ "Gadget" interface and technical framework

▸ Example: email using a tablet computer
  ◦ Task: how to access, create, send, read, manage
  ◦ Gadget: icons, touchscreen, keyboard, connection

Course Goals

▸ Explain fundamental technologies underlying popular consumer gadgets
  ◦ Connections, files, interfaces, etc.

▸ Guide participants in identifying their goals for using technology
  ◦ Communication, entertainment, organization, etc.

▸ Help participants find appropriate solutions
  ◦ Single-purpose and multi-function "gadgets"

Course Structure

▸ Evolved over three offerings
  ◦ Initially, two class sessions and a field trip
  ◦ Adapted for one-hour "brown bag"
  ◦ Final version: two longer lectures, no field trip

▸ Offered as non-credit, personal enrichment
  ◦ Approximately 75 total participants
  ◦ About half were at or near retirement age
  ◦ Mixture of MSU employees, community members

Curriculum Outline

- Introductions
  - Evolution of the "Gadget Avalanche"

- Tech Terms
  - Connections (Wi-Fi, 3G/4G)
  - Cloud Computing

- Devices and Applications
  - What can you do?
  - What do you want to do?
  - How to do what you want to do?

Introductions

- Participants shared background and goals

- Instructors shared personal "gadget history"
  - Demonstrated evolution of gadgets over time
  - Grounded course in gadgets familiar to participants
  - Focused on <u>tasks</u> rather than specific devices

- Participants' questions and feedback helped guide instructors' focus during the course

What can you do?

Pager	Palm	Palm Phone	Windows Phone	Wi-Fi Phone	iPod Touch + Phone	iPhone
• Email (basic) • To-Do List • Calendar	• Email (tethered) • To-Do List • Calendar • Contacts	• Email (tethered) • To-Do List • Calendar • Contacts • Phone	• Email (tethered) • To-Do List • Calendar • Contacts • Phone • Books / Music	• Email (Wi-Fi) • To-Do List • Calendar • Contacts • Phone • Books / Music • Wi-Fi Internet	• Email (Wi-Fi) • To-Do List • Calendar • Contacts • Phone • Books / Music • Wi-Fi Internet • Camera • Text Messages • Apps	• Email (Wi-Fi +3G) • To-Do List • Calendar • Contacts • Phone • Books / Music • Wi-Fi Internet • Camera • Text Messages • Apps

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Tech Terms

▸ Connections
  ◦ Wireless networks (building-based)
  ◦ Cellular networks (broader coverage)

▸ Cloud Computing
  ◦ Where is information stored?
  ◦ How is information accessed?
  ◦ Where is the Internet, anyway?

▸ Concrete Examples

Tech Terms: Connections

▸ Wireless Network (Wi-Fi, Wireless Internet)
  ◦ Your device connects to a wireless access point
  ◦ The wireless access point connects to the Internet

Wireless Printer

Wireless Gadget

Internet

Wireless Computer

Modem+Wireless Router

Tech Terms: Connections

▸ Cellular Network (3G, 4G)
  ◦ Your device connects to a cellular network
  ◦ The cell network connects to the Internet

Internet

Smart Phone

3G Gadget

Computer+3G Modem

"Cloud" Computing
(moving data between devices via a network)

What is the difference?

Cloud	Device
▸ Need Internet to access	▸ Access anywhere
▸ Unlimited storage	▸ Limited memory
▸ Built-in Backup	▸ You must backup
▸ Data accessible from multiple devices	▸ Data accessible only on the device
▸ Easy to share <u>data</u>	▸ Easy to share <u>device</u>

Leveraging the Cloud

Katy's iPhone (Kindle app)

Dirk's iPhone (Kindle app)

Dirk's Kindle

(amazon.com account)

Katy's Kindle fire

Mom's iPad (Kindle app)

Leveraging the Device

airplane mode

wireless

3G (cell)

Goals for Using Gadgets

▸ Stay Connected
  ◦ Email, text messages, phone/video calls
  ◦ Photos: taking, sharing, printing
  ◦ Social Media: facebook, twitter, blogs

▸ Consume Media
  ◦ Reading, watching tv/movies, listening to music
  ◦ Games

▸ Getting Organized
  ◦ Calendar, to-do lists, contacts, documents, notes
  ◦ GPS, navigation, maps

Comparing Apples to Androids

Apple (iOS)

▸ Hardware
  ◦ Reliable, well-designed
  ◦ Limited choices
  ◦ Expensive

▸ Software
  ◦ Only from iTunes
  ◦ Prescreened
  ◦ Some limits (no flash)
  ◦ Intuitive interface

Android

▸ Hardware
  ◦ Many options, prices
  ◦ Few standards
  ◦ Expandable memory

▸ Software
  ◦ Apps from Google, amazon, etc.
  ◦ Flash available
  ◦ Variations in interface, design, reliability, quality

But what about "apps"?

- Short for "applications"
  - Small(ish) programs that support specific tasks
  - Allow you to customize your device

Lessons Learned

- "Gadget History" was perfect introduction
  - Grounded course in participants' experiences

- Explain Connections and the Cloud
  - Concrete examples were invaluable
  - Lots of "aha" moments among the audience

- Flexible "Show and Tell"
  - Most participants brought their own devices
  - Trying new apps and new devices was very popular