Green Apps?
Environmental consequences of our mobile lifestyles
Dr. Anu Vedantham.
Weigle Information Commons, Penn Libraries
Life Cycle Analysis

The Stages of a Product's Life Cycle

- Materials
- Manufacture
- Distribution
- Use
- Recycle
- Waste

Shrink That Footprint
We love stuff

% of American adults who own a...

Pew Internet Survey, 2015
Moore’s Law – smaller, faster, cheaper

“..Apple's iPhone 6 is roughly 1 million times more powerful than an IBM computer from 1975..” – Cnet.com

Moore’s Law of hardware improvement – capacity doubles every 2 years – drives phone habits.
Hype Cycle for new ideas

- Peak of Inflated Expectations
- Plateau of Productivity
- Slope of Enlightenment
- Trough of Disillusionment

Gartner Hype Cycle

Graphic from http://newmr.org/
Hype Cycle for Green Tech

Source: Gartner (July 2015)
Ideas to consider

- e-textbooks
  - reduce shipping and production of paper books
  - avoid “paper and tablet”!

- Note-taking and annotation

- Behavioral apps
  - Similar to weight and exercise management
  - Help promote daily habits and choices
E-books

- Make your own e-textbook
  - Course packet to e-textbook
  - Calameo – one free tool
  - A Penn example by Prof. Karl Ulrich, Wharton

- Penn Libraries Online Collection
  - 3.8 million books
  - Search Franklin catalog

- Other online book options – Amazon, Project Gutenberg, etc.
Data from Penn students

Question: I read academic materials on...

Student answers to: I read academic materials on...

Engaging Students Through Technology Symposium 2015 Student Survey Results

N=938
Green App: iAnnotate

- Annotate PDFs and share comments with others
- Mimics paper annotation but is searchable
- One million users

Also consider:
- Notability
- Penultimate
Green App: Joulebug

- Gamifying good behaviors
- Connects to utility bills
- Competition to be green
- Rewards variety of behaviors
- Light-hearted
Green App: PIPs
Energy Management

- Over 50 apps featured
- Track your car’s gasoline use
- Evaluate the greenness of buildings around you
- Connect app to household electricity monitor
- Names include Killurwatt, Energy Tracker, Green Outlet, GasBuddy
- Arena seems to be evolving
Apple’s answer: Solar farms

Apple claims that 100% of its data centers and US operations run in renewable energy.
Tech Dump in Guiyu, China
Library iPad Lending

- 30 new iPads, 5 older model
- Borrow for class projects of up to two weeks
- Think about activities that help students make habits out of new apps!
- Document and change daily behaviors
- Library New Media Showcase
Questions?

• Contact Anu Vedantham at vedantha@upenn.edu

Propose an app for Penn on Poll Everywhere
References

- http://www.gartner.com/technology/
- http://shrinkthatfootprint.com/
- http://i.imgur.com/ManKToV.jpg