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e-Books and the Impact on Library Processes

Michael Kucsak

University of North Florida, bepress@kucsak.com

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e-Books and the Impact on Library Processes

Michael Kucsak

Director of Library Systems and Technology
University of North Florida

What's in Store

- Books, eBooks, e-Readers
 - Display Technology
 - eBook Vendors
- Library Processes
 - Business Quality Improvement
 - Challenges

The Library

Perceptions of the Day

Traditional Libraries

- Noble Purpose
- Facilitated the gathering of Knowledge
- Sole keepers of the books

Libraries Face Competition

- Book Stores
- Google
- Individuals

New forms of Competition

AFTER scanning his textbooks and making them available to anyone to download free, a contributor at the file-sharing site PirateBay.org composed a colorful message for “all publishers” of college textbooks, warning them that “myself and all other students are tired of getting” ripped off.

First It Was Song Downloads. Now It's Organic Chemistry.

New York Times

July 27, 2008

Storage is Cheap

- OCLC WorldCat has ~60,000,000 MARC records
- A 200 page ebook may be ~300KB.
- An iPod holds 160GB of Data
- So an iPod could store every MARC record in OCLC AND about 450,000 complete e-Books.

Libraries from a Business Perspective

- What do you cost?
- What value do you add?
- How can you become more efficient?

Enter Six Sigma

or How to cut your budget without hurting quality or
service

Six Sigma Process Improvement

- 6S is a business management strategy designed to use hard data and statistical analysis to bring about process improvement.
- Developed by Motorola in 1981, it has become widely adopted throughout many sectors of industry as a method of improving quality and performance

6S Process

- Define - Clearly define a problem to be solved.
- Measure - Find a way to measure the process and collect data to determine how well it works.
- Analyze - Use statistics to prove cause and effect.
- Improve - Develop a method to eliminate defects, typically relying heavily on automation.
- Control - Set up a long term system of measurement to ensure the process continues to work as expected.

Sample Project

Our acquisitions librarians are telling us that more and more departments are becoming disinterested in books. Some of our collection development liaisons are becoming disenfranchised because they feel they are “throwing away money on books that will never be used”. One external document noted that ~40% of all books purchased are never used. Should the rest of the library discover that we are spending millions of dollars on unwanted and unused resources, we could lose our funding to other departments who make the case that they could provide better services with the money.

Define

A recent report showed that approximately 31% of the books purchased by our library were never used. The report included all Item01 status holdings (circulating materials) and circulation events made within the last seven years.

Measure

- Map the process
- List value added vs non-value added activity
- Collect data

Process Mapping

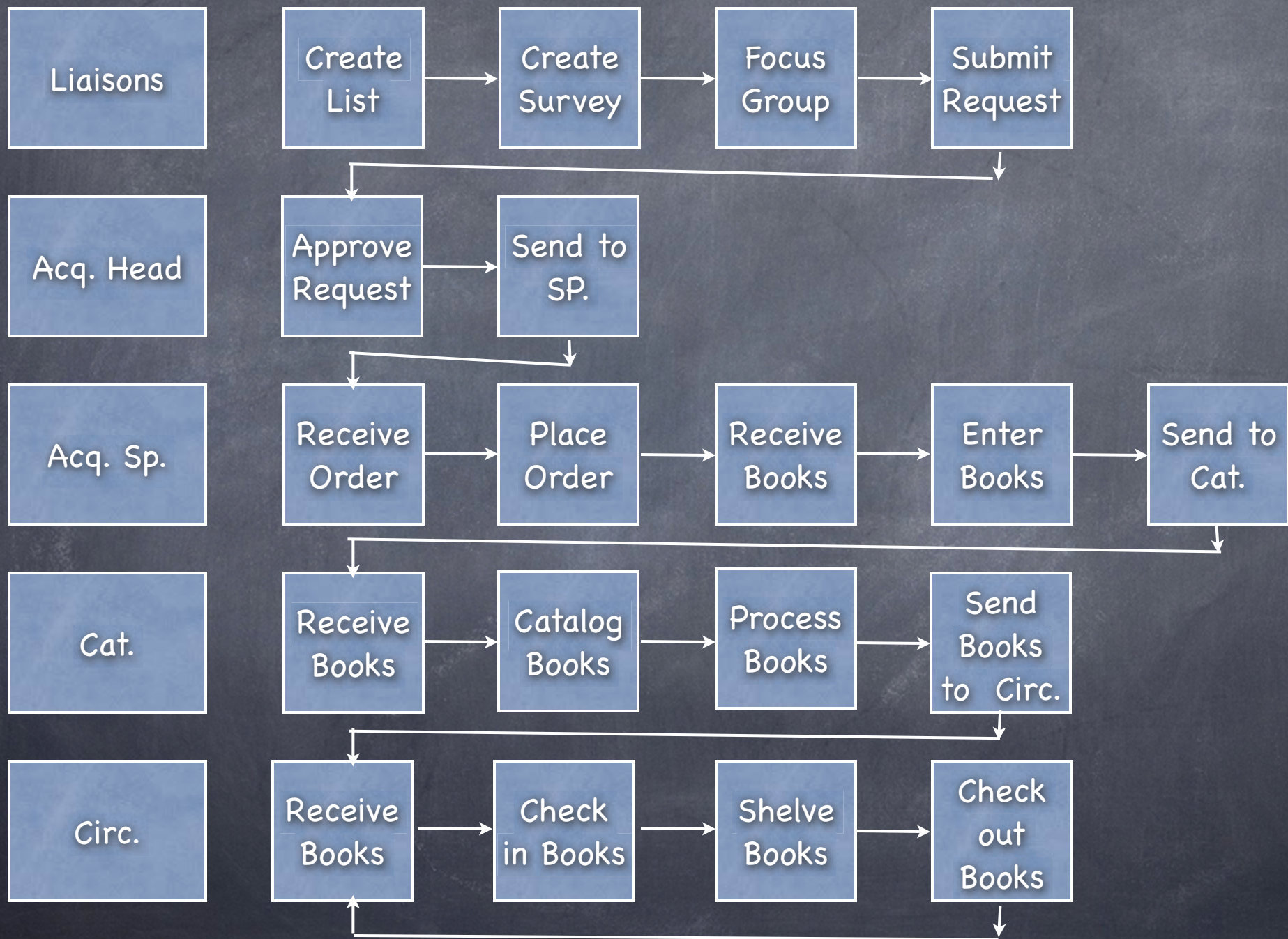
- Each step in your process is documented.
- Hand-offs, audits and delays are closely scrutinized. (Non-value added)
- Opportunities for automation are sought.
- Non value added activities are highlighted

The Players

- The Library Liaisons
- The Acquisitions Department
- The Catalogers
- The Circulation Department

Other Impacted Areas

- Preservations
- Systems
- ILL



Analyze

- Data collected is then painstakingly analyzed to find the root cause of the defect.
- The conclusions are taken to the project Champion. (i.e. senior management)

FishBone

Location

remote branches

Unwanted

guessing

unpopular format

Stolen

not stripped

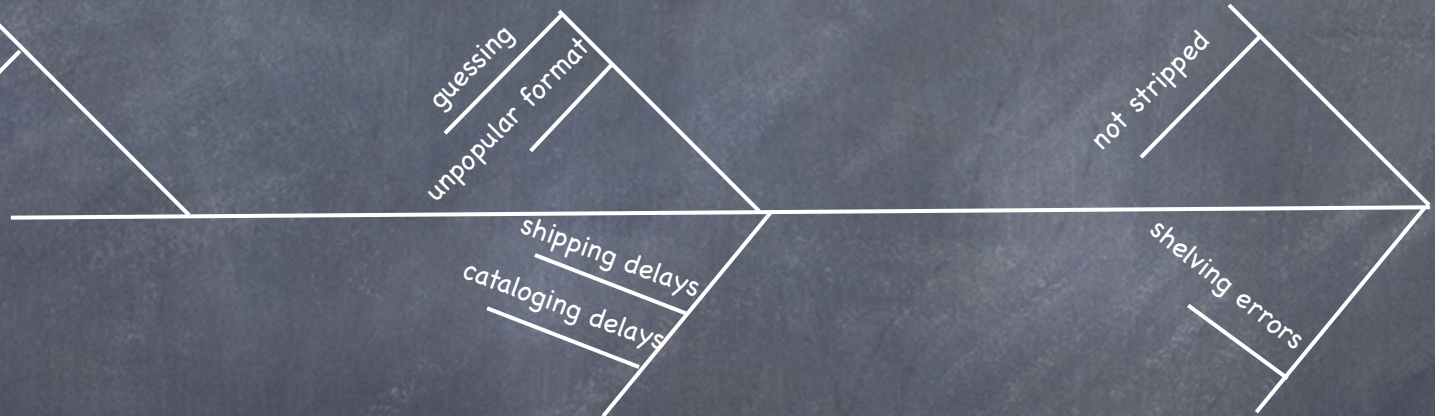
shipping delays

cataloging delays

shelving errors

Dated

Lost



The Critical X

The root cause of our purchasing unwanted books is determined to be that we buy books based upon educated guesses. The patrons do not want to take the time with the liaisons or simply do not know in advance what they want to read.

Improve

- Potential solutions are discussed
- Pilot improvements are implemented to determine effect.

Improvement #1

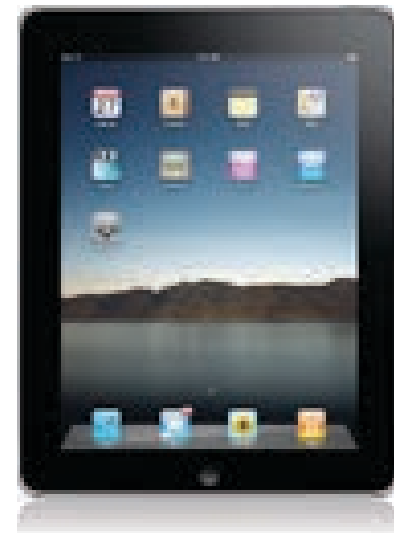
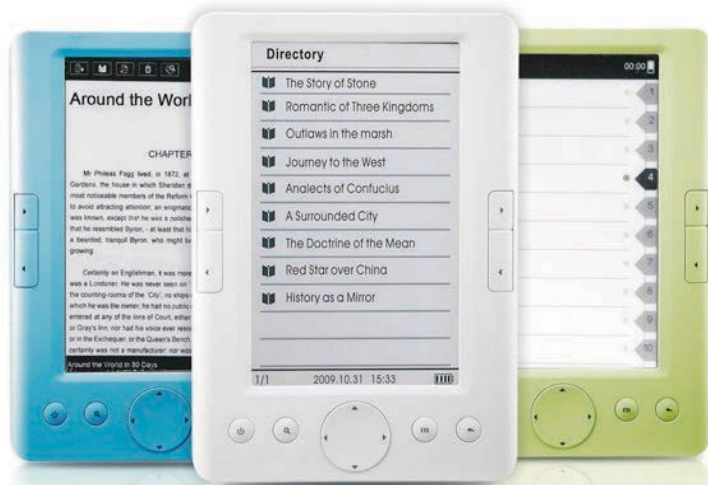
Buy books using JIT (Just-in-Time). If we can somehow buy the books the student needs and make them immediately available, we eliminate the guesswork along with many manual process steps.

How can Technology Help?

- Buying books takes time. At best we can have them in about a week. Add more time to catalog, process and shelve them.
- Can the new eBook format provide us with a method of rapid delivery, rapid indexing and rapid access?

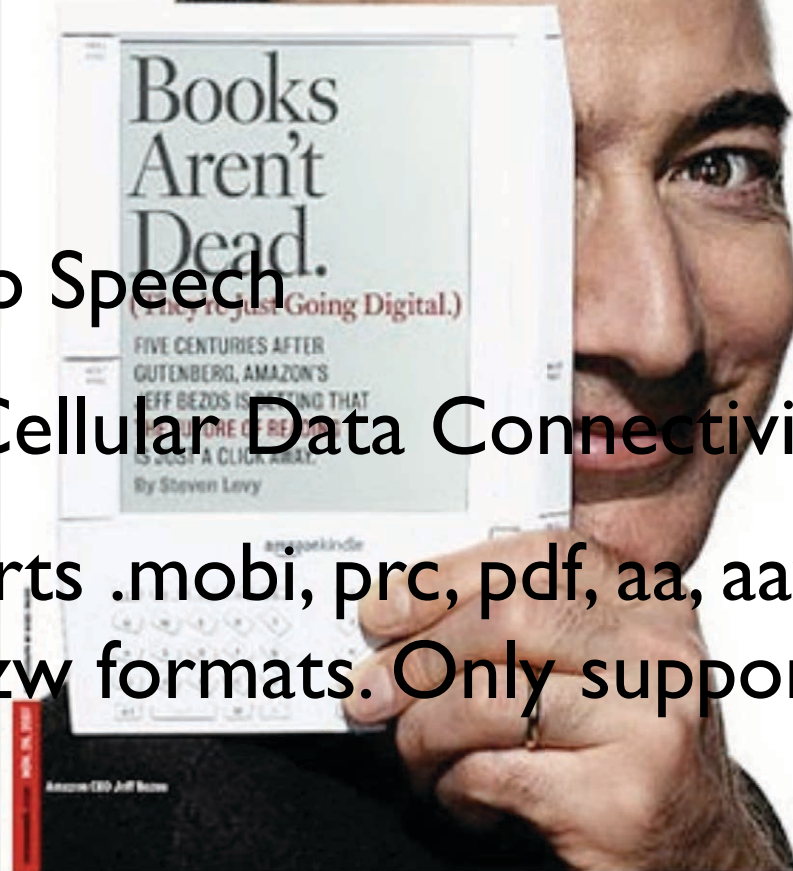
e-Readers

- Amazon Kindle
- Barnes & Noble Nook
- Sony Reader
- Apple iPad



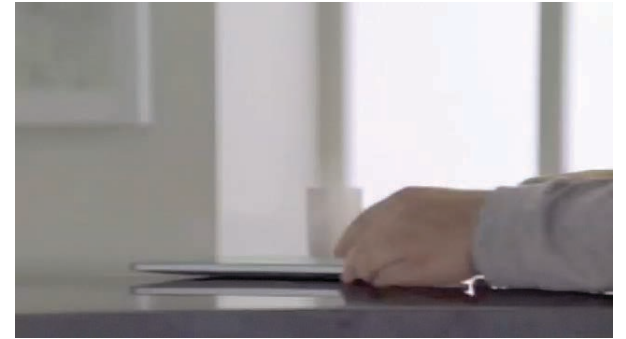
A Newsweek e

- E-Ink
- Text to Speech
- Free Cellular Data Connectivity
- Supports .mobi, prc, pdf, aa, aax, txt, tpz and .azw formats. Only supports Amazon DRM
- 571,871 Books (up from ~230,000 last year)





Apple iPad

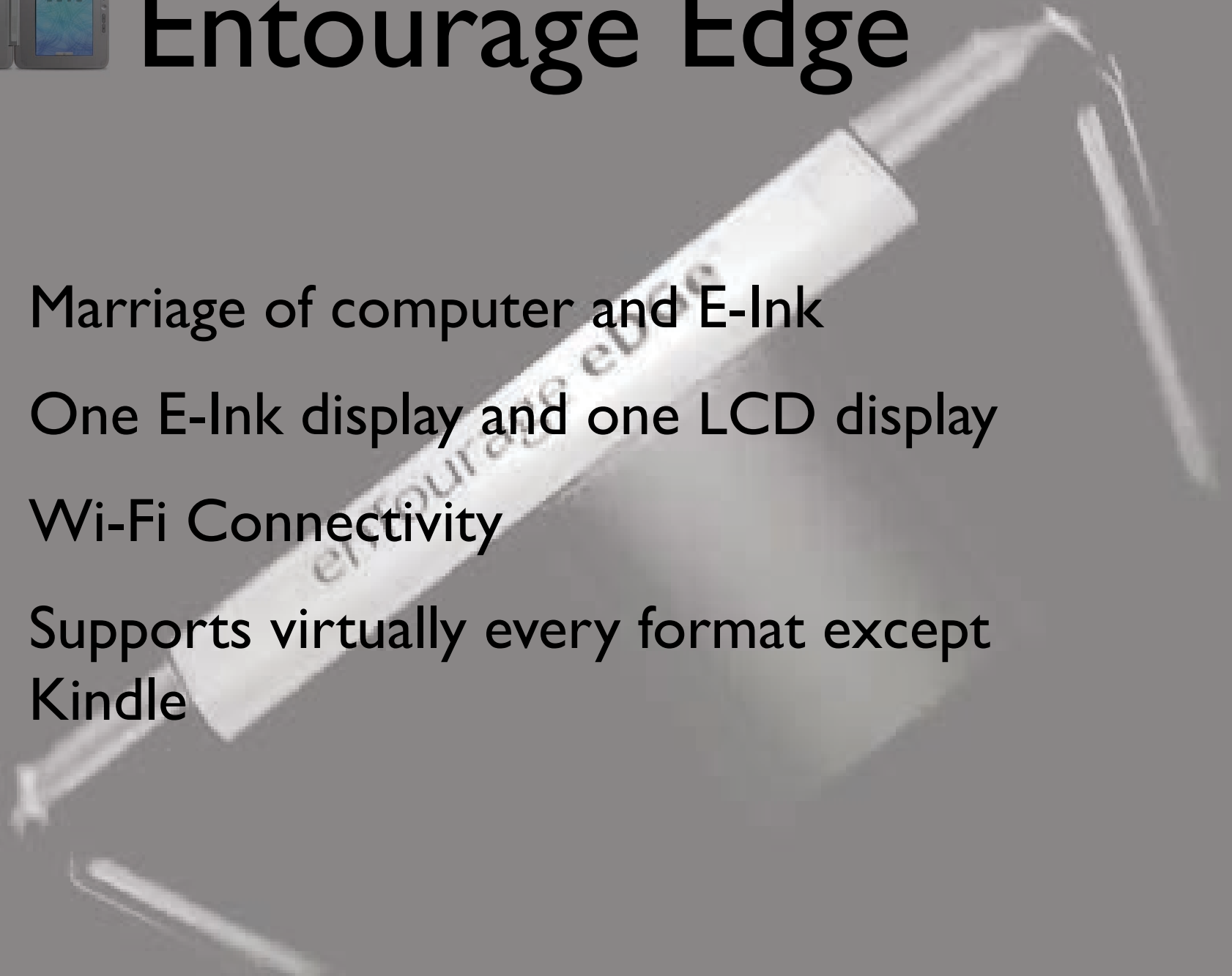


- Computer with a custom OS
- LCD Screen
- Fully ADA compliant
- \$15/month 3G
- Support virtually every format through the use of apps (kindle app, nook app, etc.)



Entourage Edge

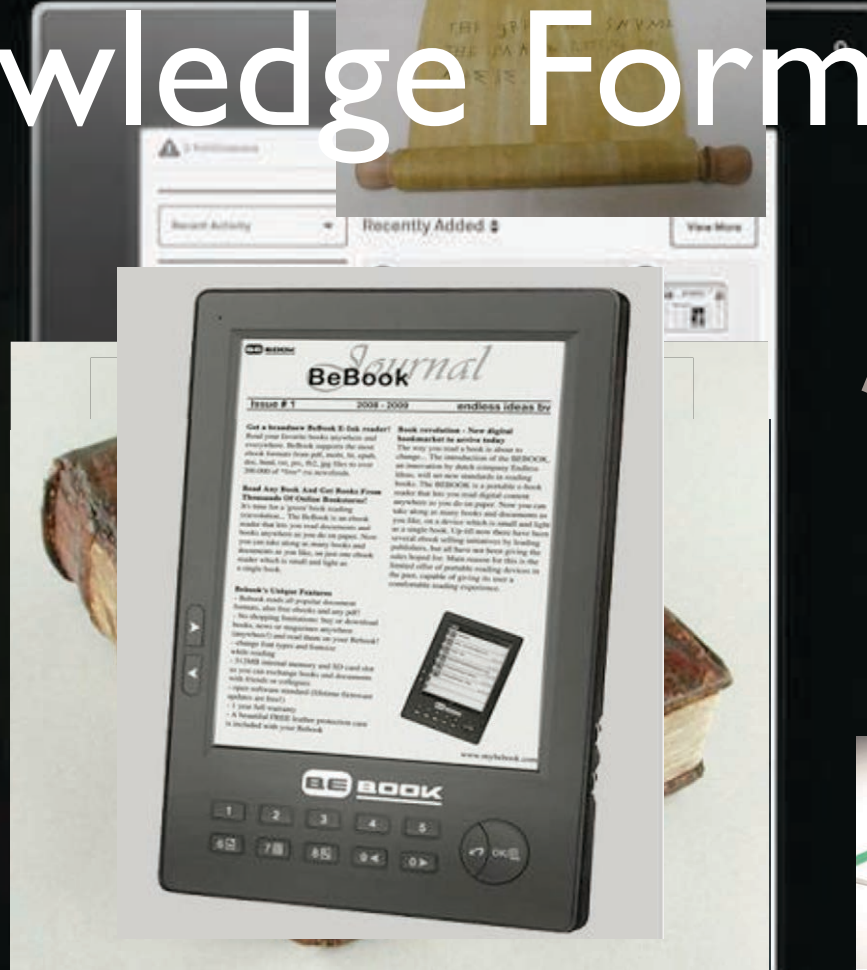
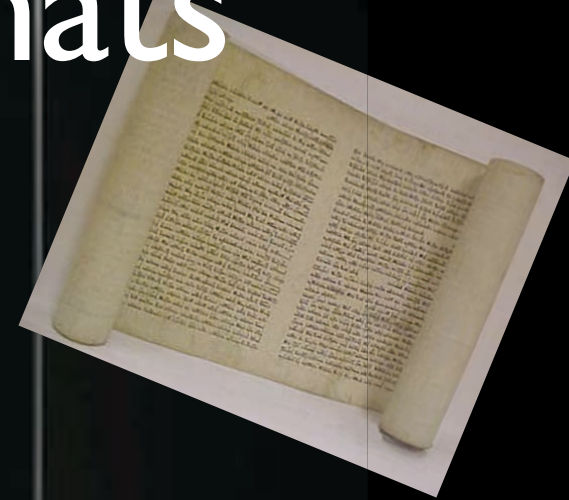
- Marriage of computer and E-Ink
- One E-Ink display and one LCD display
- Wi-Fi Connectivity
- Supports virtually every format except Kindle



NPK

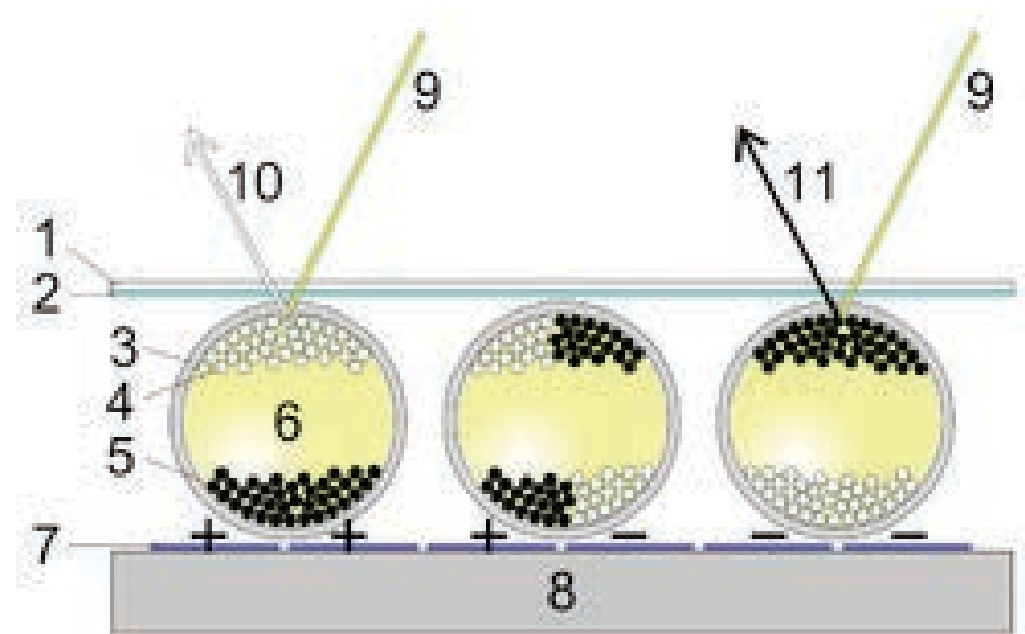
We're introducing this new system
and everybody wants help immediately.

Knowledge Formats



E-Ink

Technology based on MIT research, E-Ink is made up of capsules about the diameter of a single human hair. Within each capsule are tiny white and black particles. These particles shift position in response to positive and negative charges to create black and white images displayed to the reader.



Format vs DRM

- epub (open standard)
- Palm Database Format (mobi and prc)
- pdf
- txt
- Plus many more
- Apple Fairplay
- Adobe Content Server
- Amazon AZW (modified mobi)
- mobi DRM
- Plus many more

Weak vs Strong DRM

- Weak DRM might allow:
 - multiple copies
 - use on multiple computers
 - limited reproduction
 - offline use
- Strong DRM typically restricts:
 - copying
 - use on more than one device
 - reproduction
 - offline use

Some Factors in Choosing the Vendor

- Methods of Access and Format Support
- User Restrictions
- Subject Coverage and Availability
- System Integration

Some Library Vendors

- EBL
- Overdrive
- Netlibrary
- ebrary
- Coutts

Ebsco eBooks

- 200,000 eBook titles
- Mostly scholarly academic
- One-to-one access unless sold to consortial (2:1)
- ~65% titles support consortial buying
- Offline support: Adobe
- ~62% of eBooks are downloadable
- Free MARC records
- Supports Patron Driven Acquisition

ebrary

- 200,000+ titles
- Broad subject coverage
- I:I or I:unlimited reader support
- Web Only
- Free MARC records
- Supports patron driven acquisition
- Supports limited ILL
- Print 60 pages/session

eBook Library (EBL)

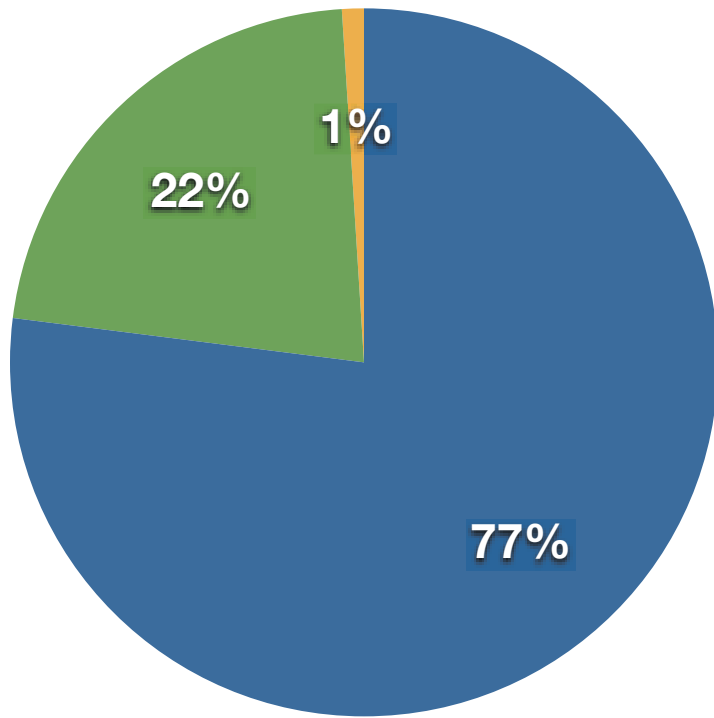
- 148,168 titles
- Academic and Professional
- 1:1 or 1:unlimited access
- ePub format downloads
- Free MARC records
- Supports patron driven acquisition
- Supports limited ILL
- Supports EZProxy

Pilot Project

- Select ebook vendor
- Match current holdings with eBook titles to eliminate duplication
- Load remaining MARC records into the catalog
- Choose unlimited concurrent user model
- Configure system to allow users to access title 3 times before purchasing
- Deposit a set dollar amount into an account with the vendor

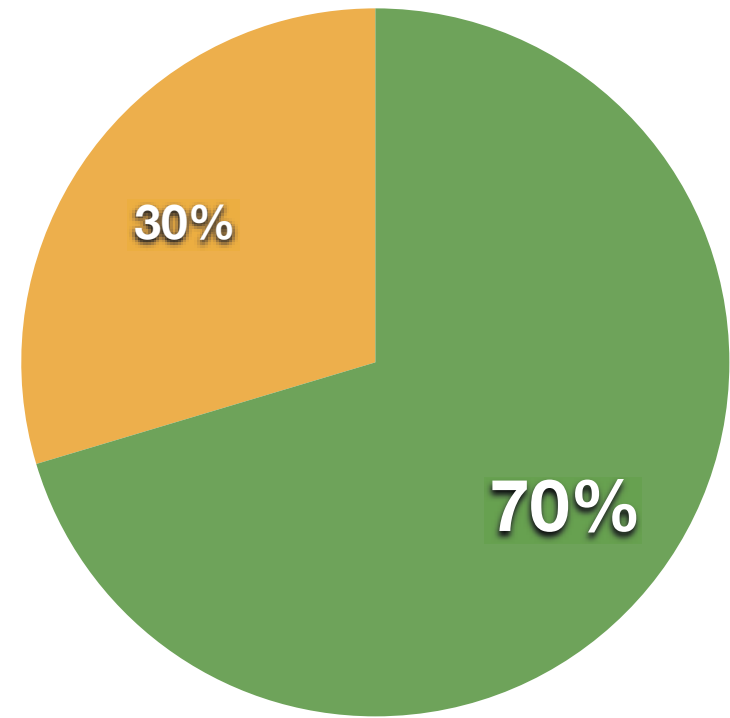
November 2008 - April 2010

Print



VS

eBooks



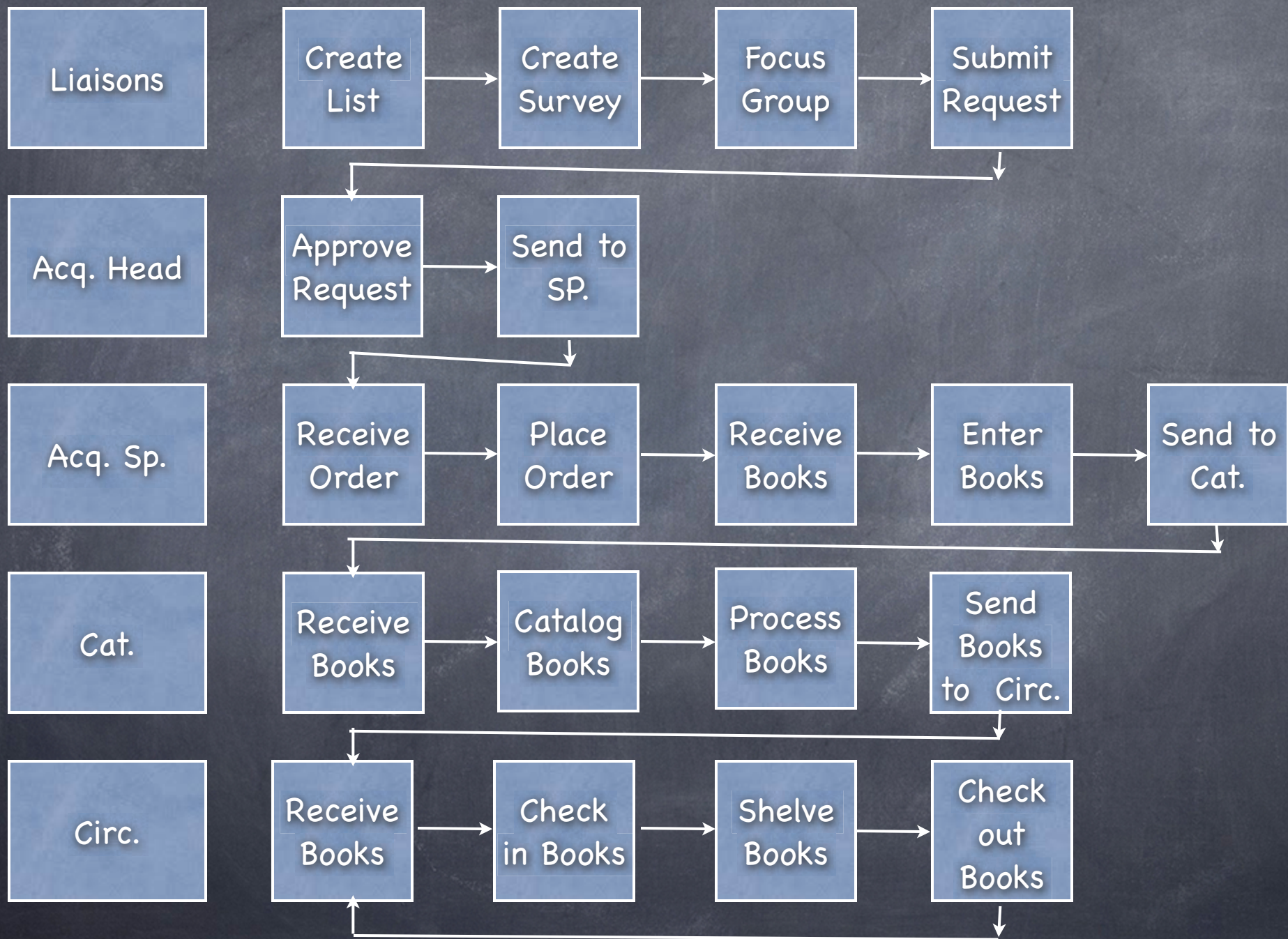
● 0 CIRCS ● 1-3 CIRCS ● 4+ CIRCS

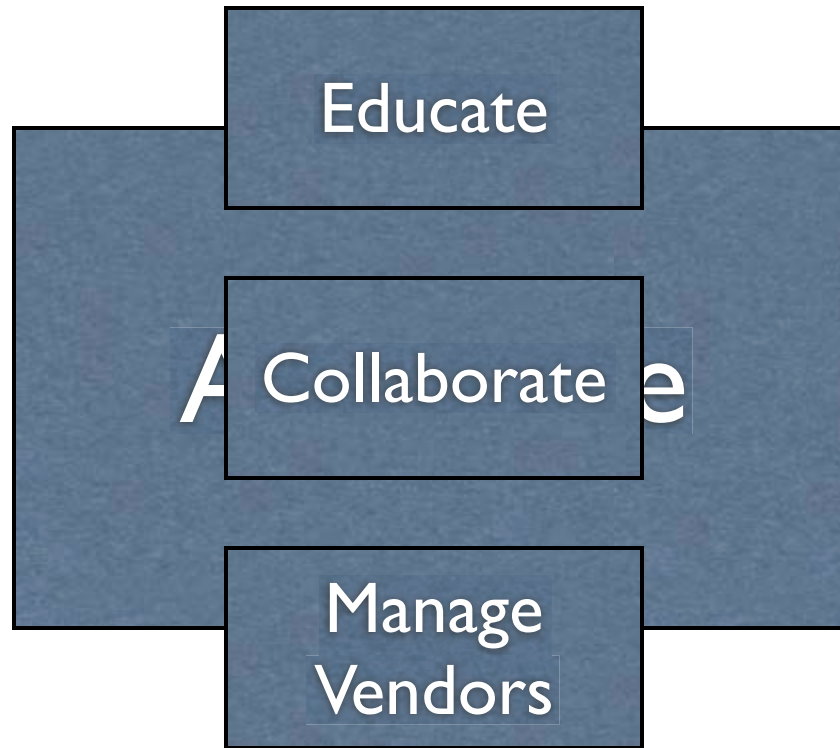
Print vs. eBook

- Print Titles = \$25/title
- eBook Titles = \$50/title
- 100 titles purchased
- 23 titles purchased
- 23 titles circulate
- 23 titles circulate
- $(100*25)/23 = \$108.70/$ circulating title
- $(23*50)/23 = \$50/$ circulating title
- \$2,500 for 23 items to circulate
- \$1,150 for 23 items to circulate

Additional Expenses

- Barcodes
- Magnetic Strips
- Library Labels
- Labor





Educate

A Collaborate e

Manage
Vendors


Project Savings

- 77% fewer books purchase
- 54% Savings/per title
- ~25¢/item (barcodes, etc.)
- Others?
- Labor Savings
- Reduced work for:
 - Acquisitions
 - Liaisons
 - Cataloging
 - Circulation

Control

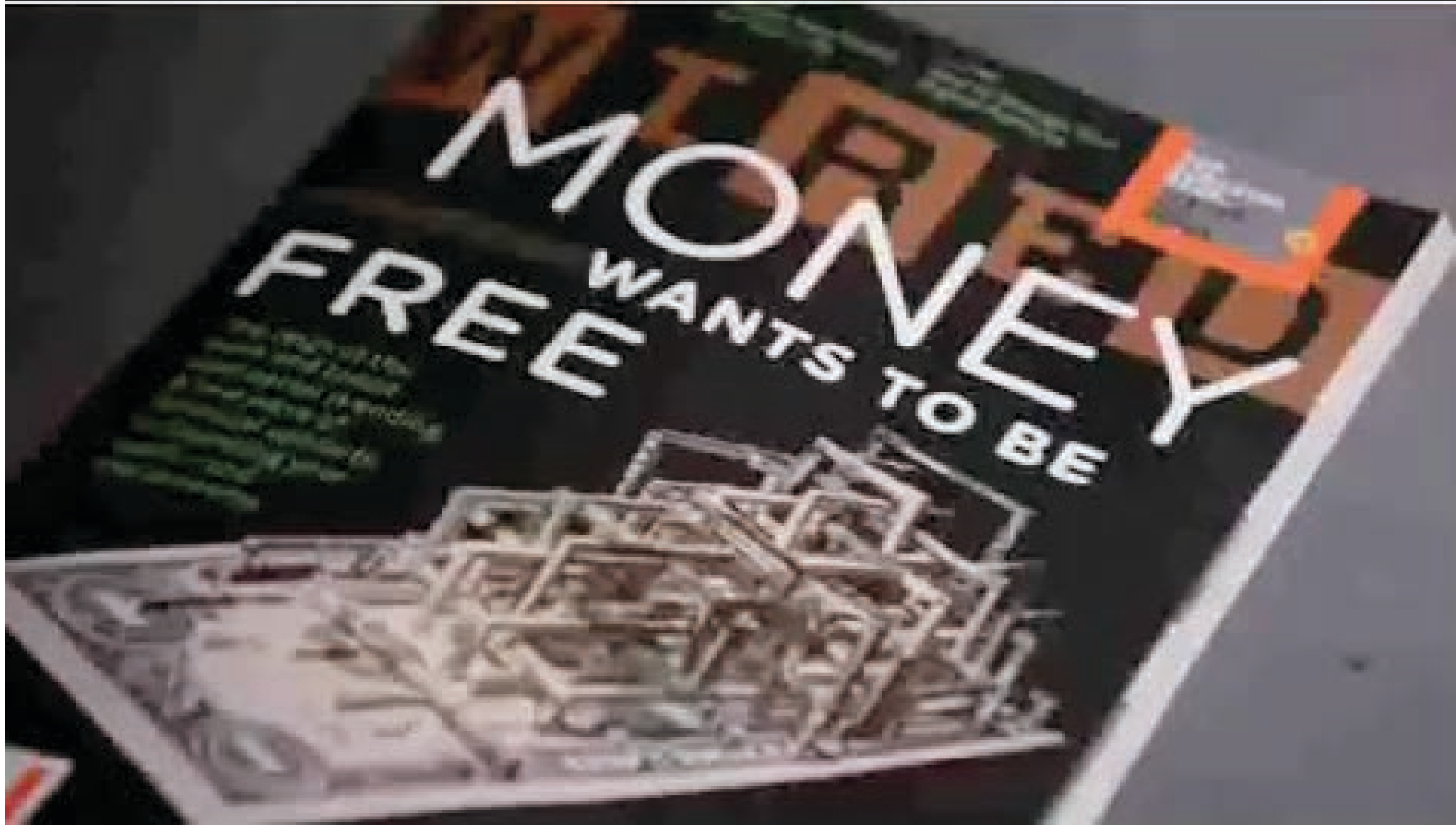
- Long-term measurement systems are put into place to ensure that quality never suffers again
- A final report detailing the improvement and hard savings is developed by the Black Belt

The Evolution of the Book

A person is holding a tablet computer with a blue screen. The tablet is held in front of a light blue background. A semi-transparent green banner is overlaid across the center of the image, containing the text "Penguin Talks Books of the Future" in white. The text is centered and spans across the width of the banner.

Penguin Talks Books of the Future

Popular Periodicals



Powerful Statements

- “This is what we have been waiting for for 15 years”
- “These changes are on par with the changes going from radio to television”

Sports Illustrated



Powerful Support

- Wall Street Journal
- USA Today
- New York Times
- Penguin
- HarperCollins
- Simon & Schuster
- Macmillan
- Hachette Book Group
- Perseus Books Group

If iPod-Like Success, Then...

- 1 out of 8 people in America will own an iPad
- 25% of all books sold in the world will be eBooks on the iPad
- 70% of all digital media sold in the world will be sold through the iTunes store
- Nearly 100% of all mainstream movies, music and TV become available on the iPad

Impact of the iPad

- The Wall Street Journal, USA Today and New York Times are automatically downloaded to the iPad effectively killing the print version
- The ebook format war dies since the iPad supports all types of eBook
- Every book merchant creating eBook content enhances the iPad since it supports every format

Questions?

Thank You

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