

*How Research Libraries
Became E-knowledge Networks*

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The Trend

- New knowledge is created at an ever faster pace
- Aggregated information and knowledge networks are global
- Research libraries have become evolving e-knowledge networks

Scale

- Large aggregated datasets form the information chain and global knowledge networks
- Open access movement has changed the ways information is disseminated
- Co-existence of print and digital information
- Physical vs. cyber spaces
- Inter-library cooperation leads to global e-knowledge networks

E-knowledge Networks: Characteristics

- Information is dynamic and elastic
- A new economic model, Wikinomics, large scale cooperation and peer-to-peer sharing give rise to rapid production, dissemination, and improvement of knowledge, see **Wikinomics: How Mass Collaboration Changes Everything** by [Tapscott, Don/ Williams, Anthony D.](#)
- The general environment of Web 2.0 and Library 2.0

New Operational Environment

- All library collections on a laptop
- Computing speed at that of the light
- Totally virtual information services
- “Cloud computing” connects numerous servers, creates a large shared cyber infrastructure, and makes gathering and storing information a societal enterprise
- Creation of a single knowledge bank of the humanity

Research Libraries and the E-knowledge Networks

- Libraries are members of the e-knowledge networks
- The demise of the mega-Library
- No library is large enough to meet its users' demand
- Traditional measurements of libraries in collection size, history, and special materials are still important, but need modification

New Considerations

- General capacities and scales of information gathering
- Centrality in the production of knowledge
- Ability to perpetually store and disseminate large quantities of information in many formats
- Innovation
- Open access and resource integration
- Knowledge matrix-- print, non-print, data, etc

A New Type of Library?

- Imperial and private libraries: from Babylon to the French Revolution; in China, from the Han Dynasty to the Republic period
- Public libraries: from the French Revolution to today; in China, from the Republic period to today
- Commercial libraries now begin to emerge in co-existence with public libraries

Three New Models

- Commercial libraries, Google mass digitization & Google Book Settlement
- Non-commercial library network, HathiTrust
- Special cross-institutional research and information infrastructure such as E-science and E-humanities/social sciences initiatives in American Research Libraries in partnership with NSF, Mellon Foundation, etc

Commercial Library Model As Currently Proposed

- Google Print (2004)
- Google Book Search (2005)
- Google Book Settlement (GBS) (2008)
- Google Book Search is not Google Book Settlement
- Goal: To create the largest knowledge/research corpus
- Books for machines as well as humans to read

GBS

■ Collections

- Already digitized 7 million vols, some estimate 15 million vols.
- Public domain: pre-1923 publications
- Current in-right publications
- Out of print, but in right publications

■ Non-consumptive use by research libraries

Scale and Impact

- Total Library Holdings in the U.S. – estimated 40 million titles
- Public domain – 8 million
- In right publications: 32 million
- Out of print 23-25 million
- In right and in trade: 7-9 million
- All world's books can be digitized and searchable, although GBS only concerns U.S. publishers and limited foreign publishers
- OCLC WorldCat titles: 23 millions
- Largest copyright deal in US history, concerning all authors of books

Access Examined

- Free: public domain materials (pre-1923)
- For a fee: “out of print” materials; one free terminal in each public library as currently proposed
- Book Rights Registry (by January 5, 2010)
- “Opt out” option (by April 5, 2011)
- “Alternative registry” and non-U.S. authors
- Different fee structures for individual and institutional subscribers
- Average cost recovery: \$8.69 a book
- Finding books, location identification, purchasing books, advertisement, print on demand

Major Issues and Concerns

- Cartel, exclusive and non-competitive nature of GBS
- The value of “public good”
- Privacy (Google is watching you)
- Data mining and non consumptive use
- Access and cost for libraries
- Metadata
- Information quality: “last scan”? (little possibility for re-scanning on the same scale and scope)
- Our values: libraries are the corner stone of democracy/shared public assets
- Too big to fail

Social Benefits

- Better use of “out of print” books
- Free access to pre-1923 publications
- Creation of the largest library in human history for the public
- Preservation of knowledge
- Unprecedented search capabilities
- Creation of a cultural genome through non-display, non-consumptive use of GBS
- New form(s) of the book, e.g. social model of books, books mixed with other information products

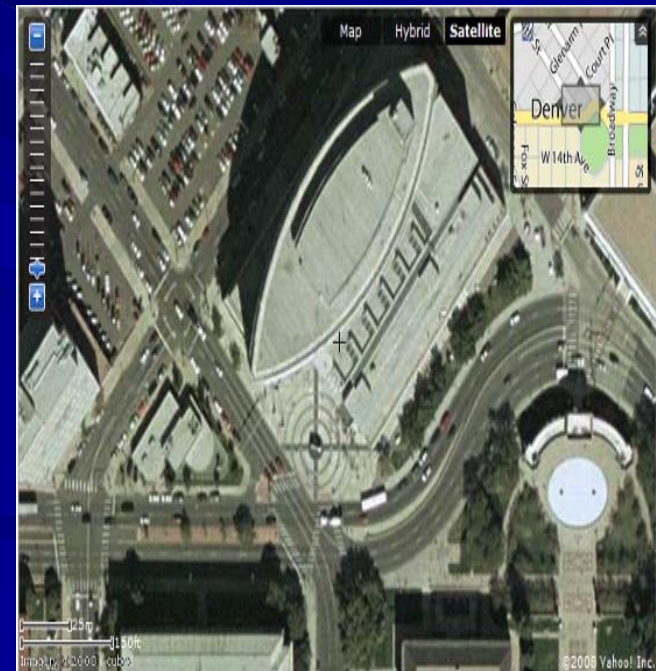
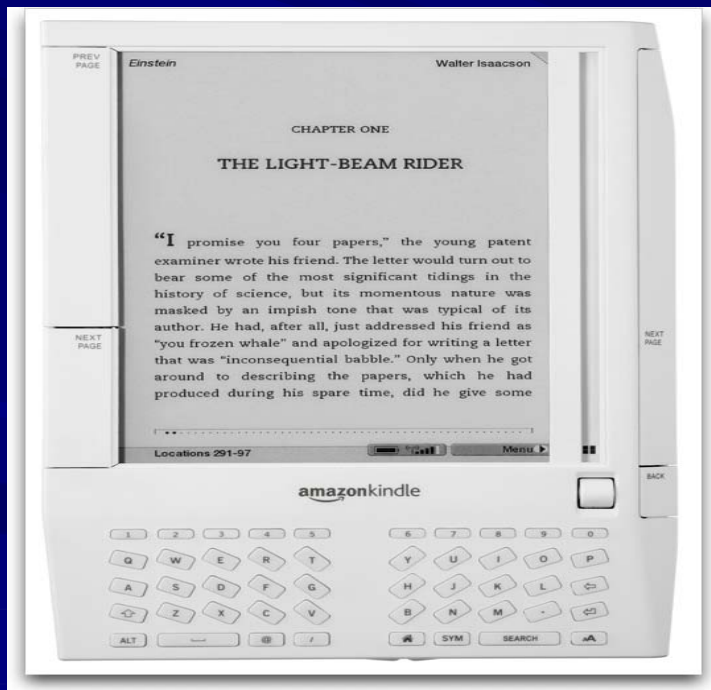
Impact on Libraries

- Total digital library
- Improved access to large corpus of data and collections
- Non-book collections are not part of GBS
- Current book trade
 - Over 90%: print publications
 - 3% e-books
 - Out of print/public domain books take only a small market share

Post-GBS: Challenges and Opportunities

- GBS is not the doom of the library
- Library will not be reduced to an empty hall with only special collections and study spaces
- GBS will change many aspects of library operations
 - OPAC
 - Cataloging practices
 - Interlibrary cooperation
 - Reference and information services
 - Reading service
 - Collection development
 - Preservation

- Our future lies in the alliance of libraries with Google, Internet Archive, Amazon, Open Book Alliance, and other organizations to provide wide e-knowledge networks of content and services



Questions

- What is a library collection?
- What does the library collect?
- How does the library preserve knowledge and what to preserve?
- What must the library give up?
- How do libraries cooperate?
- How to train library personnel?

Thank you!

谢谢！