

Microsoft® Research

# Faculty Summit 2010

## Economic Transformations of Libraries and Scholarship in the Digital Age

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# Making and Distributing Copies...

- Used to be expensive, and publishers and librarians and tenure review committees were happy
- Is now essentially costless, and everyone except a few publishers is miserable.

# Jefferson on Ideas as Public Goods

*“If nature has made any one thing less susceptible than all others of exclusive property, It is the action of the thinking power called an idea, which an individual may exclusively possess as long as he keeps it to himself; but the moment it is divulged, it forces itself into the possession of everyone, and the receiver cannot dispossess himself of it...He who receives an idea from me, receives instructions himself without lessening mine; as he who lights his taper at mine, receives light without darkening me.”*

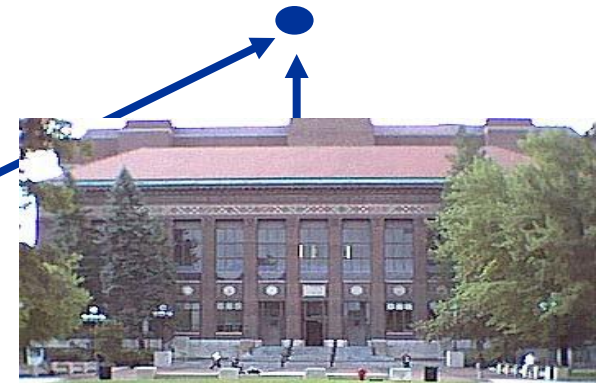
*“Inventions then cannot,  
in nature, be a subject of property.”*

# What do libraries do and why do they do it?

- Collect
  - Provide Access
  - Record and Display Provenance
  - Preserve Over the Long Run
  - Provide Access in the Future, with Provenance, etc.
- 
- Why? Because Scholars Require It.
    - But they don't require that it be done by the library
  - But having learned to do these things, libraries are very good at providing expensive things to be shared widely.

# The Good Old Days

**You are here**



# Shared Collections



**You are here**



# Google Settlement ?

- Access for Academic Institutions
- Public Benefits
  - Print Disabilities
  - Public Library Kiosks
  - Browsing in the "Bookstore"
- Research Corpus
- Collection Management
  - Electronic AND Print
- Risks and Concerns

And More

**There's an  
elephant in  
the library.**

[www.hathitrust.org](http://www.hathitrust.org)





HathiTrust is attempting nothing short of creating a comprehensive repository of published literature, primarily though not exclusively through digitization.

# Projected Holdings



# It's not just about collections

- Networks make natural monopolies
  - Cataloging
  - Preservation
- And public goods make for free rider problems
  - Cataloging
  - Preservation
- Natural monopolies and Public Goods require extra-market governance

# The Framers Thought Like Economists

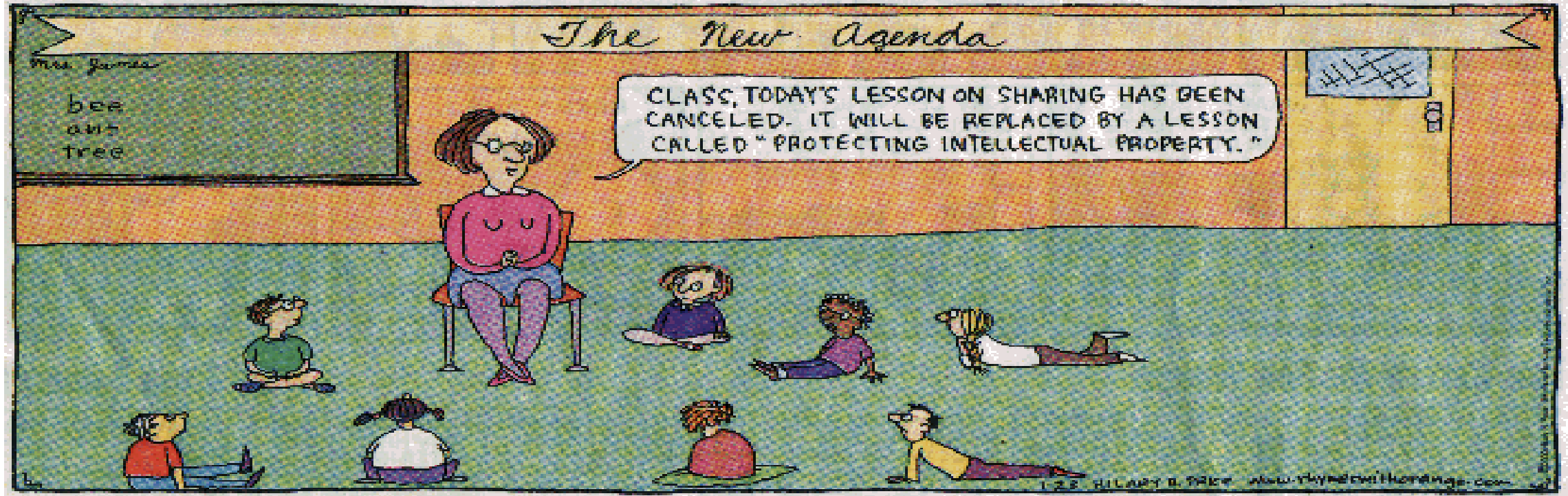
The Congress shall have Power...To promote the Progress of Science and the useful Arts, by securing for limited times to Authors and Inventors the exclusive right to their respective Writings and Discoveries..."

United States Constitution, Article I, Section 8

# Not so today's marketplace

RHYMES WITH ORANGE

BY HILARY B. PRICE



# Scholarly Publishing of Yore

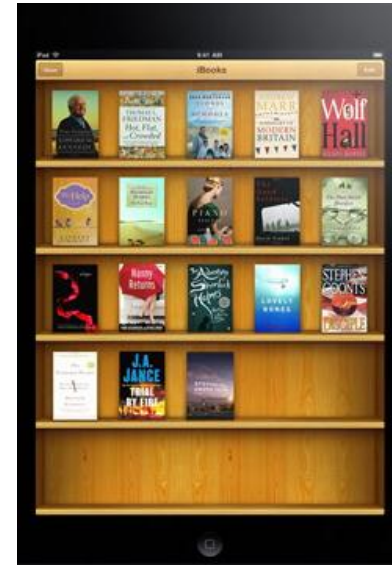


# Scholarly Publishing Today



Google

arXiv.org



ScienceDirect

amazon.com  
Prime

Microsoft®



# Some Problems With Current Practice

- Economics of Big Deals
- Peer review and its discontents
- The very same network and zero marginal cost problems. (Terrifying observation that publishers and libraries are becoming indistinguishable in some of what they do.)
- Why do we still use publication and publication venues to certify quality?



# Scholarly Work

- Read
- Do other research (including lab work, conferences, talk, listen, etc.)
- Apply for research funds and support
  - Review applications for research funds and support (more reading)
- Hire and Promote (or not), which involves...
  - Evaluate work (more reviewing and reading)
- Write
  - Publish or otherwise distribute
  - Edit (Copyedit)
  - Review and comment
  - Organize conferences, fields, journals, etc.
- Teach
- Give Talks

# Where Does Review by Peers Matter?

- **Read**
- Do other research (including lab work, conferences, talk, listen, etc.)
- **Apply for research funds and support**
  - **Review applications for research funds and support (more reading)**
- **Hire and Promote (or not), which involves...**
  - **Evaluate work (more reviewing and reading)**
- **Write**
  - **Publish or otherwise distribute**
  - **Edit (Copyedit)**
  - **Review and comment**
  - **Organize conferences, fields, journals, etc.**
- **Teach**
- Give Talks (?)

# Required Publisher Services

- Read
- Do other research (including lab work, conferences, talk, listen, etc.)
- Apply for research funds and support
  - Review applications for research funds and support (more reading)
- Hire and Promote (or not), which involves...
  - Evaluate work (more reviewing and reading)
- Write
  - **Publish or otherwise distribute**
  - **Edit (Copyedit)**
  - Review and comment
  - Organize conferences, fields, journals, etc. (?)
- Teach
- Give Talks

# Importance of Reuse

- Copyright not only about individual works but about mining the corpus, and building it. Want broadly sharable things. Note NIH mandate on data sharing.
- Deeply not required for scholarly work.

# Annual Cost of Storing a Book

- Open Stack: \$4.26
- High Density \$ .86 (but not as usable)
- HathiTrust \$ .15

# Technical Change Requires...

- A different legal regime
  - Shavell – eliminate copyright for scholarly work
  - Universalize some version of the Amended Settlement?
- Different sets of norms on the part of authors?
  - Eliminate exclusive copyright for academic work
- Different methods and problems with preservation
  - Web scale and coordination, print and digital, with institutions to match

# Collective actions (may be a real slide)

- Hathi Trust
- Print storage
- Fulfillment per the Constance Scheme (see money slide)
  
- PRESERVATION AT RISK

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