UC Berkeley School of Information

Disintermediation, Dematerialization, Disaggregation and other Disruptions

History of Information 103

Geoff Nunberg

April 20, 2010

Itinerary, 4/20

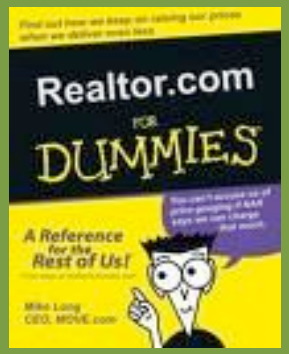
Consequences of the Internet:

Disintermediation: Eliminating the middleman

Dematerialization and the future of the book

Disaggregation: things fall apart

The Internet as Disintermediator



"Cutting Out the Middleman"

E-commerce is dominant or major channel

- Downloadable products (software, mp3's, pornography)
- Travel/event tickets/etc.
- Retail stocks & investment products
- Public records

Successful disintermediation

- Books (new & used)
- Some electronics & photo
- Some apparel (c. 10-15%)
- Rental real estate
- Used automobiiles

Disintermediating Commerce

Limited or niche disintermediation

- Real estate for sale
- Groceries & beverage
- New automobiles
- Pet food

… but price information etc. is disintermediated in all markets

Dematerialization of Informational Goods

Outlook grim for Postal Service as revenue ebbs

Carolyn Lochhead, Chronicle Washington Bureau
Monday, April 19, 2010

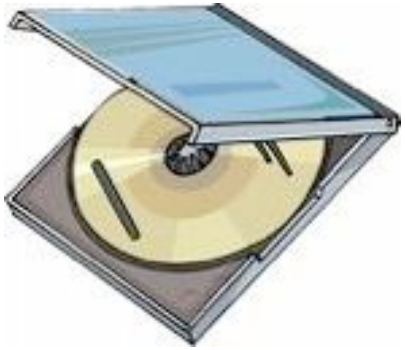
PRINT E-MAIL SHARE COMMENTS (202) FONT SIZE

(04-19) 04:00 PDT Washington -- The same forces that have newspaper and book publishing industries are aimed at the U.S. threatening much more than the Saturday mail.

MORE NEWS

- Adachi may look at thousands of

Postmaster General John Pott last week that the Postal Servi



Displacing Old Forms

Books? Where we're going we don't *need* books

A clash of fetishisms

"Nobody is going to sit down and read a novel on a twitchy little screen. Ever." — E. Annie Proulx

“Paper is just an object that [some] information has been sprayed onto in the past…” — Ted Nelson

In the future, physical books will be of interest mainly to those "addicted to the look and feel of tree flakes encased in dead cow tree flakes encased in dead cow' William Mitchell, Dean of the School of Architecture, MIT

"Twitchy little screens" and the future of the book

2000 Microsoft Reader debuts

2009 E-books begin to outsell paper

2016 Last print newspaper

2019 Paper books remain popular among collectors. . .

2020 Dictionary definition of *book* changes

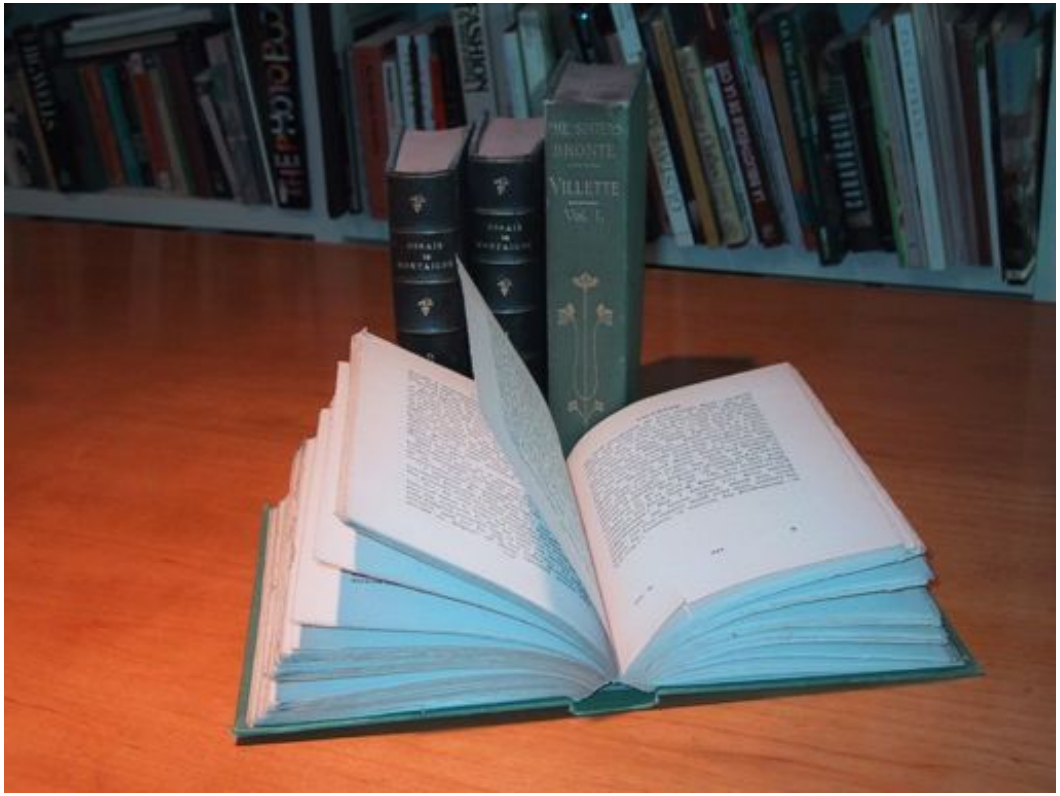
Does the future belong to e-books?

Ebook sales

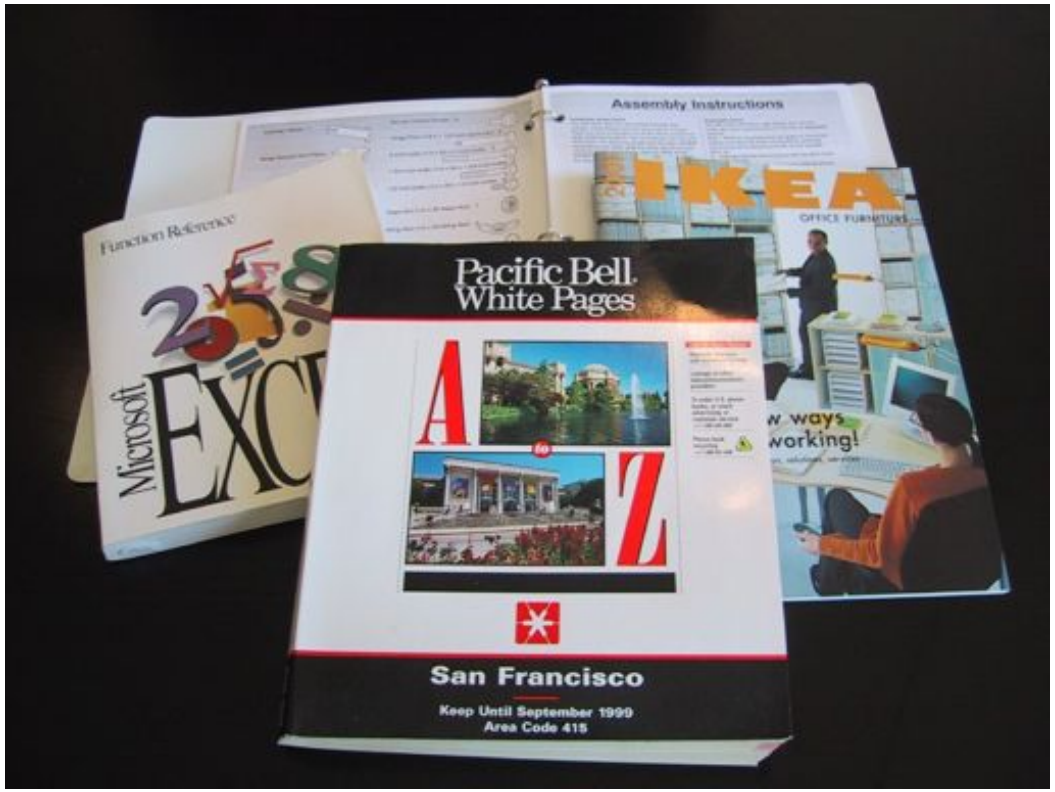
- 2008: 53m
- 2009: 140m
- 2010 (est): 500m

But ebooks still account for only 2% of market

. . . The Book



books. . .


Assembly Instructions
IKEA
OFFICE FURNITURES
Pacific Bell
White Pages
A
Z
San Francisco
Keep Until September 1999
Area Code 415

. . . and the books we actually read

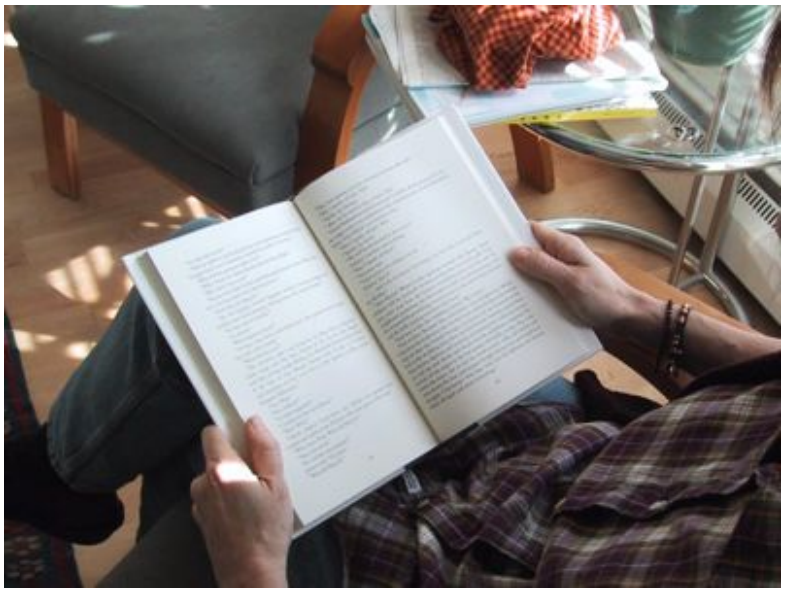
Sorting out the affordances of new technologies

Material features of documents enable:

- Characteristic modes of interacting with documents
- Symbolic & iconic roles of documents
- Social practices that determine use & interpretation of documents

Beyond "twitchy little screens:

Material limits as features: the fixity of representation, interaction with the body



"My readers… will see in the tell-tale compression of the pages before them, that we are all hastening together to perfect felicity."

Jane Austen, in the final chapter of *Northanger Abbey*

A Case in Point: Dictionaries and Encyclopedias

Affordances of the online encyclopedia

Online form enables

- updating,
- easy search,
- linking to other articles & sites
- animations, multimedia, etc.

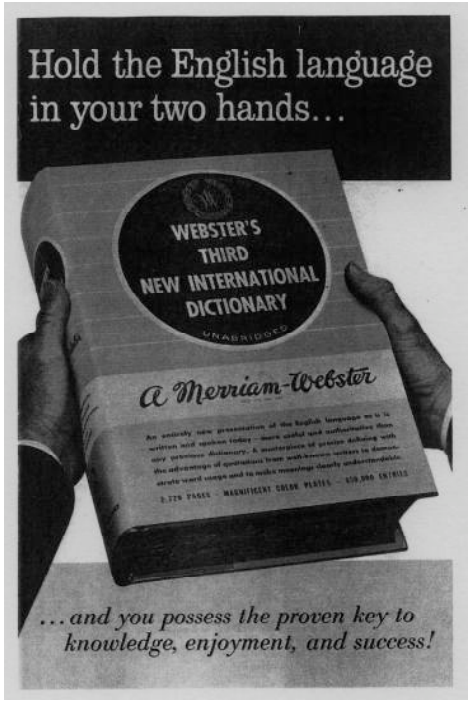
Features of the print encyclopedia

The Book as Furniture

Affordances of online Dictionaries

Facilitates search, interaction with other applications, dynamic definition, corpus interaction, etc.

Presence of the Print Dictionary



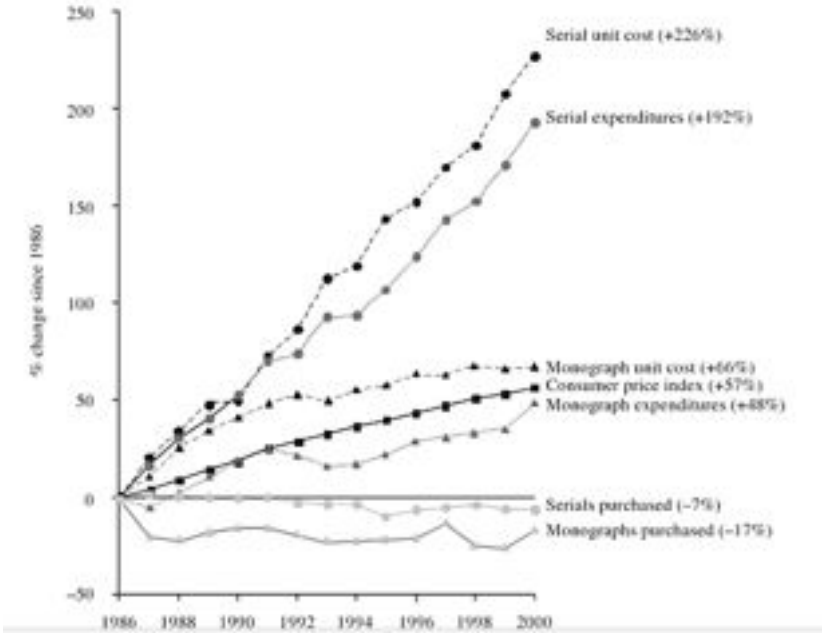
The crisis of scholarly publishing

Journals should be easier than books to move to digital distribution

- Easy to read online or print out articles
- Production uses templates
- Predictible print runs
- Appeal to general disciplinary community
- One-time purchase decisions
  - Lower marketing costs per sale
  - Each annual renewal adds value

But university libraries are being squeezed

Journal publishers: the last colonialists?



igure 4.4 Monograph and serial costs in ARL libraries, 1986–2000

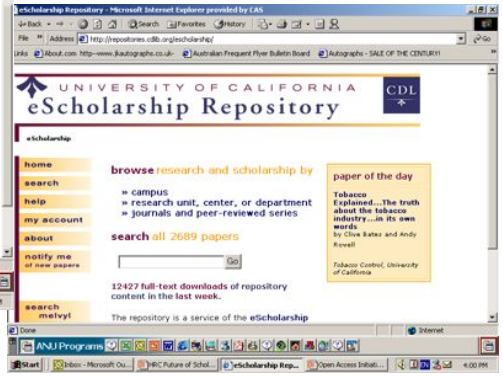
The crisis of scholarly publishing

New models of subscription:

- UC Berkeley – "a Springer-Verlag university"

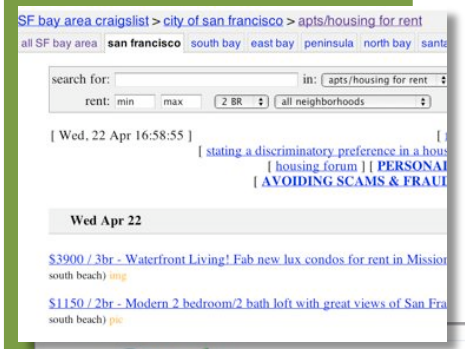
Disaggregation of contents

Why don't scholars self-publish?



Will newspapers go under?

A Perfect Storm for the "Old Media"



- Craigslist etc. divert classified advertising
- News aggregators, blogs & online sources capture audience
- National sources displace local sources online ("Last man standing")
- Increased competition lowers ad rates

The Disaggregation of Content

Specialized sites displace newspapers as sources of information about sports, business, entertainment, weather, listings, opinion, etc.

Personalization: the daily "me"

The end of the newspaper?

Why keep paper newspapers around?

"The newspaper model - putting text on paper - is becoming a dinosaur; much like the horse and buggy disappeared when the automobile came on the scene."

The Future of News

2008: "Free" newspaper readership exceeds paid readership

"We don't have a crisis of audience. We have a crisis of revenue."

"People are used to reading everything on the net for free, and that's going to have to change," Rupert Murdoch, 4/6/09

Where Americans get their news

Local TV station: 78%

National network: 73%

Online sources: 54%

Radio news: 50%

Local newspaper: 50%

National newspaper: 17%

Online news users are wealthier, younger, better educated, whiter than other Internet users or general population, and far more likely to have broadband & wireless access.

(Pew survey, 2010)

The Future of News

Economic models for digital newspapers or news gathering:

- advertising
- "pay wall" (WSJ) or "freemium" (NYT until recently)
- pay-per-view via microcredit
- monthly "all you can read" for group of publishers à la cable packages
- "tax" on ISP fees
- Subsidized foundations & universities
- "Last man standing"