





# Disintermediation, Dematerialization, Disaggregation Disruption

History of Information 103

Geoff Nunberg

May 2, 2013





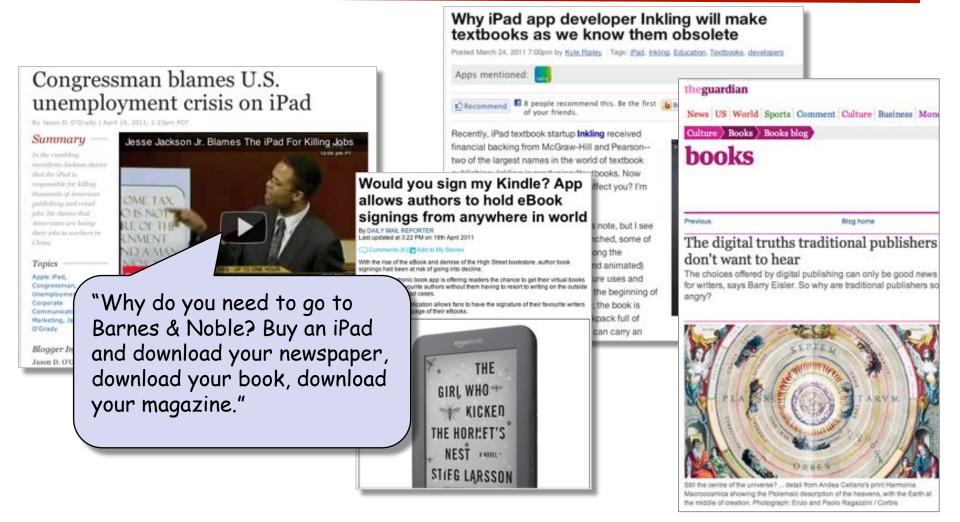
### **Eve of disruption**

Borders Bookstore, Chicago, April 20112





### **Eve of disruption**





#### Book Ruling Cuts Options for Google

By CLAIRE CAIN MILLER Published Month 22, 2011

SAN FRANCISCO — Now that a judge has curtailed <u>Google</u>'s ambitions to create a giant digital bookstore and library, the company is left with few appealing options.

#### Add latimes.com

• Ge

Golov Creating a digital public library without Google's money

allies Google's settlement with authors and publishers has been tossed out, shining a spotlight on copyright law. Maybe we shouldn't entrust that kind of project to a corporation anyway.

#### Google & the Future of Books

Robert Duraton

How can we ravigate through the information landscape that is only beginning to come into view? The question is more urgent than ever following the recent settlement between Google and the authors and publishers who were suing it for alleged breach of

copyright. For the last four years, Google has been digitizing millions of books, including many covered by

copyright, from the collections of major

E-MAL SHOLE PAGE PRINT SHAPE

The newly restored reference room of the library at the American Academy in Rome

Rend: NOW LATER

#### **Eve of disruption**





#### Itinerary, 5/2

#### Consequences of the Internet:

6 D's...

Disintermediation: Eliminating the middleman

What future for newspapers & news?

Disaggregation: things fall apart

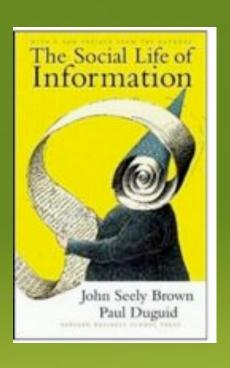
Dematerialization and the future of the book

A crisis in scholarly publishing

Valediction...



#### 6 D's and a 7<sup>th</sup>



Brown and Duguid's six D's

(Demassification)

Decentralization (PD 4/23)

Denationalization (GN 4/30)

Despatialization (PD 4/23)

Disintermediation

Disaggregation

And one more...

**Dematerialization** 

The confluence of technological, legal, social, and market factors...



# The Internet as Disintermediator



#### "Cutting Out the Middleman"





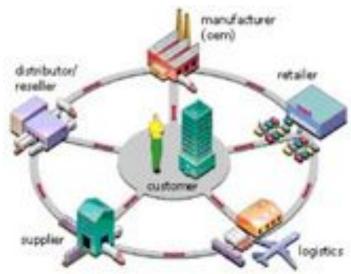


E-commerce is dominant or major channel

Downloadable products (software, mp3's, pornography)

Travel/event tickets/etc.

Public records





#### "Cutting Out the Middleman"

#### Successful partial disintermediation

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





# 3





#### **Disintermediating Commerce**

Transactional disintermediation

Retail stocks & investment products (though transactions are online)

Groceries

Limited or niche disintermediation

Real estate for sale

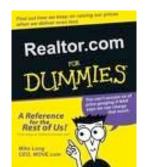
New automobiles

Pet food

**Furniture** 

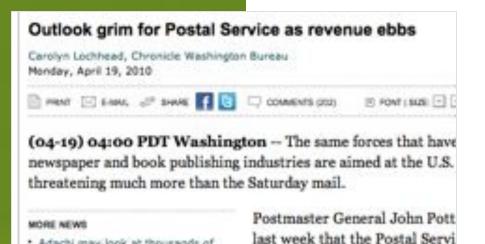
... but price information etc. is disintermediated in all

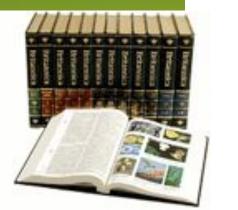
markets





#### **Dematerialization of Informational Goods**

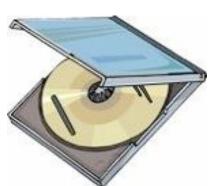














· Adachi may look at thousands of



# WHO KILLED THE POSTAL SERVICE?



The Internet?
Labor costs?
Congress?

Figure 2: USPS First-Class Mail Volume (1970-2010)

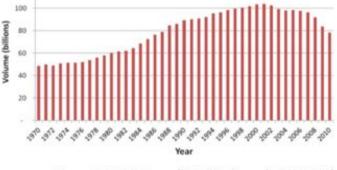
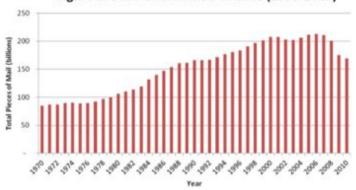


Figure 1: USPS Overall Mail Volume (1970-2010)



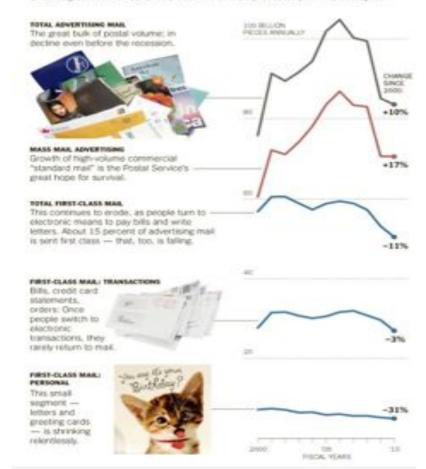


# WHO KILLED THE POSTAL SERVICE?



#### U.S. Mail, by the Piece ...

Here is a tally of items delivered by the Postal Service to American households. On average, more than 320,000 pieces of mail were processed per minute last year.



The Internet? Labor costs? Congress?



### Will newspapers go under?









### End of the newspaper?



"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."

#### Business

26 2009, 4:10 PM ET 9 8 The Xe

The New Hork Times

March 17, 2010

I.H.T. OP-ED CONTRIBUTOR

#### The End of Newspapers?

By MARIE BÉNILDE

Journalists are now in the same situation as steel workers in the 1970s: They are destined to disappear, but they don't know it.



# 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")





Birmingham Metro (orig. Daily News) 1st UK freesheet 1984



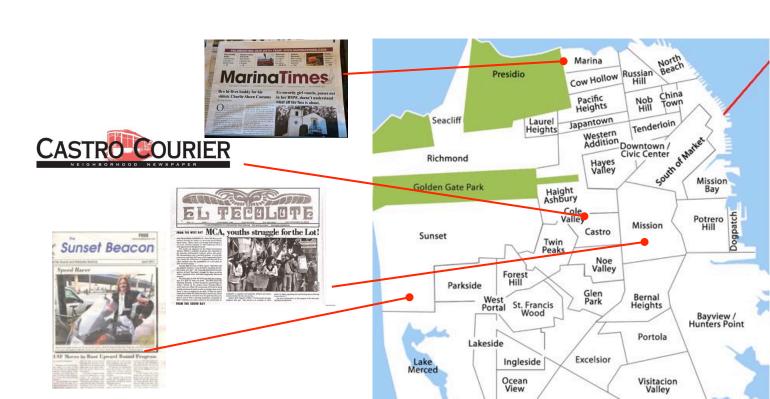


Alternative Weeklies

# A Perfect Storm for the "Old Media"

Competition from circulars, free dailies and weeklies (since 1950's)

Increased online competition lowers ad rates





### The abyss?



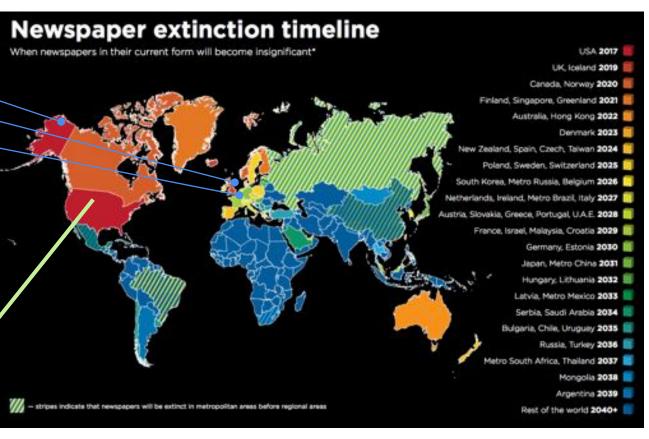


#### **Dire Predictions**

#### Date of extinction



Drop in newspaper circulation





# The affordances of everyday things

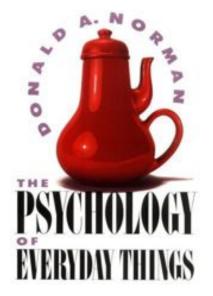
#### Affordance



Affordance: the only irregularity on the plain front of the nosebook invises the ease to place a finger. A gentle push opens the top part of the nosebook like a clamabell. (The fine line envokes curiosity to find out if the object can get devoked into 2 parts.)

Affordances: "action possibilities" latent in the environment



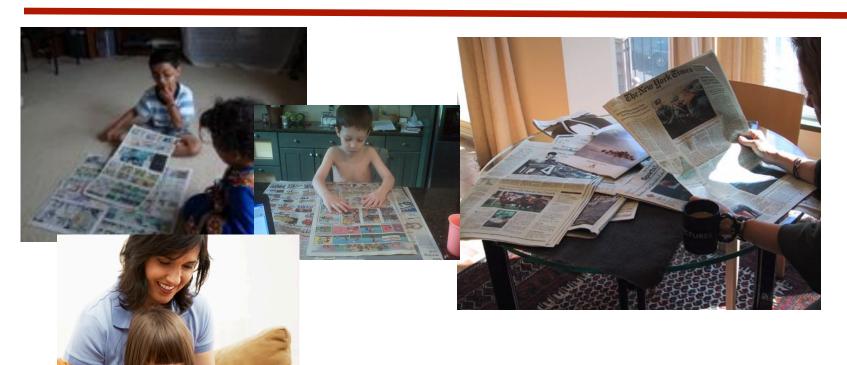




J. J. Gibson



# The affordances of newspapers





# 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



# The affordances of newspapers



BLD017160 [RF] © www.visualphotos.com

Spot the Out-of-Towner



# The affordances of newspapers



BLD017160 [RF] © www.visualphotos.com

Spot the Out-of-Towner



### The affordances of newspapers



#### The Subway Fold

The New York Times subway fold. It's the hallmark of a true New Yorker - up there with the cabhailing whistle and ordering your coffee "regulah." Simply follow the instructions below and please, stand clear of the closing doors ...



1) Fuld the newspaper in half, lengthwise, and create a crease down the modific fold.



1) Fuld again, hereportally, creating quadrants.



3) Flip and fold, as necessary, to read each portion of the page.



4) To jump to the continuation of an article, 3) Fold continuation in half, lengthwise. turn to the continuation page.





4) To read stories that full in the



7) Fold back over, creating two lengthwise puritons...



8) Then full open into four parts.







#### 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%

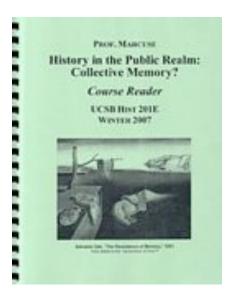
National newspaper: 17%

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)



Unbundling the modularities imposed by physical packaging of informational goods.







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

Personalization: the daily "me"









The rise of "pay per view journalism"

Stories are "naked little creatures that have to go out into the world to stand and fight on their own." Gabriel Snyder, Newsweek





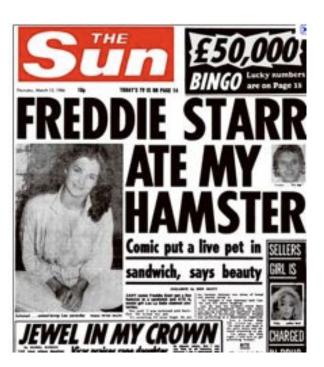
Gawker "Big Board"



Not that the principle is new...









#### The Future of News

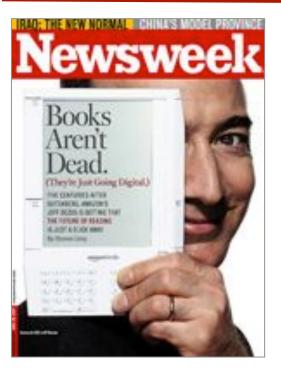
Economic models for digital newspapers or news gathering:

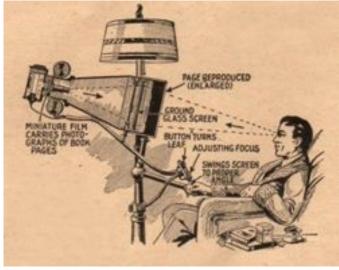
Donate About Us Contact Steel Our Stories Reporting Network Receive our Sections \* Quick Links: Blog Magnetar New Orleans Cops Gas Drilling Ballout Guide Stimulus Calif. Nurses Loan N Ongoing Investigations Unions Take Fire at Bill to Revamp Calif, Health Care Unions representing California nurses are affacking parts of a bill that would overhaul the state's system for disciplining health workers accused of misconduct. Other Major Banks Did Strained by Katrina, Hospital Deals Similar to Goldman's **GE's Safety Team Urged** Faced Deadly Choices Goldman Sachs is being sued for fraud by the Company to Restrict Drug A two-year investigation reveals what happened to some patients who died at SEC for allegedly misleading investors about a GE Healthcare ignored the advice deal that Goldman helped structure and sell. of its own safety experts to Memorial Medical Center after Katrina. As we reported at ProPublica, many other proactively' restrict the use of its major investment banks were doing a similar imaging drug, Omniscan. thing. Investigations Eisewhere Top Goldman Leaders Said to Have Overseen SEC Probes Other Soured Deals - The Wall Str Top Washington Lawyer, Holder Friend to Be Next Deputy Straining the FHA's umbrella - The Washington Attorney General Secret prison revealed in Baghdad - Los Ange by Dafna Linzer, ProPublica - April 19, 2010 4:57 pm EDT Ore. Treasury Officers Repaid for Free Meals Nursing Homes Received Millions While Cuttin The Obama administration is preparing to announce the More stories | E-mail suggestions nomination of James M. Cole

"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 by foundations &
universities
"Last man standing"



#### What future for the book?











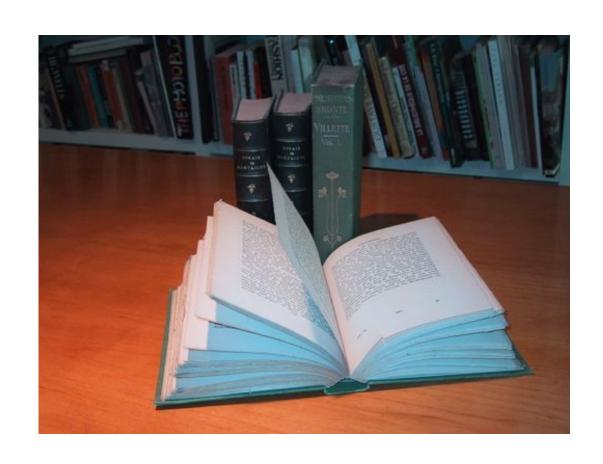
### Books? Where we're going we don't *need* books

#### 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

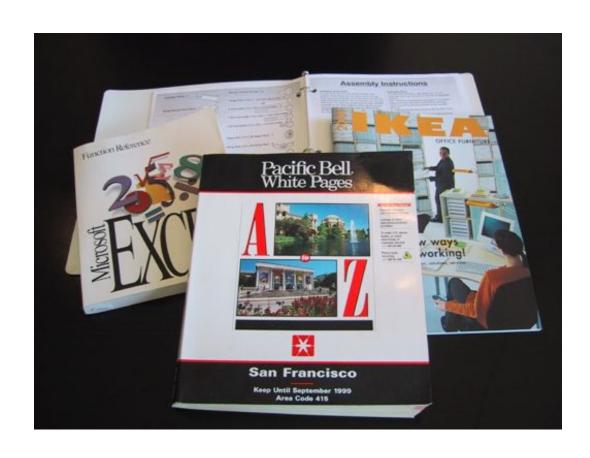


### . . THE BOOK



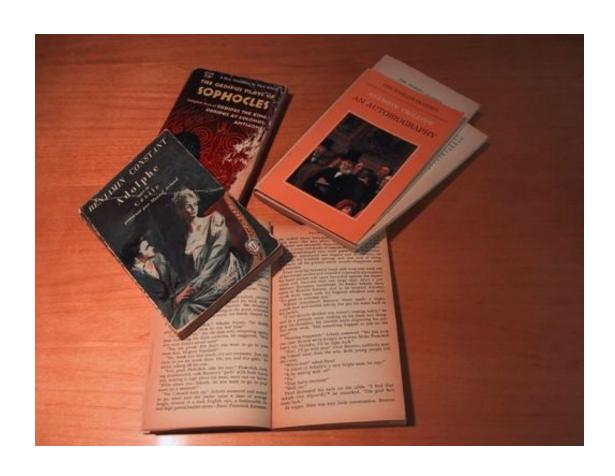


### books...



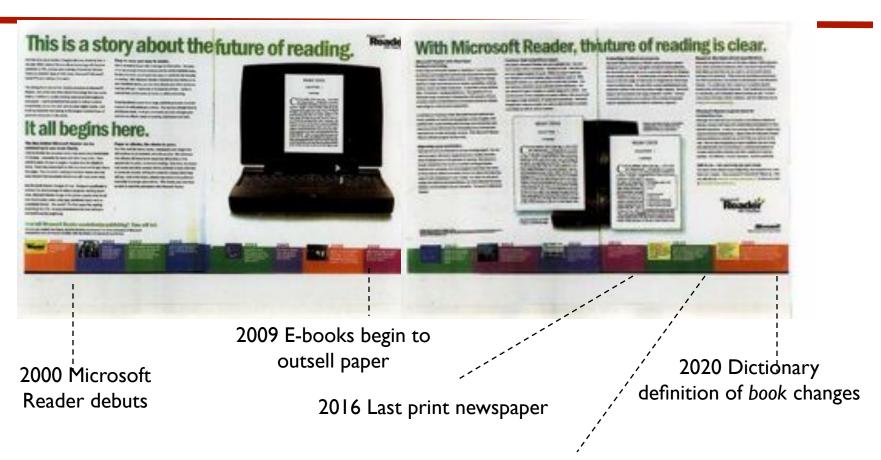


# ... and the books we actually read





### "Twitchy little screens" and the future of the book



2019 Paper books remain popular among collectors...



### "Twitchy little screens" and the future of the book





### 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



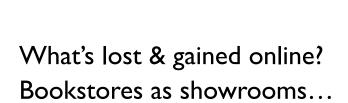
### The Epigraphic Book







#### The Epigraphic Book



Gift Ideas

Your Account . Cart - List

More to Explore in Books Explore a selection of terms from our Top 100 lists.

Best Sellers of 2012 (So Far) | See Top 100

Thinking, Fast and Slow

See Top 100



### Book of the Future... or the present?

#### THE FUTURE OF BOOKS.

BY JAMES WARNER

2020: All Books Will Be Cross-Platform and Interactive.

....

Future "books" will be bundled with soundtracks, musical leitmotifs, 3-D graphics, and streaming video. They'll be enhanced with social bookmarking, online dating, and alerts from geo-networking apps whenever someone in your locality purchases the same book as you—anything so you don't have to actually read the thing. Authors will do their own marketing, the reader will be responsible for distribution, the wisdom of crowds will take care of the editing, and the invisible hand of the market will perform the actual writing (if any). Writers will respond either by going viral or by going feral.





#### A choice we have to make?

















# The crisis of scholarly publishing





## 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

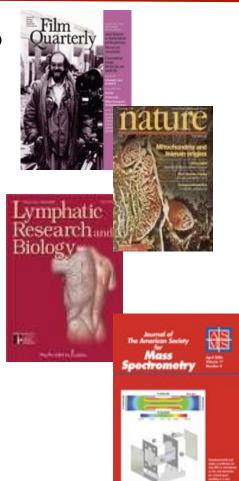
Predictible print runs

Appeal to general disciplinary community

One-time purchase decisions

Lower marketing costs per sale

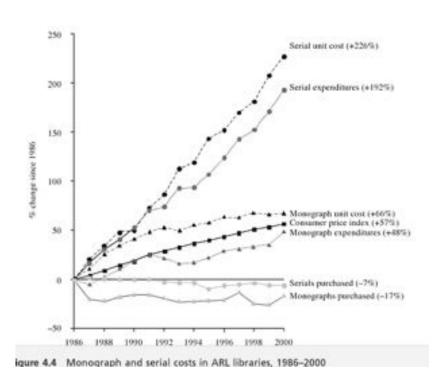
Each annual renewal adds value





### But university libraries are being squeezed

Journal publishers: the last colonialists?





# The crisis of scholarly publishing



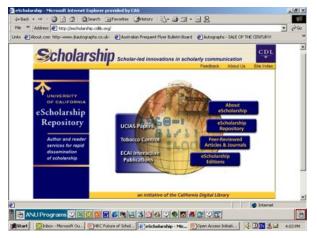
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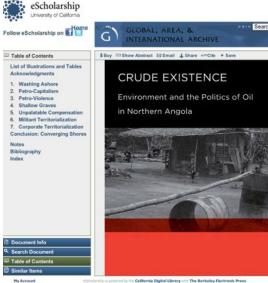
TFECT Received approximation to meet its and white Repair Netherlands in 1876 the sear appeals that developed as their expressionation places. The photographs of about 1876 the sear that the last tead the Speller and France assess mere seem for the companion of New models of subscription:

UC Berkeley – "a Springer-Verlag university"

Disaggregation of contents

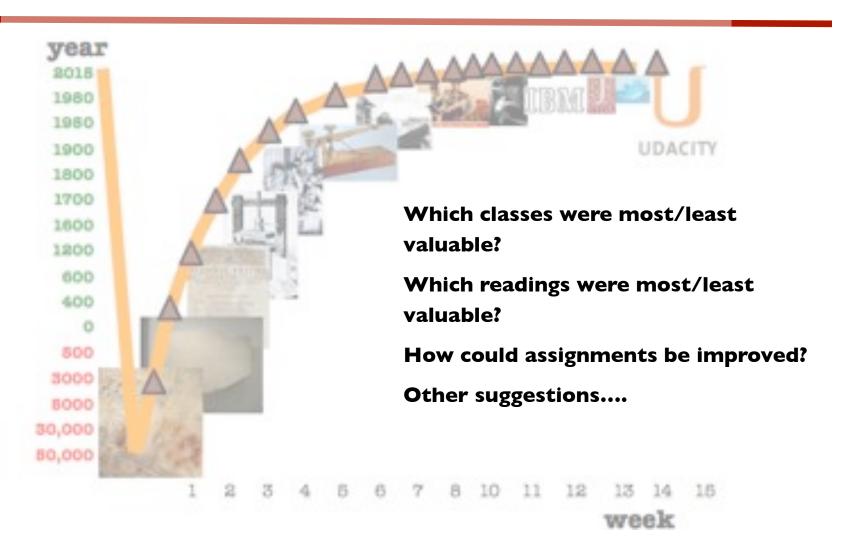
Why don't scholars self-publish?







#### **Looking Backwards**





#### **Good-bye and good luck**

