Strategies for sustaining libraries and some new forms of scholarly communication

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Academic libraries

...provide scholars with the information they need for teaching, research, and learning

And they play vital roles in the dissemination of knowledge (that is, in scholarly communication)

In a print / analog world...

Access to information required physical proximity to it

So academic libraries built up a host of services around the care and feeding of books and manuscripts and the many other physical objects that carried information

In our pervasively networked world...

where print materials are so ubiquitously available in digital form

and where digital materials are the primary source for all publications (in all formats, even print),

academic libraries will change fundamentally to preserve their mission

They will change everything

In order to remain the same

And they will do this at a time

- of global economic recession
- a secular trend toward public divestment from higher education
- when university budgets are under more pressure than ever before

and so likely without much in the way of "new funding"

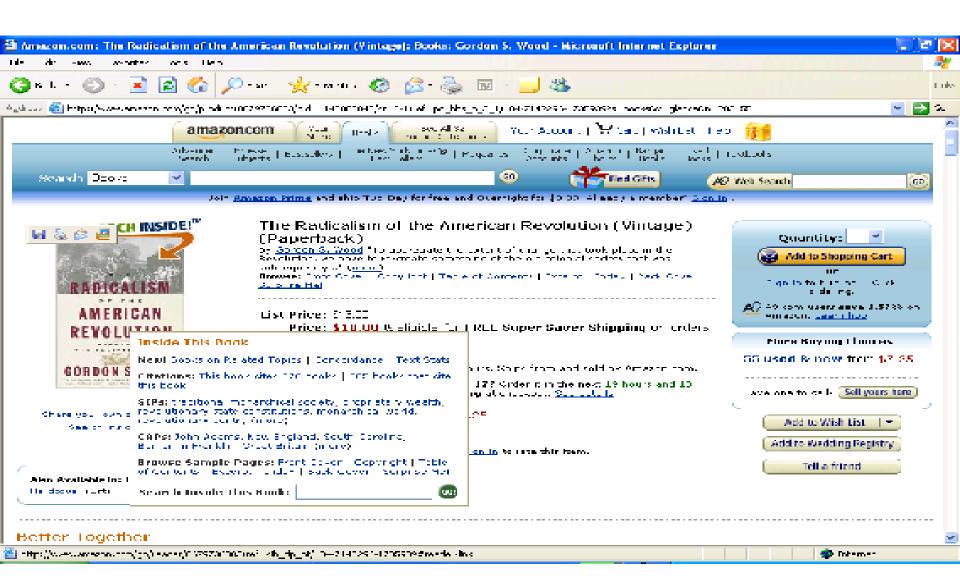
Our academic users will be the principal drivers of this change

We ignore them at our peril

They want everything

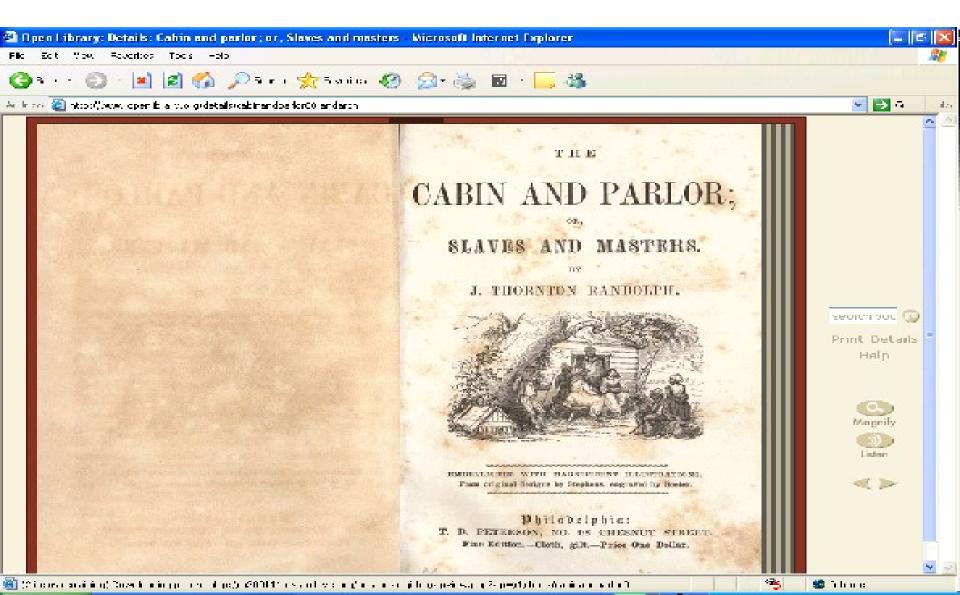
digitally, if possible, please

They want to search deeply...

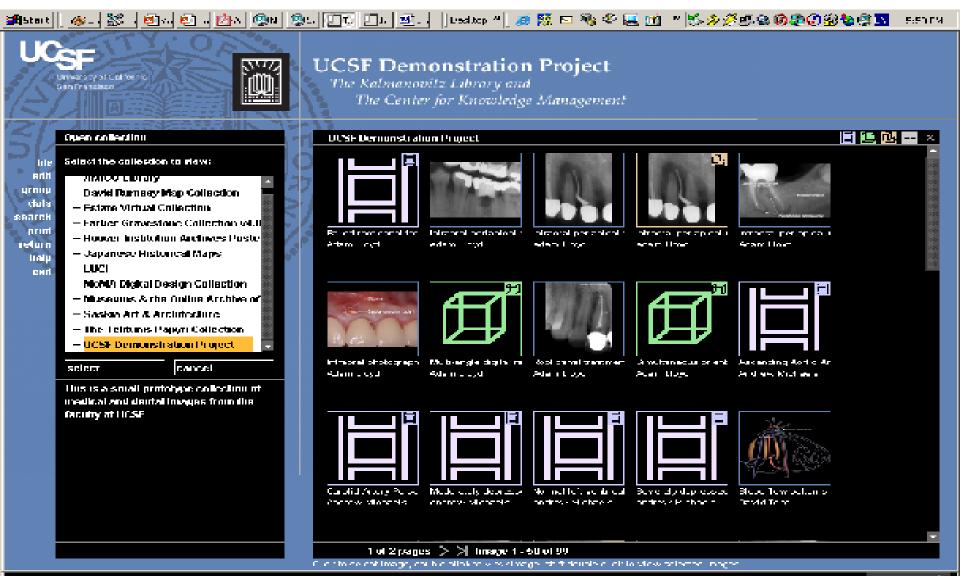


across everything – books, journals, images, databases

browsing...

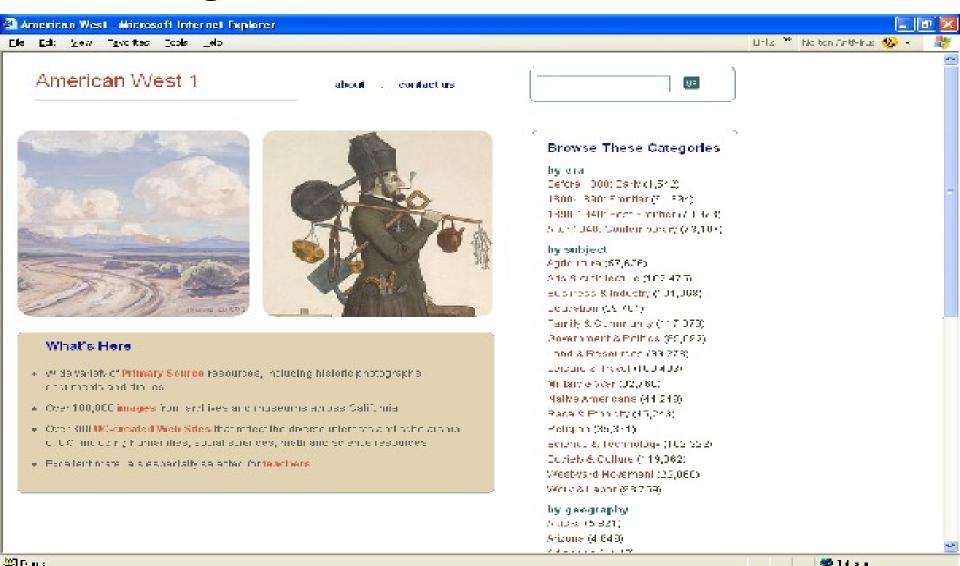


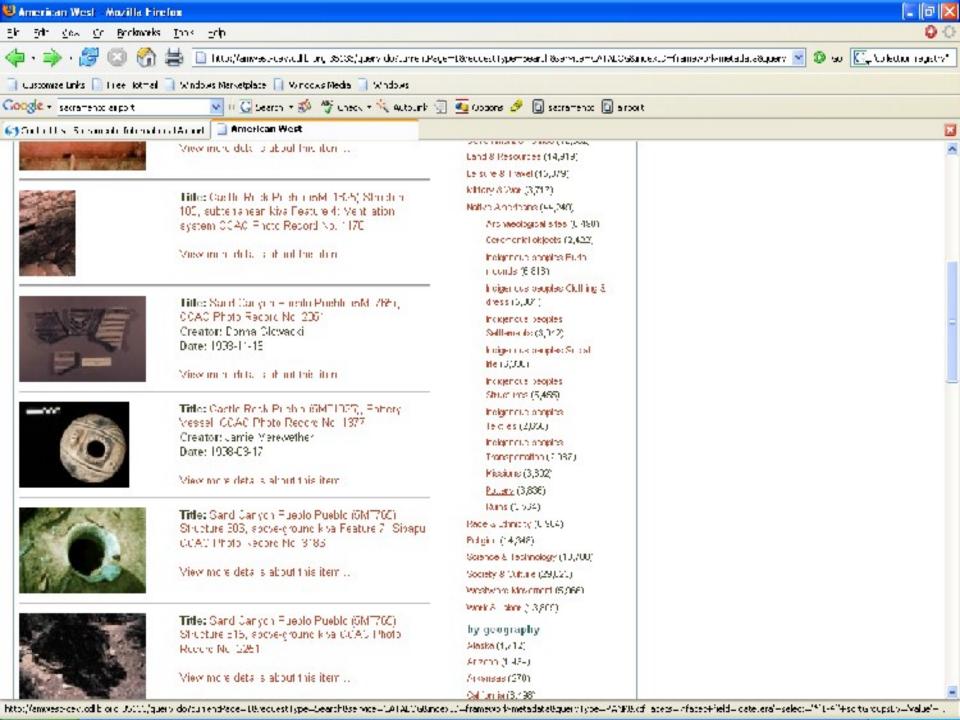
or viewing



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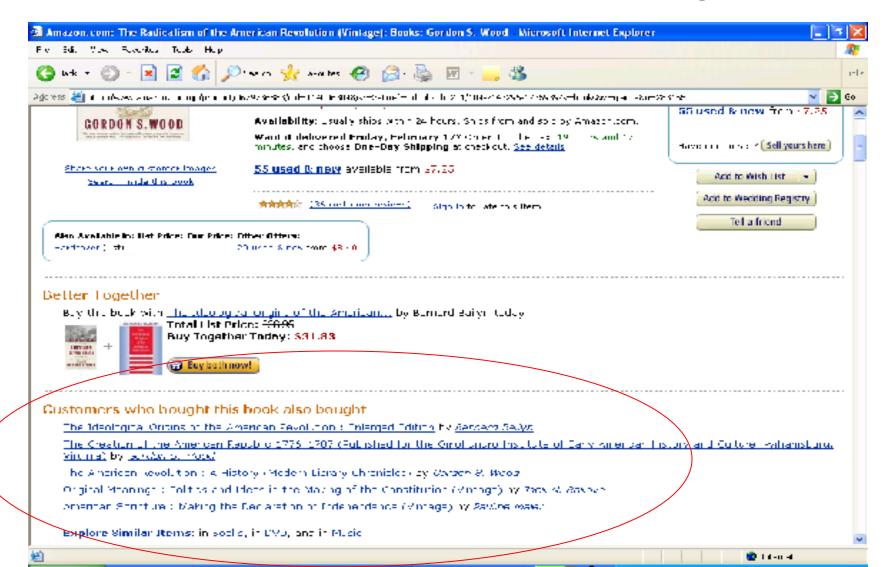
Faceted browsing is good – it helps navigate unfamiliar collections



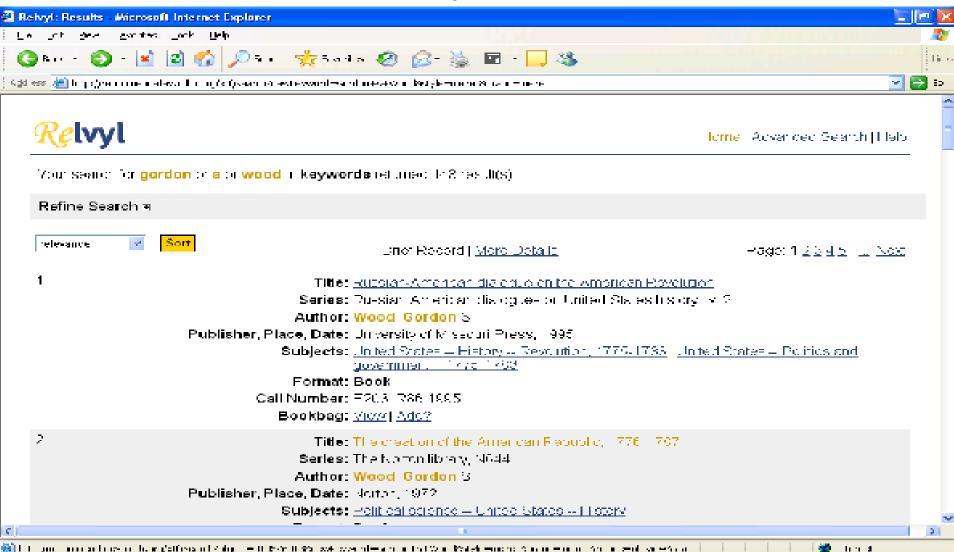


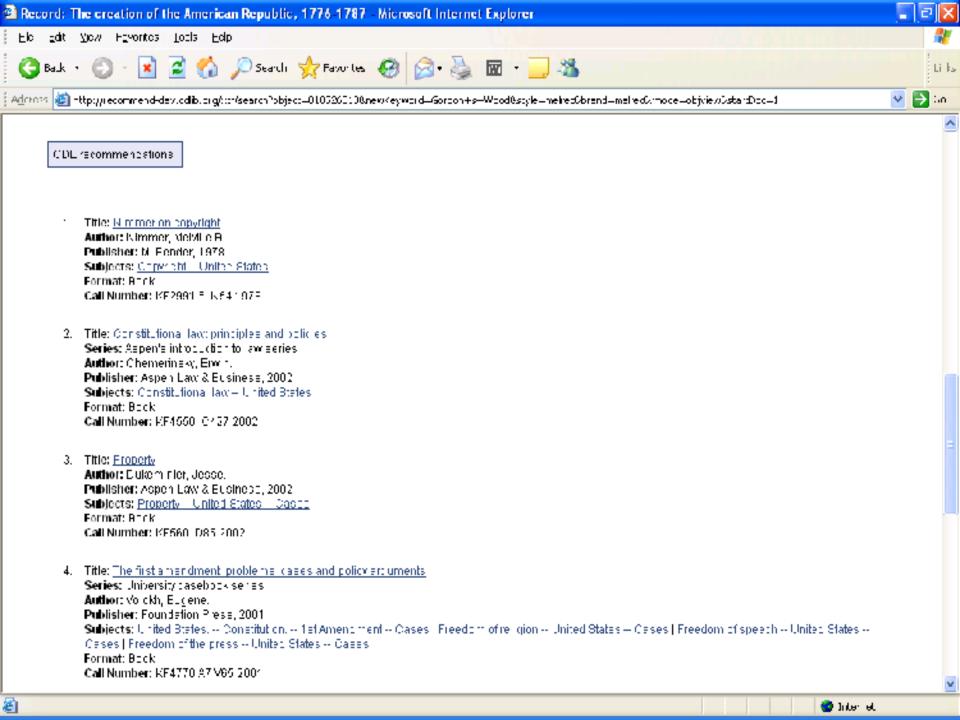


They like assisted search, if it isn't crass like commercial engines

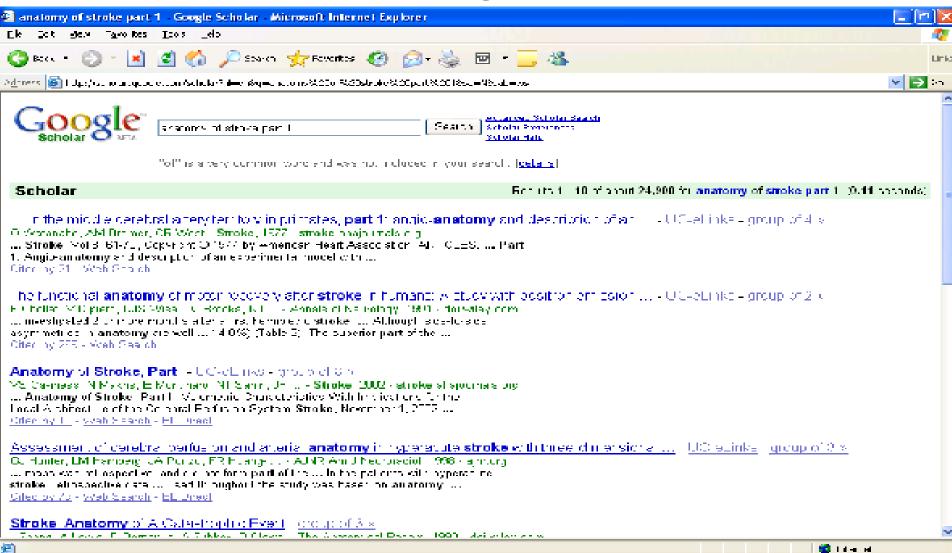


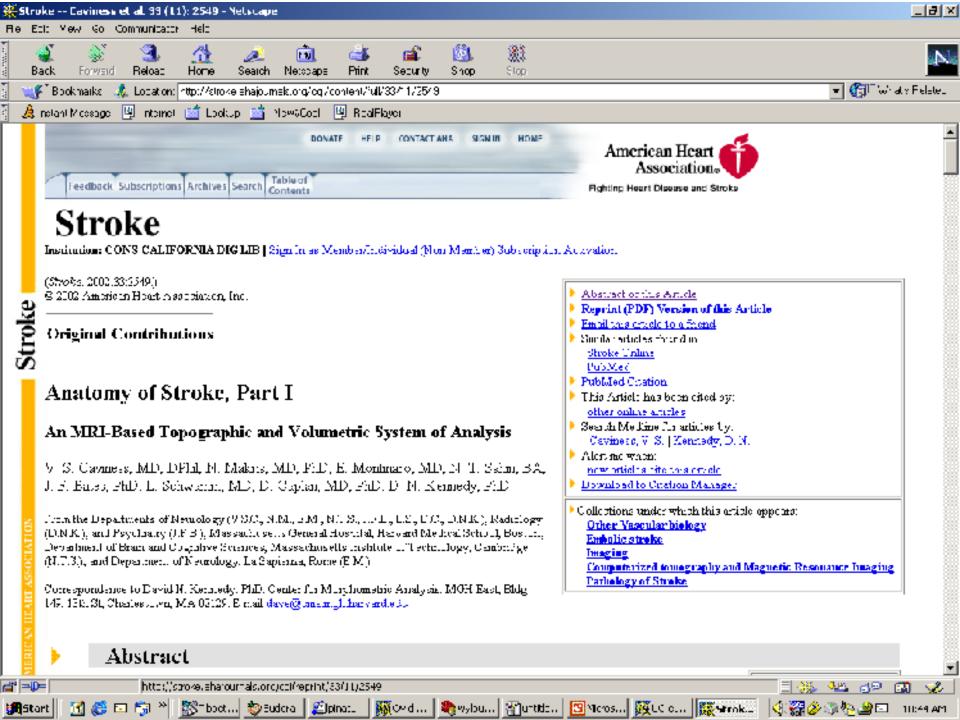
And is instead tailored to their scholarly interests

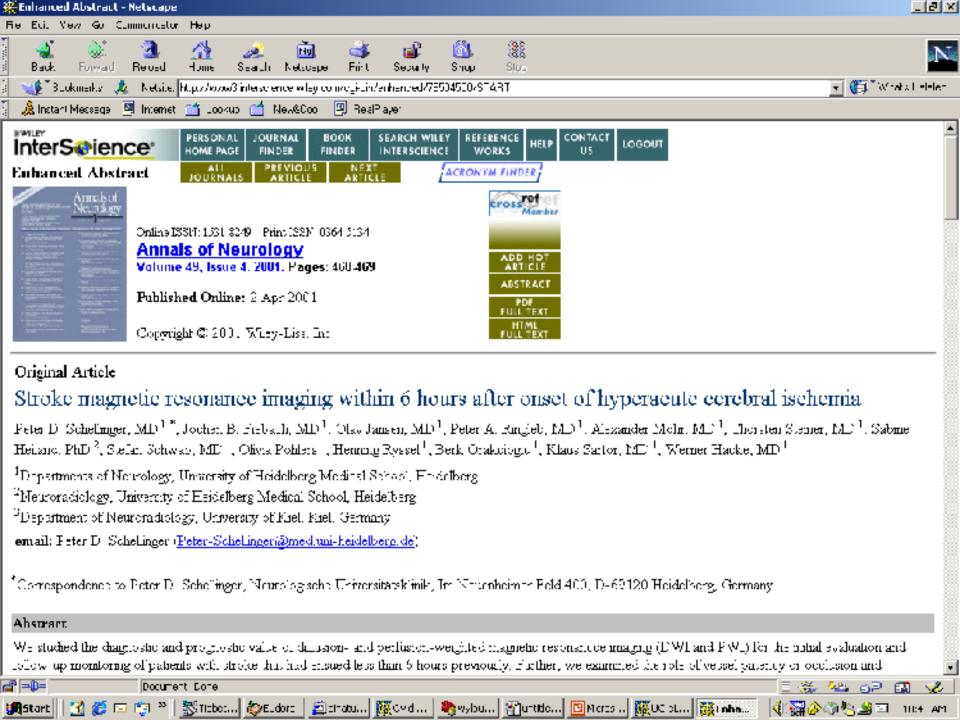




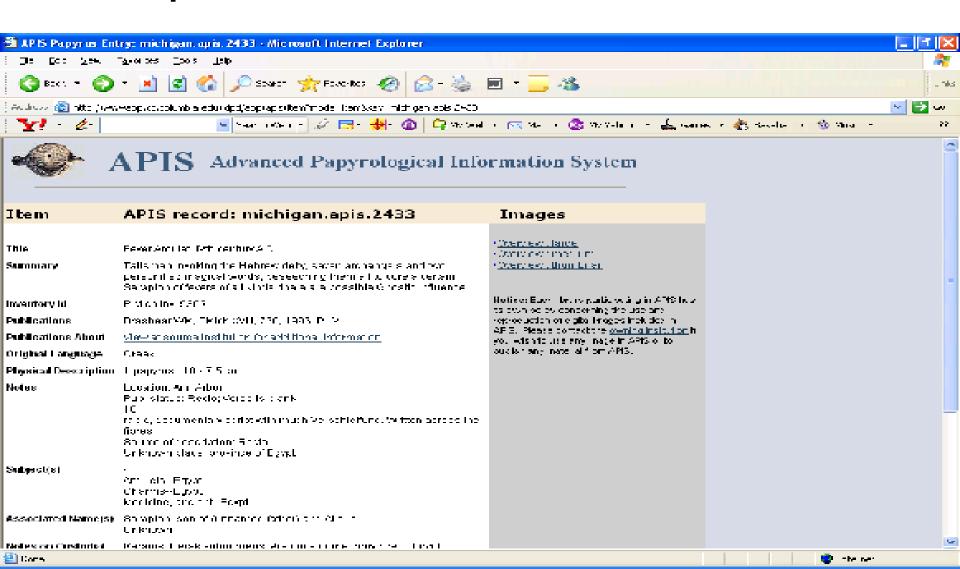
And they want to link online sources, hopping one to another

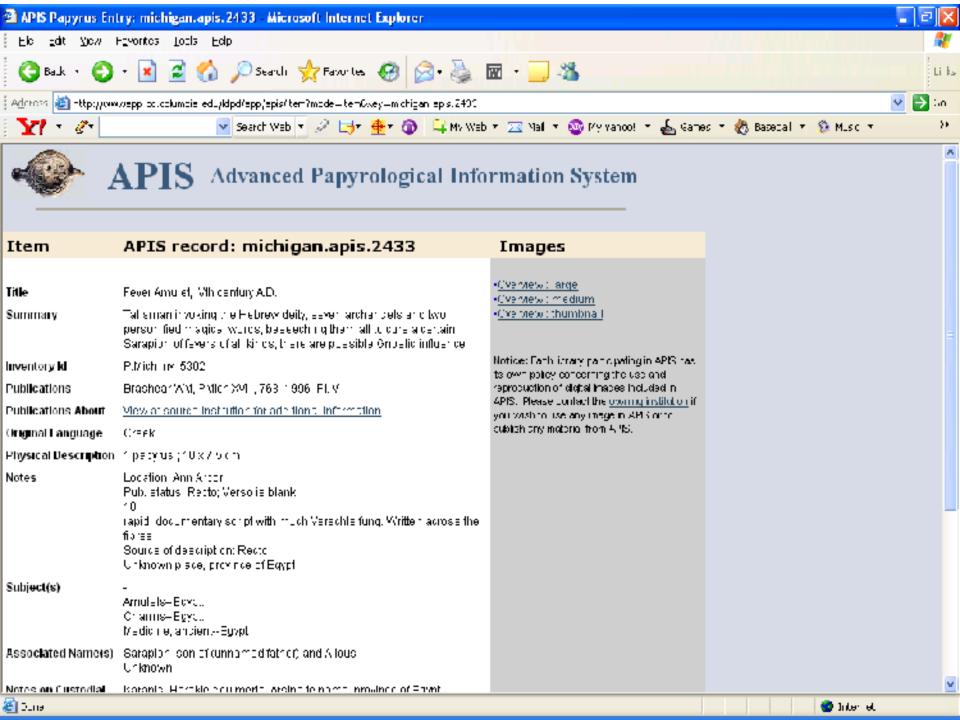


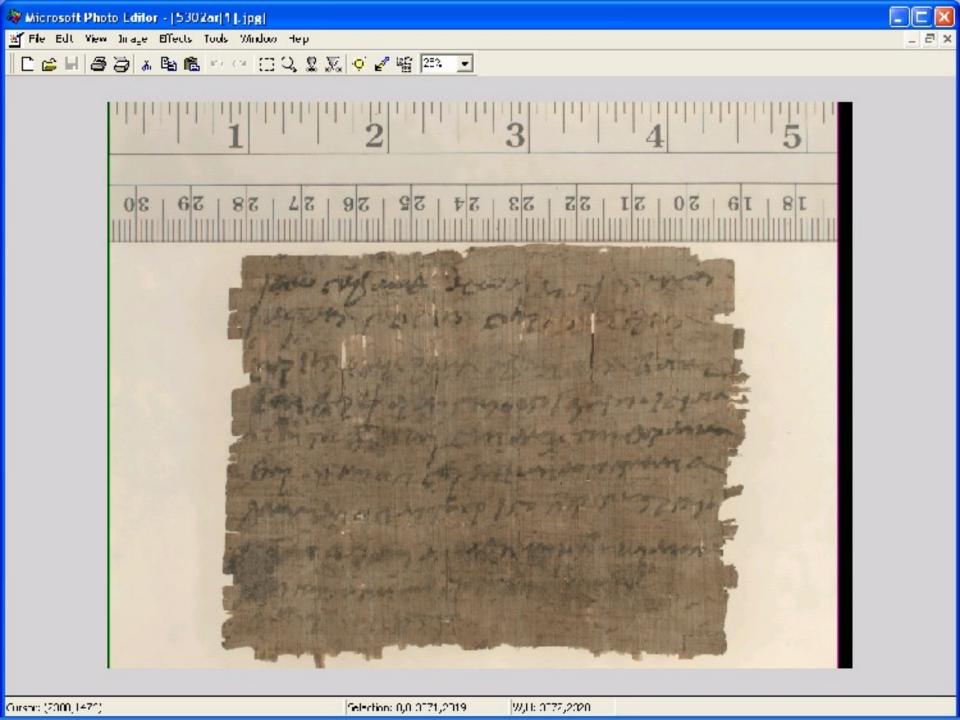




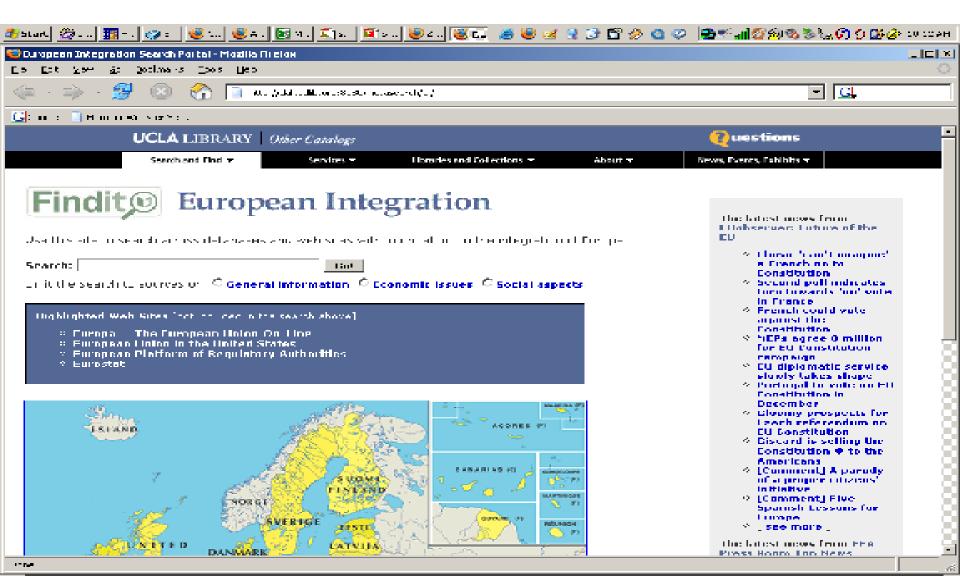
They want tools to build or "curate" personal virtual collections



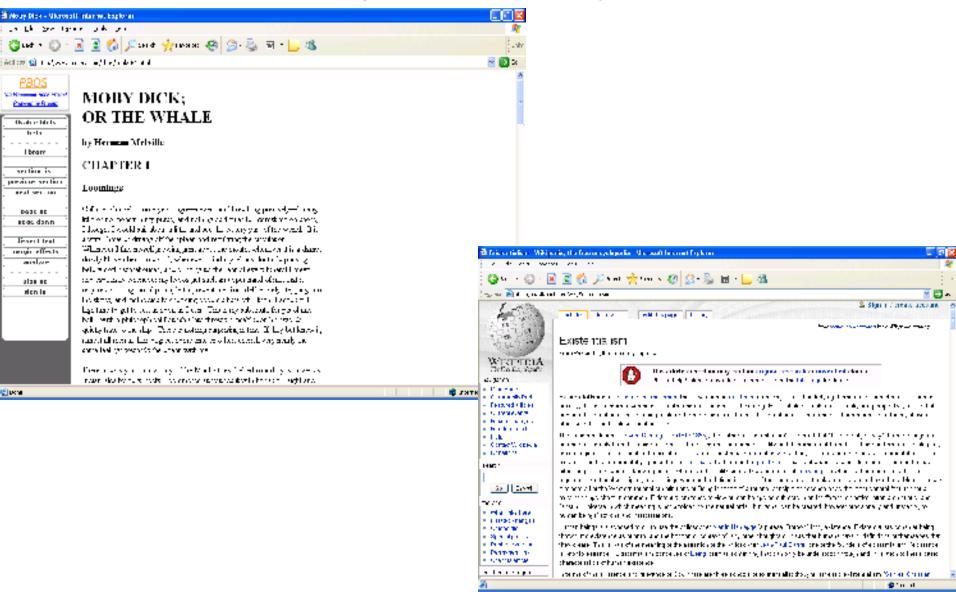




Or to "customize" search so it only acts on selected sources...



They like to "enrich" (take notes on) what they find



Oh... and can you still maintain the special collections, please?

You know:

- Manuscripts
- Maps
- Prints and photographs
- Record books and censuses
- Legislative and judicial materials



...and all this only ensures academic libraries keep pace with "traditional" services as they are translated into a digital domain

Scholars also have a host of wholly new needs...

That libraries may be called upon to address

They want support for "alternative" forms of scholarly publishing, that promise *quickly* to disseminate...

...working papers



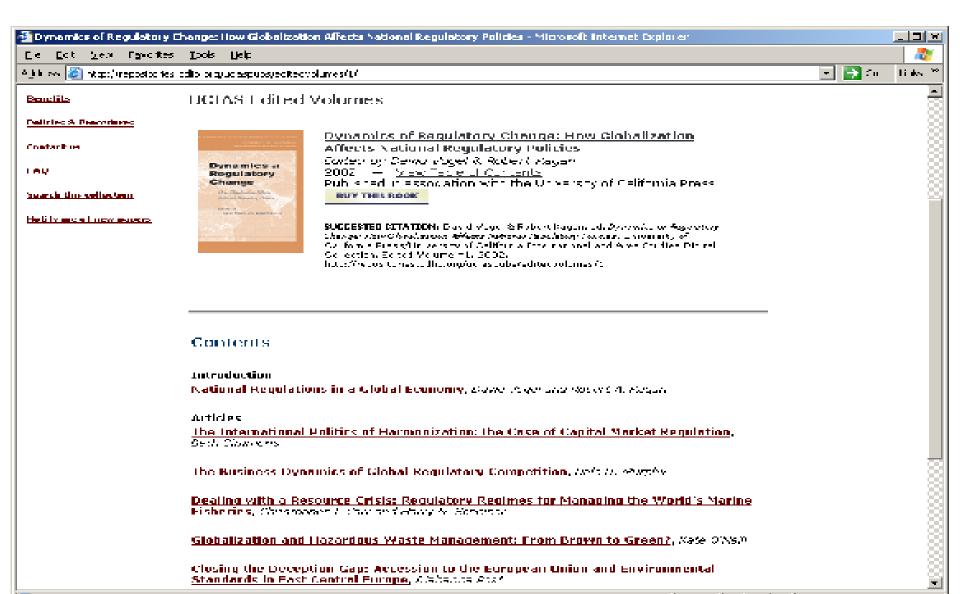
seminar series...



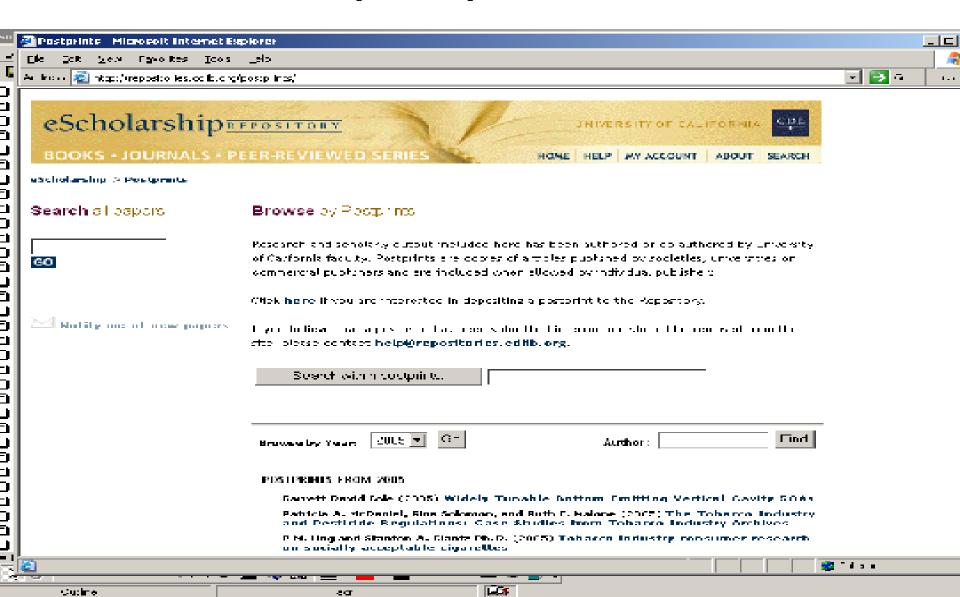
peer reviewed journals



peer-reviewed edited collections



postprints

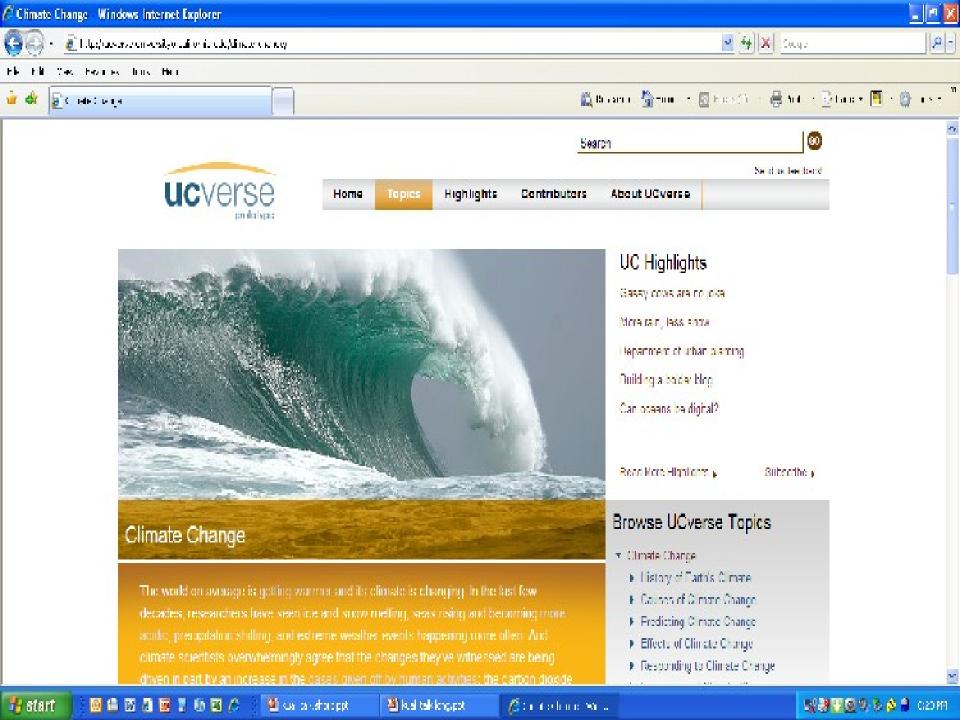


critical editions

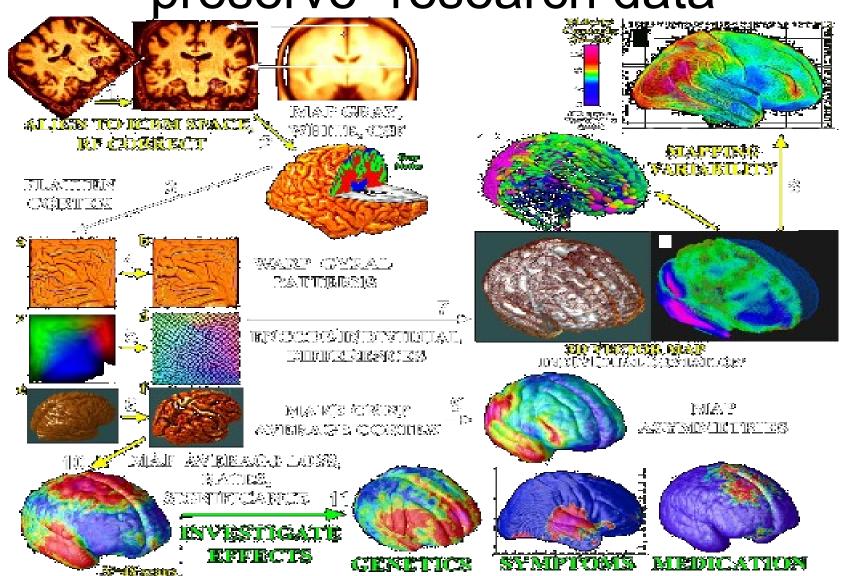


and whole new forms for which we don't have an adequate vocabulary



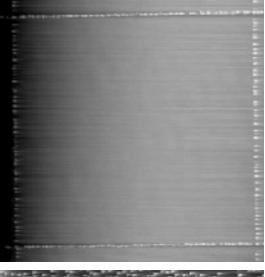


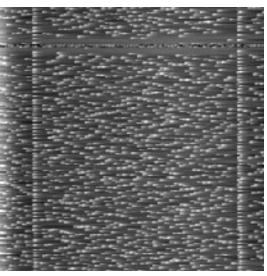
They want someone to "curate" and "preserve" research data



Directed Self-Assembly of Quantum Dots

Y.H. Xie (UCLA)





Two-dimensional AFM topographic images of Ge SAQDs with 4-6 Å coverage on a partially relaxed Si0.9Ge0.1 buffer layer, with buried dislocation lines.

Clockwise from upper left:

- 4.0 Å Ge coverage with Ge SAQDs only at site A
- 4.5 Å Ge coverage with GeSAQDs at site A and B
- 5.0 Å Ge coverage with Ge SAQDs at site A, B, and C
- 6.0 Å Ge coverage with Ge SAQDs at site A, B, and C

So it may be used again and again

As a next-generation scholarly resource

(enter e-Science)

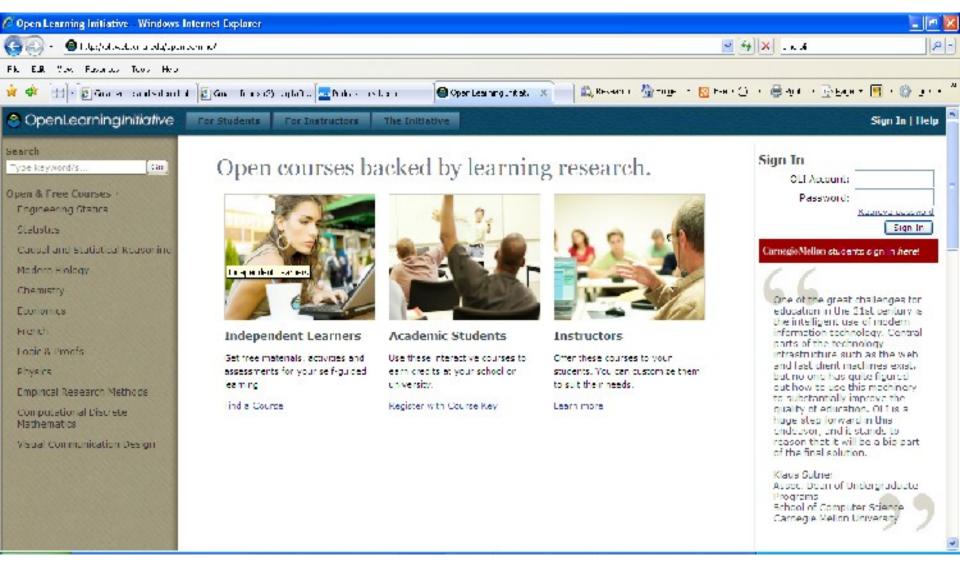
And they need whole new digital "special collections"...



...with "publications" as important culturally as they are transient



And they may seek assistance integrating digital information into online instruction



And "curating" and preserving the outputs



(which may take various forms)



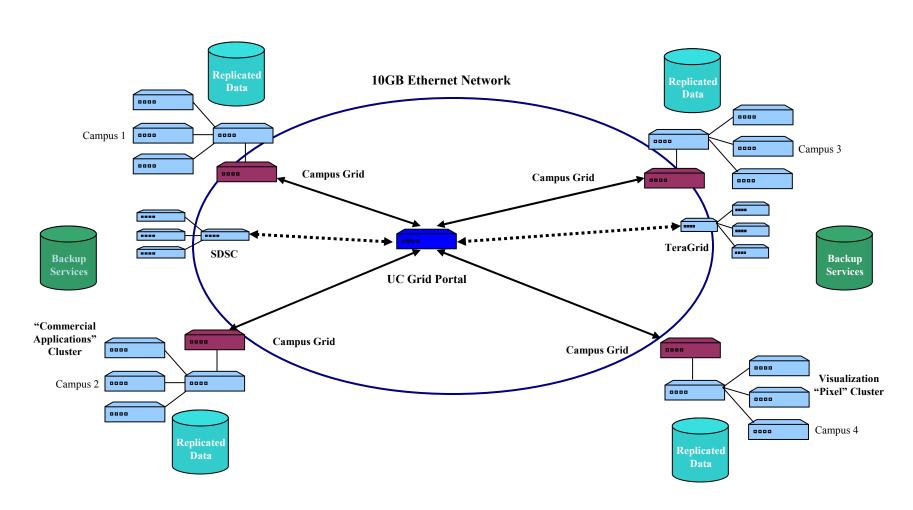
supporting their "educational" publication in alternative venues



So what is an academic library to do?

Here are a few ideas

1. Integrate library systems into national, regional, or institutional "grids"



we can't afford their upkeep independently

2. Share responsibility for collection development and management

- Consortially license (or buy) the digital (insist on digital preservation clauses)
- Build shared repositories for general print holdings that are available digitally
- Build shared digital repositories to preserve digital facsimiles of print publications

3. Discard redundant collections of general print materials

They cost a bundle to maintain

 and lend no distinctive value or competitive advantage

4. Share responsibility for collecting unique print materials...

...using creative scan-on-demand and other digital licensing arrangements to ensure access to scarcely held copies

5. Build regional or national strategies to manage unique borne digital materials that are culturally important

... in partnership with rightsholders

6. Centralize and/or outsource technical (cataloging) services

... they are important

but not important enough to do redundantly

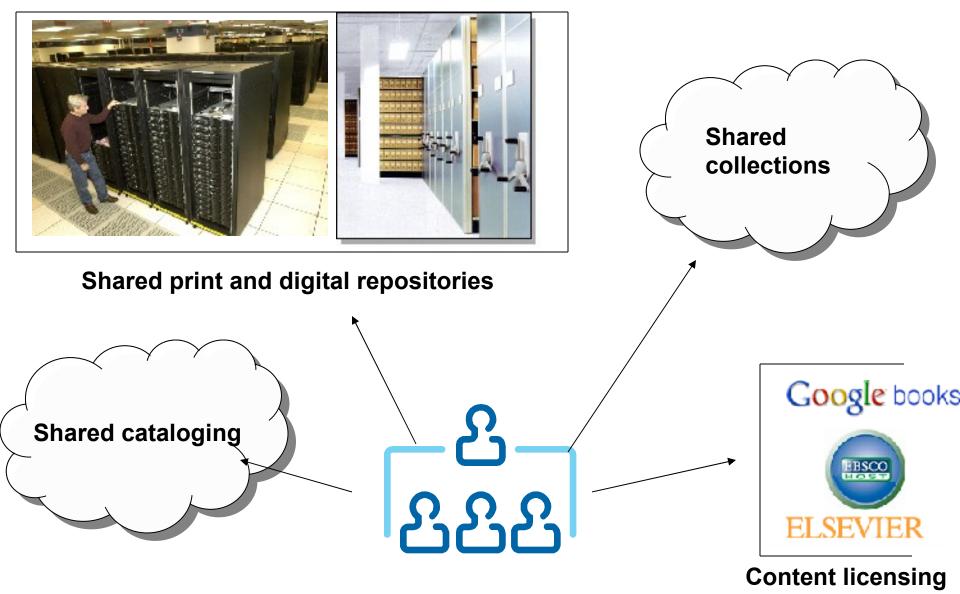
7. Rely heavily on third parties for the routine online services

...in order to

8. Invest scarce funding in the highly innovative and specialized ones

The library of the future continues traditional function

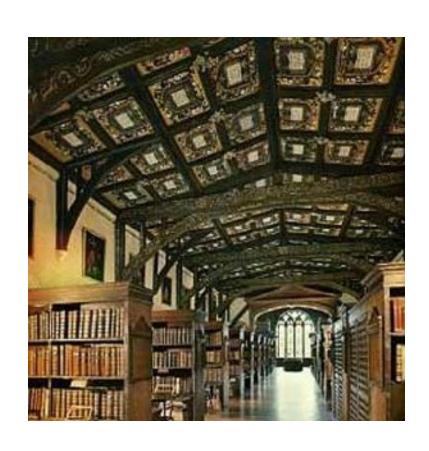
but doing so as a broker not a stand alone service



Driving cost out of traditional function

to allocate scarce funding to meet new user demands

...continuing as a place







...with

- some central campus location
- a relatively small staff
- a budget to source essential third-party services

and a reinvigorated sense of purpose