

How long will journals survive?

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My points today

1. The Internet has changed the mode of scholarly communication, no doubt
 1. Print to Online/Electronic journals, with consequences
2. The changed scholarly communication has changed information environment on campus
3. The Internet may have changed the mode of research
 1. “property-based” to “commons-based peer” production (Benkler 2006)
4. What will the changed research practices bring to scholarly communication?

Review, first

- Shift from print to online/electronic in the first decade of 21st century
 - “Any number of copies for free” ie printouts
 - Not just ink, but cheap color, sound, voice, movies, 3D and links, links, links, ...
 - From physical to logical, from library standpoint
 - From purchasing to licensing
 - From catalog to search, no inventory
 - From shelves to websites/pages
 - From selection to open access

Changed information uses

- No storage place in the name of “library” any more, direct from where you are
- From titles to articles, though title brands survive
- From citation to linking, reference on the spot
- Library’s centralizing functionality emerging or getting more important, due to site licensing
- “Information is free”

Scholarly academic journals

- Collection of original articles reporting results of research
 - Published periodically, waiting some time for being published
 - Printed on pages in ink, in constrained formats
 - Photocopied and used most of the time
 - Distributed by publishers by way of agent, book retailer, etc
 - At (largely institutional) prices
 - Stacked on library shelves

Will journals “survive”?

- They are at the constant peril of being cancelled. When all are cancelled, there will be no journals, so journals will not survive.
- Print journals are being cancelled, so print journals will not survive.
- But there are more senses in which journals will survive and in which they will not

Why do we have journals?

- Frequent exchange of research results
 - Actually journals are not frequent enough
 - And reviewing may delay publication
 - Webs are better
- Reviewing guarantees quality/publishability
 - (Though not all, most) scholarly journal articles are peer reviewed and qualified as ok to publish
 - Almost always, only quality assured publications count in employment and promotion

Future of peer reviewing

- Peer reviewing is not the best, or perhaps the worst way of quality control
 - Nobody believes “in-group” mutual appraisal, normally
 - Could be an internal censorship against the freedom of speech and the press
- But who else can evaluate other than peers?
 - Ethically experts are responsible to the embedding society for their own behavior
 - Evidenced by no paying for reviewing
- Why not social rating?
 - Well, it’s social rating, but ...
- Who are peers, then?

“Research” in digital environment

- Computational science
 - Science by computing, but all science has been done by computing. Some history
- Data centered science
 - Science centering on data, but no science has been free from data
- “Protocol” “journals”
- Humanities and social sciences databases
 - Linguistic corpora etc, but humanities have been libraries

Computational science

- Modeling and computer simulation(using numerical solution techniques)
 - Clearly distinguished from computer science
 - Heavy computing demanding
“super”computers
- Seismology, oceanology, meteorology etc
- Astrophysics, etc
- Fluid dynamics, car design, etc
- Economic, sociology, etc

An example

- My colleague/astrophysicist
 - Astronomy
 - Articles in professional journals in astronomy
 - Algorithm
 - Articles in special journals
 - Computer simulation
 - Web application – this is not peer reviewed but necessary for the both above
- Good recognition on campus, very productive and a model for future scientist?

Another example

- Interesting relation (in the past) between experimental and theoretical particle (high energy) physics
 - 10% of articles from experimental
 - 90% from theoretical
 - But think of the difference in funding
- Experimental: international collaboration, authored by “many” researchers
- Theoretical: rather individualized efforts

Data centric science

- E-sciences need data and databases
 - which you can not build for yourself, resulting in collaboration in which all relevant experts are involved
 - How do you assess and evaluate?
 - Is peer review still possible?
- Who can be authors?

Protocol?

- My conventional view of research paper:
 - Introduction
 - Method
 - Results
 - Discussion
 - Conclusion
- Only method?!
 - No results but still to be shared, to be published
- Already in use in counting one's professional accomplishments
- And journals for them!

Corpus linguistics

- An example in humanities
 - Formerly a linguistic field for the non-brilliant(with good people going for formal, and socio- /psycholinguistics
 - Currently THE type of linguistics for future
- Needs a lot of data and computation
 - No longer mere counting but modeling and computing over a large, huge corpus
 - With WWW, a lot more live data coming out/in
- Results: Web application for analysis, internal processing software, and some “papers”

The question:

- How could “journals” survive in such an environment consisting of
 - Researchers who work collaboratively mainly through online workbench with sharable data resources worldwide
 - and readers who are such researchers/authors

?

Of course, they don't have to but what will our scholarly communication be like?

What checks the transition?

- Publication for assessment, evaluation, accreditation?
- Proprietorial rights?
- Institutionalized publishing industry with vested interests?
- Researchers' ignorance?
- Librarians' conservatism?
- Mere inertia?