introductory thoughts on economic aspects of scholarly communication

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purpose

- I created this session.
- The organizers put it into the morning after.
- We have three (angry?) middle-age white American men here.
- I expect this session to be more interactive like others.
- I gave myself a talk.
my talk

- Explains what this session is actually about.
- Give some ideas about economic aspects of information that I think are important.
- The sort of stuff I would talk about at the bar before I am too drunk.
- Likewise interrupt me at any time.
- I'm ok if you walk out.
unusual session

- I have a member of the conference committee since the conference started.
- I have been instrumental in the labelling of the conference as being about “innovation in scholarly communication”.
- But this session is different as we don't talk about innovations themselves.
an economic perspective

- We hear from lawyers at every conference edition. I am sick of copyright.
- The speakers are all economists.
- Despite popular believe economist agree on a lot of things.
basic question

- “If we have 100% open access will that be economically good.”
- I will clarify a bit later.
- Basic tenants
  - David: no
  - Jeff: yes
the basic technical trend

- We live at a time when we transit from printed to electronic documents.
- We live at a time when delivery of documents moves from physical to network delivery.
- The technology is there but there are a lot of old habits that are engrained.
the basic economic trend

- We live in a time of transition between an economy of information and an economy of attention.
- In an economy of information the information is scarce and attention is plentiful.
- In an economy of attention the information is plentiful and attention is scarce.
the impact is not uniform

- Not all information commodities are impacted by this transition.
- Music, broadcasting, publishing (including scholarly publishing)
- Banking and financial markets to a lesser extend.
- Churches are not much affected … they have been working on an economy of attention model for a long time.
open access

- When we think about the basic economic trend, we can think of open access as a consequence, rather than an isolated development.
- It only appears natural that in an word that is short of attention providers of information make the information they have freely available.
- (ok I will skip the legal technicality of open versus free access here)
- Why is it taking off so slowly?
usual red herring

- The usual crude arguments argues that evil commercial toll-gating publishers vs the lovely researcher that has to use their services.
- This opposition is wrong as open access publishers may charge ever more.
old habits die hard

- and since this is a personal presentation, I will allow myself to get on the sandbox.
- My pet peeve, as some may already know is the subscription model.
- Subscriptions still occupy
  - a vast part of library expenditure
  - largest part of non-staff expenditure
subscriptions & economy of attention

- When libraries buy access to journals, they fulfil a useful role in an economy of information.
- But in an economy of attention the subscription expenditure is perverse.
- Why? Well let's first look at the purpose of research.
why do research?

- Most academic research is unfunded.
- It is conducted to advertise its creators.
- The research-intensive universities are
  - better advertised
  - get better or more students
  - get better or more alumni
- Research has advertising value.
- Researchers have to attract attention.
The vast part of subscribed contents by an institution is not written by authors of the institution. Therefore buying access to it subsidizes attention to authors from other institutions. It is not individually rational to continue the subscription model.
collective rationale

- Some things are individually rational but collectively lead to a disaster.
  - Stealing
  - Screwing around
- Such behaviour becomes illegal or immoral.
- What happens when libraries collectively decrease subscription.
for the typical author

- The typical author will see that if she publishes in a toll-gate journal, her work will not be seen, unless there is some preprint. Solution
  - publish preprint
  - pay for an open access journal

- There will be more open access, which seems like an important public good.
for the typical publisher

- Publishers change from taking subscription revenue to taking fund.
- It is my understanding that publishers have understood that they can't live on the subscription model going forward.
other bad aspects of subscription

- These are non-economic aspects
  - Subscription costs are secretive.
  - The subscription business is highly corrupt.
We have three broad actors in scholarly communication “scholars”, “publishers” and “libraries”.

The latter two are intermediaries.

Technology has brought ways in which publishers or libraries can work to disintermediate the other.
cost of intermediation

- In toll-gated access, the cost of intermediation is the sum of the expenses on journals.
- In open access, the cost of intermediation is the sum of all the submission fees.
- It is not clear what cost is higher.
- We also have to take account of the non-monetary cost of academics volunteering to review.
distribution of cost of intermediation

- It is true that under open access, institutions that do a lot of research --- typically richer --- will pay more.
- But this is an issue of social justice rather than pure economics.
there is a second change coming

- I first described the environment as one where we go from economy of information to one of attention.
- I now want to describe a second trend that I see and I just for at the moment label as scholarly fragmentation.
- The future starts from the past
Research was only possible with collection of papers, usually in a library.

Thus researcher where constrained by writing paper.

Research was constrained by sending the papers around.

The physical library is essentially a consequence of paper.
I forecast that the beyond paper futures will depend highly on discipline or subject communities.

If people produce non-paper media---which they eventually will---it will be highly subject or discipline specific.

Scholarly communication will eventually break up.
determinants

- Funding of research
- Importance of peer review
- Historical context
- The subject matter
some indications of this today

- There are certain cases where this trend is already evident today.
- Here is what I can think about
  - One is economics, RePEc
  - One is high-energy Physics SCOAP3
  - PubMed
RePEc

- Probably the only institutional repository system that has broad community acceptance.
- It pretty much unique in the way it operates.
- The reason why it works is that it essentially reproduces the working paper system.
- The working papers system existed before.
- So this is an example for historic determination.
SCOAP3

- It's an effort in High Energy Physics to make all relevant journal open access.
- It relies on specificities of High Energy Physics
  - large installations
  - collaboraties
- So it is some fragmentation that is occurring on a technical basis.
The biomedical sciences are the best funded.

PubMed have a best metadata collections out there.

This is an *early* example for a fragmentation based on economics.
outlook

- Fragmentation will progress slowly.
- There are people who develop
  - technical standards
  - software
- that will allow us to go beyond current practice.
- But they don't see the application cases that come from scholarly communities.
for fragmentation

- The innovation has to come from academic groups.
- They need support for innovative projects from their institutions.
- They can't get it as the funding is tied in subscriptions.
against fragmentation

- The European commission rep yesterday presented plans to build an Open Research Environment (?)
- It will be funded by the commission to be built by a commercial publishers.
- It will be a commercial platform, controlled by one entity.
- The lock-in from this project will be devastating.
last piece: lock-in

- It was mentioned many times in Sarven Capadisli's talk yesterday.
- Lock-in is the fundamental property of informational commodities.
- Thank about a car vs a piece of software.
  - When you use the car, it loses value.
  - When you use the software, it gains value.
avoid lock-in

- Once you have lock-in, consumers face switching costs away from an existing product.
- With lock-in, we use competitive structures.
- When we loose competition, we are worse of.
Спасибо за внимание!

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