

# 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 world 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 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.

# perversion of subscription

- 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.

# another way to look at

- 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

# paper

- Research was only possible with collection of papers, usually in a library.
- Thus researcher were constrained by writing paper
- Research was constrained by sending the papers around.
- The physical library is essentially a consequence of paper.



# scholarly fragmentation

- 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.

# Pubmed

- 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 publisher.
- 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' talk yesterday.
- Lock-in is the fundamental property of informational commodities.
- Think about a car vs a piece of software.
  - When you use the car, it loses value.
  - When you use the software 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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