Scientists’ motivations for open access publishing

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Theory of Planned Behaviour (Ajzen, 1991) extended by a moral-ethical dimension and environmental factors
Salient reasons for OA publishing: Early adopters

- **Early adopters**
  - Environmental factors:
    - OA will advance science
    - OA will generate more citations
    - OA will increase readership
    - OA will give me access to a wider range of journals
    - OA will make my literature search faster
  - Moral beliefs:
    - OA to publicly funded research is the right thing to do
    - OA is the right thing to do
  - Control beliefs:
    - OA publishing without direct costs to the author
    - Availability of relevant OA journals
  - Normative beliefs:
    - Open Access Publishing

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Salient reasons for OA publishing: Late adopters

- Behavioral beliefs
  - OA will increase readership

- Control beliefs
  - My university pushes for more OA
  - Researchers funders require OA for publications

- Normative beliefs
  - Research funders require OA for publications

- Environmental factors
  - OA publishing without direct costs to the author
  - Availability of relevant OA journals
  - Availability of good quality journals enabling OA

- Moral beliefs
  - Open Access Publishing
Behavioural beliefs

**Early adopters**

- Having better access
  - OA will give me access to a wider range of journals
  - OA will make my literature search faster

- Publicising expertise
  - OA will create new collaborations
  - Online access to one’s papers publicises the lab’s work
  - OA helps to establish contacts abroad

- Changing publishing system
  - OA will give subscription-based publishers to be more open

- Providing better access
  - OA gives access to knowledge to scientists in poorer countries
  - OA will give access to my papers to my community
  - OA will increase readership
  - OA gives access to knowledge to ordinary people

**Late adopters**

- Increasing use of scientific knowledge
  - OA will advance science
  - OA will generate more citations

- OA gives access to knowledge to SMEs and increases innovative potential
Factors undermining attitudes towards open access publishing

- doubts about the need for open access
- doubts about the positive impact of open access on science and innovation
- worries about the negative impact of open access

“Clearly you run into grey areas where the information can be dangerous or potentially put to ill-use.”

“If you come across a result which you know could be completely used in a very harmful way, should you publish it in an Open Access journal?”
Moral beliefs

about providing open access to scientific knowledge

about covering the cost of Article Processing Charge

Early adopters

Late adopters

OA is a good thing to do

OA is the right thing to do

OA to publicly funded research is the right thing to do

OA is a good thing to do

OA to publicly funded research is the right thing to do

It's wrong to give public money to publishers for adding little value

It's wrong that public money is spent to create open access

It was wrong that authors cover OA cost from research grants

It's wrong to give public money to publishers for adding little value

It's wrong that some users benefit without contributing to cost of research

Open Access Publishing

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Normative beliefs

Early adopters

Late adopters

my co-authors want to have OA publications

research funders require OA for publications

my university pushes for more OA

patients groups expect OA to publications

Open Access Publishing

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Factors weakening the subjective pro-open access norms (1/3)

1. Factors undermining the perception that funding agencies expect open access:
   - Low awareness of the policy details, blamed in some cases on ineffective communication of open access requirements by a university
   - Not knowing when the policy requirements apply as it’s difficult to attribute research outputs to a particular source of funding
   - Being subject to different open access policies (e.g. US + UK)
   - Policy requirements are seen as unreasonable or not enforceable
“If you read the Wellcome Trust’s policies, they are really harsh, the BBSRC ones they are very easy going. But the Wellcome Trust actually has a passage where it says, when you produce your final report, your head of department must check whether you have complied with the open access policy. If not, they reserve their right to withhold some of the funding. Usually they don’t pay the last 10% then they would just keep it. So there is a very strong incentive to actually follow that policy.”
Factors weakening the subjective pro-open access norms (2/3)

2. Factors undermining the perception that a university expects staff to provide open access:

- Universities are not clear about their requirements for self-archiving and do not clarify how the public and institutional repositories complement each other.
- Open access publishing is not a part of university strategy
“The institutions are fundamentally competitive. They wish to further their position relative to all other institutions, and openness does not necessarily sit well in that. It’s not obvious how they should best use openness to further that agenda.”

“There is a very strong international culture within the university about solving world problems. So I think it [open access] was tied into making our research outputs more widely available internationally, particularly in developing countries. So I think it was part of a bigger strategy.”
Factors weakening the subjective pro-open access norms (3/3)

3. The perception that publications in high impact factor journals are valued more than open access publications by the universities, funders and Research Excellence Framework panels.

“If you think about the REF, for example, I mean they don’t care whether it is open access or not. They care about the impact factor, nothing else.”
Control beliefs

Early adopters
- I am not confident that funds for APC will be available
- The decision to provide OA to my publications is not entirely up to me.
- I have no time to do green OA

Late adopters
- Applying to university for funds for APC is difficult
- I am not confident that funds for APC will be available
- The decision to provide OA to my publications is not entirely up to me.
- I dont fully understand how to do green OA
- I dont fully understand how to do gold OA
Factors weakening perceived behavioural control over OA publishing (1/4)

1. Factors sustaining the belief that applying to university for funds is difficult

- A university does not have a clearly defined process for allocation of open access funds
- A university does not inform the researchers about the fund allocation process
- A university process for funds allocation is perceived to be cumbersome
Factors weakening perceived behavioural control over OA publishing (2/4)

2. Factors undermining the confidence in availability of funds for APC:
   - Worries that not all universities receive funds for APC from research councils
   - Worries that university funds for APCs will dry out or that the author’s preferred journals will not meet university’s criteria to be eligible for open access funds.
   - No possibility to include costs of open access publishing on research grants
   - Difficulties in convincing international collaborators to share the APC costs
Factors weakening perceived behavioural control over OA publishing (3/4)

3. Factors undermining scientists’ control over the decision to provide open access

- not being a lead author of a paper
- co-authors from countries without or with different open access policies
- publishers sometimes fail to provide open access to a paper for which APC was paid
Factors weakening perceived behavioural control over OA publishing (4/4)

4. Factors lowering perceived ability to provide open access
   - being unaware of available repositories or the mere possibility to deposit a manuscript
   - not understanding how to deposit manuscripts into a repository.
   - not understanding when one is allowed to do self-archiving
   - ignorance of legal rules (copyrights)
   - other duties are seen as more important than archiving
   - finding the processes designed by publishers too complicated
Conclusions

The policy changes in the UK

- Were effective in strengthening pro-open access subjective norms among those who had little or no experience of open access publishing.
- Were ineffective in promoting beliefs in the positive impact of open access publishing and creating the perceived behavioural control among those who had little or no experience of open access publishing.
- Have shaken up the confidence in the ability to provide open access among the researchers who had been publishing in open access journals before the changes in policies.
Questions and comments