Behavioral Reluctance in Adopting Open Access Publishing: Insights From a Goal-Directed Perspective

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Background: Behavioral sciences

Behavioral science perspective: need for large-scale behavior change

COVID-19

Climate change
Open access publishing

• Many good reasons:
  • Effective science
  • Accessibility of knowledge
  • Research based on public funds
  • Increased media coverage
  • More citations
  • Retaining author rights
  • “OA is seen as especially benefiting ECRs in career progression” (Nicholas, et al., 2020)
• for a review of benefits, see, e.g., McKiernan et al., 2016
Open access publishing is happening not

90% positive attitude 52% actual publishing

Dallmeier-Tiessen et al., 2011 (more recent: Rowley et al., 2017; O’Hanlon et al., 2020)

Retrieved from (Piwowar, et al., 2018)
Understanding and Addressing Behavioral Reluctance

**FIRST**
Understanding open access publishing from a goal-directed perspective

**SECOND**
Understanding why, from this perspective, open access publishing does not occur (barriers)

**THIRD**
Formulate strategies to address the identified barriers

**Intervention strategies**
Goal-directed framework applied to OAP

Accommodation (i.e., public accessibility not so important after all)

Goal 1

Most research is published in closed access journals

Research is not accessible to the public

Goal 2

Expectancy that open access publishing leads to publicly accessible research

Open access publishing

Writing a blog post

Assimilation action repertoire

Goal 3 (intention)

Actual publishing in open access journal

Immunization (e.g., media will communicate closed access findings)

(framework proposed by Moors, Boddez and De Houwer, 2017; figure adapted from Moors et al., 2019)
Understanding behavioral reluctance

SECOND
Understanding why, from this perspective, open access publishing does not occur (barriers)

THIRD
Formulate strategies to address the identified barriers
Values of Goals

Journal reputation most important criteria, OA only 14\textsuperscript{th}/17

(Nature Publishing Group/Palgrave Macmillan, 2015)

Low relative value of relevant goal
- Publicly accessible research not as important as e.g.,
  - prestigious journal
  - APCs

Increase value of relevant goal
- Direct persuasion
- Stress *existing* benefits (e.g., higher impact on societal debates; injunctive norms to communicate approval by others)
- Create *novel* benefits (e.g., accessibility awards or make accessibility an important quality criterion for the allocation of research grants)

“OA is seen as especially benefiting ECRs in career progression”
(Nicholas, et al., 2020)
Values of Goals

Low relative value of relevant goal

• Publicly accessible research not as important as e.g.,
  • prestigious journal
  • APCs

Decrease value of conflicting goal

• Reduce benefits of conflicting goals
  • prestigious journal publications no longer metric for excellence, more weight to the degree to which research serves the public good (Alperin et al., 2019)

Minimize conflict between goals

• Offer prestigious open access journals
• Offer to pay APC’s and to take care of administrative aspect (e.g., transformative agreements)
• DIAMOND journals

(Nature Publishing Group/Palgrave Macmillan, 2015)
Discrepany Detection

Discrepancy underestimated or not detected

- Underestimation of, or failure to see inaccessibility of closed access journals to the public

Illustrate inaccessibility

- % of world population has access

Illustrate seriousness of consequences

- ECRs from less prestigious universities spent on average % of their personal salaries on access
Action Repertoire

Desired behavior not in the action repertoire

• Option to publish in open access journals may not be known or not come to mind

Low affordances of the environment

• Actual lack of response option: no suitable open access journal available

Teach about OAP

DOAJ https://doaj.org

Open science platforms at universities: KU Leuven: https://www.kuleuven.be/open-science/open-science-at-ku-leuven

Increase salience

Behavioral prompts

Increase affordances

Increase range of open access journals
Expectancies

Low expectancy of desired behavior

- Low expectancy that own open access publishing leads to publicly accessible research

Direct communication

“every open access publication makes a difference”

Reframe to more achievable goal

- publicly accessible research domain
- accessibility for a certain group (e.g., alumni, professionals...)

Descriptive norm

Communicate how many others already do it
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Conclusions

• Large-scale OAP requires large-scale behavior change
• Behavioral science may help in the transition towards OAP by
  • identifying structural barriers for researchers
  • identifying aspects need to be communicated and how
• general usefulness of such a behavioural analysis
  • may allow to address other related reluctances (e.g., adoption of repositories) and unrelated reluctances (e.g., environmental behavior)
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