



Do We Need a Plan B for Plan S? The Impact of Open Access Publishing on Scholarly Publications and Scientific Societies

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Outline

- 1) Scientific publishing
- 2) Peer review process
- 3) Publication models
 - Subscription-based
 - Open Access
 - Hybrid
- 4) Current U.S. policy
- 5) Predatory journals
- 6) Plan S: publish only in Open Access by January 2020



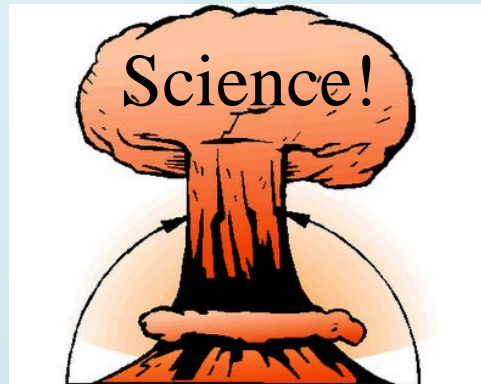
Consequences of Plan S

Plan S would be disastrous for:

Scientific publications

Scientific societies

Scientific communication



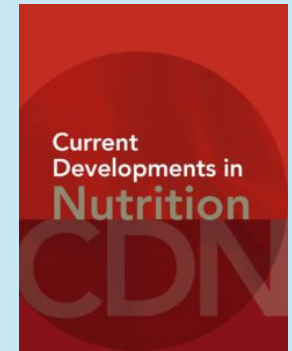
Importance of Scientific Publishing

- Disseminate research findings to advance scientific knowledge and improve human health
- Ethical mandate to make results available
- Maintain transparency of research and secure public trust

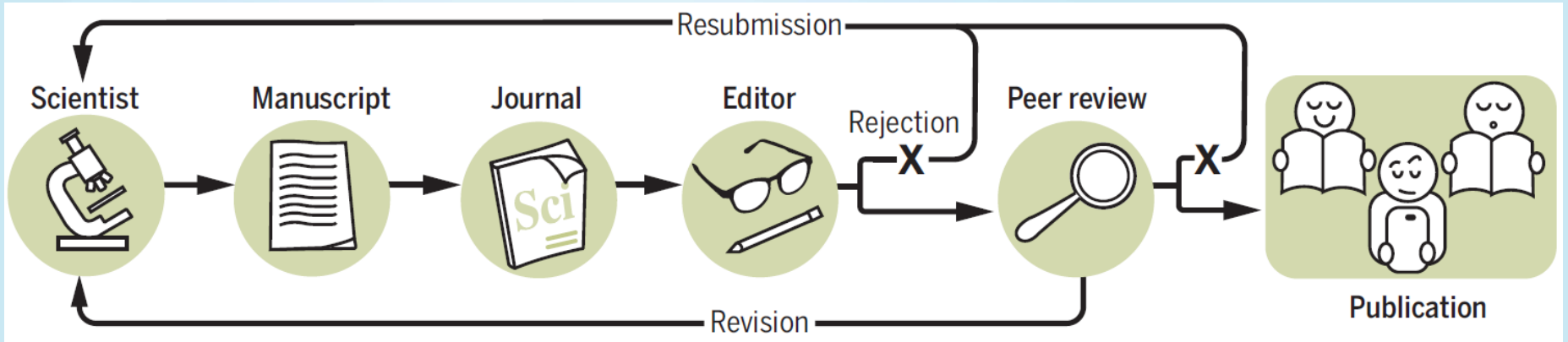


Choosing a Scientific Journal

- What audience do you want to reach?
 - Who reads the journal?
- How prestigious and reputable is the journal in your field?
 - Where do readers look for the best science in your field?
- How much does it cost?



Peer Review Process



Peer review: Rigorous review by experts in the field who provide detailed evaluation of manuscripts

- Filter out the poor-quality manuscripts
- Assist authors in revising manuscripts
- Ensure that rigorous standards are upheld

Subscription-Based Publication Model

- Institutions or subscribers pay subscription fees
- Editorial processes and decisions are independent of authors or funders
- Highest ranking and most selective journals
 - Provide comprehensive editorial processes and quality control
 - Most widely read and cited
 - Most trustworthy platforms
 - Scientists want their work to be vetted and endorsed by third parties with a reputation for quality and independence
- Predominately published by scientific societies



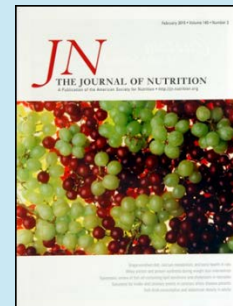
Open Access Publication Model

- Authors pay to publish
- Manuscripts are freely available
- Account for 15% of publications
- Funded entirely by article processing charges paid by authors
 - Researchers must use funds that they would otherwise use for their research to pay the publishers
- Conflict of interest
 - Dependent upon direct payment from authors and funders who have financial or intellectual interest in publishing
 - Publisher makes more money by accepting more manuscripts



Hybrid Journal Publication Model

- Derive most of income from subscriptions
- Also accept Open Access articles, which are made immediately available upon publication
 - Authors pay surcharge for Open Access manuscripts
- Democratic publishing model
- 75% of journals owned by top scholarly publishers are Hybrid Journals



Bjork, *PeerJ*, 5:e3879, 2017;
Kramer, *Physics Today*, Oct 11, 2018.

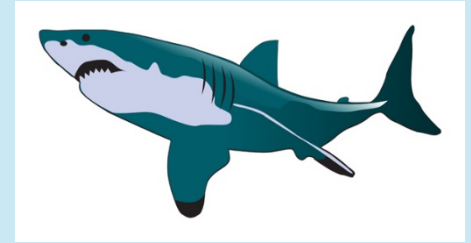
Current U.S. Policy



- NIH, USDA, NSF, DOD, VA, NASA, USAID, and other U.S. government funding agencies require publications to be made freely available by one year
- PubMed Central is a public repository that houses sponsored research articles for NIH and other agencies
- CHORUS houses nonbiomedical research articles for USDA, DOD, NSF
- Other repositories include Portico and CLOCKSS

Predatory Journals and Publishers

- Exploit Open Access model for profit
 - Charge authors to publish their research without providing services
- Use spam emails to solicit manuscripts
- Publish journals with deceiving titles similar to titles of established and respected journals
- Fake: editorial board, peer-review, location, impact factors
- 923 Publishers, 882 Stand-alone Journals (Jan. 2017)



Predatory Publishers Threaten Science

- U.S. FTC filed lawsuit against OMICS Group
 - Charge: deceiving researchers
 - “Used false promises to convince researchers to submit articles”
 - “Held work hostage over undisclosed publication fees”
 - “Vital that we stop scammers who seek to take advantage of changing landscape of academic publishing”
- “Waste of people, animals, and money”
- Contaminating scientific communications



What is Plan S?



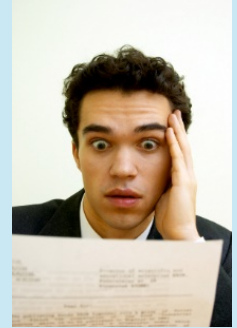
- Requires recipients of research grants to publish solely in Open Access journals
- Prohibits researchers from publishing in Subscription-based journals
- Bans publishing in Hybrid journals
- Launched September 2018 to force immediate change by January 2020
- Endorsed by European Research Council of EU
- European Commission delegation visited U.S. policymakers in October 2018 to gain support for Plan S

Positive Aspects of Plan S

- Published work supported by Plan S agencies would be freely available online to readers
- Goal: Disseminate scientific information to promote scientific advances and improve health care
- Some Open Access journal report sound science



Concerns about Plan S



- Rigid plan that limits researchers' academic freedom to decide where to publish
 - Takes away choice of authors of where to publish
 - Force authors to select journals that will not reach their intended audience
- Most prestigious journals are Subscription-based or Hybrid
 - Prevent researchers from publishing in high-quality journals
 - Block access to their rigorous peer-review system
 - 85% of journals
- Distort dissemination of scientific research by funneling research output to Open Access and Predatory journals
- May inhibit collaboration and reduce mobility

Cost of Plan S



- Increase cost of publishing by requiring authors to pay article processing costs
 - Higher cost to authors for Open Access than Subscription-based
 - Typically thousands of dollars to publish Open Access paper
 - Financial burden and require reallocation of research budgets
- Incentive for publishers to publish as many papers as possible to gain article publication fees
 - Increase publication of low-quality papers
 - Acceptance rates higher in Open Access than Subscription-based or Hybrid journals

Impact of Plan S on Scientific Societies

- Most high-impact journals are research society-based journals
 - Most society-based journals are Hybrid or Subscription-based journals that have earned the trust of researchers, professionals, and public
 - Plan S would lead to the demise of many society journals
- Nonprofit research societies use revenues from their publishing operations to finance educational, journalistic, outreach, and other activities
 - Plan S threatens the financial stability of research societies

Do We Need a Plan B for Plan ~~S~~?

Yes! Reject Plan S

Allow authors to choose the best venue to publish their work, while complying with U.S. government funding agencies' mandate to make papers free to the public within 12 months of publication.