Scientific Journal Publishing: Faculty Perspectives

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Publication Practices

- Publication in a peer-reviewed journal is the most important way of disseminating a complete set of research results to our peers and the public.

- Historically, numbers of papers and quality of journals have been the primary criteria of publication success.

- Digital technologies and the internet are creating new avenues and challenges for publication practices, including access and quality assessment.
Faculty Concerns: Publication

- Speed and efficiency with the handling and review of their manuscript.
- How quickly will the paper appear online and then in print?
- What is the reputation and quality of the journal?
- Do they have a prestigious editorial board?
- Are papers in the journal well cited?
Impact Factors for Journals (+)

- Has been viewed as an objective criteria for journal quality by assessing how often papers published in the journal are cited by the scientific community
- Such a metric can then be applied to (and by) authors and professional evaluators
- A similar criteria can be applied to individual authors in that the collective impact of their work can be assessed (e.g., citation indexes)
Impact Factors for Journals (–)

- Organized efforts (scientific societies) to stop the use of journal impact factors in judging an individual scientist’s work
- Impact factors were never intended to be used to evaluate individual scientists, only journals
- Impact factors tend to bias certain disciplines over others, thus not an objective metric
- Such metrics may also be a disincentive for conducting riskier research – work in highly populated areas are cited more often
Open Access

‘Green’ open-access approach:
All data must be publicly accessible within 6 months of publication, so modest author control

‘Gold’ open-access approach:
Available immediately as soon at it is published; online papers are directly linked to data sets, software and analysis tools that enables their easy re-use for applications such as text-mining, meta-analyses, etc.
Example (+): PLOS ONE

- Open-Access environment, publishing contributions from all areas of science.

- Objectively concentrates on the technical aspects of a research study with an emphasis on valid contributions to science.

- No subjective evaluation (e.g., “impact”).
Example (–): SJP

- Broad-base open access journal publisher
- Many journals in almost all subject areas
- Publication fees required for all journals
- How did I find out? Multiple email solicitations.
John Holdren, Director of OSTP, issued a memo in February stating that all federal agencies funding scientific research must make those papers freely available to the public within one year of publication in a journal. Deadline is August 22, 2013.
CHORUS – Clearinghouse for Open Research in the US

- Publisher’s response to the Holdren mandate.
- Would make full text papers available on journal websites instead of directing users to central repositories (e.g., PubMed Central).
- OA community response – no access to primary data or key analysis tools.
Current Key Questions

- The publication landscape is changing rapidly. What does it mean to faculty and how research productivity is assessed by our peers?

- How do we determine the appropriate outlet to publish our research in this changing landscape?

- How do we compare journal quality in open-access journals versus more traditional outlets?