Description

Publishing academic research is one of the ways by which scholars communicate their findings with each other. As with any science, data is collected, analyzed, and presented; it is the primary source of any research. However, this publishing process is time-consuming for not only authors but even publishing staff as well. Manuscripts are typically submitted to a target journal, reviewed for compliance, and either rejected outright for some infraction or accepted and sent to the editors and peer reviewers. This can take months, and even after the first round, the manuscript might be sent back to the author for further revisions and also to answer pertinent questions about the research and conclusions. After author revisions are done, the manuscript is resubmitted and repeats the same process. We need to look and see if this entire process can be streamlined.

The Need

Academics need a means by which to collaborate with colleagues when writing their research papers. Manuscripts are mostly written by more than one person and tools are needed to ensure that each author uses the same (or compatible) word processing program so that the formats remain intact. With older word processing systems, only one person could make changes to a file at a time. However, current online programs, such as Google Docs, allow several people to simultaneously work on the same file but do not support the entire effort. There are other programs created to make collaborative writing easier, such as Fidus Writer, ShareLaTeX, and Overleaf, but none have been able to integrate the writing and rewriting processes with the review and publication processes or with manuscript submission systems. Web technology has already addressed some of these issues in the life sciences discipline, but those in the social sciences are still lacking. A new project called Opening Scholarly Communication in the Social Sciences (OSCOSS) was created to ultimately provide a better collaborative workflow between authors and publishers that spans both processes.

The OSCOSS Project

OSCOSS was formed to help facilitate and integrate the workflows through all steps in the publishing process for those in the social sciences. Deutsche Forschungsgemeinschaft (DFG), which supports scholarly communication through open access to published pieces and data, provides financial support to OSCOSS. In their article that describes OSCOSS at length, authors Afshin Sadeghi (University of Bonn), Johannes Wilm, (Leibniz Institute for the Social Sciences), Philipp Mayr (GESIS), and Christoph

Lange (University of Bonn & Fraunhofer) detail the objectives, implementation, and architecture of this new integrated system. The two programs chosen for integration were Fidus Writer and Open Journal Systems (OJS).

Fidus Writer was launched for public use in 2013 and allows for collaborative writing and editing. In this tool, content, rather than layout, is emphasized, and the author can publish a manuscript in more than one format. The current version allows the user to export the file into MSWord, create tables, allow comments or hide comments from others, and access its professional citation management system. Using Fidus Writer as the word processing program, OSCOSS integrated several databases and repositories that provide information on scientific journals, research data, and data analysis programs. With these in place, OJS was then integrated into the package.

OJS was created by the Public Knowledge Project (PKP) and founded by John Willinsky in 1998. It provides a system by which access to research has been expanded and improved. The program helps both authors and publishers through every step of the reviewing workflow, including final indexing after the manuscript is published. OJS is available for free to all journals to enable open access publishing.

Integration in OSCOSS

OSCOSS chose these two programs not only because of their scope of services but also because they could communicate with each other using the RESTful interface as its program interface. The roles of Fidus Writer were also expanded. For example, comments from reviewers can be hidden from other reviewers while still being seen by authors. The new integrated program lets authors submit directly to publishers for review and provides a forum in which all parties can interact in real time on specifics of the article, saving time and money for all involved.

The new system also has some necessary requirements, such as the ease of use, continuity, the support of each system regardless of whether users use both, conformance to technical standards, ability to support several formats and templates, ability to support tables and figures, and a sound security system.

Advantages and Disadvantages

With currently available programs, manuscripts are often passed back and forth from authors to reviewers and vice versa. This can result in errors in converting, copying, and emailing. By providing online integration of word processing and reviewing systems, these errors are greatly reduced. OJS requires authors to register online to use the program, but with OSCOSS, new authors who submit to Fidus Writer are automatically registered with OJS. Multiple accounts and login information are not necessary, which also reduces administrative time and costs.

The OSCOSS integrated system does have its limitations, such as network and browser capability limits for both authors and publishers. Some editing formats using browsers are also limited by the current lack of standardization. Organizations such as the World Wide Web Consortium (W3C) acknowledge these Internet limitations and are working towards resolving the standardization issues.

OSCOSS will evaluate the new system with scientists across all disciplines who have previously used online systems to test whether it meets their needs. OSCOSS will also continue to follow up with users

to determine whether integrating comments into the original manuscript will have an effect on the text and format. Ultimately, the goal is to have a system in which integration among all parties involved in the publishing process from submission to final work collaborate with one another and openly communicate to save both time and costs involved in getting the manuscripts published.

Category

1. Publishing Research
2. Submitting Manuscripts

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Author
daveishan