The preprint archive is a free online repository and distribution service for unpublished papers. By posting preprints in the archive, authors can make their findings immediately available to the scientific community and receive feedback from readers on draft manuscripts. In recent years, the number of preprint postings has increased significantly. This poster aims to clarify the current status of the bioRxiv archive.

Methods

This study conducted an analysis of papers posted on bioRxiv from November 7, 2013 to February 28, 2019. The web crawler we developed for this purpose visited every page on bioRxiv and downloaded metadata including the author, publishers, digital object identifier (DOI), posted date, and versions of a paper. If the paper was published, it would download the journal title and the published DOI. Next, the metadata were manually verified. Open access journals were defined by adopting an open access publishing model according to Directory of Open Access Journals, Web of Science Selected Open Access by Clarivate Analytics, or the Directory of Open Access Scholarly Resources by International Standard Serial Number International Centre.

Results & Discussion

<< Published in Academic Journals >>

43,812 papers had been posted on bioRxiv. 17,818 papers were published in academic journals. The solid line indicates the rate of published papers, and the dotted line indicates the average since its launch. The average publication rate for more than 15 months was uniform at around 67% (median).

<< Open Access Journals >>

Among these, the journals of 8,664 published papers were recorded by the Directory of Open Access Journals, the Web of Science Selected Open Access, or the Directory of Open Access Scholarly Resources. The average open access rate was uniform at around 49% (median).

PLoS ONE is an open access journal. As all 902 papers on PLoS ONE are open access, the open paper rate was 100%. On the other hand, Bioinformatics is a hybrid open access journal. Among the 509 papers published in Bioinformatics, 318 are freely available online, thus making the open paper rate 62%.

Conclusion

The conclusions show that the OA model is widely accepted, and has been adopted not only in publishing, but also during the writing process. The concept of “openness” and its practice in academia has inevitably affected the organization of library resources, resource management methods, and service models.

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