

Open Access Publishing: An Initial Discussion of Income Sources, Scholarly Journals and Publishers

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Abstract. The Study for Open Access Publishing (SOAP) project is one of the initiatives undertaken to explore the risks and opportunities of the transition to open access publishing. Some of the early analyses of open access journals listed in the Directory of Open Access Journals (DOAJ) show that more than half of the open access publishing initiatives were undertaken by smaller publishers, learned societies and few publishing houses that own a large number of journal titles. Regarding income sources as means for sustaining a journal's functions, "article processing charges", "membership fee" and "advertisement" are the predominant options for the publishing houses; "subscription to the print version of the journal", "sponsorship" and somewhat less the "article processing charges" have the highest incidences for all other publishers.

1 Introduction

The advance of technology and the development of the World Wide Web created immense opportunities for people to communicate and exchange information in new ways. This has also been a fact for scholars and the way they communicate their research findings. Over the last decade activities around the open access movement rose significantly. Open access literature is online, free of charge for all readers, and permits its distribution and further use for research, education and other purposes [1].

Discussion around sustainable business models for open access publishing has been going on for several years now and publishers have been experimenting and exploring new opportunities. Some of the areas often discussed are: the basis for charging fees, where publication charges currently come from and where they are expected in the future, the role of the print journal and the role of institutional memberships. Furthermore, the role of waiver policies, new models for assessing impact of research and

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whether that has an impact on submission levels and growth. It is frequently seen that publishers have been experimenting with a combination of different income funds and seeking opportunities to explore new partnerships, one example being in collaboration with learned societies.

In Europe, the European Commission recognized the need to examine the potential for change in the scholarly publishing arena [2] and explore initiatives that would make suggestions at policy level for a smooth transition to open access. The SOAP project is one of the initiatives undertaken to explore the risks and opportunities of the transition to full open access publishing.

The Study of Open Access Publishing (SOAP) Project

The Study of Open Access Publishing (SOAP, <http://project-soap.eu>) is a two-year project, funded by the European Commission under FP7 (Seventh Framework Program). The project is coordinated by CERN, the European Organization for Nuclear Research, and the SOAP consortium represents key stakeholders such as publishers (BioMed Central Ltd (BMC), Sage Publications Ltd (SAGE UK) and Springer Science+Business Media Deutschland GmbH (SSBM), funding agencies (Science and Technology Facilities Council (STFC) UK), libraries (Max Planck Digital Library) and a broad spectrum of research disciplines. One of the project's aims is to describe and analyze open access publishing. SOAP aims to compare and contrast business models. Such an approach will allow for a better understanding of the marketplace as well as the opportunities and risks associated with open access publishing. The foundation for the study is the understanding of the market penetration of present open access publishing offers, and this paper presents a first part of this.

2 Methodology

The findings presented in this short paper are based on a quantitative analysis of open access journals. Journal level metadata were downloaded from the Directory of Open Access Journals (DOAJ, <http://www.doaj.org/>) during July 2009. In addition to the DOAJ data, information about publisher types, copyright practices and income sources was manually collected from the journals' websites. The data collection took place between October 2009 and January 2010.

3 Preliminary Results

Publisher characteristics – Size and type

The DOAJ data file listed 4568 records. After excluding duplicate records, there were 4032 journal titles and 2586 publisher names. More than half (56%) of the publishers were associated with one journal only. Less than a quarter (21%) of the publishers own between 2 and 9 journals and 9% own between 10 and 49 journals. There are only five publishers with more than 50 journals titles each (14%). Those publishers are: Bentham open, BioMed Central, Hindawi Publishing Corporation, Internet Scientific Publications – LLC and Medknow Publications (Table 1). It should be noted that results differ at article level as compared to journal level which is discussed here.

Table 1. “OA-size” of publishers by number of journal titles in DOAJ

Publishers size class by number of journals	Number of publishers	Number of journal titles	[%] of journal titles per publisher in the DOAJ
1	2270	2270	56
2 to 9	286	845	21
10 to 49	25	362	9
≥ 50	5	555	14
Total	2586	4032	100

Publishers were also grouped by type. The options that were looked at were: publishing houses, learned societies and individual/other initiatives. The publishers with the highest number of journal titles in DOAJ are primarily commercial publishers while learned societies are represented by fewer journal titles. The majority of the publishers with fewer than 50 journal titles represent individual initiatives. Some examples are: academic departments, universities, governmental organizations, international organizations, foundations.

Income funds

Between October 2009 and January 2010, the project partners manually collected information about visible income funds of the journals from their websites. The information sought referred to the following options: article processing charges, membership fees, advertisement, sponsorship, and subsidy, subscription to the print version of the journal and hard copy sales.

The following table lists the seven income sources that were investigated and gives their relative share [%] at the level of journal title. The selection of income sources allowed for multiple responses. "Article processing charges", "membership fee" and "advertisement" are the predominant options for the large publishing houses, whereas

Table 2. Income sources for OA journals by size of publisher

Publisher size class (number of journal titles per publisher)	Number of journal titles	Number of journal titles successfully processed	Income sources [%]						
			Multiple selection						
			a	b	c	d	f	g	x
1	2270	954	15	8	13	37	45	15	21
2 to 9	845	438	45	8	29	86	91	32	35
10 to 49	362	185	51	8	15	11	55	5	40
≥ 50	555	540	88	76	83	23	28	61	11
total	4032	2117	199	100	140	157	219	113	107

"subscription", "sponsorship" and somewhat less the "article processing charges" have the highest incidences for all other publishers. However one should take into consideration that these findings differ at article level as compared to journal level which is discussed here.

a	article processing charges	b	membership fee
c	advertisement	d	sponsorship
f	subscription to the print version of the journal	g	hard copy
x	other		

4 Summary and Future Work

Some of the early analyses from the DOAJ data show that more than half of the open access publishing initiatives were undertaken by academic institutions, governmental organizations, foundations, university presses, individuals, etc. Learned societies have yet been identified for about 14% of the DOAJ publishers' records. Those of the publishing houses listed in DOAJ are dominant in terms of the number of journals that they publish.

Regarding income sources as means for justifying viability of a journal, there is a distinctly different pattern with respect to the overall prevalence of the options between the bigger publishers and those smaller in size. At journal title level "article processing charges", "membership fee" and "advertisement" are the predominant options for the 5 publishers that have more than 50 journal titles associated with them. Whereas "subscription", "sponsorship" and somewhat less the "article processing charges" have the highest incidences for all other publishers. This pattern is somewhat different when one is looking at article level information compared to journal level information which is discussed here.

The SOAP project is currently finalizing data analyses pertaining to DOAJ data. Further analysis is currently being conducted with respect to copyright/licensing options that are practiced, income options found in subject domains as well as the number of articles produced (data collected for 2008 or where not available for 2007).

Other current work involves a review and comparison of large publishers' experimentation with open access. Specifically, SOAP partners are reviewing the share of hybrid journals in the market, which open access share do hybrid journals have and which open access share does the total article output of publishers have. Future work includes a large scale questionnaire survey looking into scholars' practices, attitudes and requirements when it comes to open access publishing.

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