

Research into Open Access: Impact and User Perspective

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Abstract

The title of this article is Research into Open Access: Impact and User Perspective. It aims to explore recent research into Open Access. This research was collected research about open access, analyzed them, dan summarised the pattern of the Open Access research conducted There is a growing body of research exploring open access. This research has focussed on two main areas of inquiry: impact and user perspective. Research exploring open access from the perspective of impact has investigated how frequently articles published in open access channels are cited compared to articles published in other channels. Research exploring open access from the perspective of user engagement has tried to fill this gap. For example, studies have explored how research students are aware of and use their university repository. It is expected that the result of this research can provide a guide for the future direction of Open Access research.

Keywords: *open access; institutional repositories; open access journals; library and information science; library and information science research.*

Abstrak

Artikel ini berjudul *Research into Open Access: Impact and User Perspective*. Penelitian ini bertujuan untuk mengidentifikasi penelitian-penelitian terakhir dibidang Open Access. Bagaimana penelitian tersebut telah dilakukan, hasil yang ditemukan, dan apa yang menjadi keterbatasan atau ruang lingkup dari pembahasan penelitian-penelitian tersebut. Berdasarkan identifikasi yang telah dilakukan, penelitian-penelitian terdahulu tentang Open Access berbicara tentang dua hal, yaitu *impact* atau efek yang muncul, dan yang kedua adalah *user perspective*, atau perspektif pengguna Open Access. Penelitian yang mengkaji tentang *impact* Open access telah menginvestigasi seberapa banyak artikel-artikel penelitian yang dipublikasikan melalui media Open Access mendapatkan sitasi dibandingkan dengan artikel lain yang dipublikasikan melalui media non-Open Access. Sementara *users perspective* menemukan sejauhmana masyarakat memahami konsep Open Access yang pada akhirnya mempengaruhi tindakan mereka terhadap publikasi Open Access. Diharapkan dari studi ini dapat menstimulasi penelitian-penelitian selanjutnya mengenai publikasi Open Access.

Kata kunci: *open access; institutional repositories; ilmu perpustakaan dan informasi; penelitian ilmu perpustakaan dan informasi; jurnal open access*

1. Background

The open access movement has changed academic publishing and is enhancing scholarly communication (Lewis, 2012). With support from universities and Indonesian government, open access has become a scholarly communication tool for better distribution for research outputs. In recent years the number of institutional repositories and open access journals worldwide has been increasing rapidly (Willinsky, 2006). Open access not only enables better scholarly communication but it also helps to address the problem faced by university libraries in regards to the increasing price of journal subscription (Lewis, 2012). Without open access university libraries are not able to provide the full range of information needed

by the research community they serve; researchers will have reduced access to the latest research which will impact their capacity to undertake high quality scholarly activity.

This article providing a brief background to the open access concept, including the different open access strategies currently available, followed by a critical exploration of current research into open access and summarised by discussing the limitations of existing open access research and by drawing discussions of research gap that can be used by the other researchers to continue the study.

2. Open Access Explained

Open access is defined as free access to journal articles (Crawford, 2011). The most cited definition for open access is provided by the Budapest Open Access Initiative (BOAI) which define open access as a free and unrestricted online availability of literature (Budapest Open Access Initiative, 2002). The key concepts in this definition are ‘free’ and ‘unrestricted’:

“The literature that should be freely accessible online is that which scholars give the world without expectation of payment...permitting any users to read, download, copy, distribute, print, search, or link to the full texts of these articles, crawl them for indexing, pass them as data to software, or use them for any other lawful purpose, without financial, legal, or technical barriers other than those inseparable from gaining access to the Internet itself.” (Bailey, 2007, p.353)

Crawford (2011) provides another definition that narrows the focus to journal articles in particular, while also noting that articles must be available online free to be read by anyone, anywhere, and anytime:

“Open access requires that refereed journal articles be fully and freely available on the Internet, on or before the date of formal publication, to be read, to be downloaded, distributed, printed, and used for any legal purpose without permission or other barriers.” (p. 11)

Open access offers an alternative way for publication of research works. By distributing the works freely through the world wide web without copyright barrier, the argument is that the advancement of knowledge and science becomes faster than by publishing in non-open access journals (Willinsky, 2006).

Open access publishing, whether it is green or gold, has increased the number of research articles now accessible and available. For example, The Directory of Open Access Journal indexes 9712 journals and has more than 1 million articles currently available, and it still growing (DOAJ, 2014). Open access is here to stay but at this point in time very little work has explored this emerging phenomenon. The next section will provide a critical review of the current research into open access that has arisen in the last several years.

3. Research into Open Access

Over the years a growing number of studies have begun to explore the open access phenomenon. This research has tended to focus on the issues of impact and user perceptions. The following section provide a review of the key studies from these two areas.

3.1. Impact

Impact in the context of open access articles refers to how many times an article has been accessed, downloaded, cited, and to what extend the findings outlined in the article have been applied in other studies (Harnard et al, 2004). However most of studies exploring the impact of open access have done some from only the perspective of citation count. For example, a study conducted by Koler-Povh, Juznic, and Turk (2013) investigated the impact of open access on the citation of scholarly publications in the field of civil engineering. They analysed 2,026 articles published in 14 non-open journals and in the authors own website or institutional repository. The study confirmed that open access publications have a positive impact on the citations of articles, noting that open access articles were cited 43 times, whereas non open access articles cited only 29 times. The work by Koler-Povh, Juznic and Turk (2013) suggests that articles published in open access journals increase the probability of being accessed and cited by more users or researchers. Knowing that an article is cited, in all likelihood indicates that the article was read and used to inform scholarly work.

Research by Davis (2008) and Gaule and Maystre (2011) explored the role of author choice in open access and citations. Questioning the assertion that correlations exist between open access and increased citation counts, Gaule and Maystre (2011) analysed a sample of 4388 biology papers published between May 2004 and March 2006 of *Proceedings of the National Academy of Sciences* (PNAS). This journal was selected for investigation as it is a high quality scientific journal which started to offer an open access option to authors in May 2004 for a 1000 USD fee. Gaule and Maystre (2011) concluded that open access alone did not increase citation, noting that authors of higher quality articles are more likely to choose open access publications options.

Gaule and Maystre noted several reasons for authors choosing choose open access: author's paper is more likely to be published in open access if the quality of the paper is high, if the present value of citation is high, if the cost of publishing is low and the increase of the readership associated with open access is high. This study suggests that open access does not necessarily increase the number of citations but publication quality and journal readership does. Gualé and Maystre (2011) note that an important limitation of their study was that it did not capture the "invisible readers" or those who read the article but did not cite it.

3.2 User Perspective

Two recent studies have explored open access from the user perspective. One of them is described in this article. Research conducted by Stanton and Liew (2011) examined doctoral students attitudes to open access forms of publication. Data was collected through interviews with eight doctoral students enrolled in a range of disciplines in a New Zealand university and a self administered online questionnaire of 251 students. More specifically the students were asked to discuss their awareness of open access generally, and the digital repository managed by the university specifically. Data was also gathered on the students' willingness to comply with university mandate to archive their thesis into university repository, and most importantly their use of open access and institutional repositories for their information need during their doctoral studies. The students were drawn from the University's five colleges: Business, Humanities, Social Sciences, Education and Sciences.

Stanton and Liew (2011) noted that while the mandatory submission policy has been applied by Massey University since 2007 however the awareness of students of university repository was fairly low. The research students who took part in the study understood the benefits of open access, and valued the institutional repository in helping to ensure their research outputs were disseminated widely. However they raised concerns about copyright and the potential of plagiarism and expressed confusion regarding journal publishers' copyright restrictions and the implications these restrictions had on making submissions to the university repository.

Another finding to emerge from the work by Stanton and Liew (2011) relates to how the doctoral students who took part in their study located research articles to supply their information need for the literature review stage of their research. Very few of the students accessed directly open access journals or institutional repositories.

The work by Stanton and Liew (2011) is one of the first to shed light on how researchers actually engage with university repositories. Although the study provides new insights into the awareness and attitudes of doctoral students towards open access, it does not explore the way in which the articles retrieved contributed to the students doctoral work. Stanton and Liew (2011) have shown that doctoral students value open access and think of the university repository as an important information resources for their study, but how do the students use materials obtained from the universities repository for their study? How do articles obtained via the university repository fit within the students overall information experience? How do articles obtained via the university repository enable student learning?

The second study to explore open access from the user perspective was conducted by Jean, Rieh, Yakel, and Markey in 2011. The study investigated the perceptions and experiences of a group of institutional repository users. The participants were recruited through five university repositories. Twenty people participated in the study, including six undergraduate, four masters and three doctoral students, five academics, one library staff member and one museum staff member. Findings showed that the study's

participants understood institutional repositories at different levels. Most of the participants were able to provide a basic definition of a university repository; this level of awareness was established by attending library workshops and via messages from their university on the obligation of archiving their theses or dissertation in the repository, and from recommendation from professors.

The participants reasons and methods for visiting the institutional repository were diverse. Participants visited the repository to obtain content for a course, to access raw data for a research project, to identify academics or researchers with similiary research interests, for networking and collaborations, finding best practice examples, and to help locate information for everyday life. The study found that the participants reached the repository through various paths such as clicking on a link from the university library's webpage or searching for the name of the repository on the university's homepage.

The study also concluded that users are uncertain about the scope of institutional repostitories and what they offer. There was confusion as to the relationship between repositories and library databases. The participants indicated they were not sure if all materials in the repository had been through a peer review process. It was noted however that institutional repositories were more trustworhty than popular search engines such as Google or Google Scholar, because of the association with the library and the university. Jean et al (2011) conclude their work by noted that: "our study also suggests both the need for, and the potential value of, future studies involving institutional repository end-users" (p 40). The work by Jean et al has provided insights into how different stakeholders in the univesity setting are of aware of and engage with university respositories. Importantly this work has begun to consider how respositories are being used as an information source by users. As per others studies exploring open access the work by Jean et al (2011) does not focus on how researchers use the materials obtained via insitutional repositories to learn about their research.

3.3. Summary

There is growing body of research exploring open access. This research has focussed on two main areas of enquiry: impact and user perspective. Research exploring open access from the perspective of impact has investigated how frequently articles published in open access channels are cited compared to articles published in other channels (Gaule and Maystre, 2011; Koler-Povh, Juznic, and Turk, 2013).

But citation count does not consider the ways in which researchers *use* the articles obtained via open access. Research exploring open access from the perspective of user engagement has tried to fill this gap. For example, studies have explored how research students are aware of and use their university repository (Jean, Rieh, Yakel, and Markey, 2011; Stanton and Liew, 2011). While providing an interesting insight into the researchers experience of open access these studies have focussed only on the attitudes and perceptions of researchers, the studies have not explored open access from an *information and learning*

perspective. To date no research has investigated *how researchers are using open access information to learn about their research*. It is this perspective that opening an opportunity for future research direction in the field of open access research.

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