Open Access and Academic Influence Mechanism Analysis

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ABSTRACT: Open Access summarized the significance of academic exchanges, an important foundation to literature, the main research question, the international forefront of progress in the three criteria to determine viability of open access part of the current library and information science in a frontier hotspot for open access and scholarly journals, papers influence between the mechanism of the Commentary.

KEYWORDS: Open Access; Citation analysis; Academic influence; Mechanism analysis.

1 INTRODUCTION

In December 2001 the famous "Budapest Open Access Plan" (Budapest Open Access Initiative, BOAI) released as a symbol, open access (Open Access, hereinafter referred to as OA) scholarly publishing field quickly became a movement. Advocates of the OA defined in accordance with Budapest and the purpose of the regulations, it is above all a with the rise and developed academic publishing, dissemination, exchange of new models, the literature [1-3] describes the mechanisms resulting OA publishing background, Realization, development status and other issues. With the traditional publishing model similar academic journals, OA also has a corresponding quality control mechanisms to ensure its scientific academic value, but we generally think it has the following three distinct characteristics: First Online, that is accessible via the Internet, access to; second Free, that is completely free, eliminating the price of subscriptions and access barriers; Third Available, equitable access to all the information available, there is no user access control or barriers.

Relieve stress and academic journals library funding crisis. Libraries, especially university libraries and research libraries and academic publishers longstanding interests of the game, both the academic literature university academics producers and consumers, which produced both "relationship paradox" : on the one hand, the University will own academic gratis copyright transfer research results to commercial publishers, Furthermore, the University had to pay increasingly high cost of journal subscriptions. Academic libraries have been unbearable publishers market monopoly and price demands, according to reports, in 2007 only CALIS group purchasing Elsevier products has reached 18 million U.S. dollars, subscription plan price increases in 2010 to $ 28 million[5]. Some scholars have done a special research, pointed out that the current Elsevier's 25 academic journals average proportion of open access 57.53%, so, in theory, China's annual savings of about $ 2.58 million of Science Direct purchase costs, which inspires us with publishing giant negotiations should take full advantage of this department OA resources or survey data, in order to strive for greater discounts and resource use rights.

Improve the timeliness and scientific journals visibility. In journal publishing, for example, the traditional model often requires publication cycle, and its publishing system has gradually no longer load in today's technological advances, even the widespread adoption of online submission, peer review ways to improve efficiency, printed form or commercial databases academic information presented still has its limitation value loss. In contrast, OA publishing process are all done on the network, as long as the review complete, publish agreement reached, the user can immediately read online or obtain academic resources, to ensure maximum timeliness of scientific research. In addition, OA journals visibility for improved meaning is obvious, it overcomes the price and use restrictions, so research results more likely to be used, thus to reach a wider audience, expanding the scope of knowledge sharing.

Overcome the digital environment researchers Communication Barriers for accelerating research speed. Digital Academic Exchange (Digital Scholarship Communication) includes not only
scholars in the printed and digital publications published papers of the whole process, but also includes the use of digital media exchange activities, such as individual or group blog, forums, discussion groups to express their views and comments, edit wiki entries, to submit data warehouse or social networking sites or academic exchange products. This digital network is the inevitable academic exchange channels, and network-based models can be run as a solution OA scholarly information search, access, services and other barriers to a breakthrough for researchers timely, convenient, fast access to or publication of research results provide the conditions but also to enhance the dissemination of academic freedom.

2 OA FRONTIER ATTRIBUTES DETERMINE

In the modern sense of the OA movement can be traced back to the early 1990s, the United States Los Alamos National Laboratory physicist Paul Ginsparg, Steven Harnard and Harold Varmus and other papers created preprint website arXiv.org, these advocates point out that the initial the nature of self-preservation site only standard is "saved and used for dissemination of non-technical information" [11]. Its essence is expressed research scholars equal access to knowledge, information sharing and the pursuit of faith. In 1998, the free diffusion of scientific results sport (also known as "Liberty Science Movement") for the first time explicitly put forward the "Open Access" concept, by the end of 2001 "Budapest Initiative" was published, OA caused libraries, universities, scholars, academic organizations and groups of all kinds of lively discussion, in which libraries and other information centers and publishers in the center of the campaign, then OA has become a major LIS frontier. The following subjects will be in accordance with the three frontiers objective identification criteria, which an important foundation for literature, the main research question, the international forefront of progress embodied the historical foundations and academic activity to be judged.

2.1 The foundation of OA literature

As mentioned before, OA movement rise of the tide far-reaching impact on the academic community will naturally arouse interest of researchers, thus the birth of a large number of research papers or books OA, forming the basis of the corresponding literature collections.

Table 1. Number of papers abroad OA.

<table>
<thead>
<tr>
<th>Year</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paper Num:</td>
<td>7</td>
<td>17</td>
<td>23</td>
<td>39</td>
<td>58</td>
<td>76</td>
<td>65</td>
<td>65</td>
<td>49</td>
<td>43</td>
<td>34</td>
<td>16</td>
</tr>
<tr>
<td>percent age%</td>
<td>1.4</td>
<td>3.5</td>
<td>4.7</td>
<td>7.9</td>
<td>11.8</td>
<td>15.4</td>
<td>13.2</td>
<td>13.2</td>
<td>10</td>
<td>8.7</td>
<td>6.9</td>
<td>3.3</td>
</tr>
</tbody>
</table>

As can be seen from the table, 2002-2007 is continued growth in the number of papers abroad OA stage, peaked in 2007, followed by a slight decrease (of which 2012 data is low may not timely data updates on), but in general, maintaining the OA research hotspot trends, current research in this field have emerged.

Foreign Libraries circles appeared very early in order to "OA" naming literature, such as the 1966 Open Access in Soviet Public Libraries and the 1978 Failure of Open-Access Residence Hall Library, we can see the early scholars use the "OA" is used to illustrate the concept of resources open to the public library and information service mission, we find that contemporary OA scholarly publishing mechanism The spirit is the same strain, but also some differences.

Subsequently, experienced about 30 years of silence, 1997 Beach board other scholars published in Government Information Quarterly A critique of federal telecommunications policy initiatives relating to universal service and open access to the national information infrastructure an article, clearly in the information age and the "National Information Infrastructure" (NII), the promotion of access to government information and other public information content (such as libraries, university resources, etc.) electronic access, sign books intelligence circles full of modern features of the OA Research return. After 2002, the Internet tide OA movement began to get attention in the publishing world, statistics obtained: the famous OA journal papers have been published in Learned Publishing 51, GL Conference Series and Serials Review of 20, people started to pay attention to the
traditional publishing OA transition. Since 2003, foreign books intelligence community scholars also quickly caught up with OA movement, JASIST OA has published 19 research papers, Interlending & Document Supply also contained the text of the 17. Which Fineman discusses ETD access and technical issues, as well as ways to develop digital resources via the World Wide Web free access to those resources need to. In addition, there are papers analyzing the 21st century e-Science environment OA resources to meet the challenges of the library function, demonstrate "academic cultural theory" (disciplinary culture theory) to scholars OA self-archiving behavior and so on.

May 24, 2004, CAS President Lu Yongxiang signed a network aimed at promoting global sharing of scientific resources "Berlin Declaration", can be regarded as China formally joined the global OA campaign logo. Domestic book also respond quickly to the intelligence community, which is hereby Li Wu and Liu Heng, "a new scholarly publishing models: Analysis of Open Access publishing model" is the first systematic introduction OA publishing model of academic papers, first King Lee The "open access—a new kind of academic exchange model", Qiao Dongmei's "foreign academic exchanges open access development review", LI Chunwang "Network Environment Open Access Scholarly Information" and also the earliest exploration of an OA model approved literature.

To the "open access" or "open access" as the theme CNKI get search results 2207 (retrieval date is December 31, 2012), to generate search reports obtained LIS field Papers 1034, Ph.D. Thesis 4 , Vol 51, conference papers 4, a total of 1,097 valid records. In the six years of time had such a huge amount of papers, OA LIS sector in the heat can be seen.

The two best in academic library journal "Chinese Library Journal" and "Journal of Academic Libraries" (both bi-monthly) for the sample objects, statistics obtained on "Open Access / Open Access" literature data the following table:

<table>
<thead>
<tr>
<th></th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Journal of Library Science in China</td>
<td>1</td>
<td>2</td>
<td>6</td>
<td>5</td>
<td>8</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>6</td>
<td>32</td>
</tr>
<tr>
<td>Journal of Academic Library</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>9</td>
<td>2</td>
<td>1</td>
<td></td>
<td>24</td>
</tr>
<tr>
<td>count</td>
<td>1</td>
<td>4</td>
<td>9</td>
<td>6</td>
<td>13</td>
<td>4</td>
<td>11</td>
<td>3</td>
<td>7</td>
<td>56</td>
</tr>
</tbody>
</table>

Data in the above table shows that two published papers since 2005 OA volume no vacancy values, but was not regular fluctuations, "Chinese Library Journal" published concentrated in 2006-2008, followed by heat declined; but it is worth a mentioning that, "Journal of Academic Libraries" in previous years data relatively stable, the 2010 paper contained OA surge to 9, to a certain extent explain the disciplines of OA research or ascendant.

2.2 Main areas of OA research

Based on the such papers, it summarized the main themes of domestic and international. The researches abroad reflect the interdisciplinary characteristics, library science, information metrology, publishing, computer networks and cross-application of social science disciplines to focus most of OA literature, OA Research In Motion has three main areas:

(1)The OA evaluation of the impact of academic resources. In 2001, professor Lawrence wrote a paper named “Free online availability substantially increases a paper's impact” in Nature .He thought “Free Internet access to be improved significantly Times Cited Papers” firstly which named “Lawrence effect”. After that time so many researches on relationship among OA, periodical and the papers’ impact.

(2)Studies on OA and Recognize of self. Martine and Macdonald analysis the challenge to career information, and said a now role of Librarians—Data Curation.

(3)The achievement of OA publications.

3 ACADEMIC INFLUENCE OF OA

As it said before, Lawrence had been concerned “Academic influence of OA” as early as the beginning of the rise of the OA movement. In 2004, ISI had specifically released a comparison report about impact factor between traditional journal and OA, which pointed out there are no significant differences in how many times the OA and non-OA journals of WOS cited and influence. Later, there are more researches on the impact of OA on academic achievement. The study mostly are about WOS, JCR, ARXiv, Google Scholar, PubMed, Scopus, and the main way to study is analyzing Citation and WIF. Based on Times Cited (Query Time: December 31, 2012) it identified the classic literature of the relationship between OA and academic influence, part of the literature in the table below:
Table 3. Academic power of classical literature on OA.

<table>
<thead>
<tr>
<th>Title</th>
<th>Author</th>
<th>Source of journal</th>
<th>year</th>
<th>Times cited in WOS</th>
<th>Times cited in Google Scholar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do open-access articles have a greater research impact?</td>
<td>Antelman</td>
<td>College &amp; Research Libraries</td>
<td>2004</td>
<td>78</td>
<td>448</td>
</tr>
<tr>
<td>Google Scholar citations and Google Web/URL citations: A multi-discipline exploratory analysis</td>
<td>Kousha Thelwall</td>
<td>JASIST</td>
<td>2007</td>
<td>64</td>
<td>136</td>
</tr>
<tr>
<td>The effect of use and access on citations</td>
<td>Kurtz EichhornAccomazzi</td>
<td>Information Processing &amp; Management</td>
<td>2005</td>
<td>55</td>
<td>130</td>
</tr>
<tr>
<td>Do open-access articles have greater citation impact? A critical review of the literature</td>
<td>Craig McVeigh</td>
<td>Journal of Informetrics</td>
<td>2007</td>
<td>42</td>
<td>134</td>
</tr>
<tr>
<td>Sources of google scholar citations outside the Science Citation Index: a comparison between four science disciplines</td>
<td>Kousha, Thelwall</td>
<td>Scientometrics</td>
<td>2008</td>
<td>42</td>
<td>72</td>
</tr>
<tr>
<td>The effect of &quot;Open access&quot; on citation impact: An analysis of ArXiv's condensed matter section</td>
<td>Moed</td>
<td>JASIST</td>
<td>2007</td>
<td>32</td>
<td>72</td>
</tr>
</tbody>
</table>

As it can be seen, the current research on OA and academic influence is at a critical stage, and more and more studies are joining forces to this area, in addition to the main LIS research community, there are support from publication of the scientific community, and even scholars of natural science.

Finally, although the current OA Academic Resources Quality Control embarked on a virtuous path of development, but the sharp contradiction with the protection of intellectual property and OA OA journals still controversial mode of operation, which influenced the development of sport played and OA academic evaluation functions.

REFERENCES