

Review of International Librarianship Open-Access Journals Conformity with ISO Standards

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Abstract

This article is about the comparison of international librarianship open-access journals with ISO standards, a checklist consisting 109 informational items has been developed. 108 journals published on the Directory of open access journals site have been studied. The data are as follows: ISO standards compliance in open-access journals is below 50%, standards compliance with publishing journal titles 100%, on-line saving articles in journals 81%, review efficiency in search structure of journals 85%, potential use of Boolean operators in the retrieval system of journals 90%, search efficiency in publishing journal languages 70%, potential storage of retrieved items 93%, search potential in journal articles 64.4%, that all are above 50%, informational items in table of contents 69%, stating publication status at the same place 12%, presentation of informational items per article 21%, using sum-up-word operators in search engines 49%.

Keywords: open-access journal, ISO standard, library & information science.

Introduction

Internet and Web have basically developed scientific interrelationship worldwide and access paradigm to scientific sources and also studies data based on subscription has changed in to open-access system. By increasing subscription costs, scientific journals, libraries, research societies have been looking for alternatives of conventional publication pattern. One of them is free electronic journals (Norouzi, 2007). Open-access journals may not be published openly first and have their own budget. In fact they are not free but they are openly accessible to audience. When the first edition comes out, its distribution cost on the internet compared to common additional costs to distribute current journals (such as collecting, distributing) could be trivial. Production procedures and presenting the journals will be profitable (Jamali, 2008).

Open-access movement to scientific sources started early in 1990s, has gradually developed with various perspectives in different fields and sites. The most important pioneers of "open-access movement to scientific sources" assembled for the first time in February 2002 in Budapest, Hungary by Open Society Institute aiming to find connection and cooperation between all institutes which have been working in this field. The convention led to "Budapest Open-Access Initiative". The convention purpose was to facilitate international efforts to access research literatures of all science fields. The movement established prominent conventions in Bethesda, the U.S (June 2003), Berlin (October 2004), Salvador, Brazil (September 2005) to exchange ideas and improve "open-access" targets. In Budapest statement,

two strategies have been suggested for open-access sources. First, open-access archives and second, open-access journals (Siyamak, 2009). And according to the statement two directions of open access are considered. 1- open-access journals the golden road to open-access: The articles from the selected journals are openly accessible immediately. These journals will not charge subscriptions or access fees. Part of the motivation for authors to make their articles accessible through open access journals is a researcher or citation impact. 2- Open access self-archiving the green road to open access: Authors make copies of their own articles openly available as a subject or institutional archive or repository. When these archives conform to standards created by the open archives initiative, a search engine and other tools can treat the separate archives as one. Self archiving is supported by about 90 per cent of publishers (Tonta et al, 2007).

To optimally manage, produce, and present journals especially electronic journals, the standards are very important. Global journal management is considered prominent use of the standards; therefore use of journals published in other countries will be more helpful. Employing the standards may establish an appropriate infrastructure to improve on-line network and services of bibliographical information. This providing whole journal text helps bibliographical information propagation (Gilvari. 2006).

One of the topics upon acquisition of electronic journals is selecting criterion, because by increasingly growth of these internet sources, there must be particular methods and standards. To manage to optimally produce and present journals, especially open-access journals as well as their global management it seems to be helpful effective use of both structures and to facilitate the use of journals, evaluation and quick source accessibility, bibliographical information exchange between organizations and international centers. This study will review the current condition of international librarianship open-access journals considering data structure and ISO standards.

Review of Related Literature

Delgado Lopez-Cozar &Perez (1995) have proposed a method for the evaluation of the degree of compliance of scientific journals with international standards for the presentation of periodicals. The aim of their study was to enhance the quality of information in these media of scientific communication, and to improve the standards issued by standardization institutes. The limitations, possible uses and applications of these standards are noted. Furthermore, the criteria used for the selection of standards to be evaluated are described, together with criteria for inclusion in the sample. The result is a checklist comprising 129 items, each of which can be scored as present/absent, correctly or incorrectly located. To facilitate the evaluation, the items are grouped into sections, divisions and blocks on the basis of logical, physical, or content similarities. These divisions reflect the distribution of responsibility between the editor and contributor in complying with different standards and illustrate more logical reorganization of the elements regulated by the standards

Gilvari (1995) proposed studying the overall status of Persian Electronic Journals (PEJs) and analyzing their presented information items. In all, 93 PEJs represented the research population. A similar check list consisting of 47 questions (115 information items), prepared through investigating the present publishing standards of printed and electronic journals was filled out for each PEJ.

The results of the study proved that implementation of standards of PEJs is not appropriate, and that from the information structure point of view, the PEJs are deprived of a single and standard information structure. Search abilities were maintained in 10.16 percent of PEJs search engines. HTML language was used to display and store information contents in nearly all PEJs. Finally, a single and standard guideline was proposed as a model for information structure in PEJs .

Delgado Lopez-Cozar (1997) in a research compared 205 medical journals with international standards. His findings showed that 33.5 % of the journals were in compliance with the standards. The most compliance was about the title page and the information of publication and the least compliance was about abstract and the information about journal's number. Those journals published annually complied mostly with standards.

Peña, Valero, Sicilia (2004) in 9th European Conference of Medical and Health Libraries, Santander (Spain). 2004 presented the abstract of their study as follow:

Journal selection criteria are studied for international databases MEDLINE and EMBASE and also LILACS, which covers only Latin-American and Caribbean Biomedical production follows exhaustive selection criteria that are widely reported. The three databases consider subject suitability, quality of contents, quality of editorial work, production quality, and selection methods of proposed articles, type of contributions, language and geographic coverage and other additional requirements included by some of them and not specified by others.

The selection criteria of international databases are compared applied to the Spanish biomedical journals indexed by MEDLINE, EMBASE or both. Presently, 41 Spanish journals are indexed by MEDLINE, and 111 by EMBASE, being 28 titles common to both. Regarding the number of journals indexed in both databases, we can, and Special consideration is given to the 13 Spanish journals indexed by MEDLINE and not by EMBASE.

Finally, after studying journals indexed by the Spanish databases IBECS (Indice

Bibliográfico Español de Ciencias de la Salud) and IME (Indice médico Español), Conclusions are shown implying that their selection criteria must be based in those applied by MEDLINE or EMBASE.

Bozic (2008) in the article(consistency of the journals "Research Reports: Forest& Wood Science AND Technology "with ISO standards for the information and documentation)presents ISO standards for information and documentation and their use in the only Slovenian scientific forestry journal, Zbornik Gozdarstva in lesarstva = Research reports: forest and wood science & technology, ISSN 0351-3114.He recommended that the title of journals should be revised according to ISO 8, and the abstract of the articles and their keywords should compared with the thesauruses according to ISO 5122. The authors' names should also be according to ISO 2145.

Gimenez - Toledo, Rodriguez-Garcia&Corrochano (2009)This paper aims to present the situation of Spanish Psychology journals with regard to certain quality parameters obtained from two Spanish journal evaluation systems (*RESH* and *DICE*), *Latindex* and others. First of all, the publishing profile is analyzed in relation to the publication frequency compliance and other international standards for scientific publications. In addition, the level of international dissemination of Spanish Psychology journals in international databases is also examined, as a reflection of its quality and the interest that such a journal provokes in the scientific community. The best ten Spanish journals are identified according to the parameters considered in *DICE*: compliance with the publication frequency established, variety of institutions that contribute articles to the journal (contribution openness), variety of institutions represented at the editorial board (editorial board openness), if it has a peer review system, the number of *Latindex* criteria that the journal fulfills and its level of presence in international databases. Finally, editors' attitude towards online journals and Open Access as well as the internationality of editorial boards and authorship are analyzed. Some results: a) most journals follow international publishing conventions and watch for the timeliness of publication; b) a third of the journals are well represented in international databases; c) taking into account six quality criteria, there are 25-30 high level or competitive journals; d) a cautious attitude towards OA is observed in Spanish Psychology journals; e)

according to the “internationality” of Psychology as a scientific domain, journals must make an effort to include foreign members in their advisory or scientific boards in order to attract papers from other countries. Around 20 journals have good levels of foreign authors and advisors. Has a peer review system, the number of *Latindex* criteria that the journal fulfills and its level of presence in international databases. Finally, editors’ attitude towards online journals and Open Access as well as the internationality of editorial boards and authorship are analyzed.

Some results: a) most journals follow international publishing conventions and watch for the time lines of publication; b) a third of the journals are well represented in international databases; c) taking into account six quality criteria, there are 25-30 high level or competitive journals; d) a cautious attitude towards OA is observed in Spanish Psychology journals; e) according to the “internationality” of Psychology as a scientific domain, journals must make an effort to include foreign members in their advisory or scientific boards in order to attract papers from other countries. Around 20 journals have good levels of foreign authors and advisors.

Herb (2010) tried to generate interoperable usage information from distributed open access services. The abstract tries to explain as follow: Publishing and bibliometric indicators are of utmost relevance for scientists and research institutions as the impact or importance of a publication is mostly regarded to be equivalent to a citation based indicator, e.g. in form of the Journal Impact Factor or the Hirsch-Index.

Performance measurement both on an individual and institutional level depends strongly on these impact scores. This contribution shows that most common methods to assess the impact of scientific publications often discriminate open access publications – and by that reduce the attractiveness of Open Access for scientists. Assuming that the motivation to use open access publishing services (e.g. a journal or a repository) would increase these services would convey some sort of reputation or impact to the scientists; alternative models of impact are discussed. Prevailing research results indicate that alternative metrics based on usage information of electronic documents are suitable to complement or to relativize citation based indicators. Furthermore an insight into the project Open Access Statistics OAS is given. OAS implemented an infrastructure to collect document-related usage information from distributed open access repositories in an aggregator service in order to generate interoperable document access information according to three standards (COUNTER, LogEc, and IFABC). The service also guarantees the reduplication of users and identical documents on different servers. In a second phase it is not only planned to implement added services as recommender features, but also to evaluate alternative impact metrics based on usage patterns of electronic documents.

Jing, Chun-Guang and TingChao (2010) investigated and analyzed four kinds of OA journal in public health aiming at providing professional high-quality OA journals for the scientific research workers who can make full use of the advantages of open access literature to get easy access and contribution to the professional literature. They compared and investigated the content, the evaluation target, the network environment and the reviewing system of the 4 kinds of OA journals in public health. They concluded that the journals(all four) were all included in SCI. Their impact factors ranked at the middle in their field. Their texts had comprehensive and fresh view in content, standard norms in the network, free and convenient access to the full text and peer review system. Conclusion: The content and quality of the 4 OA journals had good influence and authority in their subject area, and could provide the latest academic development for the researchers.

Kousha& Abdoli (2010) reported the abstract of their research as follow:

We used three methods to estimate whether there is a citation advantage to open access (OA) agriculture research. At the article level, we compared the citation counts of self-archived with non-OA

articles based upon a sample of 400 research articles from ISI-indexed agriculture journals in 2005. At the journal level, we compared Impact Factors (IFs) of OA against non-OA agriculture journals during 2005-2007 as reported by the ISI Journal Citation Reports (JCR). We also sought evidence of citation impact based on a random sample of 100 OA and 100 non-OA publications from the Food and Agriculture Organization of the United Nations (FAO) in 2005. We used both ISI and Scopus databases for citation counting and also Google and Google Scholar for locating the self-archived articles published in the non-open access journals. The results showed that there is an obvious citation advantage for self-archived agriculture articles as compared to non-OA articles. Out of a random sample of 400 articles published in non-OA agriculture journals, about 14% were OA and had a median citation count of 4 whereas the median for non-OA articles was 2. However, at the journal level, the average IF for OA agriculture journals during 2005-2007 was 0.29, considerably lower than the average IF for non-OA journals (0.73). Finally, we found that FAO publications which were freely accessible online tended to attract more citations than non-OA publications in the same year and had mean citation count of 1.74 whereas the mean for non-OA publications was 0.28. In conclusion, it seems that OA is an advantage for individual articles but not for whole journals.

Findings:

A. Sociological features description

Among reviewed countries publishing ILO journals, the United States has published the most editions of ILO journals (32 periodicals, 30%) and then Brazil with 10 periodicals, 9.3%.

In general, following countries have been publishing totally 65 (60%) ILO journals: the U.S, Brazil, Canada, Spain, and England. Among reviewed journals, 71 (64.4%) journals are monolingual, 24(22.4%) journals are bilingual, 5(4.7%) journals are trilingual, and 7(6.5%) journals are quad/multilingual.

Journals up-dated period are 1% biweekly, 1.9% bimonthly, 15.5% quarterly, and 81.6% other journals (e.g. biennial).

According to age, 41 (42.1%) journals' publishing years are before the beginning of 21st century and since the first decade of 21st century, 67 (57.9%) librarianship open-access journals have been released. The statistics indicates that there has been a growing focus on publishing ILO journals since 2000.

B. Answering to the research questions:

Q1: How ILO journals are in agreement with publishing standards based on copyright?

Table1: frequency distribution of international librarianship open-access journals based on copyright.

numbering of journal pages	frequency	percentage	valid percentage	cumulative frequency
included copyright	56	50.9	50.9	50.9
excluded copyright	52	49.1	49.1	100.0
Total	108	100	100.0	

As it can be seen, ILO journals compared with copyright standards, 56(50.9%) journals comply with them but 52(49.1%) journals do not comply with the standards.

Q2: How ILO journals are in agreement with ISO standards with regard to homepage information of journals?

Table2: Frequency distribution of international librarianship open-access journals based on homepage information?

following information must be on journals homepage	standards agreement frequency	standards agreement percentage	Standard disagreement frequency	standard disagreement percentage
journal title	108	100	0	0
journal No.	54	50.0	54	50.0
issue No.	83	76.9	25	23.1
international standard No. of periodicals	12	11.1	96	88.9
serials No.	22	20.4	86	79.6
specifying the journal's final numbers on the last number per issue	46	42.6	62	57.4
authorized organizations or people	37	34.3	71	65.7
publishing company	36	33.3	72	66.7
publisher's name add	79	73.1	33.2	36
year or part of the year covered by numbers.	26.9	29	29	26.9
Average	56.4	52.23%	51.6	47.77%

According to ISO standards the homepage is included journal title, journal No. , issue No., international serials standard No., publishing company.... Table 6 shows that the reviewed journals are in agreement most and least with the standard of titles (100%) and serial No (non-compliance 96%) respectively.

Q3: How ILO journals are in agreement with ISO standards with regard to presentation of title information of journals, table of contents, and journal page information?

According to the standard(ISO 8 & 7275) title, index, and table of content must be mentioned.

Table3: percentage of ISO standards agreement in ILO journals with regard to presentation of title information of journals.

Description	frequency	percentage	valid percentage	cumulative frequency
Cover	2	1.9	1.9	1.9
Index	0	0	0	0
table of content	5	4.6	4.6	6.5
Heading	2	1.9	1.9	8.3
spine	0	0	0	0
cover-table of content	13	12	12	20.4
cover-heading	1	0.9	0.9	21.3
content-heading	59	54.6	54.6	75.9
cover-index-content	1	0.9	0.9	76.9
cover-content-heading	18	16.7	16.7	93.5
index-content-heading	2	1.9	1.9	95.4
cover-index-content heading	4	3.4	3.7	99.1
cover-content-heading-spine	1	0.9	0.9	100
Total	108	100	100	

As it can be seen in Table3ILO journals comply most and least with the standard of journal title, compound division of "table of content & heading" (54.6%), and of index (0%) respectively.

Furthermore, with regard to table of content, the compound division of "authors' name, main & subtitle of articles" with 63.8% is most in agreement with the standards but "page NO. Of article initiation, main & subtitle of articles, authors' names – page No. of article initiation, page No. of article initiation – main & subtitle of articles "are not selected.

According to ISO standards, each page of a journal must be included informational items such as journal title, issue No., issue date, article title, period No., etc. With regard to page information, the most and least compliance with informational items would be related to journal title (83.2%) and period no. (45.4%) respectively.

Q4: How ILO journals are in agreement with ISO standards with regard to abstracts, indexes, and keywords?

As it can be seen, among international librarianship open-access journals 81.3%, 48.1%, and 13.5% of abstract, keywords, and index standards are complied respectively. But 18.7%, 51.9 %, and 85.5% of abstract, keywords, and index standards are not complied.

Chart 4: ISO standard compliance percentage in international librarianship open-access journals with regard to abstract, index, and keywords

Q4: How are the search facilities status ILO journals?

Table4: frequency distribution of ILO journals with regard to the search facilities status?

search facilities in article text	frequency	percenta ge	valid percentage	cumulative frequency
Yes	67	64.4	64.4	64.4
No	41	35.6	35.6	100.0
Total	108	100	100.0	

Table 10 shows that among ILO journals compared to the search facilities in an article text standard, 64.4% and 35.6% of journals are most and least in agreement with the standard respectively.

Research Hypothesis Test

1- ISO standard agreement average in international librarianship open-access ILO journals is above 50%

In general, 49% and 51% of journals are in agreement and disagreement with total ISO standards respectively that is the percentage of disagreement (51%) excels the agreement (49%).

As the table shows, the test significance level Sig = 0.166 is much larger than Alpha research decision making ($\alpha = 0.05$), therefore, there is no acceptable research to refuse null hypothesis, disagreement over 50% with ISO standards in international librarianship open-access journals, and research hypothesis, agreement over 50% with ISO standards in international librarianship open-access journals, could not be confirmed. As a result the research hypothesis is rejected.

Table 5: two – sentence test statistics to review the general hypothesis

significant level	observed probe	no	
.166 ^a	.49	1244	standard agreement
	.51	1315	standard disagreement
	1.00	2559	total

Discussion & Conclusion: Open access journals are evaluated differently in researches. Some researches like Delgado (1995) proposed a method for the evaluation of the degree of compliance of scientific journals with international standards. He prepared a checklist comprising 129 items. Later, In Delgado's study (1997) titled "Review of Spanish Medical Journals Conformity with ISO Standards ", 82% of journals include the abstract. This is similar with the findings of present research in which the compliance of the abstracts are 81.3%. Standard compliance in Spanish medical journals and librarianship open-access journals was 33.5% whereas the hypothesis of our research showed that the compliance of the ILO journals is more than 50%. In Gilvari's study (1995) titled "Evaluation of consistency of Persian electronic journals with ISO standards", 10.16% of the LO journals have search engine this is compared with this research that shows 64.4% of ILO journals have search facilities. Peña, Valero, Sicilia (2004) reviewed Journal selection criteria for international databases MEDLINE and EMBASE and also LILACS. Subject suitability, quality of contents, and quality of editorial work, production quality, and selection methods of proposed articles, type of contributions, language and geographic coverage and other additional requirements were the criteria spotted whereas the components compared with standards can be as some criteria for selection of these kinds of journals for end users. Furthermore Gimenez-Toledo, Rodriguez -Garcia & Corrochano (2009) also compiled Spanish Psychology journals with certain quality parameters obtained from two Spanish journal evaluation systems. Their findings showed the best ten Spanish journals are identified according to the parameters considered in *DICE*: compliance with the publication frequency established, variety of institutions that contribute articles to the journal (contribution openness), variety of institutions represented at the editorial board (editorial board openness) this can be compared with some findings of this research that shows ILO journals comply most and least with the standard of journal title, compound division of "table of content & heading" (54.6%), and of index (0%) respectively.

Furthermore, some researchers have tried to investigate the influence and authority of OA journals in their subject area as Jing; ChunGuang & Ting Chao (2010) and Kousha & Addoli did. They compared Impact Factors (IFs) of OA against non-OA agriculture journals during 2005-2007 as reported by the ISI Journal Citation Reports (JCR). They concluded at the journal level, the average IF for OA agriculture journals during 2005-2007 was 0.29, considerably lower than the average IF for non-OA journals (0.73). McVeigh (2004) had also an Analysis of Impact Factors and Citation Patterns on OA Journals in the ISI Citation Databases. Although the present review has not done the influence of ILO journals in their subject areas but to compare the journals with standards and conveying them afford highly influence of the journals in total. Herb (2010) in a title named: "Alternative Impact Measures for Open Access Documents? An examination how to generate interoperable usage information from distributed open access services" introduced Open Access Statistics OAS. OAS implemented an infrastructure to collect document-related usage information from distributed open access repositories in an aggregator service in

order to generate interoperable document access information according to three standards (COUNTER, Log Ec, and IFABC) which is different from the present review in comparison with ISO standards.

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