Online Journals Influence amongst Iranian Universities

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Abstract

Ranking is one of the key measures for evaluating universities. Progress of research at universities is often measured by the rate of its publications. It is also common knowledge in the field of research that journal publications owe their success to their impact factor. However, one of the contributing factors that affect a journal's impact factor is the accessibility and availability of its content. The law of statistics suggests that publishing an electronic version of the journal content through online publications is likely to boost the visibility of a journal; hence, improving the impact factor. The ability to publish electronically is often received favorably by the research community. Despite advances in electronic journal publishing, only recently, online journals have made their way into Iranian university journal publishing. This paper evaluates and reports on the extent of online journal publications among Iranian universities. For the purposes of this study, 653 journals published by 183 universities were studied. The results reveal that 66.7% of all universities have online copies of their journals. This study is carried out for three categories of universities; the Ministry of Health and medical Education universities, the Ministry of Science, Research, and Technology universities (MSRT), and Islamic Azad University Branches (IAU).

Keywords: online journals, Iranian universities, online journal systems, university journals

Introduction

Online and offline databases have long been in use as a means to facilitate access to scholarly journals. However, they have now given way to new means of providing access to journal contents. New technological advances in the publishing sector have given individual journals the ability to produce electronic copies of their content (Shahrzadi, 2006). The majority of electronic copies of journal papers are disseminated via the World Wide Web. The ease of publication and use of online papers have increased the visibility and impact of online articles (Shams ejehee, 2010). One of the salient features of online papers is the ease

with which they can be accessed by researchers. Similarly, publishers would save the cost of print and distribution. In addition, the cost of online storage and other infrastructure, compared to that of the paper-based journals, makes online publication more attractive for publishers.

Perhaps, the attractiveness of online publications for researchers comes from the fact that time and space dependencies have been significantly reduced from the process of search and access (Fattahi, 2002). Online technologies have made it much easier for researchers to find results for their search queries. As a result, the research by-products such as patents and copyrights are produced in a much timelier manner (Shams ejehee, 2010).

The success of online journals is perhaps dependent on the stable and accessible infrastructure. This paper intends to measure the readiness of the Iranian universities with respect to making the transition to online electronic publications (Directory of Open Access Journals, 2011).

Benefits of Online Journals

The benefits of using online journals can be viewed from different perspectives. From a publisher's point of view, in addition to the cost benefits, there are advantages in using an online system over the paper format.

One advantage is the increased visibility of the journal. This increased visibility comes from the fact that the journal is no longer limited by the circulation of the physical copies (Directory of Open Access Journals, 2011). Access to the content is no longer limited to libraries and book shelves. In other words, anyone with a connection to the Internet can potentially access an online journal. This would make the content of an online journal far more visible than a paper format publication.

The next advantage is the increased rate with which its content is referred to. The simple law of statistics would suggest that as the number of times the content is viewed, the chances of the content being used increases. Since the impact of a journal on scholarly research depends on the rate of accessed and referenced content, it is a considerable advantage for a publisher to maintain an online presence (Hitchcok, 2005).

From an author's point of view, both visibility and impact factors are desirable traits to consider, when choosing a journal in which to publish one's work. For an author, the search and index mechanisms are also desirable since they make access to their content faster and easier (ibid).

For a researcher, on the other hand, the ease of access to online electronic journal publications comes in form of direct access and without intermediary means. A researcher that has access to the web can potentially access the content at anytime and from anywhere (Shams ejehee, 2010).

The notion of an online journal is obscured by how one defines it. The rudimentary level

of being online, one might argue, is to have a mere presence on the web. In this view, all stages of producing the online journal are done entirely manually. In other words, the online presence only provides the final electronic version of the journal in a static format such as a PDF or an HTML document.

A more advanced view of an online journal would envisage a more automated system capable of providing dynamic online services from submission stage all the way to publishing of the final electronic copy. However, for the purposes of this research, it is the increased visibility and accessibility that is being measured. Therefore, all forms of online presence of a journal are considered in this study. Admittedly, it is rare to find online journals that merely maintain a static presence on the web. Most journals use one form or another of an online journal management system.

Online Journal Management Systems

In an effort to automate and expedite the journal publishing processes, more and more publishers have turned to online technologies. Although there are numerous online journal management systems, they all share the same basic concepts. A journal management system is an integrated environment in which authors, editors, referees, and publishers contribute to the back end publication processes. In its front end, an online journal management system provides tools required by a researcher to access the content of an online journal (Brody, 2007).

As the cost of producing paper based journals increase, online journals are becoming more viable options for the publishers. The success of an online journal management system is depended on how it meets the needs of its scholarly community. In addition to the very basic authoring, review, editorial, and search functions, more advance online journals provide complex analytical tools to report on the impact factor and other vital statistics for individual papers.

Iranian Online journal Management Systems

Iranian universities have a long history in publishing academic journals. Most of these publications have maintained a paper-base presence. Over the last decade, however, more and more universities are joining the online publishing communities. There are several online journal management systems (JMS) used by most Iranian journal publications. These systems, either use Persian as the main language of the interface, or use multi-lingual interface for the international journals. In addition to the use of the Christian calendar, they also have the ability to adapt the Jalali calendar (the official calendar of the Iranian people) as the main publishing calendar.

Among proprietary solutions, one might mention Rayasamin, Yekta, and Sina as the common online journal publication system used by Iranian universities. Open source

solutions, such as OJS (Open Journal System), have also been used by a few universities as their online publication management system.

Research Question

The main objective of the academic and research journals is to disseminate scholarship to the global audience. In other words, journals provide access to academic writings and research findings to the scholarly community across the globe. The more widespread the access to a journal's content is, the more it is used by the research community (Hitchcok , 2005).

Iranian universities and research centers are home to many scholarly journal publications. The success of Iranian journals would depend on how much they can reach their global audience. It is obvious that one way to improve the visibility and impact of Iranian journals would be to harness the power of online journal management systems (Mohseni, 2009).

The aim of this paper is to measure the ability of Iranian university journals to reach a more global audience. One way by which it is possible to grasp a measure for this increase in global audience would be to measure the salience and widespread use of online journals by Iranian universities. Therefore, this study intends to answer the following research questions:

1. What ratio of Iranian university journals are published online?
2. Which category of Iranian universities has a higher rate of online journal presence?
3. What ratio of Iranian journals tends to have online journal management system?

Sample Population

Most journal publications in Iran are affiliated with either a university or a research center, since accreditation research journals are done through Ministry of Science, Research, and Technology (MSRT). Carrying out an exhaustive study of all Iranian journals is a monumental task. The number of universities and research institutions that house journal publications is beyond the scope of this study. Thus, only a selected number of universities have been chosen for the purposes of this study.

In order to provide a comparative report on various university categories, the sample population was selected from amongst the Ministry of Health universities, the Ministry of Science, Research, and Technology universities, and Branches of the Islamic Azad University. To be able to narrow down the sample, only the universities in the capitals and provincial centers and major universities were selected for this purpose. A total of 183 universities were selected, among which 46 were affiliated with the Ministry of Health universities, 70 universities were affiliated with the Ministry of Science, Research, and Technology, and 67 were branches of the Islamic Azad University.

Method

Once it was decided that the study has to be limited to the three major university categories, a master list of universities was drawn up. In order to limit the scope of the study, a set of selection criteria was agreed upon. The defining criteria for including a university in the study were based on whether a university 1) was based in the capital city of Tehran, 2) was located in a major city or the capital of a province, and 3) had journal publications. According to these selection criteria, 183 universities were short listed for this study.

Based on the research questions, a series of data points were identified so that a data matrix can be created for each university. To complete the data matrix, each university was examined for its publications, journal management systems, and hosting status. The sources for gathering the data were university websites, the colophon of the paper versions of the journals, and phone inquiries made to the corresponding publication offices and website administrators. The results presented in this study were organized based on frequency and percentage in each category of data analysis.

Data Analysis

The reported data in this section are based on descriptive statistics. The findings of the study are reported in a format best suited to answer the research questions. It must be mentioned that the data gathered in this study were collected during the autumn of 2011.

In the early stages of this study, it was intended to provide a comprehensive matrix of various tools and services provided by each journal. However, it soon became known that the matrix would have to be provided for each university rather than each journal. This is perhaps because each journal is affiliated with a university.

If a university has an umbrella policy for publishing journals, then all journals that fall under the auspices of that particular university follow the same policies. To explain this better, let us consider a scenario. If a university has a policy to house online journals, then all journals affiliate with that university would have online versions. Let us consider another example. If a university has a policy to use a journal management system, then all journals affiliated with that university would use a journal management system. In other words, despite the fact that each journal has independent editorial board and follows its own internal policies, when it come to the general publication policies, they follow the university wide policies. Therefore, the matrices provided in this section are based on the universities and not the individual journals.

In addition to reporting on the online presence for journals, it was decided to offer a fuller picture of the range of services provided by them. The major services expected of an online journal to provide can be described as, an integrated journal management system, online submission management for the authors, online referee management for the review process, indexing and search tools in the front end, the output file formats supported, and archives of

past issues. It is in light of these measures that the data are reported here.

Distribution of Online Journals

Table 1 shows the distribution of online journals amongst three different categories of the Iranian universities.

From 70 universities belonging to the Ministry of Science, Research, and Technology that were selected in the study, 46 of them had journal publications, producing a grand total of 364 journal titles. This is roughly 66% of all universities in this category. Of the 46 universities in this category, 39 of them used a journal management system.

Amongst 46 different universities belonging to the Ministry of Health, 35 universities produced a total of 120 journals. In other words, 76% of this category produced journal publications. It was also observed that 29 of the 35 universities in this category had a journal management system. This is about 83% of the universities with journal publications.

In the last category, among 67 branches of the Islamic Azad University, 41 of them produced a total of 169 journal publications. This would constitute 61% of the universities in this category. In this category, 23 universities of the 41 universities have a journal management system. This means, the ratio of universities that have a journal management system is lower than the other two categories.

In the grand scheme, of the 183 universities selected in this study, 122 of them had journal publications producing 653 journals in total. This means on average 67% of the universities in Iran have journal publications. Of these 122 universities, 91 of them possess a journal management system. This would translate into roughly 75% of all universities that have journal publications.

Table 1

Frequency of the Online Journals for Selected Iranian Universities

Category	No. of Universities	No. of Journals	No. of universities publish journals		No. of universities use JMS	
Ministry of Science, Research, and Technology	70	364	46	66%	39	85%
Ministry of Health and Medical Education	46	120	35	76%	29	83%
Islamic Azad Universities	67	169	41	61%	23	56%

Distribution of Archive Management

As the online publishing is becoming an expected norm, it is important to accommodate for access to the past issues of the journal. Once established online, few journals make the conscious effort to make the past issues available in online electronic formats. Making the

past issues available online, helps increase the visibility of a journal. Providing archived copies is chosen as a feature to give a measure for the visibility and accessibility of journals.

Table 2 shows the distribution of online journals that provide a PDF copy of their past issues. From 39 universities belonging to the Ministry of Science, Research, and Technology that have online journals, 29 of them provide the PDF copies of the past issues. This is around 74% of all universities in this category.

Amongst 29 different universities belonging to the Ministry of Health that produce online journals, 27 of them make their past issues available in a PDF format. In other words, around 93% of the universities in this category provide the past issues of their journals online.

In the last category, among 23 branches of the Islamic Azad University with online journals, 19 of them produced a PDF format of the past issues online. This constitutes 83% of the universities in this category that have online PDF copies of their past issues.

Table 2

Frequency Distribution of Online Journals That Provide PDF Copies of Their Back Issues

Category	No. of universities use JMS	Online journals with PDF archive issues	
Ministry of Science, Research, and Technology	39	29	74%
Ministry of Health and Medical Education	29	27	93%
Islamic Azad Universities	23	19	83%

Distribution of Submission Subsystem

Online submission is one of the most important components of the publishing workflow. Having an electronic submission subsystem is considered here to be one of the features that contribute to the overall success of a journal. The process of submission would involve managing two aspects of processing the paper before the final acceptance. One aspect is the ability of the author to submit the work electronically. The other aspect is process of assigning a referee and receiving the reviews from the referees in an automated manner.

Table 3 shows the distribution of the online submission and automated review features among Iranian university journals. From 39 universities belonging to the Ministry of Science, Research, and Technology that have online journals, 20 of them accept papers from authors through an electronic submission process. This is 51% of all universities having online journals. Of these 39, only 15 university journal handle the review process through an automated process. This is 38% of the journals in this category.

Amongst 29 different universities belonging to the Ministry of Health that produce online journals, 25 of them accept the manuscripts through an electronic submission process, constituting 86% of the total online journals in this category. 23 journals in this category provide an automated review process, comprising 79% of all journals in this category.

Among 23 online journals in Branches of the Islamic Azad University category, 20 of

them receive their papers through an online submission system. This is 87% of the online journals in this category. Of the total of 23 journals, 17 journals process the review stages through an online automated system.

Table 3

Frequency Distribution of Online Journals That Handle Submission and Review Processes through Online Automated Systems

Category	No. of universities use JMS	Online journals using online submission system		Online journals using automated review process	
Ministry of Science, Research, and Technology	39	20	51%	15	38%
Ministry of Health and Medical Education	29	25	86%	23	79%
Islamic Azad Universities	23	20	87%	17	74%

Distribution of the Automated Search Mechanism

When it comes to the usability of the online journal content, having a user friendly search apparatus would increase the accessibility and the visibility of the online content. In this section, journal categories among Iranian universities have been examined based on whether they possess a search component or not.

Table 4 shows the distribution of the search component among Iranian university journals. From 39 universities belonging to the Ministry of Science, Research, and Technology that have online journals, 18 of them provide the search functionality for accessing the content. This is 46% of all universities having online journals in this category.

Amongst 29 different universities belonging to the Ministry of Health that produce online journals, 22 of them accommodate a search tool, constituting 86% of the total online journals in this category.

Among 23 online journals in Branches of the Islamic Azad University category, 15 of them facilitate the access to content using a search engine. This is 65% of the online journals in this category.

Table 4

Frequency Distribution of Online Journals That Have an Automated Search Tool

Category	No. of universities use JMS	Online journals using an automated search component	
Ministry of Science, Research, and Technology	39	18	46%
Ministry of Health and Medical Education	29	22	76%
Islamic Azad Universities	23	15	65%

Conclusion

In response to the research questions posed in this study, it seems that a high number of Iranian university journals are maintaining an online presence. The results indicate that journals affiliated with the Ministry of Health have highest ratios of online presence. In the second place, Islamic Azad university branches have a high ratio of online journals. With respect to journals that maintain an automated journal management system, it seems that the above ranking still holds.

The readiness of journals to go online, it seems, is intertwined with the fitness of the host university to provide services in the area of information technology. In terms of willingness of the journals to publish online, the results indicate a high acceptance rate among Iranian university journals to migrate to a fully automated and integrated online journal management system. It is likely that, in lieu of the emphasis placed on open content journals, Iranian university journals will soon have a noticeable presence online.

Although the figures reported in this study are based on the hosting universities, it is our belief that the ratios would improve in all categories if the results be reported based on the journal titles. To explain this better, consider a university that hosts 25 journals, all of which are published online. In our report, this university only constitutes one body of publication. Whereas, having been reported as 25 journals, the results would have been improved dramatically. It is also our conviction that the universities with little or no presence online tend to host too few journal titles with respect to the total number of journals studied in this research.

Future Studies

Without a doubt, the success of individual online journals is also affected by the satisfaction level of its users. The satisfaction and acceptability of new online journal management system will depend on how fast it goes through the transitional stages of migrating from a paper-base to an electronic processing procedure.

For future endeavors, it is suggested to examine the success rate of online journals from the point of view of its users. One set of users would constitute the technicians that look after the electronic dimension of the online journal system. The other set of users would be the editorial committees and the non-technical staff. The last but not least set of users would be the contributors such as authors and referees.

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