

Motivational Factors for Faculty Contribution to Institutional Repositories and their Awareness of Open Access Publishing

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Abstract

The main objective of the study was to examine the perceptions and attitudes towards Institutional Repositories (IR) and open access publishing among the faculty members in the University of Peradeniya, Sri Lanka. Survey method was adapted and a questionnaire was distributed among all permanent academics in the Faculty of Arts, University of Peradeniya, Sri Lanka. The results revealed that only 40% of the respondents were aware of open access publishing and nearly 15 % of them had never heard of “open access”. These results gave an insight that majority of the respondents are not familiar with ‘open access’. The results further revealed that 15% of the respondents learnt about institutional repositories through web search engine while 13% learnt from information provided at faculty or meeting held in the university and by working in subject based archives. Only 44% of the respondents were aware of the university digital repository and 47% mentioned that they were not aware of it. The interesting finding is that 55% of the respondents reported their willingness to contribute to the university digital repository in future while 18% of them were not willing to contribute. Most of the respondents contributed to IR because they support the principle of open access and the major barrier to contribute to IR is fear of plagiarism.

Keywords: Faculty Awareness, Institutional Repositories, Open Access, Motivational Factors

1. Introduction

Prior to the advent of Internet publishers, academic societies dominated scholarly communication, and researchers channeled their research output solely through authoritative publishers and academic societies. Now different models are being developed to provide access, manage costs, and manage an organization's scholarly output, especially in colleges and universities. The currently evolving model is Open Access. The two schools of thought within Open Access are the journal reform school, and the self-archiving school. Institutional Repositories (IR) are becoming prevalent. In the face of rising costs, shrinking budgets, and restricted access to information, as well as rapid changes in technology, scholarly practice, and user expectations, libraries have been challenged to maintain their collections and high level of services⁹. “Institutional repositories have become one of the fastest growing elements of the digital library genre. Because of their potential to reform the current

system of scholarly communication and their role in advancing the open access movement, many academic libraries, especially those at research universities, have invested human and technical resources to build a robust technical infrastructure that will foster access to the intellectual, cultural and administrative output of their institutions. The hope is to gain enhanced access to faculty research and increased visibility of research generated within the university that is relevant to society”¹.

According to Lynch an IR is “a set of services that a university offers to the members of its community for the management and dissemination of digital materials created by the institution and its community members”². It is an electronic system that captures, preserves, and provides access to the digital work products of a community⁴. In a university setting, an IR may provide a platform for faculty work, student theses and dissertations, e-journals, datasets and so on. Whatever the particular focus of the university IR, to be successful it must be filled with scholarly work of enduring value that is

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searched and cited. Lynch (2003)⁴ further states that: “IRs is able to address challenges faced by faculty members in attempting to disseminate their research through the Internet, and to utilize various forms of digital media for scholarly communication. However, the potential value of IRs is not yet fully appreciated by faculty members; several studies indicate that only a small proportion of faculty deposit articles or data into IRs. This low rate of faculty participation is a common phenomenon across IRs, and increasing it is a major issue for the ongoing success of the repositories”.

Based on the number of institutional repositories established over the past few years, the IR service appears to be quite attractive and compelling to institutions. IRs provide an institution with a mechanism to showcase its scholarly output, centralize and introduce efficiencies to the stewardship of digital documents of value, and respond proactively to the escalating crisis in scholarly communication². For a university this include materials such as research journal articles before (preprint) and after (post prints) undergoing peer review, and digital versions of theses and dissertations, but it might also include other digital assets generated by normal academic life, such as administrative documents, course notes or learning object.

2. Review of Related Literature

The development of institutional repositories in university libraries has been a global phenomenon. In universities in developing countries like Sri Lanka IR is in the developing phase. There have been several previous studies that looked at faculty attitudes and perceptions towards IRs and their contribution to IRs. They all share similar findings, regardless of whether the survey was administered to faculty in a large research institution or a small college; or what disciplines the faculty were affiliated in.

As early as 2001, a survey of scholars randomly chosen from nine scientific disciplines from colleges and universities in the United States and Canada was conducted to determine faculty participation in depositing materials into digital repositories³. Physics and astronomers reported the highest participation, followed by mathematicians and computer scientists, engineers, cognitive scientists and psychologists, and biological scientists. Lawal (2002)³ found that those who reported participation cited the dissemination of research results, visibility, and the author’s exposure as reasons for depositing their work. Reasons for non-participation included publisher policies, relevance to their field, and technological constraints.

In contrast, Pelizzari’s (2004)⁶ survey of 62 social science faculty members indicated that all respondents were aware of open access materials and more than half declared that they already had open access materials freely available on the web. Pelizzari’s report implies acceptance of open access principles among social science academic staff. The most acceptable uses for author’s work were free version of the materials, followed by the possibility to print, save and copy.

Despite the fact that scholarly content of an IR will largely consist of faculty work and contributions from individual faculty, studies have shown that actual faculty participation in, and awareness of, the development of IR is extremely low. A few studies, therefore, have emerged in recent years warning librarians not to be trapped in the pursuit of IR dreams¹⁰.

One of the challenges for libraries managing IR has been convincing faculty to contribute their research work in the repository. A variety of research studies have been done examining this challenge. Xia conducted a research study to find out whether scholars familiar with depositing articles in a subject based repository or more likely to deposit articles in an IR than scholars who did not have this experience. The study found that “faculty authors are indeed not enthusiastic about archiving their articles in their institutional repository even though they are familiar with self-archiving practice”¹¹. Some scholars who were enthusiastic about their institution’s repository did not participate in the subject repository while others exhibited the opposite behavior.

In the Daedalus project at the University of Glasgow, Mackie outlined the strategies they have used to populate the institutional repository including doing the archiving for the faculty. Still, in 2004 when this study was published, faculty participation was relatively low and the strategies being used were somewhat time-consuming. Future strategies reported in the article included proposing a system to search a newly developed university wide annual database report on faculty publications and posting the full text of articles, where possible, without having to contact each author individually⁵.

Brian Quinn (2010)⁸ approached the question of how to increase faculty participation in a repository by examining psychological resistance to digital repositories. He summarizes the literature on user behavior and digital repositories noting that most studies found that faculty did not see value in depositing articles in a repository, did not feel they had the time to deposit articles, and were reluctant to learn and relearn yet another technology that they would not use very often. Quinn suggests that looking at the psychology of resistance can help librarians develop more effective strategies for encouraging

faculty to deposit articles in a repository. He concludes that mandates alone will not overcome psychological resistance to participation⁸.

3. Objectives of the Study

The aim of the study was to examine the perceptions and attitudes towards Institutional Repositories (IR) and open access publishing among the faculty members in the University of Peradeniya, Sri Lanka. The objectives of the study were:

- To explore the faculty attitudes towards open access publishing,
- To investigate awareness of IRs and university digital repositories, and
- To examine the motivational factors for contributing to the university digital repository.

4. Methodology

Survey method was adapted and a questionnaire specifically designed and pre tested was used to collect data. The study population consisted of all permanent academics of eight faculties (731) in University of Peradeniya. A self-administered questionnaire was distributed to all 731 academics in May, 2015 and recipients were requested to send completed questionnaires within one month time. Due to low rate of responses, after three months a reminder was sent in September, 2016 and again a 2nd reminder sent in May, 2016 and the results were analysed using SPSS (17.0).

5. Data Analysis and Discussion

The total number of questionnaires distributed among all permanent academic staff members in the University of Peradeniya (UOP) was of 731 and 408 duly completed questionnaires were received making a 55.8% response rate.

Table 1. Faculty-wise distribution of respondents

Faculty	Distributed Number	Received Number	Percentage
1 Arts	200	99	49.5
2 Agriculture	103	74	71.8
3 Allied Health	35	17	48.5
4 Dental sciences	49	22	44.9
5 Engineering	103	51	49.5
6 Medicine	106	44	41.5
7 Science	94	83	88.3
8 Veterinary science	41	18	43.9
Total	731	408	55.8

Source: Statistical Hand Book 2014, University of Peradeniya

As shown in the Table 1, the highest response rate is from Faculty of Science followed by Faculty of Agriculture.

Table 2. Respondents by academic position

Academic Position	Frequency	Percentage
1 Senior professor	24	5.9
2 Professor	65	15.9
3 Associate professor	08	2.0
4 Senior lecturer grade I &II	258	63.2
5 Lecturer/ Lecturer (Probationary)	53	13.0
Total	408	100

Most of the respondents were senior lecturers (63%) followed by 16% were professors (Table 2).

6. Awareness of Open Access Publishing

The respondents were asked to indicate whether they were aware of opportunities to publish their research articles in open access journals. Out of 408, only 163 (40%) were aware of open access publishing that provide opportunity to publish their findings without paying any charges and provide free access for them through the internet and 31 (7.6%) respondents mentioned that they did not know about open access publishing. Majority of the respondents (214=52.4%) did not respond to the question.

7. Familiarity with “Open Access”

The respondents were asked to indicate their level of awareness (Table 3).

Table 3. Familiarization of the term on open access

Level of familiarize	Frequency	Percentage
1 Never heard of the term of open access before	59	14.5
2 Came across this concept but know nothing about it	34	8.3
3 Came across this concept but know a little about it	46	11.3
4 Came across this concept and know quite a bit about it	31	7.6
5 Very knowledgeable about open access	14	3.4
6 Not responded	172	42.1
Total	408	100

As revealed in Table 3, more than fourteen percent of the respondents never heard about the “open access” before while 8.3% know nothing about it and 11.3 % know little about it. These results give an insight that many of the respondents (34.1%) are not familiar with the concept of “open access”.

8. Awareness of the Term of Open Access

The respondents were asked to mention whether they are aware of “open access” and out of 408, 202 (49.5%) mentioned ‘yes’ while 24 (5.9%) mentioned ‘no’ and 182 (44.6%) did not respond. Those who are aware of open access were asked what they mean by open access repository by responding to the list of meaning given in the questionnaire.

As revealed in the Table 4, majority of the respondents (26.5%) understood open access to mean that anyone can access electronically without paying subscription while 20.6% thought it as a facility that can be accessed and utilized by anybody without restrictions. Of the respondents, 11% meant open access as the way of free, immediate online full text access to the journal articles while 9.6% reported they understood open access as the

creative works and research output that can be freely accessed online which scholars and researchers make available to public without expectation of payment. More than 30% of them did not respond to the question.

9. Awareness of Institutional Repositories (IR)

The respondents were asked whether they were known any IR and a total of 236 (57.8%) respondents indicated yes and 169 (41.4%) reported no. Those who know about the IR were asked to indicate how they learnt about it and the results are presented in Table 5.

The data suggests the need for an effective mechanism for informing the members of faculty and researchers about IRs and their purpose. Awareness of University Digital Library

To examine the awareness of the university digital repository, the respondents were asked to indicate whether they are aware about the “Digital Library” and out of 408, only 179 (43.9%) respondents were aware of the Digital Library and 193 (47.3%) mentioned that they were not aware of it and 36 (8.8%) marked “undecided” as the response.

Table 4. Meaning of open access repositories

	Meaning of open access repositories	Frequency	Percentage
1	Anyone can access electronically without paying subscription	108	26.5
2	Creative works and research output that is freely accessible online which scholars and researchers make available to public without expectation of payment	39	9.6
3	Free, immediate online full text access of journal article	46	11.3
4	A facility that can be accessed and utilized by anybody without restrictions	84	20.6
5	Not responded	131	32.1
	Total	408	100

Table 5. How to learn on IR

	Ways of learning	Frequency	Percentage
1	Through a web search engine	63	15.4
2	Information provided at faculty, department or some other meeting at the university	56	13.7
3	Working in a field with established subject based archives	58	14.2
4	Publicity on the university library web site	36	8.8
5	Faculty library	17	4.2
6	Fellow postgraduate students	16	3.9
7	From other academic staff	15	3.7
8	Following the debate on open access	09	2.2
9	Not responded	138	33.9
	Total	408	100

10. Willingness to Contribute to the University IR (Digital Library)

A successful IR depends on the willingness of authors to deposit their work. Therefore the respondents were asked to indicate whether they are willing to make available their intellectual output and out of 408, 223 (54.7%) respondents mentioned 'yes' and 75 (18.4%) mentioned 'no' while 103 (25.2%) were undecided.

Those who mentioned "no" were asked to indicate whether they have an idea or plan to contribute to the Digital Library in future and out of 178 respondents, 112(27.5%) mentioned yes while 11(2.7%) mentioned no and again 55(13.5%) marked undecided.

11. Reasons for Contribution to University IR

Academics in the university deposit their work in IR for numerous reasons and the present study sought to find out the reasons that motivate to contribute to the IR. To examine the reasons if the academics in the University

of Peradeniya have already contributed or have idea to contribute in future for the University IR, the respondents were asked to mark their agreement or disagreement against 20 statements adapted from Pickton (2005)⁷ and results obtained are shown in the Table 6.

As revealed in Table 6, nearly 20% of the respondents mentioned that they would deposit their work in IR because they support the principle of open access while 17% believed that submission for University IR is a good way of disseminating their work to the research community and beyond. Of the respondents, 10.5% mentioned by contributing IR would help to make available their works to others in the university and 7.8% reported they would like to contribute to IR because they wished to be involved with innovative technology and would like to get feedbacks or commentary from others.

12. Reasons for Reluctant to Contribute to Institutional Repository (IR)

The present study examined the reasons that academics reluctant to contribute for the university IR and the

Table 6. Reasons for contribution to IR

	Reasons	Frequency	Percentage
1	I support the principle of open access	81	19.9
2	I believe it is a good way of disseminating my work to the research community and beyond	70	17.2
3	I would like to be able to make available to others in the university	43	10.5
4	I wish to be involved with innovative technology	32	7.8
5	I would like to get feedbacks or commentary from others	32	7.8
6	It would be helpful for collecting & organizing my work	26	6.4
7	It would be helpful for gathering information about my work for career purposes	23	5.6
8	It would enable me to publish my work quickly	22	5.4
9	I would like to take advantage of added services such as downloaded counts & cross searching	20	4.9
10	I like the idea of my work being permanently available	18	4.4
11	I could retain the intellectual property rights for my work	14	3.4
12	I would like to maintain multiple versions of my work	07	1.7
13	I would use it as practice for getting published elsewhere	06	1.5
14	would like to someone else to take responsibility for preserving my work	05	1.2
15	I was given training on how to do so	04	1.0
16	Encouraged to do so by the Department	03	0.7
17	Encouraged to do so by the Library	02	0.5
18	Encouraged to do so by the research funders	02	0.5
19	Encouraged to do so by the Supervisor	01	0.2
20	Following the examples of many others	01	0.2

Note : N=408

respondents were asked to mark their agreement or disagreement against 20 statements that adapted from Pickton (2005)⁷ and the results obtained are shown in the Table 7.

As revealed in Table 7, nearly 5% of the academics reluctant for contribution to the university IR because they are concerned about plagiarism and 3.7% of them reluctant to contribute because they perceived that their works might be copied by someone without their permission. More than two percent of the respondents do not wish to contribute for IR because they believed the deposited works in IR may not be able to publish elsewhere later and they did not want to put their works with works that have not been peer-reviewed. Of the respondents, 2% mentioned that they prefer to deposit their works in another repository such as a subject repository and 1.7% perceived their works would be disseminate among few people and they afraid the process of deposit might take too much time. 1.5% of the respondents perceived that they do not have necessary skills to submitting their works to IR and they are concerned about the long term

feasibility of the repository and because of that they are reluctant to send their content to the IR.

13. Conclusion

This study examined awareness and knowledge of academics about the university IR as they are the main stake holder in the university IR and their view and needs are very much essential when developing an active IR for the university.

With regard to “open access publishing ” 40% of the respondents were aware of open access publishing but nearly 15% never heard about “open access” before and these results give an insight that majority of the respondents are not familiar with “open access”. The results also suggest the need for effective mechanism to educate researchers and faculty members about IRs, open access publishing and digital libraries. It does appear that over half of the respondents were quite willing to contribute to IRs; but many were also concerned about open repositories being misused.

Table 7. Reasons for not contributing to IR

Reasons	Frequency	Percentage
1 Concerned about plagiarism	20	4.9
2 Concerned that others might copy our work without permission	15	3.7
3 Concerned that if we deposit our works in the university’s repository we may not be able to publish them elsewhere later	09	2.2
4 Do not want to put our works with work that has not been peer- reviewed	09	2.2
5 Prefer to deposit it in another repository (such as a subject repository)	08	2.0
6 Perceive that few people would see our works	07	1.7
7 Afraid it might take too much time	07	1.7
8 Concerned about that we do not have the necessary technical skills	06	1.5
9 Concerned about the long term feasibility of the repository	06	1.5
10 Concerned that our images and graphics will require too much storage capacity and download time	05	1.2
11 Perceive that the readership of the repository would be too broad and not targeted to our field of works	04	1.0
12 Concerned that the university might do something with our works without our permission	03	0.7
13 Not want our works to be deposited with works from other disciplines	02	0.5
14 Prefer to make our works available only on our personal web sites	02	0.5
15 Might want to change or delete our works	02	0.5
16 My work is confidential	02	0.5
17 Concerned that our works might not be preserved in the long term	02	0.5
18 Concerned about the effect of open access repositories on learned societies and associations	02	0.5
19 Perceive that the repository would have low prestige	01	0.2
20 Concerned that the university might expect us to pay to do it	01	0.2

Note : N=408

14. Recommendations

The following recommendations are made to create more awareness and educate them on open access and content recruitment for digital repositories.

- University and the library should organize workshops and seminars specially designed to create awareness and better understanding of open access repositories,
- The library should prepare and disseminate open access promotional materials and advise authors on possible open access repositories for dissemination of their scholarly output,
- There is a need to develop institutional policies that will enhance open access. These policies should be a means of improving open access,
- At the same time the university should conduct an open access advocacy campaign and training sessions for researchers to demonstrate access and publish in open access repositories, and
- The library should develop some strategies to populate the institutional repository. In promoting the repository it is important to stress the benefits of the institutional repository to the academics as well as to the institution.

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