

Institutional Repository of North-Eastern Hill University: An Evaluative Study

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Abstract

The paper has made an attempt to evaluate the impact of institutional repository of North Eastern Hill University on its academic fraternities. It also includes strengths and weaknesses of this particular repository pointed out by the faculties and research scholars of NEHU. The paper is concluding with some suggestions drawn on the basis of the findings.

Keywords: Institutional Repository, North-Eastern Hill University, Dspace, Open Source Software

1. Introduction

North-Eastern Hill University (NEHU), one of the premier institutes of India was established in 1973 with the motto of disseminating and advancing knowledge in the Northeastern region. In a short span of 37 years, NEHU has shown its intellectual excellence in education and research. In 2006, it had been chosen as a 'University with Potential for Excellence' by the University Grants Commission (UGC). It is a great privilege for the university to be counted among the top selected universities of India.

The University has progressed continuously in research, consultancy and extension services. Currently it has research collaborations with more than 20 institutions of repute in India and 7 abroad. The University hosts two Rajiv Gandhi chairs, one in the areas of 'Tribal Development' sponsored by the Rajiv Gandhi Foundation, and the other on 'Protective Discrimination' sponsored by the Ministry of Human Resource Development, Government of India. The University has also been identified for PIHEAD (Promotion of Indian Higher Education Abroad), Study India Programme and as the EDUSAT (Education Satellite) hub for Northeast.

2. Institutional Repository of NEHU Central Library

The North-Eastern Hill University (NEHU) has been making many significant achievements in researches and has been publishing a great deal of research results. It is necessary for NEHU to present a good model to preserve and disseminate those research outputs. Therefore, NEHU has established an institutional repository under a project known as UPE (University with Potential for Excellence) and this project was started in 2007. Presently there are 38 communities and 2230 collections in the repository (<http://dspace.nehu.ac.in/>, accessed on 10/12/2010). The strength of the collection of the NEHU-IR is increasing day by day.

3. Objectives of the Study

The objective of this proposed study is to evaluate the impact of institutional repository of North-Eastern Hill University on its academic fraternities.

4. Methodology

For the survey of the primary data the scholar had adopted questionnaire method. Two structured questionnaires were prepared which were distributed among the faculties and research scholars under the study to find out the impact of the particular repository on the academic fraternity.

5. Data Analysis

A total number of more than 300 faculties and almost 150 research scholars of North Eastern Hill University are the total population of the study. During the survey, 150 questionnaires were administered to randomly selected faculties and 25 were to research scholars. Out of which 110 faculties and 11 research scholars had responded by giving a response rate of 69.14%. However, the non respondents constitute 30.86% in total. The data were tabulated for analysis in accordance to the objective of the study. Some respondents furnished some valuable comments in the space provided for the purpose; those comments were incorporated in the study at the appropriate places.

5.1 Response Rate

Faculties and research scholars from different academic areas responded to the questionnaire. The Table-1 along with Graph-1 represents the response rate of the respondents of this particular study. Here 150 questionnaires were distributed among the faculties, out of which 110 are collected by the researcher. While, in case of research scholars out of 25 distributed questionnaires, 11 came back.

Table 1: Response Rate

No of Questionnaire	Sent	Returned	Response Rate
Faculty	150	110	73.33%
Research Scholar	25	11	44%

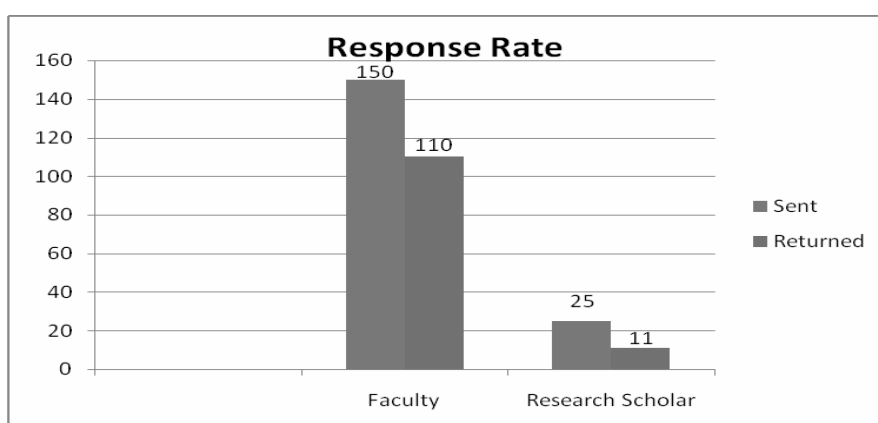


Figure 1: Response Rate

The Table reveals that 73.33% faculties and 44% research scholars responded to the questionnaire. It seems that faculties are more responsible and more interested towards the repository of their institute in comparison with the research scholars.

5.2 Basic Knowledge on Institutional Repository

In this study it is found that almost 70% percent respondent of the target group claim to know what is meant by an 'institutional repository' and they are aware about the ongoing project on institutional repository at their university. Some of their assumptions on institutional repository concept are very simple as such-

- ◆ Conversion of those printed collection have their copyright into digital form.
- ◆ In which all scholarly publication of an institution is kept in soft copy.
- ◆ Facilitates sharing of knowledge across geographical, cultural, political and economical barriers.
- ◆ A good source of knowledge.
- ◆ A proper way of scholarly communication.
- ◆ A way to expose research done by the university
- ◆ Extension of library services.
- ◆ A good source for information search.
- ◆ A collection of articles/papers for quick access.
- ◆ Very informative and handy way for research.
- ◆ Very useful and convenient.
- ◆ Digital presentation of valuable materials
- ◆ Fastest information source
- ◆ Way to make the university more visible.

On the contrary, 30% of the respondents have a very poor knowledge about institutional repository. Basically the research scholars excluding the scholars from the department of Library & Information Science are not aware about it. Some of them heard the word for the first time during the survey.

5.3 Knowledge Sharing

Knowledge is of no value until and unless it is shared. Here knowledge refers to the scholarly publications of the faculties. At this point, faculties were asked with whom they want to share their scholarly publications.

Table 2: Comments of the Faculties Regarding the Sharing of Articles in the IR

Modes of Knowledge Sharing	No of Faculties	Percentage
Only with Students	31	28.18%
Only with Colleagues	3	2.73%
With All	70	63.64%
Don't want to Share	6	5.45%
Total	110	100%

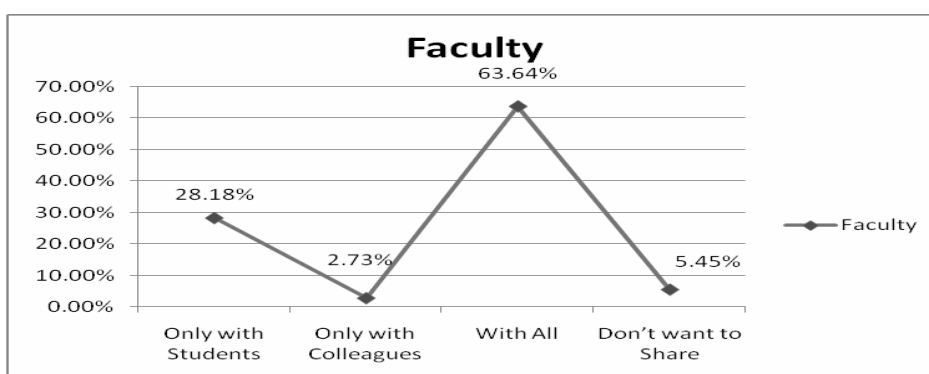


Figure 2: Comments of the Faculties Regarding the Sharing of Articles in the IR

Table-2 supported with Graph-2 point that out of the 110 respondents (faculty), 63% are ready to share their articles with all and 28.18% are agree to share with students only. Again, 2.73% respondents want to share only with their colleagues. On the contrary, 5.45% are not at all willing to share their scholarly publications due to copyright problems from the publishers. This indicates that a large number of faculties are willing to share their teaching and scholarly materials with others. Very few academics are reluctant to share their articles freely.

5.4 Leading Contributing Communities in NEHU-IR

The institutional repository of NEHU is consists of 38 communities; and each community is again consists of sub communities. These sub communities represent the number of contributors to the particular community. Table below along with the graph reveals the leading contributing communities and their number of contributors in the repository.

Table 3: Leading Contributing Communities in NEHU-IR

Community	Chemistry	Botany	Zoology	Physics	Biochemistry
Number of Contributor	91	59	46	43	34

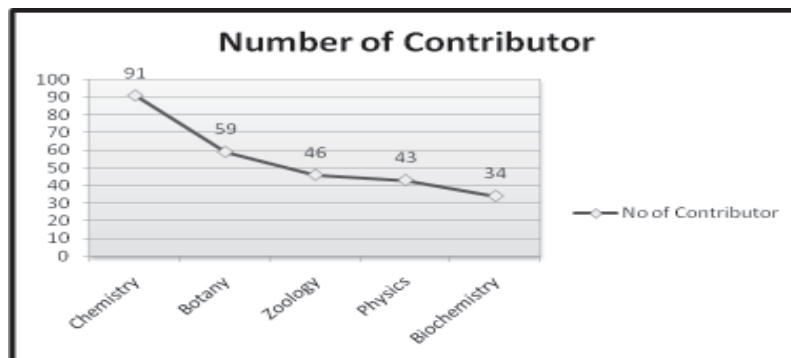


Figure 3: Leading Contributing Communities in NEHUIR

Here it is seen that Department of Chemistry has maximum number (91) of contributors followed by Department of Botany with 59 contributors. Again Zoology, Physics and Biochemistry are in 3rd, 4th and 5th position respectively. It reflects that the faculties from the School of Life Sciences and Physical Sciences are contributing more in the repository.

5.5 Awareness about Open Access (OA)

The concept of 'Open Access' is the origin of Institutional Repository. But here it is found that just over half (51.5%) of the faculties mention that they are aware about 'open access', of course, their understanding are varied. Responses range from making information freely available to everyone. Some other faculties feel open access as a platform where people can put their results or peer reviewed work on the Web, and others can access and download them without paying a subscription fee.

5.6 Rating of the Institutional Repository of NEHU

The scholar has displayed the rate of satisfaction of both faculties and research scholars regarding the institutional repository of North-Eastern Hill University under Table-4 affixing data in Graph-4 (a) and (b) for a clear understanding. Here the researcher made use of five-point Likert scale. The Likert scale ranged from "Excellent" (1) to "Very poor" (5) for all items associated with each variable.

Table 4: Rating of the Institutional Repository of NEHU

Grade	Faculties	Percentage	R/S	Percentage
Excellent	2	1.82%	0	0%
Very Good	11	10%	0	0%
Good	59	53.64%	5	45.45
Poor	14	12.73%	0	0%
Very Poor	3	2.73%	0	0%
No Response	20	18.18%	6	54.55
Total	110	100%	11	100%

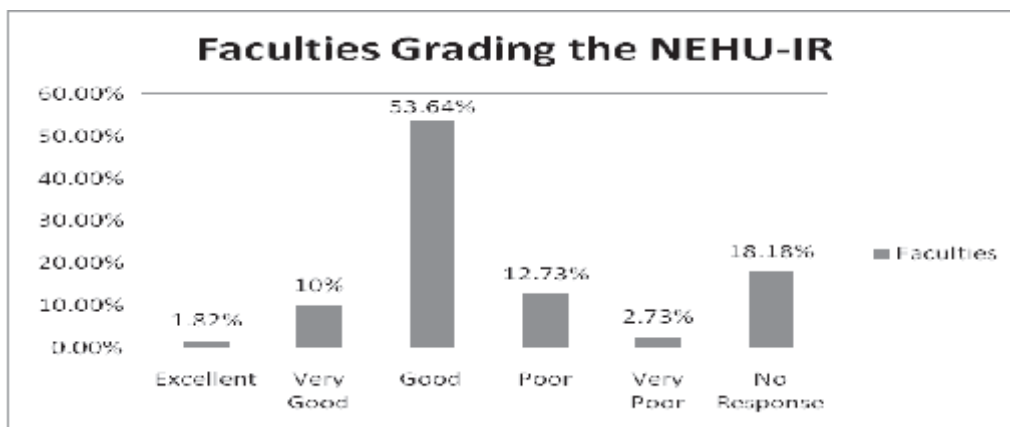


Figure 4 (a): Grading of the NEHU-IR by the Faculties

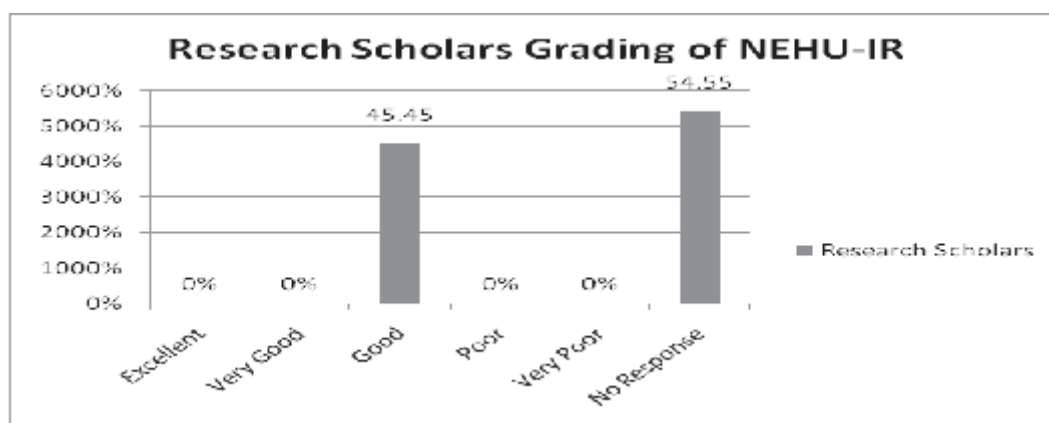


Figure 4 (b): Grading of NEHU-IR by the Research Scholars

Here, Out of 110 faculties 53.64% have remarked the repository as "Good" and 1.82% have graded as "Excellent". Only 2.73% have commented it as "Very Poor". On the other hand out of 11 research scholars 45.45% have ranked it as "Good". No scholar has remarked the repository as "Excellent" or "Very Poor". However, it is seen that the majority of faculties and the research scholars remarked the repository as good.

5.7 Problems in Depositing Articles in NEHU-IR

In depositing articles in the repository most of the faculties are of different opinion as shown in the table accompanying with graph below. Ofcourse, majority of the respondents (64.55%) expressed that they are not facing any problem in depositing their scholarly works in the repository as uploading of articles in the repository is done by the administrator and other repository staffs.

Table 5: Problems Facing by the Faculties in Depositing the Articles in IR

Problems	Number of Faculties	Percentage
Technical Problem	3	2.73%
Lack of Information	16	14.55%
Copyright Problem	20	18.18%
No Problem	71	64.55%
Total	110	100%

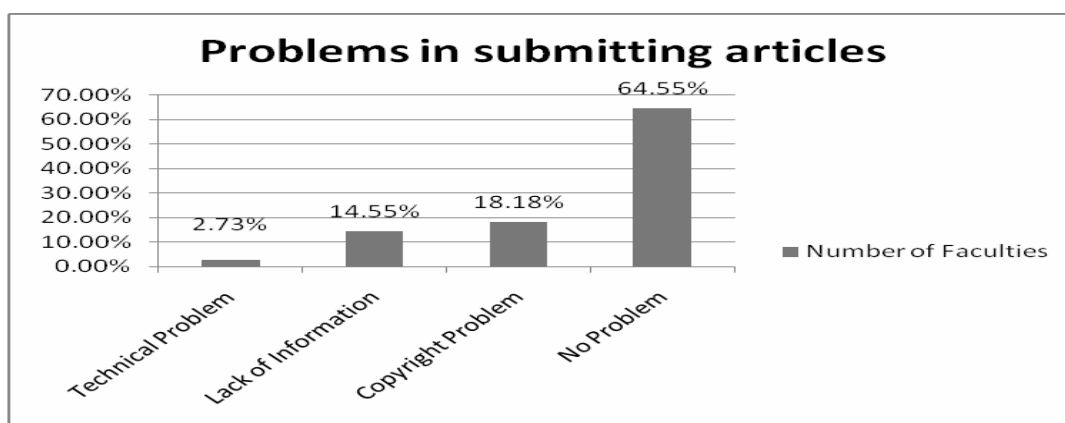


Figure 5: Problems Facing by the Faculties in Depositing the Articles in IR

5.8 Benefit of the faculties for depositing article in the IR

Here faculties were asked how they will be benefited by depositing their publications in the repository. As a whole, faculties were rational about depositing their work in the NEHU-IR. Some of them are very happy to see their articles in the repository.

Table 6: Benefits of an IR for the Contributors

Benefits	Number of Faculties	Percentage
Increase Citation	25	22.73%
Wider use of Articles	44	40%
Open Access	21	19.09%
Increase Reputation	13	11.82%
Way of e-publication	7	6.36%
Total	110	100%

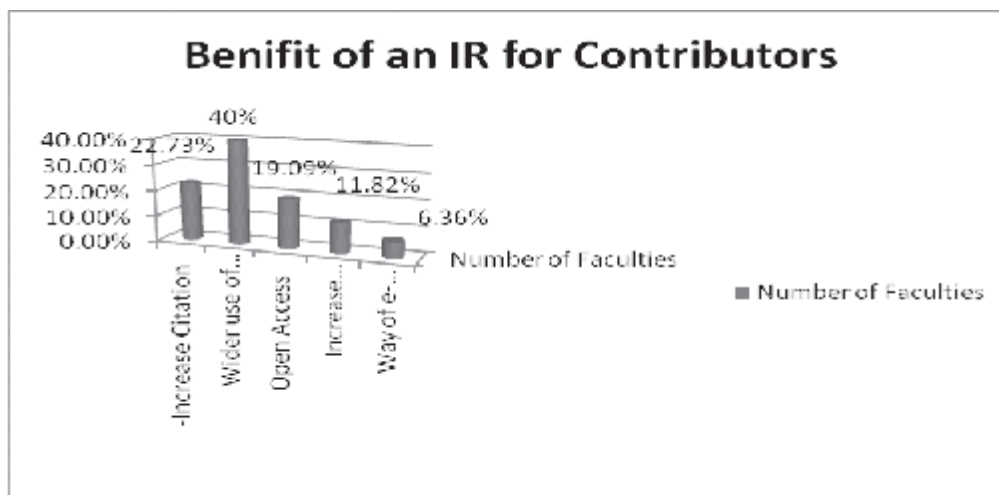


Figure 6: Benefits of an IR for the Contributors

Table-6 along with the Graph-6 reveals that out of 110 respondents 40% feel that it helps in wider use of articles. 22.73% of faculties deposit their articles for increase the rate of citation. However, 6.36% of faculties view that it is a way of e-publication. On the other hand, 19.09% of respondents assume that open access of their works is a great benefit for them. Moreover, 11.82% consider that submitting an article in the repository increases their reputation.

5.9 Importance of IR in teaching learning process

In case of examining the importance of institutional repository in teaching-learning process, a number of faculties and research scholars reacted in various way. Most of the faculties opined that it is necessary for teaching learning process. Some of them feel that it is not only necessary but urgent for the same. Similarly, a good number of research scholar commented as institutional repository is an urgent tool for learning process. On the contrary, no one has mentioned that institutional repository is not necessary for teaching-learning process. It means an institutional repository is a significant asset for an educational institution.

Table 7: Comments on the Importance of IR in Teaching-Learning Process

Comments	Number of Faculties	Percentage	Number of R/S	Percentage
Very Urgent	2	1.82%	2	18.18%
Urgent	32	29.09%	5	45.45
Necessary	40	36.36	2	18.18%
Not Necessary	5	4.55%	Nil	0%
No Response	31	28.18%	2	18.18%
Total	110	100%	11	100%

Figure 7: Comments on the Importance of IR in Teaching-Learning Process

More over, some of the faculties have furnished the following comments regarding the importance of an institutional repository for teaching-learning process-

- ◆ Increase knowledge in relevant research area;
- ◆ Added knowledge to all the students;
- ◆ Can enhance the learning process;
- ◆ Easy access of teaching materials which are urgently needed;
- ◆ As ready responses students can have access to the departmental output anytime;
- ◆ Students can have a direct access to reading materials and thereby teachers may find it easier to impact compulsion;
- ◆ It helps in updating knowledge in a specific discipline. Also acquaints the students with the ways to gear out information and collect them purposefully;
- ◆ It enhances the knowledge base of faculties and gear up a thrust to the students for further reading;

5.10 Strengths of the Institutional Repository of NEHU

At this point faculties and research scholars were asked to mention the strengths of the institutional repository of their institute. The various opinions between the faculties and research scholar regarding the strengths of the institutional repository of NEHU are showing below in the Table-8 supplemented with Graph-8, which clarifies the success of that particular repository.

Table 8: Strengths of the NEHU-IR

Strengths	Number of Faculties	Percentage	Number of R/S	Percentage
Well Planned	15	13.64%	1	9.09%
Well Managed	15	13.64%	1	9.09%
Up-to-date	6	5.45%	Nil	0%
Easy to Navigate	21	19.09%	3	27.27%
Open to All	45	40.91%	4	36.36%
No Response	8	7.27%	2	18.18%
Total	110	100%	11	100%

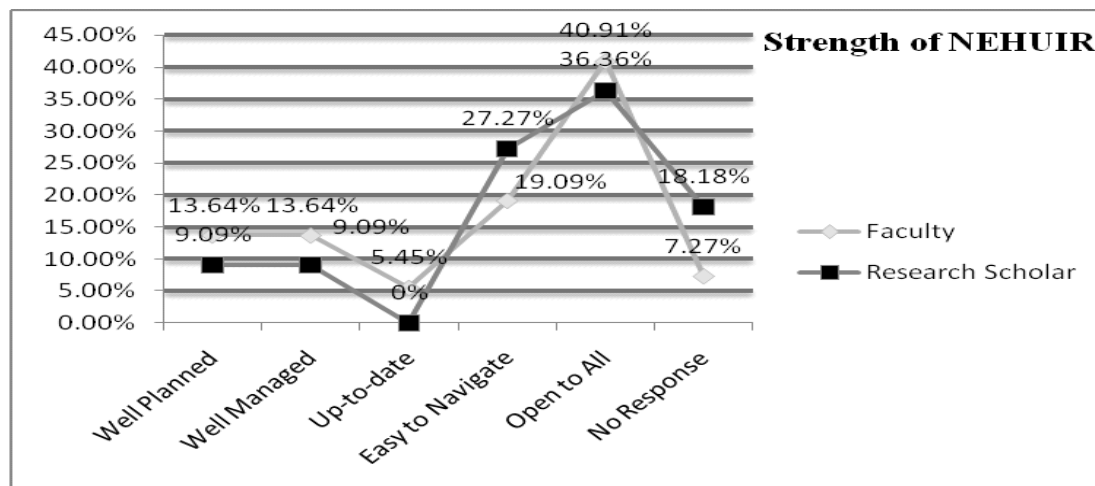


Figure 8: Strengths of the NEHU-IR

While analysis of the above Table it is found that majority of respondents feels that openness is the basic strength of the institutional repository of NEHU followed by easy navigation. Moreover, 13.64% faculties and 9.09% research scholar remarked that the NEHU repository is well planned and well managed.

5.11 Weaknesses of the Institutional Repository of NEHU

Each and every organization has some strengths and weaknesses. The institutional repository of North-Eastern Hill University is also not free from it. Here respondents were asked to point out the weaknesses of the institutional repository of their institute. The scholar has charted the comments of the respondents under the Table-

Table 9: Weaknesses of the NEHU-IR

Weaknesses	Number of Faculties	Percentage	Number of R/S	Percentage
Less Literature	15	13.64%	3	27.27%
Lack of Publicity	26	23.64%	Nil	0%
Lack of User Awareness	31	28.18%	5	45.45
Lack of Updateness	26	23.64%	3	27.27%
No Weakness	4	3.64%	Nil	0%
No Response	8	7.27%	Nil	0%
Total	110	100%	11	100%

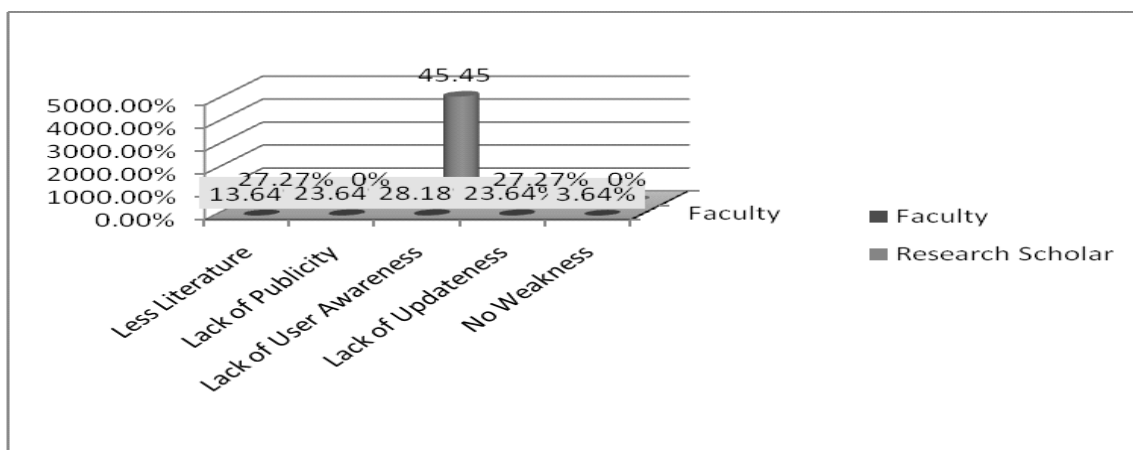


Figure 9: Weaknesses of the NEHU-IR

The above Table accompanying with Graph depicts a clear picture on various weaknesses of the surveyed institutional repository, opined by both the faculties and research scholars. Out of 110 faculties 31 (28.18%) and out of 11 research scholars, 5(45.45%) feel that lack of user awareness is the major drawback of that particular repository. On the other hand 26(23.64%) faculties assume that lack of publicity and lack of updateness are two noticeable weaknesses of NEHU-IR. Again, 15(13.64%) faculties and 3(27.27%) research scholars remark that the number of literature in the repository is comparatively less. Of course, 4(3.64%) faculties comment that there is no weakness in the institutional repository of that particular institute. The analysis shows that majority of the respondents mention that lack of user awareness is the major drawback of the particular repository.

6. Findings

After due analysis of the data, collected during survey, the following major findings are drawn:

- 6.1 Faculties are more aware and more responsible towards the repository of their institute in comparison with the research scholars.
- 6.2 Majority of the faculties of the target group claim to know about 'institutional repository' and they are aware about the ongoing project on institutional repository at their university. But it is surprising to know that most of the research scholars are not aware about it.
- 6.3 Majority of the faculties (63%) are willing to share their teaching and scholarly materials with all.
- 6.4 Only half percent (51.5%) of the respondents were aware about the concept of Open Access.
- 6.5 Majority of faculties and the research scholars ranked the repository as good.
- 6.6 Majority of the respondents (64.55%) are not facing any problem in depositing their scholarly works in the repository as uploading of articles in the repository is done by the administrator and other repository staffs.
- 6.7 Faculties are very rational about depositing their works in the repository. Majority of the faculties (40%) upload their articles in the repository for the wider use of these.
- 6.8 Most of the respondents answered positively regarding the importance of the repository for teaching-learning process. It means an institutional repository is a very important asset for an educational institution.
- 6.9 Lack of user awareness is the major problem of the particular repository.

7. Suggestions

- 7.1 The NEHU Central Library should introduce special user education programme basically on institutional repository. It serves to instruct, inform and persuade university members about the benefits of the repository.
- 7.2 User education should cover the practical issues of depositing and accessing work, the benefits of using the institutional repository, the possible risks involved with depositing work, and how to avoid them etc.
- 7.3 Faculty should be given proper training for self achieving in the repository.

- 7.4 The NEHU Central Library should take more initiative to focus the concept of open access by organizing seminars, conferences etc.
- 7.5 Faculties should be assured that they are neither infringing copyright on their own published work, nor putting at risk their chances of future publication. For that, a direct link to the SHERPA/RoMEO list of journals publishers' self-archiving policies (<http://remeo.eprints.org/>) should be provided in the repository webpage itself.
- 7.6 The library should promote to motivate for using the institutional repository as well as to contribute to the repository. Those who are most skilled at communicating should be selected for promotional work. Some of the potential means for promotion and advocacy include- seminars and presentations, leaflets, posters, newsletters and other printed literature, links from library web pages, including a link to the repository home page from the library home page, as well as appropriate links from the library catalogue to individual items, network with the repositories of other national and international universities.
- 7.7 A marketing plan is essential, not just to increase faculty awareness, but to increase awareness among administration and staff. Most of the information technology projects, undertaken by the library are completely internal, such as an online catalog, interlibrary loan services, or citation linking etc. For the success of the repository librarians should interact with faculty as well as other administrative staff outside of the traditional scope of library works. It is imperative to let faculty and administration know why they should participate in the repository and how they will be benefited.
- 7.8 Institutional Repository should initiate some more valuable services such as standardization of metadata, impact indicators such as hit counts on papers, download statistics and citation analyses; links to cited material; cross-searching of internal and external repository collections etc.

8. Conclusion

Institutional repositories are one of the most promising developments that utilize new web technologies to offer a viable and sustainable alternative to the current model of scholarly publishing. The repositories also serve as a comprehensive publications database of the parent organization. It facilitates better management of research knowledge, better visibility and wider access, better impact and citations, rapid communication of research, and long-term preservation. The institutional repository of North-Eastern Hill University is also in the way to achieve a great success in this regard. It is a unique example for rest of the universities of North-East region.

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