

APPLICATION OF CLOUD BASED KNOWLEDGE THROUGH KNIMBUS FOR STAKEHOLDERS OF ENGINEERING LIBRARIES IN BANGALORE - A CASE STUDY

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Abstract

In the present era there is a constant transition from the traditional libraries - print media to the digital resources through the web based digital library. With the advent of latest technology, the engineering libraries has been developed and well equipped with the maximum usage of technological resources to disseminate the web based knowledge to its stakeholders. The present day stakeholders namely, students, faculties, research scholars are in a great need of information at the least possible time, this is the area where the information professionals and the scholarly publishing developers play a vital role in providing the required information under one cloud platform where the stakeholders can connect and collaborate with the other peer groups. This paper is a case study on cloud based knowledge through Knimbus platform for stakeholders of engineering libraries in Bangalore. Cloud based services refers to both application delivered as a service on internet and system software in the data centers that provide services. The scope of the study covers how cloud based knowledge through Knimbus for its stakeholders can be availed at their workstations. This paper highlights and facilitates the various e- resources being subscribed by the institutions and used by the stakeholders through Knimbus platform effectively. Knimbus application model is based on SaaS model which enables the users to explore, exchange ideas, share and create content in a innovate manner. This helps as a value added service to all its users.

Keywords: Web Based Service, Cloud Service, Knimbus Service, SaaS Model, Library Service, Engineering Libraries.

1. INTRODUCTION

The present day information is very vast and informative which need to reach all the information seekers in a effective manner, the library professionals plays a vital role in helping and updating the stakeholders get the information in the shortest given time. To satisfy the present studies on application of cloud based knowledge through Knimbus for stakeholders of engineering libraries in Bangalore city was conducted. This paper is a case study which highlights and facilitates various e-resources being subscribed by the institution and used by the stakeholders through Knimbus.

2. REVIEW OF LITERATURE

A L Moorthy; Ankurpant¹, in the paper highlights about the resource sharing amongst libraries that has aimed in overcoming various budgetary constraints. The author¹, has done an analytical study about the DRDO e- journals consortium, its issues and concerns related to library consortia that are made available from across the globe. Each subject has its own core journals providing high quality research information. The author¹, also highlights about the challenging task which involves many issues to be resolved. Further the author¹, concludes that the DRDO e- journals consortium has strengthened the resource sharing and proved 24/7 availability of information.

In the paper the author, Anna Kaushik; Ashok Kumar², speaks about the cloud computing technology for the libraries, how these services are offering libraries to connect to various through cloud. The author², also highlights on identifying and generating cloud based services for libraries, further the cloud computing models highlights on how the libraries are providing effective services to its readers. With regard to this the author², concludes that libraries should enhance their services through cloud for giving better enhanced services to its stakeholders.

In the paper cloud computing and its applications in library services the author³, speaks about the usage of cloud computing through internet for all its computing activities as per its requirement. These applications are available to a wide group of users across the globe. The author³, highlights about the scholarly contents in searching through Knimbus. Knimbus is a knowledge cloud which is dedicated to knowledge discovery and collaborative space for researchers and scholars. The author³, also highlights about the benefits and limitations of cloud computing in terms of cost effectiveness, security, ease to backup, recovery and unlimited storage capacity, which helps in disseminating the information from one point to all its readers, further the author Subhash Chand; Nishi Singh³, concludes that the cloud services can be customized and flexible use for providing information to the readers.

The author⁴, in their paper online collaborative research platform: a tool to scholars with a special study on research scholars of Gauhati University, speaks about the availability of modern research methods which are now accessible in open access cloud based system through online networks models. The author⁴, in his paper, studies about the effectiveness of the use of collaborative research tool which is rapid moving in the present research era. The author⁴, has used survey research techniques for the study. Further the author⁴, highlights the collaborative research and Knimbus, which is a single search access window that connects users to more than a billion items of content which can be searched in real time basis. The author Dipankar Borah; Mondita Borah⁴, concludes that the libraries need to motivate its information seekers and researchers in getting the right information at a faster pace.

This paper focuses on functions of federated search engine it also describes how libraries can integrate their multi lingual databases in federated search platform. The author Miteshkumar Pandya⁵, speaks about the major service provider like deep web technologies, Knimbus,

metalib from Exlibris, 360 search from serial solution which focused on its short comings like the need for technical staff to solve problems while facing difficulties in retrieving the results from various databases. Further in this paper it is discussed about the OPAC versus Federated search engine, where almost all the libraries are indexing their books, journals and non book materials in OPAC, here the author⁵, also highlights the difficulties where multiple databases which were not stored in a library server. In view of this the IT providers have developed federated search engine to overcome with this problem. The author Mitesh kumar Pandya⁵, concludes that any libraries willing in implementing any federated search engine one need to ask for a trial price for different packages which varies for one to one service provider.

3. OBJECTIVES

1. To identify the awareness of readers using Knimbus platform.
2. To study the competent level of using Knimbus for accessing e-resources.
3. To study various functionality in using Knimbus for accessing e –resources.
4. To identify the most preferred format of downloading the e –resources.
5. To check the satisfaction level of using Knimbus as a platform for various journals.

4. SCOPE

The study is confined to the colleges covered under Visvesvaraya Technological University (VTU), there are 201 affiliated engineering colleges under its jurisdiction. Twenty colleges in Bangalore City are covered for the present study regarding the application of cloud based knowledge through Knimbus for stakeholders in engineering library.

5. METHODS USED

Questionnaire consisting of 10 questions were designed to the gather the opinion of the stakeholder. Data was collected which was further enhanced by informal discussion by the stakeholders. The discussions are further presented in the consequent sections in form of percentage and graphical exhibits.

6. DATA INTERPRETATION

Table 6.1 Age of the Respondents

Age	No. of Respondent	Responded	Percentage
21-30	500	200	10
31 - 40	500	150	20
41- 50	500	100	40
51 -60	500	30	20
61 and Above	500	20	10
Total		500	100

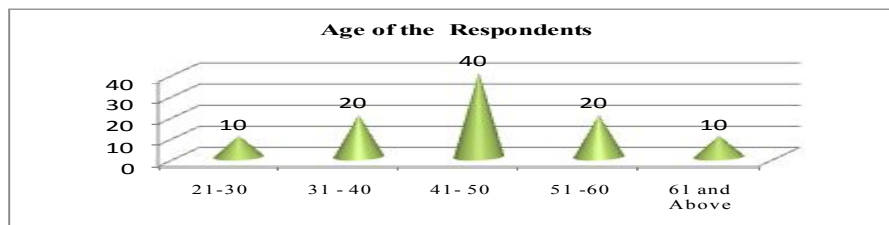


Figure 6.1 Age of the Respondents in Percentage Form

The above figure 6.1 represents 40% of the respondents were in the age group between 41-50, which is clear that there is a high usage of accessing electronic through Knimbus followed by the age group of 31-40 and 51-60 with 20% of usage.

Table 6. 2 Awareness of Accessing Electronic Resources through Knimbus

Awareness	No. of Respondent	Responded	Percentage
Yes	500	350	70
No	500	150	30
Total		500	100

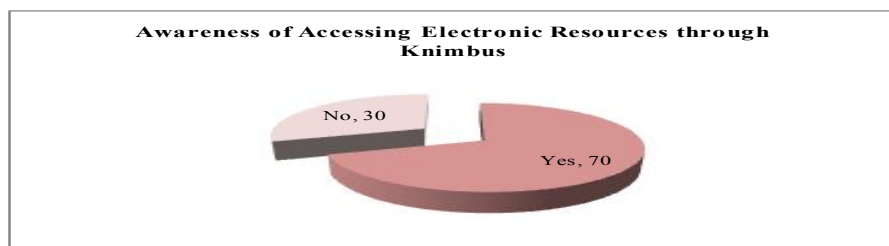


Figure 6. 2 Awareness of Accessing Electronic Resources through Knimbus

Figure 6.2 indicates about the awareness of accessing electronic resources through Knimbus where 70% of respondents have responded for an effective usage and have spoken about its benefits in the face to face interview.30% were not aware reasons were due to lack of computer awareness and from rural background, these stakeholders were given special training in various engineering institutions.

Table 6.3 Benefits through Knimbus for Journal Finder

Benefits	No. of Respondent	Responded	Percentage
Very Useful	500	250	50
Useful	500	200	40
Does not Help	500	50	10
Total		500	100

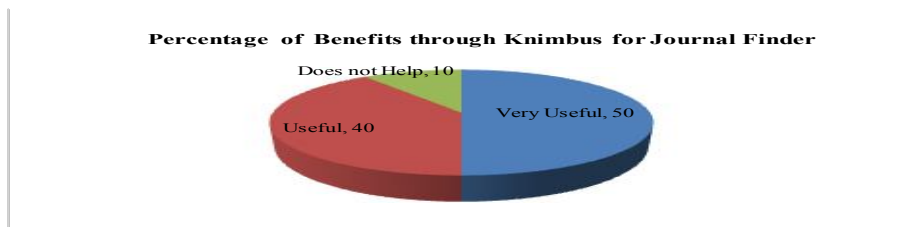


Figure 6.3 Percentage of Benefits through Knimbus for Journal Finder

The above figure 6.3 represents on the benefits of using Knimbus for journal finder indicates 50% of the stakeholder’s responded very useful for accessing the electronic resources as these were available under one single platform, the remaining 40% has responded useful and 10% has responded does not help, for which the library professionals are working out to convert these 10% into maximum usage by providing hands on training.

Table 6.4 Acquired Skills of Accessing Knimbus for Electronic Resources

Acquired Skills	No. of Respondent	Responded	Percentage
Library Personnel	500	100	20
Trainer	500	100	20
Self Study	500	100	20
Colleagues	500	150	30
Observation	500	50	10
Total		500	100

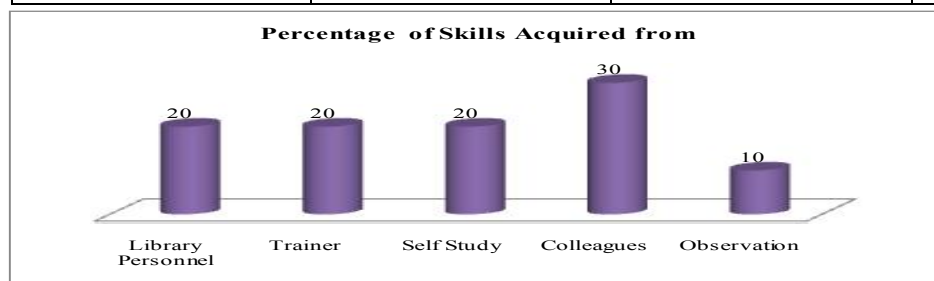


Figure 6.4 Percentage of Skills Acquired From

30% of the respondents have responded skills acquired from the colleagues for accessing electronic resources through Knimbus, followed by 20% acquired skills from library personnel, trainers, self study.

Table 6.5 Place of Accessing the Knimbus for E Resources

Place of Accessing	No. of Respondent	Responded	Percentage
Library	500	350	70
College Campus	500	100	20
Cafeteria	500	50	10
Total		500	100

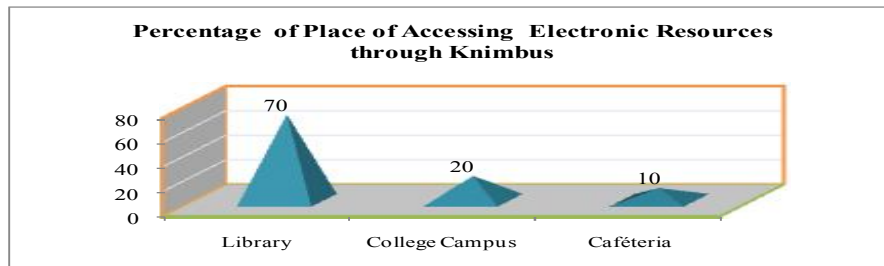


Figure 6.5 Percentage of Place of Accessing Electronic Resources through Knimbus

It is clearly seen in the above figure 6.5 that there is around 70% of the stakeholder’s are accessing electronic resources through Knimbus from library, which is evident that the library is been utilized at the fullest extent. This is followed by the access in college campus that is through the wi-fi mainly by the hostel students and other stakeholders using a laptop.

Table 6.6 Frequency of Using Knimbus for Accessing E- Resources

Frequency	No. of Respondent	Responded	Percentage
Daily	500	305	61
Weekly	500	45	09
Monthly	500	50	10
When Requirement Arises	500	75	15
Any Other Source	500	25	05
Total		500	100

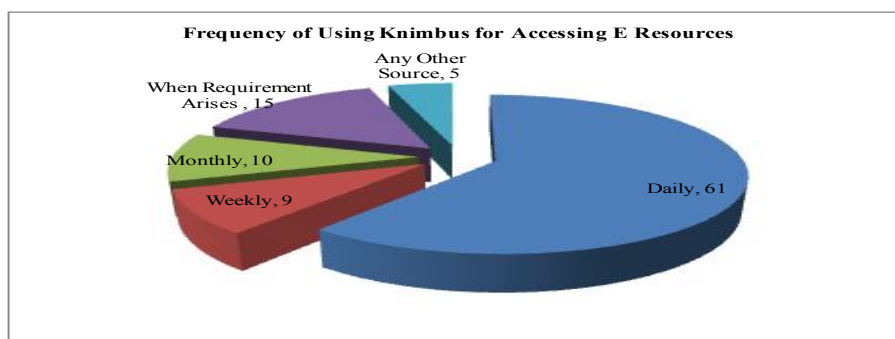


Figure 6.6 Frequency of using Knimbus for Accessing E- Resources

There is a constant usage of Knimbus for accessing E Resources for various purposes namely for class, seminar presentation, for journal article etc which indicates around 61 % as seen in the figure 6.6 The frequency is more the reason being all the journals can be found on one

single platform, the stakeholders need not browse through various weblink to get access for journals. The least among them is the any other source which is around 5%.

Table 6.7 Preferred Formats for Downloading E-Resource through Knimbus

Preferred Format	No. of Respondent	Responded	Percentage
pdf	500	352	70.4
HTML	500	95	19
Word	500	53	10.6
Total		500	100

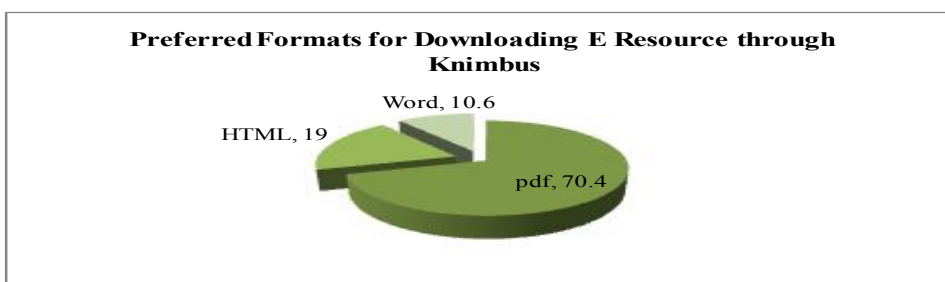


Figure 6.7 Preferred Formats for Downloading E- Resource through Knimbus

Figure 6.7 indicates 70.4% of the stakeholders prefer the pdf format for downloading the e resources through Knimbus, followed by HTML with 19% and word 10.6%. Pdf being more convenient and easy to download and store stakeholders prefer the same.

Table 6.8 Problems Faced while using Knimbus for E- Resources

Problems	No. of Respondent	Responded	Percentage
Slow Internet Speed	500	150	30
Difficulty in Retrieving Information	500	75	15
Frequent interruption in Internet Connection	500	150	30
Firewalls	500	50	10
Long time taken to Download Information	500	75	15
Total		500	100

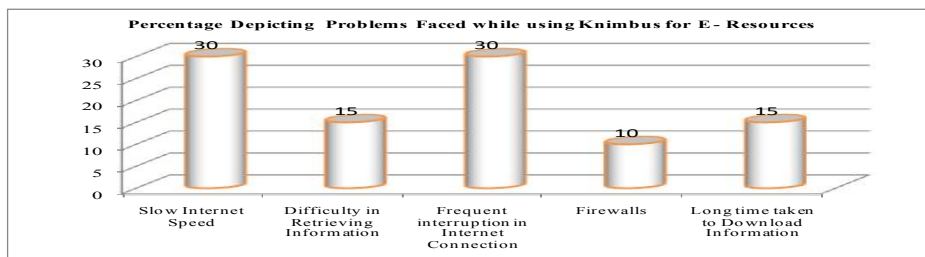


Figure 6.8 Percentage Depicting Problems Faced while using Knimbus for E- Resources

The above figure 6.8 depicts the problems faced while using Knimbus for accessing E Resources which has two reasons with the same percentage that is 30 % which says slow internet speed and frequent interruption in internet connection being the major problem faced while the remaining 15% that of difficulty in retrieving the information and long time taken to download the information.

Table 6.9 Frequently Downloading E- Resource through Knimbus

Downloading E Resource	No. of Respondent	Responded	Percentage
IEEE/ IEL	500	100	20
ASCE	500	30	06
Proquest	500	50	10
Science Direct	500	75	15
Springer Link	500	50	10
Taylor and Francis	500	50	10
CRC Net E Books	500	40	08
IET Digital Library	500	55	11
EBSCO	500	50	10
Total		500	100

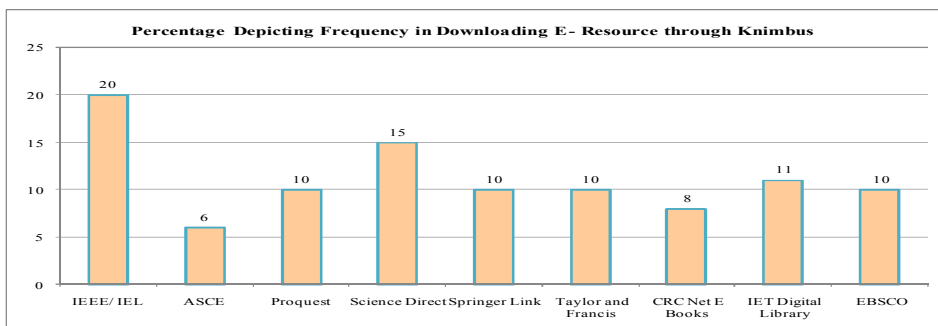


Figure 6.9 Percentage Depicting Frequency in Downloading E- Resource through Knimbus

Percentage depicting frequency in downloading E- Resources through Knimbus in figure 6.9 indicates that there is a higher usage of IEEE journal download by the stakeholders and next in the line is the usage of Elsevier science (Science Direct) with 15% followed by the other

resources with 11% and 10% that is IET, Proquest, Springer Link, and EBSCO. It is also clear that there is a good use of the e resources.

Table 6.10 Level of Satisfaction in using Knimbus for Accessing E- Resources

Satisfaction	No. of Respondent	Responded	Percentage
Great Extend	500	350	70
Some Extend	500	100	20
Least Extend	500	50	10
Total		500	100

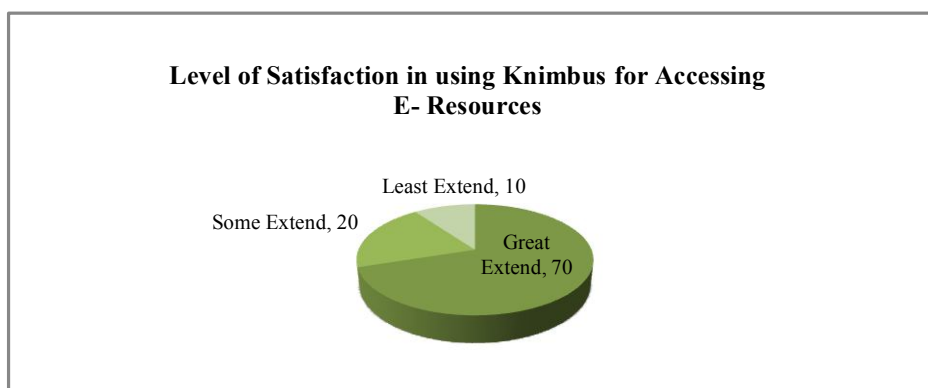


Figure 6.10 Level of Satisfaction in using Knimbus for Accessing E - Resources

Figure 6. 10 indicates the level of satisfaction in using Knimbus for accessing e resources shows around 70% responded great extend satisfaction as this being in a single platform which was saving the time browsing through various other publisher. Some extent satisfaction was around 20% and least extend satisfaction was highlighting 10%. Over all Knimbus has benefited the stakeholders in downloading various e-resources in a minimal time.

7. SUMMARY

1. 40% of the stakeholder's respondents were between the age group of 41-50years.
2. 70% have responded effective usage of downloading journals through Knimbus.
3. 50% of the stakeholders said it is very useful using Knimbus for journal finders.
4. Many of them have acquired skills from their colleagues in using Knimbus.
5. Overall stakeholders preferred Knimbus as it is in a single platform they could download the subscribed journals plus the open access journals.

8. RECOMMENDATION

1. As Knimbus has been benefitting the stakeholder's in downloading from a single platform, it is recommended that the engineering institution can be benefited by subscribing to the Knimbus.

2. The stakeholder's and the library professional need to be trained on the effective usage of Knimbus.
3. The stakeholder's can not only exchange ideas, can also share and create content in a innovate manner, which benefits all.

9. CONCLUSION

This paper highlights and facilitates various e-resources being subscribed by the institutions and used by the stakeholders through Knimbus platform effectively. Knimbus application model is based on SaaS model which enables the users to explore, exchange ideas, share and create content in a innovate manner. This helps as a value added service to all its users. Library professionals are also keen and enthusiastic in giving update information to all its stakeholders.

10. REFERENCES

- A L Moorthy; Ankurpant 2012. "Assessing the use of Electronic Information Resources in DRDO Institutes: An Analytical Study of DRDO E-Journals Consortium," *Annals of Library and Information Studies*, 59: 194-203.
- Anna Kaushik; Ashok Kumar, 2013, "Application of Cloud Computing in Libraries," *International Journal of Information Dissemination and Technology*, 3(4): 270-273.
- Subhash Chand; Nishi Singh 2014 "Cloud Computing and its Applications in Library" *Global Journal of Multidisciplinary Studies*, 3(5):31-50.
- Dipankar Borah; Mondita Borah 2014 "Online Collaborative Research Platform: A Tool to Scholar's with a Special Study on Gauhati University," *9th Convection Planner 2014, Dibrugarh University, Assam Sep 25-27, 2014*, Inlibnet: 134-142.
- Miteshkumar Pandya 2014 "Radical Shift from OPAC to Federated Search Engine in Language Diversified Community" *International Journal of Information Dissemination and Technology* 4(2):106-109.