

Knowledge Management through Academic Portal: A Case study of IIT Madras

Nirmali Chakraborty

Abstract

The study aims to investigate students' perceptions of using academic portal as knowledge management tool at IIT Madras. A self administered questionnaire was distributed among randomly selected 100 students of the Indian Institute of Technology, Madras. Moreover, a scheduled interview was conducted with the senior library professionals of the concerned institute. This research paper introduces the relationship between academic portal and knowledge management practices. The study shows that all the respondents are very much interested to use the academic portals of their institute and quite a good number of respondents are participating in those portals. Of course, the awareness level of the respondents regarding the utilization of academic portals as knowledge management tool is low. Therefore, the institution should create awareness among the users by conducting programmes, such as orientation programs, demonstrations, workshops, conferences, seminars and through notices regarding the complete potential of the academic portals and their use as knowledge management tool. Moreover, faculties should also motivate their students to create, share, store and utilize knowledge on the academic portals.

Keywords: Knowledge Management, Portal, Academic Portal, IIT Madras

1. Introduction

Knowledge management is the most powerful means for any organizational success. It is a management attitude, which unites streamline information management with a culture of organizational learning spirit. Knowledge management needs a systematic approach to develop the evolution of knowledge into a key organizational resource. Most importantly, effective knowledge management is now acknowledged as the key driver of new knowledge and new ideas. Therefore, knowledge management has become a significant issue in all types of organizations across the world irrespective of profit-making and not-for-profit organizations. Academic institutions also have considerable prospects to apply

knowledge management practices to support every part of their goal. Because, an institution's wide approach to knowledge management can lead to enormous improvements in creation and sharing of knowledge within the academic fraternity. In fact, the greatest knowledge creators are the academics. Knowledge creation is best performed by universities or higher academic institutions. Therefore, it is said that the application of knowledge management processes in academic sector is as essential as it is in the corporate sector.

The introduction of the portal concept to the academic institutions has opened new possibilities to address some of the issues concerning the management of academic information and knowledge. Conceptually the portal is nothing but a gateway through which members can access data, information and knowledge. An e-portal, uniquely adapted



to individual needs, can be accessed by the users via intranet or internet. Thus, it can be used as an interface to provide relevant data from a central source, through secure and password-protected entry. Password-protection is highly necessary because the system can immediately identify its users and restrict unauthorized access to authorized areas. Hence, once registered, a user can both access and add information directly into the database, making it a powerful tool for data management and updating the database immediately and ensuring that all information is current. The other benefits of the e-portal include—easy access from any internet or intranet connection, quick and easily available information, involvement of parents and peers in the educational processes, monitoring of self-progress, simple interface for easy data input, improvised communications between policy makers and other stakeholders and so on.

2. Academic Portals

According to Pienaar (2003), to support academics' personal knowledge management in an integrated way, the academic portal must have the following characteristics:

- ❖ The type of portal must be a combination of a vertical portal (vortal) and a corporate or enterprise information portal.
- ❖ High levels of functionality and integration are needed - a seamless interface. This must include advanced personalization and customization capabilities.
- ❖ The portal must support both the teaching and research roles of academics.
- ❖ The portal should give access to the following information sources: e-journals, e-ar-

ticles, e-reserves, e-archives, databases, e-books, e-dissertations, library catalogues, and the university's research database. Personal information sources should also be available, for example, experts and information specialists, etc.

- ❖ The portal should provide: Web search engines, global search function, list servers, chat rooms, e-mail, adding of URLs, interface with document delivery and inter library loan systems.
- ❖ Academics should be able to evaluate and add information sources to the portal.

2.1 Knowledge Management through Academic Portal

The most popular form of knowledge management technology that provides a secure central space where staff, users, administrators, partners, and suppliers can exchange information, share knowledge, and guide each other is the portal (Jotwani, 2005). It is a networked platform that presents the knowledge resources and services to its users. It provides easy-to-use information discovery and management systems. The following table (Table 1) shows the possible influence of academic portals on the knowledge management processes.

Table 1: Knowledge Management through Academic Portal

KM processes	Possible influence of Academic Portal
Creation of Knowledge	<ul style="list-style-type: none"> ◆ Discussion Forum ◆ Idea generation ◆ Share Thinking ◆ Add Knowledge ◆ Brain Storming Session ◆ Workspace for Research Projects ◆ Student Account ◆ Reward & Recognition
Sharing of Knowledge	<ul style="list-style-type: none"> ◆ Chat Rooms ◆ Bulletin Boards ◆ List Serve ◆ Communities of Practices ◆ E-Mail ◆ Virtual Conferences/Meetings ◆ Virtual Classrooms ◆ Lectures & Tutorials ◆ People Search
Storage of Knowledge	<ul style="list-style-type: none"> ◆ Institutional Repositories ◆ Digital Libraries ◆ Databases ◆ Theses & Dissertations ◆ Wikis ◆ Blogs
Utilization of Knowledge	<ul style="list-style-type: none"> ◆ Sophisticated Web Search Engines ◆ Link to the Subject Experts ◆ Link to the reference Librarian

2.1.1 Portals in knowledge creation

Academics are the best knowledge creators and academic environments are the best knowledge creation platforms. Academic portal is a kind of technology that organization can use as a dais in knowledge management project. Therefore, portal should

be designed to create and manage knowledge to influence knowledge assets within an organization. Portals have collaborative function, discussion forum, and push functions that help in innovation and knowledge creation process. For personalized view, portals can create a customized environment for different users so that they can share their thinking easily (McDermott, 1999). Moreover, knowledge products can be created by web editors and published on the academic portals. A portal must provide e-publishing facilities to support creation of knowledge products. Academics should be allowed to evaluate and add knowledge to the portal. Moreover, knowledge contributions should be awarded to motivate knowledge creation. Such an award shows that organization is concerned about the process. It also acts as a motivating factor for the members in the organization to share more. Indeed, knowledge creation can give identity to the employees in the organization.

2.1.2 Portals in knowledge sharing

Knowledge sharing is the most important process in knowledge management framework. Knowledge is useless until and unless it is shared. Academic portals provide internet communication instruments, such as chat rooms, bulletin boards, list servers, communities of practice, and e-mails to support international contact and the creation of virtual communities. Traditional publications, such as journals, books, dissertations can be published through portals on the web. Even portals can deliver educational materials via web (e-education). Moreover, a portal can provide virtual conferences, web teaching, virtual classrooms, demonstrations and lectures, workspaces for research projects, etc. In the words of Lam (1996), “If we want to use portal to achieve knowledge sharing process, we not only have to

focus on technology but also need to create a 'knowledge sharing culture' among the community."

2.1.3 Portals in knowledge storing

Each and every piece of experience and knowledge is precious. Academic institutions are the aura of knowledge. But, very frequently we lose this knowledge due to lack of proper storage of knowledge and knowledge management culture. Scientific information and knowledge can be stored electronically and made available on the academic portal. For that institutional repositories and digital libraries can be linked with the portal itself to store the academic information and knowledge. Portals can provide knowledge repository with filtering function aim to store and disseminate relevant information. This feature belongs to the element of asset management. Moreover, academic institutions can maintain their own wikis on the portal itself for storage of knowledge. Similarly, faculties and researchers can maintain their own blogs for updating and storing their research outputs.

2.1.4 Portals in knowledge utilization

Knowledge is worthless until and unless it is utilized. Therefore, National Aeronautics and Space Administration (NASA) has defined knowledge management as, getting right information to the right people at the right time. Portals provide sophisticated web search engines for the end users. Also, traditional databases can be made available on the portal. The portals can be linked with the reference librarian for consultation for proper knowledge utilization. Moreover, it can be linked with the subject experts also for the same.

Thus, the introduction of the portal concept to the academic institutions has opened new possibilities

to proceed towards knowledge management. It can provide a number of learning tools, including a course content management, a course calendar, an online discussion board, information announcement, reviews, auto-marked quizzes and exams, grade maintenance and distribution, student progress tracking, navigation tools, access control, online assignment, electronic mail, chat room, etc. It is such a platform which provides the facility of interaction among knowledge holders and seekers. Indeed, the portal technology can be combined with the processes of knowledge management.

3. Objective of the Study

The study aims to investigate students' perceptions of using academic portals as knowledge management tools at IIT Madras.

4. Research Questions

The study is motivated with the following research questions:

- ❖ Are the students aware about the institutional academic portals?
- ❖ What are the features of those portals and to what extent these are used by the students?
- ❖ Do students find the portals important for their academic purposes?
- ❖ Are the portals user-friendly?
- ❖ Do the portals support electronic scholarly communication?
- ❖ Is there any social influence on students in using the portals?
- ❖ Are the students self efficient to use the portals?

- ❖ Do the students need special training to use the portals?
- ❖ Do the portals support Knowledge Management Processes, e.g., Creation, Sharing, Storage and Utilization of Knowledge?

5. Methodology

For the survey of the primary data, the selected institution was physically visited and a self administered questionnaire was distributed among the randomly selected 100 students of the Indian Institute of Technology, Madras. Moreover, a scheduled interview was conducted with the senior library professionals of the concerned institute.

6. Overview of Indian Institute of Technology, Madras

The Indian Institute of Technology Madras (IIT Madras) is an autonomous public engineering and research institution located in Chennai, Tamil Nadu. It is recognized as an Institute of national importance by the Government of India. Founded in 1959 with technical and financial assistance from the government of the former West Germany, it was the third Indian Institutes of Technology that was established by the Government of India through an Act of Parliament, to provide education and research facilities in engineering and technology.

IIT Madras is a residential institute that occupies a 620 acres campus that was formerly part of the adjoining Guindy National Park. The institute has nearly 550 faculties, 8,000 students and 1,250 administrative and supporting staff. It has established itself as a premier centre for teaching, research and industrial consultancy in the country. The Institute has sixteen academic departments and a few advanced research centres in various disciplines of

engineering and pure sciences, with nearly 100 laboratories organised in a unique pattern of functioning. A faculty of international repute, a brilliant student community, excellent technical and supporting staff and an effective administration have all contributed to the pre-eminent status of IIT Madras (<http://www.iitm.ac.in/about>).

6.1 Knowledge Management at IIT Madras

6.1.1 Academic Portal of IIT Madras (<http://www.iitm.ac.in/>)

The academic portal of IIT Madras is the gateway of the institute. It is like a one stop shop for all information needs of the IIT-M community. It covers the links like Administration, Academic, Departments, Centres, Research, Central Library, Campus News, Conference link, e-mail, Student portal, faculty portal, IJAESAM - New Journal, Industrial Consultancy and Sponsored Research, Alumni Relations, International Relations, NPTEL, Placement, Research Park, Right To Information, Telephone Directory, JEE (Advanced), Annual Reports, Faculty Achievements, Heritage Centre, History, ISO 9001, Landmarks, Mission, Past Directors, Quality Policy, Reaching IIT Madras, Strategic Plan etc. The home page of the academic portal of IIT Madras is given in Fig. 1

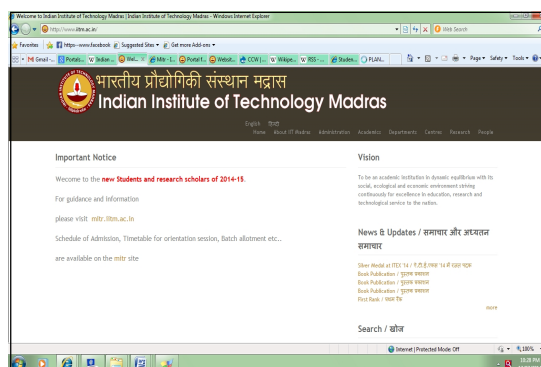


Figure 1: Academic Portal

6.1.2 The Library Portal

(<http://www.cenlib.iitm.ac.in/docs/library/index.php>)

The library portal of IIT Madras is based on VTLs-Virtua software. It provides the Open Access Catalogue, access e-resources and list of electronic journals and print periodicals. In addition, users can login, view and renew their books in their account. Moreover, it allows users to assign tags to their favourite contents in library catalogue and to put marking on the OPAC. Fig 2 is showing the home page of the Library Portal with its various links like i-portal, E-books, E-journals, Thesis, Ask the librarian service, etc.

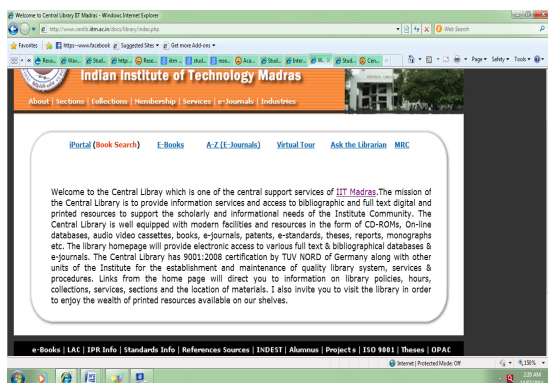


Figure 2: Library Portal

6.1.3 Portal for Faculty and Staff

(<http://www.iitm.ac.in/fsportal/>)

This portal holds the information regarding faculties and other staffs. The site is only for Faculty and Staff using their login ID. The portal provides link like Faculty List, Staff List, Publications, List of Conferences, Academic Curricula, Employee Image File, List of Campus News, Recent Post, etc. (Fig 3)

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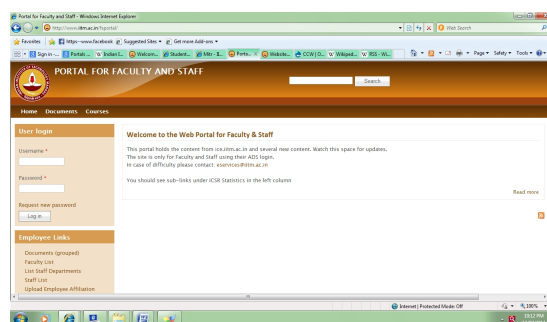


Figure 3: Portal for Faculty and Staff

6.1.4 Student Portal

(<http://students.iitm.ac.in/home/>)

It includes information regarding the students and links necessary for the students. It covers links like Student Search, Project Survey, Student Wiki (swiki), Messages, Mess Registration, Mess Rating, etc. Moreover the page has link with social networking sites Facebook, Twitter, etc. (Fig. 4)

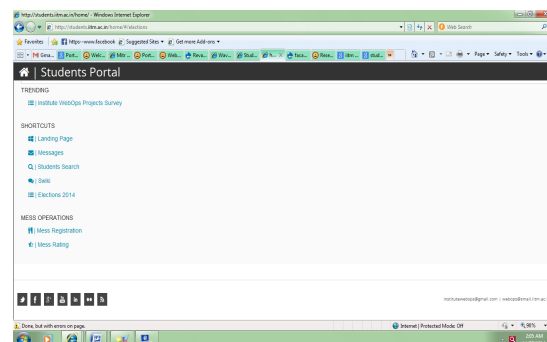


Figure 4: Student Portal

6.1.5 E-Learning Portal

The e-learning portal of IIT Madras is based on Moodle 2.6.3 software. It facilitates course management using its different modules – course, assignment, chat-room, calendar, task, discussion board, online test, message, glossary, quiz, survey and so on. In addition, each course is provided with its

own portal, allowing the participants to download the resources at leisure, anytime and from anywhere. These portals also allow and encourage participants to carry on discussions on various topics of interest, thus extending learning process across the available 24 hours. Figure 5 is showing the course categories on the e-learning portal.

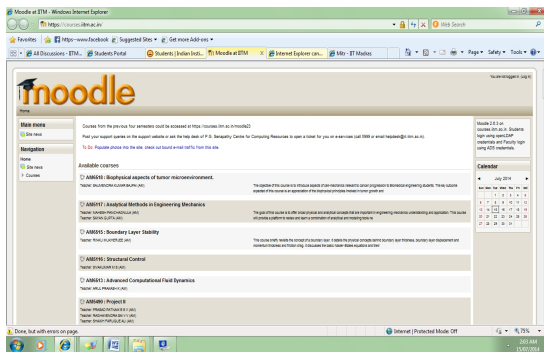


Figure 5: E-Learning Portal

6.1.6 CWW Office of the Hostel Management
(<http://ccw.iitm.ac.in/>)

It is an intranet based hostel management portal within IIT Madras providing information like - Hostel Information, Rules and Regulations, Students Allocations, Wardens, Department wise List of Students, Hostel Council, List My Advisees, People with Privileged Role, Anti Ragging Information, etc. (Figure 6)

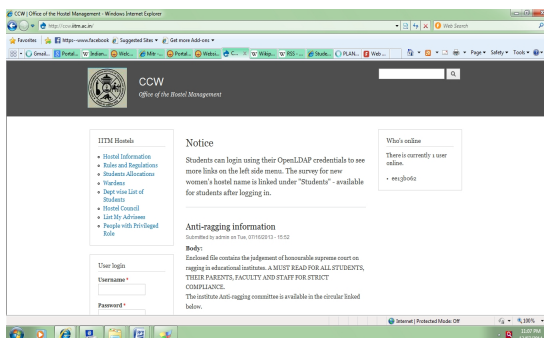


Figure 6: CWW Hostel Management Portal

6.1.7 Training and Placement Portal
(<http://placement.iitm.ac.in/students/>)

It is a training and placement portal for the students of IIT madras. This portal communicates students' profiles with the recruiters and recruiters' profiles with the students. Figure 7 shows the links of this portal.



Figure 7: Training and Placement Portal

7. Data Analysis

The primary data collected from the randomly selected 100 students of IIT Madras 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 appropriate places.

7.1 Basic Information of the Respondents

The Table 3 gives a brief account on the basic information of the respondents of the study. It was seen that out of 100 respondents, 79 are male and 21 are female. Similarly out of 100 respondents, 82 come under 20 to 25 age group, 17 come under 26 to 30 age group and the remaining one is of above 30 years. Moreover, all the respondents are having e-mail account.

Table 3: Basic Information of the Respondents

Gender	Male (79)	Female (21)	
Age Group	20-25 yrs (82)	26-30 yrs (17)	30+ (1)
E-mail Account	Yes (100)	No (-)	

7.2 General Understanding and Usage of Portal

In this section, a descriptive statistical analysis is given in order to provide a richer understanding of the students' general understanding and usage of academic portal. From Table 4 it can be seen that all the respondents use computers and web technologies for their study. Similarly, all the respondents claimed to be familiar about the term 'e-learning' as well as 'e-learning portal'. Moreover, all the respondents are aware about the academic portal of their institute. Of course, no respondent has received training on the use of the portal. But majority of the respondents replied that the portal supports both the teaching and learning and the portal enables users to access all the collection from one place and to search across. Moreover, all the respondents admitted that the portal supports electronic scholarly communication and it connects people with common interests who work in different departments. Again, majority of the respondents have replied that they can add information to the portal. Respondents informed that they are not informed through their mobile phone regarding the current news and updates in their areas of interest. Table 4: General Understanding and Usage of Academic Portal.

Table 4: General Understanding and Usage of Academic Portal

General Understanding and Usage of Academic Portal	Yes	No	No Response
i. Do you usually use any computer applications for your study?	100%	-	-
ii. Do you use the Web in your academic activities?	100%	-	-
iii. Are you familiar with the term 'E-Learning'?	100%	-	-
iv. Are you familiar with the term 'E-Learning Portal'?	100%	-	-
v. Are you aware about the E-Learning Portal of your institute?	100%	-	-
vi. Have you ever received training on the use of that Portal?	-	78%	22%
vii. Does the portal support both the teaching and learning?	83%	-	17%
viii. Does the portal enable users to access all the collections in one place and to search across them?	97%	-	3%
ix. Does the portal support electronic scholarly communication?	93%	-	7%
x. Does the portal connect people with common interests who work in different departments?	100%	-	-
xi. Can you add information to the portal?	96%	-	4%
xii. Are the members of the portal informed through their mobile phone regarding the current news in their areas of interest?	-	92%	8%

7.3 Students' Perceptions in Using Academic Portal

7.3.1 Performance Expectancy

A descriptive statistical analysis is described in this section in order to provide better understanding of the students' perceptions in using the academic portal. Table 5 summarizes the percentages of the students' perceptions with respect to Performance Expectancy. It can be seen that majority of the students tend to believe that the portal is a useful and productive tool, it enables them to accomplish task more quickly and it increases their creativity. How-

ever, they tend to be a bit more neutral in terms of their perception regarding getting a better grade by using the portal.

Table 5: Descriptive Statistics for Performance Expectancy (PE)

Performance Expectancy (PE)	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
PE1: I find the Academic Portal useful in my studies	0%	0%	24%	64%	12%
PE2: Using the Academic Portal enables me to accomplish tasks more quickly	0%	2%	16%	72%	10%
PE3: Using the Academic Portal increases my creativity	0%	0%	12%	84%	4%
PE4: If I use the Academic Portal, I will get a better grade	0%	6%	68%	8%	0%

7.3.2 Effort Expectancy

Table 6 provides a descriptive analysis of the students' perceptions regarding Effort Expectancy. It appears that majority of the students agreed that the Academic portal requires minimum effort; as it is understandable, easy to use and easy to learn.

Table 6: Descriptive Statistics for Effort Expectancy (EE)

Effort Expectancy (EE)	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
EE1: I find the portal understandable.	-	-	12%	75%	13%
EE2: I have necessary knowledge to use the portal.	-	-	19%	73%	8%
EE3: I find the portal easy to use.	-	-	11%	66%	23%

7.3.3 Attitude toward Using the Portal

The Table 7 reveals that majority of the students surveyed consider that the portals make classes more interesting and understandable, of course, they are found to be neutral when asked whether learning with the portal is fun.

Table 7: Descriptive Statistics for Attitude toward Using Portal (A)

Attitude toward Using the Portal (A)	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
A1: Portal makes classes more interesting		-	10%	66%	24%
A2: Portal makes classes more understandable.	-	-	3%	78%	19%
A3: Learning with portal is fun	-	-	59%	37%	4%

7.3.4 Social Influence

Interestingly, the descriptive analysis in Table 8 shows that students get influenced by others to use academic portals. Majority of them are agreeing that the teachers and administrative staff support the use of the portals. But unfortunately majority of the respondents are disagreeing about their parents motivating them to use the portals.

Table 8: Descriptive Statistics for Social Influence (SI)

Social Influence (SI)	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
SI1: My teachers have been supportive in the use of the academic portal	-	19%	39%	42%	-
SI2: In general, the university has supported in the use of the portals.	-	16%	34%	50%	-
SI3: My parents advice me to use the academic portal	17%	56%	27%	-	-
SI4: My friends suggest to use the portals	-	5%	26%	69%	-

7.3.5 Facilitating Conditions

Noticeably, the descriptive statistics in Table 9 expresses that majority of the students' perceptions that they have the necessary resources and knowledge to use the academic portal. But they are disagreeing about that 'a specific person (or group)' is available for assistance with difficulties they experience with the academic portal.

Table 9: Descriptive Statistics for Facilitating Conditions

Facilitating Conditions (FC)	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
FC1: I have the resources necessary to use the portals	-	-	6%	67%	27%
FC2: I have the knowledge necessary to use the portals	-	-	12%	71%	17%
FC4: A specific person (or group) is available for assistance with difficulties I experience with the portals.	-	34%	58%	-	-

7.3.6 Anxiety

Not surprisingly, today's techno-savvy students do not have a high level of anxiety while using the portals. Of course, few students feel uneasy to use the academic portal because of scare of losing a lot of information by clicking the wrong button. Moreover, quite a good number of respondents are willing to share their knowledge through the portal.

Table 10: Descriptive Statistics for Anxiety (ANX)

Anxiety (ANX)	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
ANX1: I feel uneasy to use academic portals.	23%	54%	14%	9%	-
ANX2: It scares me to lose a lot of information by clicking the wrong button.	8%	53%	7%	31%	-
ANX3: I hesitate to use the system for fear of making mistakes that I cannot correct.	32%	51%	7%	10%	-
ANX4: I don't like to share my knowledge through the academic portal	62%	33%	5%		

7.3.7 Features of the Academic Portal and their use

In addition to studying the academic portal more closely, this study also has tried to find the features and functionality of the academic portal that students tend to use. As can be seen in Table 11, students use the portal mostly for obtaining course information, announcements, old question papers and online testing/quiz. Moreover, majority of the respondents use it to participate in the discussion forum as well as in the chat room.

Table 11: Descriptive Statistics for Features of the Academic Portal (FB)

Features of the Portal (FP)	Never Use	Rarely Use	Sometimes Use	Use	Often Use
FP1: Administrative Information	-	-	2%	31%	67%
FP2: Academic Information	-	-	-	37%	63%
FP3: Library Resources	-	8%	10%	49%	33%
FP4: Study Materials	-	-	-	11%	89%
FP5: Lecture Aids	-	-	-	16%	84%
FP 6: Virtual Classroom	100%	-	-	-	-
FP7: Web Conferencing	100%	-	-	-	-
FP8: E-mail	-	2%	23%	59%	16%
FP9: Discussion Forum	-	7%	24%	51%	18%
FP10: Chat room	-	19%	71%	8%	2%
FP11: Old Question Papers	-	3%	5%	25%	67%
FP12: Online Testing/Quiz	-	17%	14%	63%	6%
FP13: Online Tutorials	-	11%	13%	71%	5%
FP14: Gradebook	-	-	-	27%	73%
FB15: Online Help	-	28%	32%	32%	8%

7.4 Need of Special Training on the use of Academic Portal

Quite a good number of respondents asked to organize special training on the better utilization of the academic portal. For that, the institution should introduce special user education programmes on the portal. It serves to instruct, inform and persuade the users about the benefits of the portal. Faculties should also be given proper training for self participation in the portal and they should be well informed about its importance in teaching and learning processes. Moreover, users should be motivated for using the portal as well as to participate in the portal. Some of the possible mechanisms for promotion and advocacy include workshops, seminars and presentations, leaflets, posters, newsletters and other printed literature, library orientation programme, etc.

Table 12: Need of Special Training on the use of the Academic Portal

Yes	No	No Response
88%	8%	4%

8. Findings

After due analysis of the data, the following major findings were drawn

- i. All the respondents usually use computer as well as web technology for their study.
- ii. All the respondents are familiar with the term 'Academic Portal'
- iii. All the respondents are aware about the Academic Portal of their institute.
- iv. Majority of the respondents have not received training on the use of the Academic Portal.

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- v. Majority of the respondents have replied that the portal supports both the teaching and learning.
- vi. Majority of the respondents have acknowledged that the portal supports electronic scholarly communication and it connects people with common interests.
- vii. Majority of the respondents have mentioned that they can add information to the student portal.
- viii. None of the respondents is informed through their mobile phone regarding the current updates and news in their areas of interest.
- ix. Majority of the respondents tend to agree that the portal is understandable, easy to use and easy to learn.
- x. Majority of the respondents get influenced to use the portal by others like teachers, friends, etc.
- xi. According to majority of respondents, the portal is easy to use, but seems to be easier if students can call someone for help whenever they get stuck.
- xii. Majority of the respondents do not have a high level on anxiety while using the portal.
- xiii. Majority of the respondents use the portal mostly for obtaining course information, administrative information, study materials, lecture aids, old question papers, online testing/quiz, grade-book etc. Moreover, some of them use it to participate in the discussion forum as well as in the chat-room.
- xiv. Majority of the respondents have asked to organize special training on the use of the academic portal.

9. Conclusion

In this paper, the author has studied the use of an academic portal designed to help higher academic institution in the context of knowledge management processes. The academic portal of IIT Madras, an integrated knowledge environment is working as a knowledge management initiative for the teachers and learners. Students and teachers can manage their knowledge on the portal very easily. It can be utilized as a tool for capturing teachers' explicit and tacit knowledge for knowledge sharing. It is very user-friendly for collaborative learning. The academic portal of IIT Madras is providing ways to display and organize student-generated contents and thus it helps to move this knowledge to subsequent semester classes and other groups. It is also providing the sense of community, working togetherness, problem solving, the joy of learning, etc. It is providing a platform to learn, create, share, help and improve. All the modules of the academic portal of IIT Madras are supporting knowledge management processes and organizational learning. Of course, there is less participation seen from the teachers' as well as students' ends. The students are thus advised to make good use of these online e-learning resources to gain better understanding of the subject matter and to facilitate better participation. The study reveals that the awareness level of the respondents regarding the utilization of e-learning portal as knowledge management tool is low. Therefore, the institution should create awareness among the users as well as faculties by conducting programmes, such as orientation programs, demonstrations, workshops, conferences, seminars and through notices regarding the complete potential of the academic portal and their use as knowledge management tools. Moreover, faculties should also motivate their students to participate in the portal.

9. Limitations of the Study

The present study is limited to one institution only. Therefore, a further study is suggested including all the IITs or higher academic institutions of India for getting a generalized finding. Moreover, usage among different age groups was also not studied. However, gender study was also not taken into account. Furthermore, the study will be appropriate by using an interview approach to place participants in a realistic environment where they will be able to express the problems face during the use of the academic portal.

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About Author

Mr. Nirmali Chakraborty, North Eastern Hill University, Shillong, Meghalaya
E-mail:nirmali.gulzar@gmail.com