Organizational Knowledge Management: Role of Libraries in Building World Class Universities

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Abstract

Purpose of this paper is to explore the experience of managing organizational knowledge in Cochin University of Science & Technology (CUSAT) and to identify the role of library in augmenting the global visibility of the faculty as well as the institution through managing the intellectual output. This cost effective models of knowledge management strategy presented here can support the ranking of the University.

Keywords: Organizational Knowledge, Knowledge Management, Higher Education

1. Introduction

Today's world is highly competitive, business, banking, industries and academic institutions especially universities are not an exemption. Ranking of Universities is not a new concept but it has become more relevant mainly due to the increasing number of Universities in recent years. The flow of students has also grown dramatically. Ranking of Universities are according to their performance in teaching, research, knowledge transfer, volume of research contents in the web, interdisciplinary concept, collaborative research, managing organizational knowledge for making visibility in global level etc.

University library can play an important role in helping the university to accomplish its academic goal and to attain an improved ranking. Library helps in increasing the visibility of the academia in the global level by integrating the scattered research outputs and showcasing them, showcasing the events, linking to various information resources etc. Many cost effective solutions are also introduced by Cochin University Library for organisational knowledge management.

Due to the advancement of ICT, the communication and dissemination of scholarly outcomes has become easier. Huge volume of research data is available in digital form. Efficient management of this data will help in analyzing and fulfilling the organization's commitment to the society as well as demonstrating its competency and ranking.

2. Higher education

Mission of the Universities and other higher education or scientific institutions are scientific research and education for overall benefit of the society. Universities are dominant and emerging cultural models of society. Universities should not focus merely on knowledge as information or as science but on deeper conceptions of the society at large.

Universities are meant for promoting higher education and research in subjects of social relevance and thereby generating ideas and products which will eventually help in the progress of the nation.

2.1 Cochin University of Science & Technology

Cochin University of Science & Technology (CUSAT) occupies a unique place on the academic road map of the nation as a premier Science & Technology University.

The University's motto 'tejaswinavadhitamastu' meaning 'may the wisdom accrued deify us both - the teacher and the taught and percolate to the universe in its totality' which is taken from the Vedas, the ancient scriptures of the land, epitomizes the ideals and philosophy of the institution.

CUSAT offers programmes indifferent faculties; in engineering, science, technology, humanities, law and management. The University has academic exchange links with reputed institutions worldwide and is producing research publications in multidisciplinary areas. CUSAT has attained a national and international standing due to the high citation and impact factor of its academic research programmes. (www.cusat.ac.in) and is ranked at position 43 as per web ranking of Indian Universities (http://www.4icu.org/in/) and at 5 as per webometrics ranking of Indian Universities 2015 (www.webometrics.info/en/Asia/India)

3. Organizational Knowledge

Organizational knowledge management is knowledge creation, knowledge authentication, knowledge presentation and knowledge distribution. It is the knowledge created by the individuals associated with the organization. In the University level, different departments and research laboratories, class rooms etc. are knowledge producing centers. Organization are producing two types of knowledge such as tacit and explicit knowledge and combination of these two types is called organizational knowledge.

The knowledge produced by academia is presented in the form of research articles, conference proceedings, seminar reports, project reports and Ph.D Theses. These can be disseminated through Institutional repository, as organizational knowledge.

So University Library has a great role in managing organizational knowledge by aggregation and integration of knowledge through different Knowledge management strategies.

3.1 Organizational Culture

It affects the mission and vision of an organization, the way people interrelate, and the context by which knowledge is created and the method of disseminating and sharing of such knowledge and knowledge application activities.

3.2 Knowledge Management Strategies

Knowledge management (KM describes how an organization manages its knowledge for the benefit of that organization. A good knowledge management strategy helps to:

⇒ Increase awareness and understanding of knowledge created in the organization

⇒ Gain administrative awareness and commitment

⇒ Attract external funding for research and development

4. CUSAT Model for Managing Organizational Knowledge

Different types of knowledge available in Cochin University of Science & Technology are research publications, PhD theses, Conference & seminar reports, patents, multimedia contents etc. CUSAT has developed many cost effective solutions for managing its intellectual out comes/organizational knowledge. Main strategies are:

⇒ Web based Open Public access catalogue OPAC;

⇒ Institutional Repository of CUSAT "dyuthi" .

➤ Bibliographical Information system for science & Technology "Yuj"

➤ Media repository covers the events occurred in CUSAT "MediaCore"

➤ Traditional Knowledge digital Library TKDL

4.1 Institutional Repository

Repository is an important tool for preserving an organization's legacy. Cochin University of Science & Technology has initiated the creation of an institutional repository called "Dyuthi" (http://dyuthi.cusat.ac.in) with the financial assistance of Department of Scientific and Industrial research (DSIR) Govt of India, and University Grants Commission (UGC). It is powered by open source software DSpace, developed by MIT and HP. "Dyuthi" in Sanskrit means Spark.

Dyuthi is a digital service that collects, preserves, and distributes digital material. Dyuthi archives the intellectual output of the CUSAT faculty, research scholars and scientists. This service enables the University Community to archive the intellectual outcomes such as preprints, reprints, theses, conference proceedings, teaching and learning materials and other scholarly publications. This repository is running completely on open access policy and technically compatible with OAI-PMH which supports the metadata harvesting from other IR.

Institutional repository of Cochin University of Science & Technology supports the free flow of information within the campus, departments, schools and R & D institutions by integration and aggregation of scattered information within the campus. It also supports the free flow of information over the globe and encourages the preservation of organizational intellectual informatics which supports knowledge

capture, knowledge organization, sharing of knowledge etc.

4.2 Knowledge Gateway (BISSAT)

University's research output are coming in different forms such as publications, reports, presentations, books, PhD theses seminar reports, etc. It is scattered in different departments and is necessary to integrate and bring together in single platform for efficient management and dissemination. Bibliographic information system is a tool to quantify this. It also helps to avoid duplication, promotes multidisciplinary research and helps in administrative monitoring. This system supports the visibility and ranking of an institution according to the citation mapping

Knowledge gateway of Cochin University of Science & Technology "Yuj" is developed under Dyuthi project, powered by open source software BibApp. Yuj is a Sanskrit word meaning unite or join together/togetherness. It aims to find experts on campus, archive their work, promote the research of a research group, department, school, promote collaborative research in the campus, increase the visibility of campus research, facilitate the reuse of publication data etc. Yuj covers the bibliographical information system with citation and abstracts of scientific productivity of Cochin University of Science & Technology.

4.3 Media Repository

Media repository of Cochin University of science & Technology covers the events happened in CUSAT. It covers the videos of invited talks, seminars, symposia, workshop, TV programmes, student creations e-learning contents etc. CUSAT media repository is powered by open source software Media core. Media Core can be used to organize video and

podcasts, engage users and deliver content to both desktop and mobile devices. It supports the organizational statistics, accessibility
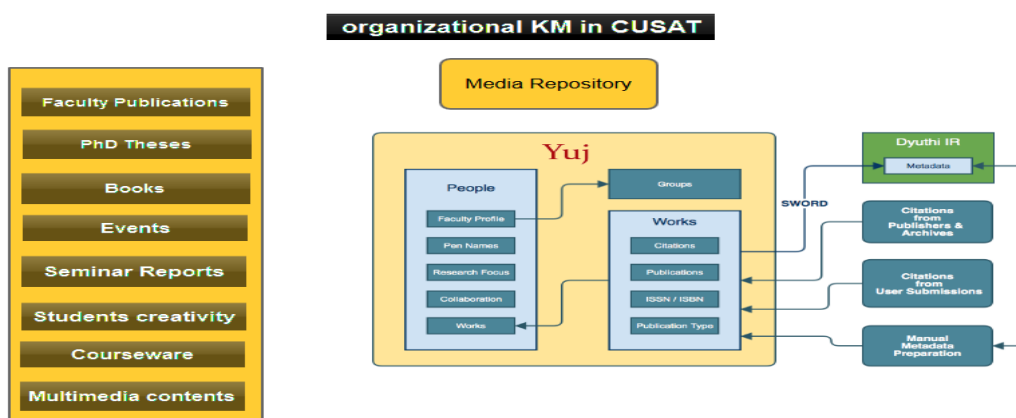
Media repository records, publishes, market and distribute a variety of educational and scientific products and services. Our mission is to provide fascinating and educational videos and multimedia products to help inform, enlighten and inspire young scientists and scientific community at large. Cochin University library is also involved in video production, podcasting, broadcasting, conference promotion, among many other creative endeavors.

4.4 Traditional Knowledge Digital Library (TKDL)

TKDL covers the traditional knowledge of the local community and how this knowledge is used by in the day to day life. At present, TKDL of CUSAT contains the local knowledge used by the fisherman's community for their occupation related activities such as prediction on the availability of fish species and their migration, weather forecasting and assessing the suitable time for venturing into the sea etc. Local knowledge also includes disaster prediction and communicating warning signals, demarcation

of fish habitats and its periodic changes, scouting fish aggregating locations, fish shoal detection, use of various marine organisms for curing various diseases seen among coastal communities, the dependence of marine organisms as the rich source of wonderful drugs by the coastal community, knowledge used by the traditional community for the management and conservation of fishery resources etc. This traditional knowledge were inherited by the coastal communities from their forefathers and were used for the well-being of the community as well as managing the coastal fishery resources. These grandmas's knowledge is being documented and linked with the scientific knowledge now available and a Traditional Knowledge Digital Library (TKDL) of the blended information of coastal resources will be developed.

Traditional knowledge digital library of Cochin university of Science & technology supports the preservation of tacit knowledge, creation of new wisdom/knowledge by linking this indigenous knowledge with scientific knowledge. It also enhances the new knowledge economy of the Nation. It helps to link the tacit knowledge with scientific knowledge for creating new ideas & avenues

Screen Shot of BISSAT Works

5. Conclusions

KM model in CUSAT integrates the scatted organizational knowledge in a single platform, and provide visibility in global level. It promotes interdisciplinary research and collaboration in institutional, national and international levels. Also supports in the process of ranking of the institution.

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