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Online Document Management System for Academic Institutes

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***Abstract*—Nowadays, electronic systems enable the rapid creation and distribution of documents. Therefore, people replace paper documents with electronic documents,in academic area electronic documents as information sources have increased in number and retrieving the information among huge number of documents become a problem. A recent study shows positive feedback from students towards establishing a document management system in local universities new innovative tools are necessary to access relevant information ,in faculty of university student are very interested to have a system to manage,retrieve and sharing documents. Document management system in faculty can improve efficiency and effectiveness of research and also can improve knowledge sharing among students and get new idea from other researches. students need a well-organized knowledge repository in order to reuse information throughout the research, is creating new opportunities for collaboration, coordination, and information exchange among students that work on a construction project. and consequently reduce costs and response times. The entire service is delivered through INTERNET browse so in any location can access documents.**

***Index Terms*—Document management system,Knowledge sharing,Hierarchy classification.**

I. INTRODUCTION

Nowadays that using personal computer is very popular and people spend most of their time with personal desktop the amount of electronic documents used is increasing. Traditionally, people had used paper to create and distribute documents. Now, they create electronic documents such as word processor documents or presentation documents and distribute them via a computer network. Electronic systems enable the rapid creation and distribution of documents. Therefore, people would replace paper documents with electronic documents. [1]

In these days which time plays very important role in life no one wants to spent several minutes seating beside their computers and looking for a document is completely unacceptable so need of having a good document management software was felt.

Document management system give user this opportunity to retrieval documents and information fast and without wasting time.A typical DMS consists of a repository containing the actual documents, and an engine working on top of it, have functions for storing, searching and retrieving documents, as well as advanced features such as version and access control.DMS help user to have a space for storing and sharing documents with others in system and have this ability to quick retrieve information ,in academic environment managing knowledge varies from text-based documents such as electronic thesis, research report, conferences,journals and e-book.

It is a same story among the digital document management systems, Sometimes people forget where they did save the documents or may save it under a wrong name, maybe have duplicated documents and many other mistakes that may happen. Most of the professionals spend most of their time looking for the document that they need so It is really necessary to find a way to save that time and let them to concentrate on their job. Therefore many companies from different countries have developed document management System. Some of them designed for personal use and some of them are useful for companies. Each system has some advantages and disadvantages. There is always a place that we can find to improve and make it better. document management system is a way for sharing knowledge in this research DMS will design and develop for postgraduate students in Faculty of University.

Organizing and classifying anythings has a positive effect in people's life which means it will organize their work and can find out faster,more concentrate on their important works,so need of a system for organizing electronic document is very obvious because in this age of technology that organizations going to paperless environment every important documents be electronic,so keeping huge number of documents is not easy and make people confusing. organizing a large document collection is very difficult and need a great effort to keep them,in the other hand documents classification in knowledge management systems increase knowledge acquisition. [2] obviously students essentially who are working on Thesis,Dissertation or working on any research area are involve with a lots of documents,also problems for sharing documents between students,looking and cast time and money for looking documents and other students idea make this research to meet students needs.

by using the document management system, and get an immediate response to retrieval information by: providing web base access to documents everywhere.

Reducing students time and costs for handling and distributing document.

Organizing and saving all the documents in the system.

view documents in categories that shown by hierarchy

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model to represent the relations among documents.

in this paper we will show relation between managing information and knowledge management,document classification base on users knowledge is a way for managing and sharing knowledge between students.

A. Problem Statements

First problem occurs when students spend more times on finding documents that they saved before,maybe user forget the document locations, name or folders that saved into.this problem happened to most of students to forgot the name or place of important documents.

It is take time for copying document and distribute it ,students that are working in a group or doing same topic for research have some common documents and ideas to share,so every time they have to meet up or mailing to one another that is wasting time of sharing documents and notes.

Time for answering information request.most of times students have question and want information from others there is no way to get this quickly and without waste money

Critical documents and informations are stored on personal or office computers or laptops,that could be lost, robbed, or damaged at any time.

Another problem is forgetting documents that user saves in his home desktop or office and always must carry hard drivers with themselves but with web access DMS user does not have to worry about documents he can access it any where any time no need to separate documents and always remember to carry hard drive.

Cost for meeting ,some times printing documents that all have it and talk about it. Time and effort wasted in locating documents. Recent research has indicated that nearly of an average student day is spent trying to locate existing information and documents. Redundant effort necessitated because it is often easier to recreate something than it would be to try to find it. Security problem occurs, which exposes important information to scrutiny by potentially inappropriate people. Documents stored centrally on Windows network drives, once deleted, do not go into a recycle bin as commonly believed. They simply disappear, and must be restored slowly from tape backups.

II. Methodology

The research utilized quantitative in research methodology. The instruments used to collect data be done by survey that Surveys collect data from a targeted group of people about their opinions, behavior or knowledge. Common types of surveys are written questionnaires, face-to-face or telephone interviews, focus groups and electronic (e-mail or Web site) surveys. The survey was conducted with students in the the Faculty of University of Malaya. All the questions are focused on information pertaining to their need and work process and technical information of the proposed new system. Tool which used for data collection and data analyze was Survey Monkey.com Website.,For developing website are PHP5,JSP and MY SQL programming languages.

III. Overview of Online DMS

There are many kinds of applications or software components to manage files in a local computer, but it is very difficult to organize personal documents in a consistent way and to search expected ones in a precise way. When users store documents in their computers, they have to remember file names or locations to retrieve them. A file-searching tool such as Windows Explorer usually relies on information about the physical features of the file (i.e. format, file name, path, size etc). Although we remember the names and the paths of the files stored in our computer, it would be almost impossible to find the right ones without knowing their contents. [3]

Document management system help user to upload, manage, organize and find desired documents easily and faster. In the main criteria which is managing the document they more or less going with the same Procedure [4].

within Online Document Management Systems user capable to share all documents that he wants within his company and business partners. All user need is an Internet connection to share documents, Instant access to all of your documents from anywhere with an Internet connection. There's no software to install, The virtual on line hard drive and web interface enable you to store, access, organize, and share files through one central location. an online DMS provide storage, sharing, different location access, security, as well as searching, categorizing and back-up capabilities, with on line system user can access documents across multiple offices, on line Document Management System allows users to upload and share document files through a centralized document repository and access files nay where that they need.

Online document management can Used by educational, government, private and commercial institutions in each of these it works from anywhere, ease to use, save time ,secured and compliant. Accessing web provides users access anywhere to all their documents and information user can save all documents on server therefore anywhere he can use it. It gives you the ability to access your files every where fast and easy and source files will not be lost or destructed and its really time saving procedure.

Over the last ten years, the increased availability of documents in digital form has contributed significantly and People have access to an enormous amount of data today.It is increasingly difficult to find information quickly as text documents are a valuable resource in any enterprise Documents like papers, reports and general documentations contain a large part of people's knowledge,It is increasingly complicated to organize that information to make it readily available whenever required.

retrieve valuable information is make problem for user to find among unstructured documents More importantly, the usefulness of an unstructured document is dependent upon the ease and efficiency with which the information is retrieved Information management techniques have been developed to analyze large collections of documents, independent of their format [5]. so document management is a way to and solution

for this problem.it's very important for user to find and retrieve documents whenever they want in a user friendly way [6].

A. Document Classification

classifying document help user to retrial documents easily and faster and also it can give user ability of seeing related documents. nowadays automatic document classification has become a central research topic in Information Retrieval due to the increasing number of large document collections, and also user need such a system to organize their information automatically to find them easily [7].

In general, document classification research focuses on the automated placement of unseen documents into per-defined categories. Document classification in knowledge management systems should support incremental knowledge acquisition and maintenance because of the dynamic knowledge changes involved. one core technical component of knowledge management systems,is classification by users,it can support to handle explicit knowledge more and improve knowledge sharing among the users.given classification structure by multi they have very different document classification patterns and different acceptance results for each others classification results. Furthermore, the results show that the integration of multiple users classification may improve document classification performance in the knowledge management context. [2]

in Document management system categorizing is be done by user or automatically,locating documents in categories help user to retrial documents faster and when user forgot the name of document with searching categories can find document faster.

B. Hierarchy classification

Hierarchical classification systems construct a tree of classifications, typically with a single root classification. Instances are then placed in the most appropriate class [8],A **Tree** In this case, the well-known parent-child relationship represents generality or specificity between two categories. The set of categories are partitioned into real categories for holding documents and virtual categories for further classification. Usually, all leaf nodes are mapped to real categories, and all internal nodes to virtual ones, as illustrated in ACM Classification Scheme (ACMCS) and Dewey Decimal Classification System. [9]

one of the good example of this is the Dewey Decimal Classification for classification of books and other information resources. in this way user categorize documents, images, emails by location to folder and sub folders in hierarchy structure and user have a lots of categories and subcategories that related to each other in hierarchy structure so when user wants to look for specific area he find category about this and can see subcategories that related to this category and find a lots of documents about the desired information. [8] ,

C. GUI of hierarchal classification

GUI interface plays really an important role in every kind of program. With a good GUI you will encourage students to work with this system. GUI should be designed in a way to be easy to work with, understandable for everybody. That one of the tasks we want to achieve in this research. On the other hand our system has this advantage that shows the search result in a new face with hierarchical design. when we want to search about something our result is shown in hierarchical model like parents and children. The user interface is designed to be more interactive,it provides a way to randomly access the search result and Matching documents are arranged and clustered using explicit rules. Any user interface should provide a versatile graphical environment for model building that overcomes the fundamental problems of a more traditional input file structure. The interface should be both graphical and intuitive, and it must also support complex modeling through a hierarchical structure. hierarchical Design A critical feature for any design environment is the support of hierarchical design. In this context, hierarchical design means the ability to construct a new component schematically using available components and include this new component in the library of components(Lasseter,1995).

Hierarchical GUI can be attractive for user too see all categories and subcategories and also documents related to the search this can help user too get more idea about subjects.

IV. Knowledge Sharing

Knowledge sharing is an activity through which knowledge (i.e. skills, or expertise) is exchanged among people, friends, or members of a family, a community (e.g. Wikipedia) or an organization. Organizations have recognized that knowledge constitutes a valuable intangible asset for creating and sustaining competitive advantages. Knowledge sharing activities are generally supported by knowledge management systems. However, technology constitutes only one of the many factors that affect the sharing of knowledge in organizations, such as organizational culture, trust, and incentives. The sharing of knowledge constitutes a major challenge in the field of knowledge management because some employees tend to resist sharing their knowledge with the rest of the organization.

we have two types of knowledge:

1)**Tacit Knowledge** (as opposed to formal or explicit knowledge) is knowledge that is difficult to transfer to another person by means of writing it down or verbalizing it.With tacit knowledge, people are not often aware of the knowledge they possess or how it can be valuable to others. Effective transfer of tacit knowledge generally requires extensive personal contact and trust. Another example of tacit knowledge is the ability to ride a bicycle. Knowledge that is easy to communicate is called explicit knowledge. The process of transforming tacit knowledge into explicit knowledge is known as codification or articulation[1].

2)**Explicit Knowledge** that is knowledge that has been or can be articulated, codified, and stored in certain media. It can be readily transmitted to others. The information contained in encyclopedias (including Wikipedia) are good examples

[1]http://en.wikipedia.org/wiki/tacit_knowledge

of explicit knowledge. The most common forms of explicit knowledge are manuals, documents and procedures[2]. Organizations use group-ware applications to collect, store and share their explicit knowledge, and once this has reached a sufficient level of efficiency, collaborative technologies such as intranet, the internet, extranet, e-mail, video-conferencing and tele-conferencing are used to assist in the growth of implicit and tacit knowledge transfer [10].

A. Knowledge Sharing in Education

although information itself comprises content and context, the context is interwoven with the content and thus it is difficult to explicate. As a result, technologies which do not include additional explicit contextual information just rely on their content or their representation to be used in search functionalities. Clearly, this is true for most existing information retrieval conceptual models. Since information retrieval targets raw information, we can call information retrieval as information approach. information management technologies in education. We find that the mode of traditional education has been changed greatly with information management technologies. The students can learn more independently, make more progress, acquire more information, retrieve more quickly and master more comprehensive knowledge with the new form of education. So we should put more energy and more funds to make full use of knowledge management technologies in education. [11]

The knowledge management in education is a comprehensive way to discover, manage and analyze the resource of the education information. The knowledge management in education cannot realize without the supporting of the present information technology. The main information technology in the knowledge management in education involves: Internet, Intranet, Extranet, the technology of memory structure, the multimedia database management system, the data collection and gain technology, the technology of issuing, the technology of communication, the technology of pushing and pulling, the technology of retrieving, the group technology, the middleware technology, on-line analysis and mining technology, the technology of the knowledge discovery, the technology of the knowledge sharing. In these technologies, Internet, Intranet, the Extranet constitute the information technology platform of the knowledge management in education. They are foundation of the knowledge management in education. The technology of the knowledge discovery and on-line analysis and mining technology are the key technologies in the knowledge management of education. [12]

B. Knowledge sharing in DMS

Since documents constitute such an important part of a firms knowledge assets, a well-designed document management system (DMS) should provide collaboration and coordination mechanisms to provide the readers with an active role in growing the knowledge base and linkage mechanisms between readers and authors, as well as providing a basis for evaluating the system. To approach the problem of effective DMS design, we must set the stage with essential terminology. A document might have very little context and merely present [13]

DMS can enable and capture explicit knowledge ,Knowledge management is the explicit management of vital knowledge and information possessed by individuals so that it is effectively shared and used by others in the organization. Through the effective sharing of corporate intellectual capital, Organizational Knowledge must be efficiently transformed into business intelligence, Personal knowledge involving a business process has to be turned into corporate knowledge so that it can used to the benefit or the organization and applied throughout with consistency.

Members of a traditional work group perform their individual and collective tasks using a physical space where all the required objects, tools, and guidelines are made available. However, teams of geographically dispersed members use a virtual place as a substitute to the physical space. These virtual spaces are called workspaces, which are conceived as a logical counterpart of physical spaces and are based on physical metaphors . Like physical spaces, these workspaces are expected to make all the required objects, tools, people, and guidelines available along with all the necessary communication channels and coordination mechanisms. A workspace is expected to create opportunities for the users to turn them into a place of collaboration as in a virtual world it is not the spatial features of a space that matters the most, rather what the users of such a space can do within it and that is what turns such a space into a place. That is why it is vital that a virtual space provides its users with an opportunity to turn it into a place for collaboration. [14]

there are two advantages. First, knowledge sharing can save more time and energy. People learn the knowledge from others need to explore it any more. Second, knowledge sharing can improve the effectiveness and the efficiency of the management of student affairs. People need to do repetitive work and can modify their old ways by learn from the others.

V. Analysis

Before developing any model and website we needed to be sure about user acceptance of our new model, hence why we start our research by exploring studnet need for DMS. one hundred and sixty(160) questionnaires are distributed to the potential users such as the students of the University.The statistical result shows that most of the answers given by the respondent of the questionnaires are similar.

for example question about DMS in Faculty for helping students to manage/keep/share documents result shows that 89 percent of students wants such a system in Faculty and 10 percents did not know in result we did not have No answer. comparing this question with students levels:from 97 master student 86 agree with this system in Faculty and in PhD level form 42 students 38 students wants to have a DMS free in faculty.

[2]http://en.wikipedia.org/wiki/Explicit_knowledge

VI. General System Requirements

The requirements for the system were based on the findings of the literature review done as well as from the interview sessions done. After a careful analysis of the data collected, the findings of the analysis is used to derived the following application requirements:

1. The application must be a web based so the user can enter the system from any places.

2. The application must have predefine categories and sub categories, and also user ability to create categories.

3. The interface of the system must be simple for the user to use it easily.

4. classification must have hierarchy structure for document classification.

VII. Conclusion

in this paper Author wants to design and implement DMS system for postgraduate students of University. DMS will improve knowledge sharing between students also save cost and can retrieve their information faster. This paper has reviewed some current problems of students in managing and organizing documents and also problems of knowledge sharing between students ,knowledge sharing in academic area increase students capability,innovation and more productiveness.

In summary,we provide a collection of coordination pathways and interfaces to remove the problems of document access and ,the author, reader, collection manager, and the system To appear in evaluator then we poised well to implement an effective Document Management System.

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