FISHEYE Knowledge Management System (KMS)

A complete organization knowledge management solution: **A manager's view of a technology roadmap**

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Situation

Information is critical to organizations which invest in building knowledge resources, which are the building blocks of their daily operations. Thus, knowledge sharing across the organization is desired to be in the most efficient and accurate manner.

ICT companies, in particular, across the world are spending enormous sums of money trying to capture tacit knowledge of Subject Matter Experts (SMEs) in documents known as a Technology Roadmaps. This information may ideally be stored in systems which allow large storage, reliability and scalability. Such systems are popularly known as Knowledge Management Systems (KMSs) in the Information Systems world.

Needs

While there exist many KMS solution options, they are limited in many areas such as:

- Platform dependance
- Lack of extensibility, closed source
- No dynamic relations between data - only storage services
- Unfriendly to management decision makers

There is a strong need to overcome these challenges and also be able to accomplish the following goals:

- Collaboration and content development oriented
- Web-server - Browser based
- Intuitive interface

Solution

These limitations can be overcome by rethinking about the purpose of such an application and designing a solution that puts collaborative contributions and dynamic sharing at the heart of its design.

In trying to do so, the concept of Fisheye KMS focuses on using Web 2.0 based tools and mechanisms to share knowledge. Few of the key goals of this application are:

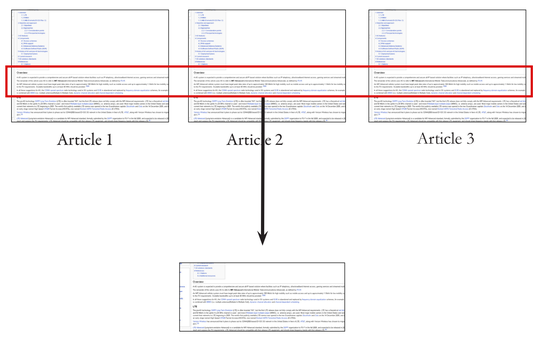
TRANSVERSAL VIEW
The application can aggregate similar data from different articles following the same themes and templates into newer articles providing a transversal view of the knowledge for the managers.

WEB-BROWSER BASED EDITING ENVIRONMENT
The application is web-browser based application i.e. it runs on local web-servers in office enviroments and is accessible by any client browsers. Also, the editing environment is WYSIWYG and allows easy yet standardized editing options.

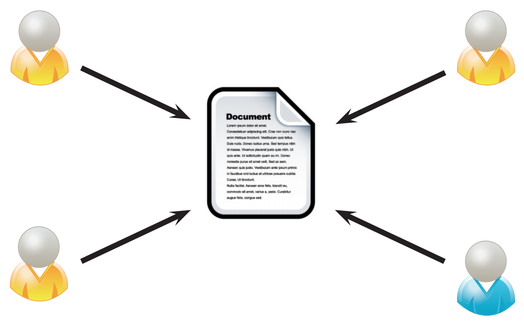
COLLABORATIVE ARTICLE EDITING
Rather than single article owners and creators, all members of the organization are able to edit articles written by anyone else, much like modern Wiki softwares. However, there are controls on editing, which is explained below.

GROUP RIGHTS MANAGEMENT
Administrators may assign users to groups which may be managed with gruop rights and policies. These rights and policies provide an administrator with complete control on assigning editing and viewing permissions on articles, in case the manager decides to exercise further control.

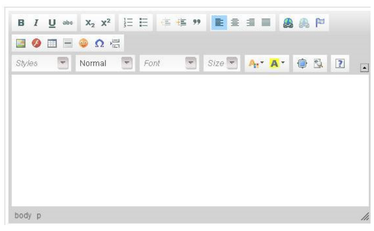
Transversal view



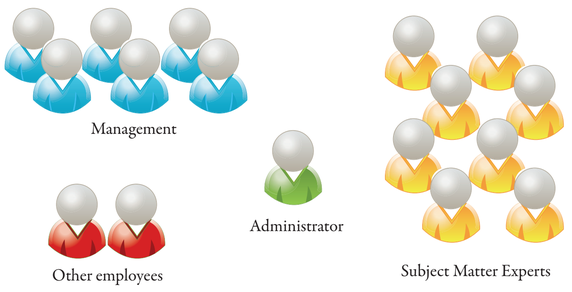
Collaborative editing



FISHEYE KMS



Web-based editing environment



Group rights management

Research opportunity

This system can be further improved with the following functionality:

- Dynamic aggregation of most popular article on home screen
- Ownership of individual articles allowing individuals to become moderators only for specific articles
- More AJAX-based operations

This project is currently an undergraduate research project at Carnegie Mellon University, Qatar and is being reviewed by members of the ICT industry and other knowledge management services offering organizations.

The software built upon MediaWiki and will be open source and freely available on the internet upon the completion of the research project.

Implementation and technology

Popular Content Management Systems (CMSs) offer excellent Web 2.0 solutions for collaborative editing of pages and adding content on a regular basis with an intuitive interface.

However, a more ideal solution for storing a large number of articles which can be edited by users is Wikis. Fisheye KMS is developed using MediaWiki, the most popular Wiki software today. In order for it to accomplish the tasks laid out for Fisheye KMS, the following critical functionality has been added:

- Transversal inclusion of similar sections data from different articles
- Content review by administrator/editor
- Namespace page listing and modified interface