Abstract :: IPRO 338 :: Building a Knowledge Management System.

Background and history: *Imagine a workplace where 80% of the employees leave every 17 weeks, and are replaced by people who have no idea what the project is, have no access to old documents from the project, and are just starting to learn how to do their job. This is the plight of the continuing IPRO.*

IPRO 338's iKNOW Knowledge Management System solves these problems by:

- Allowing students to store and retrieve key documents from all previous semesters;
- Providing self-training applications for key IPRO skills such as project management and presentations;
- Recording the experts used for each project and enabling students to locate them by their expertise.

Started in Fall, 2003, IPRO 338's set out to create an IPRO KMS (Knowledge Management System) to resolve these issues. The resulting KMS, iKNOW, includes document storage and management capabilities, extensive searching capabilities (including searching within documents in common file formats), and cross-semester and cross-project document access.

To provide self-training applications, and to extend the capabilities of knowledge management within iKNOW, IPRO 338 has been working extensively with its outside sponsor, Topiary Communications, LLC. Topiary has created the Personal Pro knowledge capture tool, which enables subject matter experts to create web-based applications to transfer their knowledge. Beyond initial iKNOW rollout, Topiary and IPRO 338 are exploring a fully integrated combination of Personal Pro and iKNOW as a platform for knowledge management within corporations and large-scale organizations.

Fall 2004 Goal: To develop the first release version of the iKNOW KMS software, and prepare for a Spring 2005 release.

Subteam Organization/Tasks:

Completing iKNOW team: Stabilize existing beta version of software through fixing of bugs and addition of necessary functionality

Expanding iKNOW team: Determine functionality for future versions of the iKNOW system. Developing roadmap for integration with Topiary product

iKNOW *Roll-out team*: Determine roll-out process; load existing content to ensure release version is already populated.

iKNOW *Testing team*: Run functional, performance and user tests and interpret results

Problems faced this semester:

Technical:
- Several existing bugs needed repair; more functionality missing than anticipated. > 20 bugs identified and corrected.
- Hardware on which to run beta system had repeated memory failures, compounding testing of search functionality;
- Performance testing software difficult to obtain affordably;
- Integration of differing architectures between iKNOW and PersonalPro.

Non-technical:
- Difficult to gather information to describe individual documents clearly in roll-out database

Results/Accomplishments: The iKNOW KMS is ready for release to the IPRO teams. Documents have been added from continuing IPRO projects from Fall 2003 and Spring and Summer 2004. All major bugs identified at the beginning of Fall 2004 have been addressed. New functionality has been added, including: Searching within common document types (Microsoft Word, Excel, Powerpoint and PDFs), searching by data types and integration with PersonalPro applications. Ten hours of direct user tests have been completed, leading to significant interface revisions and refinements.

Future: Rollout of iKNOW will begin in Spring 2005, with a pilot release targeting continuing IPROs. A full release will begin in Fall Semester of 2005. The fall 2005 release will include a significant visual revision, including such features as browsing functionality, boolean searches, and a web services interface for external software system.

Sponsors: Topiary Communications Inc., CEO Dan Schramm; IIT Collaboratory for Professional Studies

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