Scholar Engager-Faculty Research Management Process

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Abstract

Scholar Engager is a versatile tool for faculty to conduct research individually and collaboratively using Knowledge Management software Quantum. Quantum software’s platform is designed to connect the information, people and resources in a university or between universities through a multifaceted metadata layer that is transparent to the users. Researchers interact among themselves and exchange ideas that enhances knowledge in a collaborative fashion. Quantum also enables the on-demand delivery of relevant information that considers both the semantic value of content and information and the social activity around it and its organizational context. Quantum architecture can be coupled tightly with institutional repositories, applications and processes. It builds knowledge assets out of existing content while information continues to reside in its original repositories such as file shares, e-mail servers, and document management repositories, the intranet, the extranet and the Internet. Quantum software enables institutions to gain a competitive advantage by more effectively managing the research processes. Through the “Scholar Engager-Faculty Research Management Process”, Jackson State University (JSU) compresses the research process and preserves intellectual capital based on collaborative and private information. It provides a very intuitive tool for faculty users to gather information from the Web and other digital sources and manage that more efficiently. Through the one-by-one contribution of individual intelligence, JSU builds libraries of tacit and explicit knowledge to facilitate faster and more effective decision-making. This process enhances individual and institutional productivity by helping assemble experts, retrieve information, and realign work and knowledge that might otherwise become lost or duplicated.

Jackson State University, a research-intensive public institution rated by the Carnegie Foundation, conducts research in the widening areas of Science, Engineering, Technology, Business, Education, Arts, Social Sciences, Public Health, etc. On an average, the university manages an estimated $50 million of research funds per year awarded by the top ranking funding agencies such as NSF, NIH, NICHD, CDC, and NASA etc. JSU provides course studies and research opportunities to a large number of undergraduate & graduate students for their academic pursuits towards Bachelor, Masters and doctorate degrees in diverse fields that impact human life. With the advent of the Internet and other electronic means of information repositories, researchers could locate large volumes of information or documents, data, images etc. But ubiquitous technological tools for the speedy discovery of relevant and timely information and the people behind that from an abundance of distributed sources are still a challenge for us. The university is authorized by the board of trustees of IHL to offer doctoral degrees in several disciplines. Members of the graduate faculty and their supervisees are engaged in scholarly pursuits and attainments in their own field in terms of research, writing, publishing, and participating in conferences and professional organizations. During the development, compilation and completion phases of research, much scholarly communication takes place that could become lost if not documented properly.
With the objectives to overcome the challenges, propel the research activities, and to establish the knowledge assets for present and future researchers, students and educators, JSU’s Office of the Provost and Vice President for the Academic Affairs (OAPP) has been working to promote Knowledge Management in various areas at JSU. Recently, we have published “The JSU-KMSS Model” which provides a comprehensive functional description of Entopia’s Quantum – the bottom-up KM software. Blueprints have been developed in two areas; the first one is “Campus Consumer Center.” This will be a web-based forum through which JSU consumers (student, faculty and staff) can proactively communicate for the purpose of informing their comments, compliments, complaints and suggestions relevant to the institutional operations of JSU. The initiator’s and respondent’s communications will be stored in the database and the OPAA will have access to these communications for monitoring purposes and for devising best operational practices at JSU. The second one is the “Scholar Engager: Faculty Research Management Process”, a workflow based on Knowledge Management tool Quantum.

The Scholar Engager is a versatile tool for faculty to conduct research individually and collaboratively through Quantum. The Quantum software platform is designed to connect the information, people and resources of an organization through a multifaceted metadata layer that is transparent to users. Quantum enables the on-demand delivery of relevant information that considers both the semantic value of content and information and the social activity around it and its organizational context. Quantum architecture can be coupled tightly with institutional repositories, applications and processes. It builds knowledge assets out of existing content while information continues to reside in its original repositories such as file shares, e-mail servers, and document management repositories, the intranet, the extranet and the Internet. Quantum software enables JSU to gain a competitive advantage by more effectively managing the research processes. Quantum is overcoming these hurdles by providing an intuitive tool for institutional users to gather and apply information. This will serve as a platform for a “shared space that serves as a foundation for knowledge creation” on campus.

The use of Quantum in the research management process comprises the research process by providing a very intuitive tool for JSU stakeholders to gather information from the Web and other digital sources more efficiently, while enhancing individual and collective productivity by helping to assemble experts, retrieve information and realign work and knowledge that might otherwise become lost or duplicated, and building and preserving intellectual capital through technology driven collaboration.

Through Quantum faculty members can collect information from web pages, collect a file or folder (any file format can be collected, structure of folder is kept intact), collect from Microsoft Office Programs, send e-mail to a Quantum folder, collect screen shots, create Microsoft Office templates, and create form-based structured files.

Quantum also provides a robust set of features that allow collaboration with other colleagues participating in collaborative research although users may not have Quantum installed in their computers. The Quantum Web can be used using by utilizing the browser Internet Explorer (IE) over the Internet from anywhere in the world. This opens up opportunities even if collaborative researchers are in disparate geographic locations. Researchers can collaborate with Quantum users via shared folders, access controls, threaded discussions, shared editing, notification, and send Q-files, folders, and tasks by e-mail. They can also collaborate with non-Quantum users via e-mail Q-files in their native format, publish to a web site or intranet, export to Word, and printing. Quantum Collaborate also features administrative tools, access controls, and enhanced data security. Owners of folders are empowered to create shared workspaces by inviting other users. Users can share documents via public folders or make them available to select users in shared folders. Other documents can be kept
confidential by saving into a private folder. This preserves the individual intellectual capitals through the different level of access control restriction (ACL) implemented as No Access, Reviewer, Author, Editor or Owner. Through the ACL, only designated user(s) can have read, modify, or write access to the knowledge entities (files) stored in the Quantum server. It’s the prerogative of the owner of the documents and files to allow others to view, edit or exchange comments through invitation, and the invitee has the freedom to accept or reject the invitation.

Yet another feature of Quantum—Capitalize provides advanced tools that help colleagues take advantage of the information derived from the “Collect” and “Collaborate” modules. The central tool of “Capitalize” is the Knowledge Locator, a multipurpose search engine that allows researchers to locate documents with relevancy ranking, subject matter experts, relevant information sources, and offers both semantic search and full text search. Researchers can use a variety of filters to customize the search parameters to locate only the information that is needed. Using the Advanced Knowledge Locator, researchers can search for documents relevant to their query, expert in a specified field of interest, source of information relating to their query, and information on the Internet. Quantum allows researchers to search among several Internet search engines, including: MetaCrawler, Google, Yahoo, and Northern Light.

Through the Scholar Engager, JSU is nourishing an institutional climate that encourages the sharing of valuable knowledge as well as establishing a knowledgebase of intellectual capital - both explicit and tacit - as a natural by-product of personal and workgroup activity. The strength of this workflow is the strategy that includes secure, dynamic collaboration, and detailed, user-friendly search capabilities that enable the right people to find the right information - fast. The animated presentation of the Scholar Engager is available for JSU users & others through the following web address:

http://www.jsums.edu/~jsuoaa/quantum/