PIRE 2009 Project Proposal

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Name of the PIRE International Partner's Institution:
Research Institute for Information Technology
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Beijing, China

Supervisor's Name and Title at the PIRE International Partner's Institution:
Dr. Jijiang Yang
Associate Professor

Dr. Yong Zhang
Associate Professor

Project Title: Enterprise Content Management (ECM) Based on Rules-Driven Business Process Management (BPM)

Problem Statement:

China has begun to embrace and implement their own version of electronic government, by using technology to promote a more effective and efficient government. However, in order to accomplish this mission, they need to conduct research and employ technology to help implement their ideas. This research will be instrumental in helping to create the systems needed to help organize and manage government controlled businesses and other entities. One research area that will help make this possible is by improving Enterprise Content Management, which focuses on the information organization, search and storage, through the application of Business Process Management, which concentrates on processes modeling, analysis, monitoring and execution. By combining these two technologies a system can be created that greatly adds value to business, such as making it more efficient by combining content, processes, policies, and integrated systems. This research will be conducted by using the Business Process Execution Language (BPEL), which is an XML-based language that utilizes web services to define and execute business processes.

Motivation and Impact:

By integrating these two systems, ideas and goals can be accomplished across a wide variety of topics. For example, the research can help determine how to process unstructured data platforms by using data and knowledge management, along with storage and inquiry systems. It can also help with content management such as email and specific features related to email. Then with email itself the research can assist with thread management, connection to other resources, and the archival and storage of the data. It addition, the research can help with the process flow and storage related with record management and even e-government, along with helping to model data and how it connects to other data sources. Lastly, the research that will be conducted can aid businesses by providing information summaries through querying content in a similar format and using semantic search methods from different media.

Current Status:

This project is currently in the proposal phase, but there is related research being conducted by other organizations. For instance Dr. Yang and Dr. Zhang of the partner institution, the Research Institute for Information Technology in Tsinghua University are currently conducting research related to this topic and are collaborating with a content management company.

Research Roadmap:

- Understand the project background and related concepts.
- Identify the key technologies and key tasks.
- Design and develop a prototype
- Write a paper and a technical report

Relation to PIRE Core Research Projects:

This project, along with the research is directly related to Automatic Resource Management as it deals with rules and ideas that will help to manage, organize, and store various types of data.