Kevin R. Parker, Ph.D.

Sabbatical Report for 2006-2007 Sabbatical:

Overview

I requested and was granted sabbatical leave for the Fall 2006 and Spring 2007 semesters. I spent the Fall 2006 semester in Pocatello working on various research projects, such as the Spuds project and research for two journal papers that have been accepted and published (see list below). For the Spring 2007 semester I was invited to make a sabbatical trip to Australia to conduct research both at RMIT University in Melbourne and Curtin University of Technology in Perth. RMIT is the largest university in Australia, serving 55,000 students in Melbourne as well as on campuses in Singapore, Malaysia, Vietnam, Hong Kong and various regions of the state of Victoria. Curtin University of Technology is Western Australia's largest university with over 31,000 students in the Perth area as well as on additional campuses in other metropolitan areas in Australia and in the Asia Pacific region. At Curtin, I was nominated for and received a Curtin University of Technology Research Fellowship.

I was involved in a number of projects while at RMIT. I assisted in teaching an Internet for Business summer course in the Business Information Technology (BIT) department. The course was similar to the Web Development for eCommerce course that I teach at ISU, but differences in both content and teaching approaches made it an excellent learning opportunity. I also conducted a research symposium for the BIT faculty on a formal approach for selecting a programming language for computer programming courses. There was also an extensive roundtable discussion of my use of animated pedagogical agents to deliver review materials for students and the potential of developing a tool to facilitate the creation of such review materials. This was of particular interest to the BIT faculty because of their extensive experience in developing online models and materials, and the group formally expressed an interest in establishing a continuing relationship with me and ISU in planning, developing, and testing the system. Because my idea was met with such enthusiasm at RMIT I developed and submitted an Idaho Technology Incentive Grant application that was subsequently rejected. I also worked on multiple research projects with my host, William Davey of RMIT, and received advice and assistance on a database case study that was accepted for presentation at an October 2007 conference.

I next visited the School of Information Systems at Curtin University of Technology as a Research Fellow. I worked extensively on a research project with Robert Williams, the faculty member who sponsored my invitation to Curtin. I also collaborated with other faculty members. I made a presentation to the members of the Digital Ecosystems and Business Intelligence (DEBII) Centre, a Tier 1 University Research Centre. I also conducted a research symposium on a Structured Process for Programming Language Selection in March and another on the Use of Pedagogical Agents for Core Concept Tutorials in April. These research symposiums revealed synergies between my research and ongoing research at Curtin, and as a result I was asked to serve as an Associate Supervisor on the doctoral committees of two graduate students, one of whom made a successful thesis proposal defense during my visit. That student also collaborated with me on a paper that was accepted for presentation at an international conference. I was also invited to become an International-Linkage Member of the DEBII Centre and have received requests for continued collaboration between the centre and ISU. My research in both the Semantic Web and Competitive Intelligence led to an invitation to serve as an Associate Researcher of a Curtin Business School Area of Research Excellence: Semantic Analysis & Text Mining for Business & Education. I also collaborated on a Carrick Institute Grant Application entitled "Expanding the Dynamic Knowledge Creation Capabilities of Virtual Learning Communities."

Original Research Plan from Sabbatical Application

There are several projects that I planned to work on during my sabbatical. A list and their current status appear below:

- SPUDS – A Computer-Assisted Interactive Project for Use in Accounting Courses (with Mark Bezik and Ken Smith)

  Development efforts continued during the Fall 2006 semester.

- Criteria for the Selection of a Language for Introductory Programming Courses (with Thomas Ottaway (ISU) and Joseph Chao (Bowling Green State University))

  A second journal paper was published in 2007. A virtual presentation was made at the InSite conference. Additional presentations were made at research seminars at both RMIT University and Curtin University, and valuable feedback was gained. Work is ongoing.

- Incorporating Security through the Design Reference Monitor Concept in Systems Analysis and Design Courses (with Corey Schou (ISU) and Ken Trimmer (ISU))

  A journal article resulting from this work was recently published.

- Libraries as Knowledge Management Centers

  This was the main thrust of my sabbatical research. My collaboration with Philip Nitse (ISU) and Robert Williams (Curtin University) continues a research stream that has already produced a journal paper, and is described below.

  My visit to Curtin University in Perth was intended to provide an opportunity for extensive collaboration on this project. One paper was presented at an international conference and subsequently published in a journal.

Sabbatical Papers

Published

- Parker, K.R. & Chao, J. (2007). "Wiki as a Teaching Tool." International Journal of Knowledge and Learning Objects, (3), 57-72.
- Trimmer, K., Parker, K.R., & Schou, C. (2007). "Forcing Early Implementation of Information Assurance Precepts throughout the Design Phase." Journal of Informatics Education Research, 9 (1), 95-120.
- Parker, K.R., Davis, T., & Ward, D.M. (2007). "Herbicide Damage Tracking System: An IS Case Study." Proceedings of the North American Case Research Association, 21 (10), Keystone, Colorado, October 18-20 (58).
- Chin, K.L., Chang, E., Atkinson, D., & Parker, K.R. (2007). "Ontology-based IT Pedagogical Knowledge Framework." Proceedings of the 2007 Computer Science and Information Technology Education Conference, Mauritius, November 16-18 (155-166).
- Parker, K.R., Williams, R.F, Nitse, P.S., & Tay, A. (2008). "Use of the Normalized Word Vector Approach in Document Classification for an LKMC." Journal of Issues in Informing Science and Information Technology, 5.
- Parker, K.R. & Chao, J. (2008). "Weaving a Knowledge Web with Wikis." In Lytras, M.D., Tennyson, R.D. & De Pablos, P.O. (Eds.) Knowledge Networks: The social software perspective. Hershey, Pennsylvania: Idea Group Publishing, 28-45.
- Parker, K.R., Nitse, P.S., & Tay, A. (2009). The Impact of Inaccurate Color on Customer Retention and CRM. *Informing Science: the International Journal of an Emerging Transdiscipline*, 12, 105-112.
- Park, J., Fables, W., Parker, K.R., & Nitse, P. (forthcoming 2010). The Role of Culture in Business Intelligence. *International Journal of Business Intelligence Research*.