

Introduction to the Minitrack on Internet and Workflow Automation: Technical and Managerial Issues

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The continued need to reduce costs, speed cycle times, and provide flexible service is driving the development and use of workflow management systems (WFMS). Traditionally, WFMS are employed to improve internal processes within firms. Increasingly, they are being employed in electronic commerce applications. This minitrack is now in its fifth year. Its objective is to explore the whole area of workflow application with particular emphasis on Internet-based applications.

Consistent with this objective, the papers in this minitrack are concerned with a broad spectrum of research issues and applications of workflow technologies. Moving beyond the traditional areas of workflow application, two papers describe the use of WFMS in knowledge management and organizational learning. The paper, "Workflow-Supported Organizational Memory Systems: An Industrial Application," by Lang and Schmidt presents a case study of a workflow management application that collects a variety of business process documents and stores them in an organizational memory system. The authors document impressive gains in efficiency and more effective business intelligence from the use of the system concluding that it had a significant impact on organizational effectiveness. In "Process-Aware Knowledge Retrieval," Kurt D. Fenstermacher also focuses on the possibility of a WFMS to informate users. The framework presented in this paper describes how relevant knowledge sources can be associated with processes so that the right information is supplied to a human operator in a just-in-time fashion.

The remaining three papers in the minitrack describe some interesting new architectural approaches. In "A Flexible Process-Oriented Workflow and Information System Based on Standard Office Products," Dickerhof et al show how standard Microsoft office products can be combined to develop a comprehensive workflow and groupware system. Their "INFOFLOW" system supports efficient work processes as well as providing a forum for knowledge exchange. The paper, "IB: A Workflow-Based Integration Approach," by Jose Espinosa and Pulido, addresses issues in using a WFMS to integrating diverse software applications. They describe a project initiated by five European companies to build a workflow-oriented process integration platform based on CORBA. Finally, the paper, "Verification and Optimization of an Operating Theatre Block Workflow," by Barkaoui et al, uses a Petri net formalism to optimize work in a hospital application. The interesting aspect of their work is that the resulting workflow design optimizes the use of diverse resources such as staff with different skills and items of equipment.

comments on the content and presentation of the papers submitted to this minitrack.