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# **UMICS'06**

**Ubiquitous Mobile Information and Collaboration Systems** 

Workshop at

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#### **Preface**

Over the last years most business processes changed on various dimensions (e.g. flexibility, interconnectivity, coordination style, autonomy) due to market conditions, organizational models, and usage scenarios of information systems. Frequently, information is relocated within this geographically distributed system according to rules that are only seldom defined as a well-codified business process. This creates a need for a software infrastructure that enables ubiquitous mobile and collaboration systems (UMICS).

Technologies such as WiFi networks and 3rd generation mobile phones, are offering the infrastructure to conceive information systems as ubiquitous information systems, that is, systems that are accessible from anywhere, at any time, and with any device. Ubiquity mainly is a means to support new business models and encourage new ways of work. This new wave of UMICS will exploit the knowledge developed and deployed for conventional information systems, but will also need new concepts, models, methodologies, and supporting technologies to fully exploit the potentials of the enabling infrastructure and be ready for the challenge.

Moreover people need to move across organizational boundaries and collaborate with others within the organization as well as between organizations. The ability to query the company's distributed knowledge base and to cooperate with co-workers is still a requirement, but mobility brings new access scenarios and higher complexity. Therefore, some issues also arise about how to enable users to retain their ability to cooperate while displaced in a different point of the enterprise, the role of context and location in determining cooperation, the support for ad-hoc cooperation in situations where the fixed network infrastructure is absent or cannot be used.

The approaches and technologies for supporting these new ways of work are still the subject of research. Nevertheless, they are likely to "borrow" concepts and technologies from a variety of fields, such as workflow systems, groupware and CSCW, event-based systems, software architecture, distributed database systems, middleware, mobile computing, or ubiquitous information systems. A particularly interesting line of research is exploring a peer-to-peer paradigm enriched with sharing abstractions in which each network node is both a potential user and provider of information.