

# Preface

Welcome to the Advanced Workshop on Content Computing 2004. The focus of this workshop was “Content Computing”. It emphasized research areas that facilitate efficient, appropriate dissemination of content to users with the necessary access rights. We use the word “content” instead of “information” or “data” because we want to cover not only raw data but also presentation quality.

The fast growth of the Internet has already made it the key infrastructure for information dissemination, education, business and entertainment. While the client-server model has been the most widely adopted paradigm for the WWW, the desire to provide more value-added services in the delivery layer has led to the concept of an active network, where content-driven, intelligent computation will be performed to provide quality-of-service for content presentation and best-fit client demand. These value-added services typically aim to enhance information security, provide pervasive Internet access, and improve application robustness, system/network performance, knowledge extraction, etc. They are realized by incorporating sophisticated mechanisms at the delivery layer, which is transparent to the content providers and Web surfers. Consequently, the notion of “Content Computing” has emerged. Content computing is a new paradigm for coordinating distributed systems and intelligent networks, based on a peer-to-peer model and with value-added processing of the application-specific contents at the delivery layer. This paradigm is especially useful to pervasive lightweight client devices such as mobile and portable end-user terminals with a wide variation of hardware/software configurations.

This year, the workshop was held in Zhenjiang, Jiangsu, China. We received 194 high-quality papers from 11 regions, namely PR China, Korea, Singapore, Japan, United States, Canada, Australia, Germany, Taiwan, Italy, and Hong Kong. Totally, 62 papers were accepted and presented in the workshop. Among them, 26 papers (13.4%) were long ones and 36 (18.6%) were short ones. The topics covered include mobile code, agent technologies, content sharing, consistency management, networking infrastructures, content-aware security, multimedia content understanding, mining, knowledge extraction, Web services, content retrieval, ontologies, and knowledge conceptualization.

The great success of the workshop is indebted to the hard work of all program and organizing committee members. External helpers assisted in the paper review process so that we could finish on time. We would also like to take this opportunity to thank all who submitted papers to AWCC 2004 for their valued contribution. Last, but not least, we would like to thank Tsinghua University and JiangSu University for their sponsorship.

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Kwok-Yan Lam

# AWCC 2004

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