

COMPUTER SCIENCE COLLOQUIUM

Department of Computer Science
City University of Hong Kong and Hong Kong Web Society

R&D Challenges for Information Processing Software Technology

Prof Won KIM
Professor and University Fellow
School of Information and Communication Engineering
Sungkyunkwan University
Korea

Date :

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Time :

4:00pm - 5:00pm (Refreshment will be served at 3:45pm)

Venue :

CS Seminar Room, Rm Y6405, 6th Floor Yellow Zone, Academic Building,
City University of Hong Kong, Tat Chee Avenue, Kowloon Tong.

Abstract

Information processing software technology represents one of the three pillars of information technology today, along with semiconductor technology and communications technology. Information processing software technology includes system software, a huge variety of applications, a wide variety of middleware and tools, and all the enabling techniques. It has become an indispensable engine of the daily lives of people around the globe. Today major R&D challenges confront the information processing software technology due to the advent of the ubiquitous computing era and the rapidly expanding volumes of digitized information and reliance on it.

I will cast these challenges in terms of “usability of information”. Usability challenges include broadly the human computer interaction and the information accessibility. The information accessibility challenges in turn consist of issues posed by the information explosion (i.e., too much information, too much irrelevant information), unlocatable information (i.e., the locations or even the existence of large volumes of information being unknown), and unprocessable information (i.e., large volumes of information being unprocessable due to software inadequacy or semantics being unknown to software). I will examine these issues in turn, and also outline R&D agendas to address them. I will then outline some of the areas of nations’ economies and mankind’s well-being that solutions to these challenges will positively impact.

Biography

Prof Kim is the Professor and University Fellow in the School of Information and Communication Engineering at Sungkyunkwan University, Suwon, Korea since November 2006. He received a Ph.D. degree in Computer Science from the University of Illinois in Urbana-Champaign. He received both a BS and a MS degree from MIT. He has published 5 books and 162 research and technical papers in international journals and conferences on the area of database, data mining and Internet technologies.

Prof Kim was a Senior Advisor with Samsung Electronics, Suwon, S. Korea from 2004 to 2006. He was also the Founder and CEO of Cyber Database Solutions, Inc. in Austin, Texas from 1996 to 2004. He was, at the same time, a Dean of Engineering Graduate School and Distinguished Professor of Computer Science at Ewha Women's University in Seoul, S. Korea from 1999 to 2004. From 1990 to 1996, he was the Founder and CEO of UniSQL, Inc. that created the world's first commercial object-relational database system. From 1984 to 1990, he was the Director at Microelectronics and Computer Corporation (MCC) that created one of the world's first object-oriented database systems. He was a Research Staff Member at IBM Almaden Research Center from 1980 to 1984.

Prof Kim has been elected an ACM Fellow in 1995. He is the Founder and Editor-in-Chief for ACM Transactions on Internet Technology since 2000. He was the Founder and Chair of the ACM Special Interest Group on Knowledge Discovery and Data Mining (SIGKDD) from 1998 to 2005. He was the Chair of the ACM Special Interest Group on Management of Data (SIGMOD) from 1989 to 1997. He served as the Editor-in-Chief for ACM Transactions on Database Systems from 1992 to 2001.

Prof Kim received the ACM SIGKDD Services Award in 2006 and ACM Distinguished Services Award in 2001 for his contributions in computing research. In 2002, he received the ACM SIGMOD "Test of Time" Award for a research paper published in the SIGMOD conference in 1992. In 1998, he received the ACM SIGMOD Contributions Award. In 1995, he received the VLDB "10-Year Paper Award" for a research paper published in the VLDB conference in 1985.

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*In case of questions, please contact Prof Qing Li at Tel: 2788 9695, E-mail: itqli@cityu.edu.hk,
or visit the CS Departmental Seminar Web at <http://www.cs.cityu.edu.hk/>.*