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# Case-Based Reasoning Tomorrow: Provenance, the Web, and Cases in the Future of Intelligent Information Processing

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## Keynote Presentations

### **Case-Based Reasoning Tomorrow: Provenance, the Web, and Cases in the Future of Intelligent Information Processing**

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**Abstract:** The World Wide Web and grid computing provide new opportunities and challenges for artificial intelligence. This talk examines how case-based reasoning can respond to these challenges by leveraging large-scale information sources. It highlights opportunities for exploiting naturally arising cases and augmenting them with additional open sources, to enable robust support for human reasoning. It illustrates with examples from current research, focusing especially on how CBR can leverage frameworks being developed in burgeoning research activity in provenance capture and storage.

**Bio-Sketch:** David Leake received his PhD in Computer Science from Yale University in 1990. Since that time he has been on the faculty of Indiana University, Bloomington, where he holds the positions of Professor and Director of Graduate Studies in the Computer Science Department, as well as being a member of the faculty of the Cognitive Science Program and Human-Computer Interaction Program.

His research interests are in artificial intelligence and cognitive science, including case-based reasoning, explanation, intelligent user interfaces, and knowledge management; he authored/co-authored over 100 publications in these areas. He is the Editor of AI Magazine; past member of the editorial board of the Journal of the Learning Sciences and the International Journal of Expert Systems Research and Applications. Co-editor of special issue Maintaining Case-Based Reasoning Systems of Computational Intelligence. Program co-Chair for the Fifth International and Interdisciplinary Conference on Modeling and Using Context (CONTEXT'05), Paris,

France; Chair for the 2003 International Conference on Intelligent User Interfaces (IUI 2003), Miami Beach, FL, U.S.A.; Short Paper and Demonstration Chair for the 2002 International Conference on Intelligent User Interfaces (IUI 2002), San Francisco, CA, U.S.A. Chair of the 1998 and 1999 Workshop Program of the AAAI National Conference on Artificial Intelligence and co-chair of the Second International Conference on Case-Based Reasoning (ICCBR-97). Program committee member for numerous international and national conferences.