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FLAIRS 2002 Conference Report

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Since its inception 15 years ago, the annual FLAIRS Conference has grown to be a major venue for researchers in AI and associated disciplines to discuss their latest research and development efforts. Originally founded in 1987 as a conference to promote and advance AI within the state of Florida, over the years, FLAIRS has attracted national and international participation—56 percent of this year's papers had international authors.

After a period of eight years, the Fifteenth International Conference of the Florida Artificial Intelligence Research Society (FLAIRS 2002) returned to the emerald coast of Pensacola Beach, Florida. The conference, held from 14 to 16 May, was sponsored by the Institute for Human and Machine Cognition (IHMC) of the University of West Florida (UWF),[1] Pensacola, and the nascent IT-Florida initiative.[2] John Kolen (UWF-IHMC) was the conference general chair, and Susan Haller (University of Wisconsin at Parkside) and Gene Simmons (University of South Alabama) were the program cochairs.

FLAIRS is a general conference for reporting AI research, and the 104 papers presented at FLAIRS-2002 covered a broad spectrum of research areas. The conference consisted of 3 parallel sessions of 21 tracks, including 14 special tracks highlighting specific themes. The special tracks program was coordinated by Rosina Weber (Drexel University) and included papers on AI in aerospace, AI in educational information technology, case-based reasoning, categorization and concept representation, emotions in agents, evaluation of intelligent systems, imprecise probabilities in AI, integrated intelligent systems, knowledge management, machine learning, neural networks, the semantic web, spatiotemporal reasoning, and uncertain reasoning. The 2 special tracks on categorization and concept representation and the semantic web were the most extensive with 10 papers each, followed by the special track on case-based reasoning with 8 papers.

■ The Fifteenth Annual International Conference of the Florida Artificial Intelligence Research Society (FLAIRS) was held in Pensacola Beach, Florida, 14 to 16 May 2002. Spanning a broad spectrum of AI research, the conference was composed of a general track and 14 themed special tracks. Conference highlights included invited talks by James Allen, Randall Beer, Jeff Bradshaw, Bill Clancey, Clark Glymour, and Pat Hayes. Two parallel workshops on causality and categorization and studies of expert knowledge and skill followed the conference.

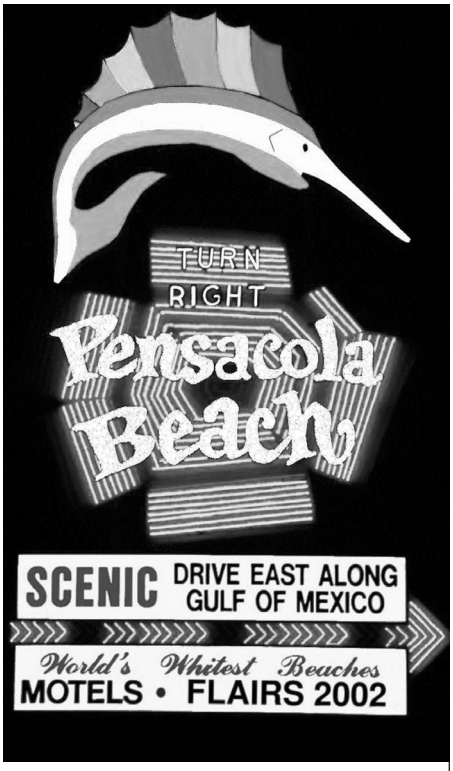
This year's conference was particularly notable for the number of invited speakers and the variety of their presentation themes, which ranged from a new initiative to make Florida a high-technology state to gene-regulation mechanisms discovered by machine learning techniques.

In the keynote address, Pamela Dana, director of the Florida Office of Tourism, Trade, and Economic Development, outlined the newly formed ITFlorida initiative. As an umbrella organization designed to provide its members with access to lawmakers, businesses, capital, and domestic and foreign technology leaders, ITFlorida will enable Florida's high-tech sectors to speak as one voice. ITFlorida will promote the common interests of its members by leveraging their collective talent and advocating on their behalf while formulating policy recommendations to state, federal, and local government. It will also serve as a clearinghouse for technology-related information and a sponsor of statewide conferences, symposia, and other events important to its members and the state of Florida.

James Allen (University of Rochester) presented his work on the development of systems that can handle "practical dialogues"—dialogues in which the participants cooperatively pursue a goal or task. The talk included demonstrations of generic components that can be adapted to fit the disparate reasoning requirements of various task domains, ranging from designing a kitchen to managing a crisis.

Pat Hayes (UWF-IHMC) gave a "view from the trenches" of the ongoing standardization efforts for the semantic web. The semantic web currently appears to be multiple visions in search of a reality. As an active participant of several standardization efforts trying to hammer out specifications for the semantic web, Hayes gave an entertaining, personal, and critical perspective of the various technologies (XML, RDF, RDFS, DAML+OIL, CL, OWL) that might one day form the substrate of this reality.

Randall Beer (Case Western Reserve University) drew an interesting analogy between the conceptual simplicity of the frictionless planes of physics and his models of idealized minimal cognitive behavior that he terms as "frictionless brains." This work involves the use of genetic algorithms to evolve dynamic nervous systems for model agents that are capable of visually discriminating between two



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types of objects. His talk concluded with an analysis of the dynamics observed in the experiments with an explanatory and predictive insight into the behavior of the evolved agents.

Jeff Bradshaw (UWF-IHMC) gave an enticing glimpse of a possible future world populated with pervasive agents functioning as "cognitive prostheses" to leverage and extend human intellectual, perceptual, and collaborative capabilities. He described his current work in a joint project with NASA/Ames on the design of a personal satellite assistant (PSA)—a highly interactive autonomous softball-size robot functioning in microgravity to assist astronauts on spacecrafts.

Bill Clancey (NASA/Ames and UWF-IHMC) gave a view of his intriguing work on the modeling of human activities. He described his experience at the Flashline Mars Arctic Research Station—the first of four Mars baselike habitats. Based on this experience, Clancey discussed extensions to his prior research with BRAHMS (a simulation program for modeling work practices and generating work-flow diagrams) in modeling and understanding human ensemble behavior. One of the goals of this effort is to teach us how to live and work on Mars.

Clark Glymour (Carnegie Mellon University and UWF-IHMC) raised a challenging question: Can we reveal the mysteries of how life maintains itself and responds to changes in the environment? His stimulating and entertaining presentation discussed algorithms to extract causal networks from gene microarray data and raised questions on whether we will be able to unlock the secrets of the millions of gene-regulation mechanisms in our cells in the near future.

Of the 104 papers presented at FLAIRS-2002, 27 were part of the general conference track, and 78 focused on the themed special tracks. From the papers submitted to the general conference track, the program committee recognized two outstanding papers (which by coincidence happened to be in the same area of automated reasoning). The best paper award went to Stephan Schulz of the Technische Universitaet Muenchen, Germany, for his paper entitled "A Comparison of Different Techniques for Grounding Near-Propositional CNF Formulae." The second award was given to Marius Pasca of Language Computer Corporation for his paper entitled "Answer Finding Guided by Question Semantic Constraints."

The main conference was followed by workshops on causality and categorization and studies of expert knowledge and skill. The Workshop on Causality and Categorization, organized by Clark Glymour and Colette Faucher (Universite d'Aix-Marseille III), focused on the role of causal knowledge in the acquisition, representation, and use of concepts. The Workshop on Studies of Expert Knowledge and Skill, organized by Robert Hoffman (UWF-IHMC), provided a forum for applied cognitive psychologists at Florida universities to discuss their current research interests and explore the possibility of creating an innovative cooperative program of research and graduate training.

For next year, FLAIRS will move from the second-oldest continuously inhabited city in the United States—Pensacola—to the oldest continuously inhabited city: FLAIRS-2003 will be held 11 to 15 May at St. Augustine, Florida. Douglas Dankel (University of Florida) will be the general chair, and Susan Haller (University of Wisconsin at Parkside) and Ingrid Russell (University of Hartford) will be the program chairs. Further details will be available from the FLAIRS web site.[3] The FLAIRS proceedings is available from AAAI Press.[4]

Notes

1. www.coginst.uwf.edu.
2. www.itflorida.com.
3. www.flairs.com.
4. www.aaai.org/Press/Proceedings/FLAIRS.

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