

Visual Representations and Reasoning 2010

A workshop of the 24th AAAI Conference on Artificial Intelligence

Overview

Visual representations and reasoning play an important role in human problem solving, modeling, and design. Although the ability to think like a human long has been a goal of AI, today's AI agents nonetheless are limited in their visual reasoning. Advances in this area may (1) enable more extensive autonomous reasoning in visual domains, (2) foster deeper computational support for and understanding of human problem solving, modeling, and design, and (3) promote more intense use of visual representations in human-machine interaction.

These technological goals raise basic theoretical issues such as the precise role of visual reasoning in intelligence and relationships between visual reasoning and perceptual processes. Drawing participants from diverse research communities such as AI, HCI, cognitive science, learning science and design science, this interdisciplinary workshop aims to describe and discuss the latest scientific research that may inform and influence progress towards these goals.

Topics

Topics for this workshop include, but are not limited to:

- Cognitive architectures
- Comparisons of visual versus propositional approaches
- Diagrammatic reasoning
- Educational applications
- Formal theories of visual representation
- Mental imagery in cognition
- Multimodal representations and reasoning
- High-level perception
- Sketch understanding
- Spatial representations and reasoning
- Visual media
- Visual representations and mental models
- Visual representations in creativity/design
- Visual representations in human culture
- Visual similarity and analogy

Submissions

We welcome two types of submissions: full papers (6-8 pages) and shorter extended abstracts or position papers (2-3 pages). Submissions must follow the standard AAAI two-column format, and PDF versions should be submitted via EasyChair at:

<http://www.easychair.org/conferences/?conf=aaai10vrr>

Important Dates

- March 29** Submissions due
- April 15** Notification of acceptance
- May 11** Camera-ready copy due
- July 11-12** AAAI-10 workshop program

Program Committee

- Thomas Barkowsky, University of Bremen
- Randall Davis, MIT
- Ronald Ferguson, SAIC
- Gabriela Goldschmidt, Technion - Israel Institute of Technology
- Mateja Jamnik, University of Cambridge
- N. Hari Narayanan, Auburn University
- Nancy Nersessian, Georgia Tech
- Patrick Olivier, Newcastle University
- Steven Tanimoto, University of Washington
- Paul Thagard, University of Waterloo
- Barbara Tversky, Stanford University

Organizing Committee

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For More Information

Please visit our website at: <http://dilab.gatech.edu/AAAI-10-VRR-Workshop/>