



# AI Matters

## Annotated Table of Contents

### O Welcome to AI Matters Issue 2

Kiri Wagstaff, Editor

Full article: <http://doi.acm.org/10.1145/2685328.2685329>

*A welcome from the Editor of AI Matters and a summary of issue 2 highlights.*

### O Ten Simple Rules for Starting a Research Group

Yolanda Gil, SIGAI Chair

Full article: <http://doi.acm.org/10.1145/2685328.2685330>

*The Chair of SIGAI provides key insights and advice for starting (and growing) a research group. Read on and be inspired!*

### D Generalizing Causal Knowledge: Theory and Algorithms

Elias Bareinboim and Judea Pearl

Full article: <http://doi.acm.org/10.1145/2685328.2685331>

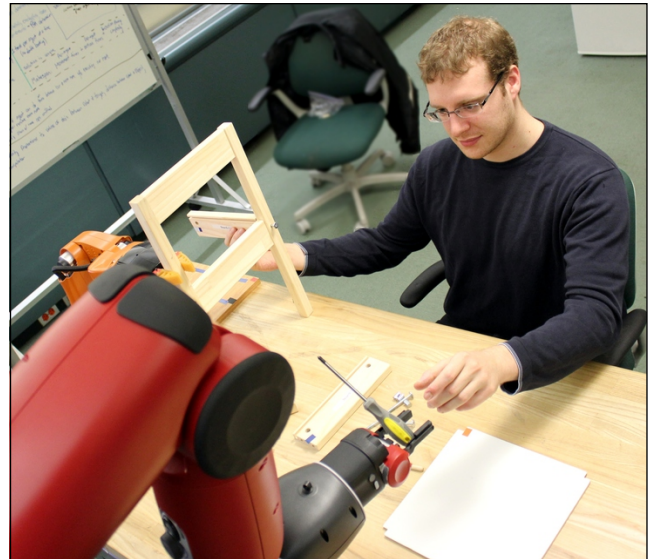
*Science is about generalization, and generalization requires an inductive leap from an observed reality to one that has not been seen before. We construct in this work a theoretical framework for understanding, representing, and algorithmizing causal generalizations from heterogeneous mixtures of experimental and observational studies.*

### D On the Projection Problem in Active Knowledge Bases with Incomplete Information

Vaishak Belle

Full article: <http://doi.acm.org/10.1145/2685328.2685332>

*In realistic domains, autonomous agents have many sources of uncertainty: lack of information, noise in their actuators, and the presence of other agents. Consequently, the task of projection, that lies at the heart of planning, is significantly more complex. In this thesis, we obtain new general results on approaching this concern.*



### V Human-Robot Collaboration: Assembling Furniture with Robot Assistance.

Brian Scassellati and Bradley Hayes.

Full image and details:

<http://doi.acm.org/10.1145/2685328.2685335>

### E Student Travel Award Recipients for the 2014 AAAI/SIGAI Doctoral Consortium

Tim Brys, John Doucette, Taraneh Khazaei, and Ran Taig

Full article: <http://doi.acm.org/10.1145/2685328.2685333>

*SIGAI provides travel funding to support students from institutions outside the U.S. to attend the AAAI/SIGAI Doctoral Consortium. The Doctoral Consortium (DC) provides an opportunity for a group of Ph.D. students to discuss and explore their research interests and career objectives with a panel of established researchers in artificial intelligence.*

### O Cryptocurrencies, Smart Contracts, and Artificial Intelligence

Steve Omohundro

Full article: <http://doi.acm.org/10.1145/2685328.2685334>

Recent developments in "cryptocurrencies" and "smart contracts" are creating new opportunities for applying AI techniques. These economic technologies would benefit from greater real world knowledge and reasoning as they become integrated with everyday commerce. Cryptocurrencies and smart contracts may also provide an infrastructure for ensuring that AI systems follow specified legal and safety regulations as they become more integrated into human society.

## Upcoming Conferences

**Registration discount for SIGAI members.**

**AAAI Doctoral Consortium 2015.** Austin, TX. Jan. 25-26, 2015.

**SIGAI CNC 2015:** Career Network and Conference, co-located with AAAI. Austin, TX. Jan. 26, 2015.

**HRI 2015:** ACM/IEEE International Conf. on Human-Robot Interaction. Portland, OR. Mar. 2-5, 2015.

**IUI 2015:** International Conference on Intelligent User Interfaces. Atlanta, GA. Mar. 29 - Apr. 1, 2015.

**K-CAP 2015:** International Conference. on Knowledge Capture. Palisades, NY, Oct. 2015.

**ASE 2015:** IEEE/ACM International Conference on Automated Software Engineering. Lincoln, Nebraska, Nov. 2015.

## AI Matters Editorial Board

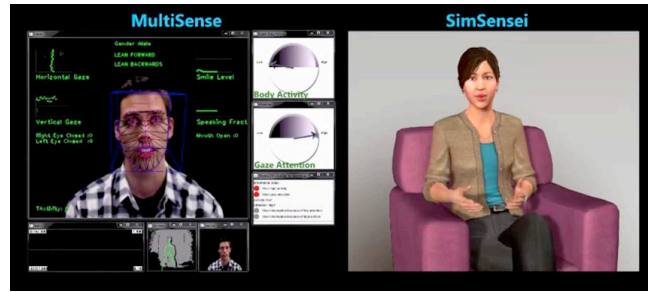
Kiri Wagstaff, Editor-in-Chief, *JPL/Caltech*  
 Sanmay Das, *Washington Univ. of Saint Louis*  
 Alexei Efros, *Univ. of CA Berkeley*  
 Susan L. Epstein, *The City Univ. of NY*  
 Yolanda Gil, *ISI/Univ. of Southern California*  
 Doug Lange, *U.S. Navy*  
 Xiaojin (Jerry) Zhu, *Univ. of WI Madison*

## Links

SIGAI website: <http://sigai.acm.org/>

Newsletter: <http://sigai.acm.org/aimatters/>

Twitter: [http://twitter.com/acm\\_sigai/](http://twitter.com/acm_sigai/)



## V Virtual Humans for Interpersonal Processes and Skills Training.

Jon Gratch.

Full image and details:

<http://doi.acm.org/10.1145/2685328.2685336>

## Submissions

- B** Book Announcement
- D** Ph.D. Dissertation Briefing
- E** Event Report
- I** AI Impact
- N** AI News
- O** Opinion
- P** Paper Précis
- V** Video or Image

Details at <http://sigai.acm.org/aimatters>