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# AI DEBATE 2

## MOVING AI FORWARD: AN INTERDISCIPLINARY APPROACH

### PRE-READINGS

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A PREPRINT

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#### ABSTRACT

**Pre-readings** recommended to the audience before *AI DEBATE 2 - Moving AI Forward: An Interdisciplinary Approach*. **Confirmed speakers:** Ryan Calo, Yejin Choi, Daniel Kahneman, Celeste Kidd, Christof Koch, Luis Lamb, Fei-Fei Li, Adam Marblestone, Margaret Mitchell, Robert Osazuwa Ness, Judea Pearl, Francesca Rossi, Ken Stanley, Rich Sutton, Doris Tsao, Barbara Tversky. **Moderator and co-organizer:** Gary Marcus. Hashtag : #AIDebate2.

**WebPage:** <https://montrealartificialintelligence.com/aidebate2/>.

**RSVP** for the live streaming event at <https://aidebate.eventbrite.ca>.

## 1 Ryan Calo's Pre-Readings

**Preliminary Remark Title at AI DEBATE 2:** *Artificial Intelligence Policy: Not Just A Matter of Principles*  
*Artificial Intelligence Policy: A Primer and Roadmap*, Ryan Calo, 2017: [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3015350](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3015350)  
Homepage: <https://twitter.com/rcalo>

## 2 Yejin Choi's Pre-Readings

**Preliminary Remark Title at AI DEBATE 2:** *Commonsense AI: Cracking the Longstanding Challenge in AI*  
*Keynote at the Stanford Human-Centered AI (HAI) Conference on Triangulating Intelligence: Melding Neuroscience, Psychology, and AI*: <https://www.youtube.com/watch?v=19ZaK0IzsVY?t=1680>  
Homepage: <https://homes.cs.washington.edu/~yejin/>

## 3 Celeste Kidd's Pre-Readings

**Preliminary Remark Title at AI DEBATE 2:** *Profound impacts of AI (and its biases) on human beliefs*  
*The Psychology and Neuroscience of Curiosity*, Kidd and Hayden, Neuron, 2015: <http://www.celestekidd.com/>

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\*Founding Chairman at MONTREAL.AI and QUÉBEC.AI <http://www.montreal.ai>.

papers/KiddHayden2015.pdf.  
Homepage: [www.kiddlab.com](http://www.kiddlab.com)

#### 4 Christof Koch's Pre-Readings

**Preliminary Remark Title at AI DEBATE 2:** *Don't look (anymore) at neuroscience for help with AI*  
Homepage: <https://christofkoch.com/>

#### 5 Luis Lamb's Pre-Readings

**Preliminary Remark Title at AI DEBATE 2:** *Neurosymbolic AI: The 3rd Wave*  
*Neurosymbolic AI: The 3rd Wave*, Artur d'Avila Garcez and Luis Lamb, 2020: <https://arxiv.org/abs/2012.05876>.  
Homepage: <http://www.inf.ufrgs.br/~lamb>

#### 6 Fei-Fei Li's Pre-Readings

**Preliminary Remark Title at AI DEBATE 2:** *In search of the next AI North Star: a tale of two kittens*

#### 7 Adam Marblestone's Pre-Readings

**Preliminary Remark Title at AI DEBATE 2:** *Leveraging neuro-technology for AI*  
*Toward an Integration of Deep Learning and Neuroscience*, Marblestone et al., 2016: <https://www.frontiersin.org/articles/10.3389/fncom.2016.00094/full>.  
Homepage: [www.adammarblestone.org](http://www.adammarblestone.org)

#### 8 Gary Marcus's Pre-Readings

**Preliminary Remark Title at AI DEBATE 2:** *The Next Decade in AI*  
*The Next Decade in AI: Four Steps Towards Robust Artificial Intelligence*, Gary Marcus, 2020: <https://arxiv.org/abs/2002.06177v3>.  
Homepage: <http://rebooting.ai/>

#### 9 Robert Ness's Pre-Readings

**Preliminary Remark Title at AI DEBATE 2:** *Causal Reasoning with (Deep) Probabilistic Programming*  
*Integrating Markov processes with structural causal modeling enables counterfactual inference in complex systems*, Ness et al., 2019: <https://papers.nips.cc/paper/2019/file/2d44e06a7038f2dd98f0f54c4be35e22-Paper.pdf>.  
Homepage: <https://www.altdeep.ai>

#### 10 Judea Pearl's Pre-Readings

**Preliminary Remark Title at AI DEBATE 2:** *The Domestication of Causal Reasoning: Cultural and Methodological Implications*  
*The Seven Tools of Causal Inference*, Judea Pearl, 2016: <https://ucla.in/2HI2yyx>.  
*Radical Empiricism and Machine Learning Research*, Judea Pearl, 2020: <https://ucla.in/32YKcWy>.

*Data versus Science: Contesting the Soul of Data-Science*, Judea Pearl, 2020: <https://ucla.in/3iEDRV0>.  
Homepage: [http://bayes.cs.ucla.edu/jp\\_home.html](http://bayes.cs.ucla.edu/jp_home.html)

## 11 Francesca Rossi’s Pre-Readings

**Preliminary Remark Title at AI DEBATE 2:** *Thinking Fast and Slow in AI: Towards more general and trustworthy AI*

*Thinking fast and slow in AI* (AAAI blue-sky ideas track, 2021), Booch et al., 2020: <https://arxiv.org/abs/2010.06002>.

## 12 Kenneth Stanley’s Pre-Readings

**Preliminary Remark Title at AI DEBATE 2:** *Open-Endedness, Evolution, and AI*

*Open-endedness: The last grand challenge you’ve never heard of*, Stanley et al., 2017: <https://www.oreilly.com/radar/open-endedness-the-last-grand-challenge-youve-never-heard-of/>.

## 13 Doris Tsao’s Pre-Readings

**Preliminary Remark Title at AI DEBATE 2:** *How the brain builds a model of the world: insights from neuroscience*

*The macaque face patch system: a turtle’s underbelly for the brain*, Janis K. Hesse and Doris Y. Tsao, 2020: <https://www.nature.com/articles/s41583-020-00393-w?proof=t>.

Homepage: <https://www.tsaolab.caltech.edu/>

## 14 Barbara Tversky’s Pre-Readings

**Preliminary Remark Title at AI DEBATE 2:** *Thinking with the Body and the World*