

CCC COUNCIL MEETING

Nov 16th, 2018



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AGENDA

- Welcome and Introductions
- Lynne Parker, OSTP
- BREAK
- AI Roadmap
- Jim Kurose, NSF
- LUNCH
- Peter Harsha, CRA
- Task Forces
- BREAK
- Strategic Planning



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INTRODUCTIONS / GENERAL UPDATES



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In Iceland @ Eurasian vs. North American Tectonic Plates
Or Model of Democrats vs. Republicans

LYNNE PARKER, OSTP



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BREAK



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AI ROADMAP

- Yolanda Gil and Bart Selman leading
 - Workshop 1- Integrated Intelligence
 - Nov 14-15, 2018
 - Co-Chairs: Marie desJardins (Simmons) and Ken Forbus (Northwestern University)
 - Workshop 2- Interaction
 - Jan 8-9, 2019
 - Co-Chairs: Kathy McKeown (Columbia University) and Dan Weld (University of Washington)
 - Workshop 3- Learning and Robotics
 - Jan 17-18, 2019
 - Co-Chairs: Fei Fei Li (Stanford) and Tom Dietterich (Oregon State)



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US AI ROADMAP PROCESS

- W1: Integrated Intelligence
 - *Chairs: Marie desJardins and Ken Forbus*
 - Understanding the mind
 - Composing intelligent capabilities
 - Open repositories of knowledge
- W2: Interaction (Jan 8-9)
 - *Chairs: Kathy McKeown and Dan Weld*
 - Interactions that matter
 - Trust and responsibility
 - People interacting online
- W3: Learning and Robotics (Jan 17-18)
 - *Chairs: Tom Dietterich and Fei-Fei Li*
 - Deeper learning
 - Integrating statistical learning and symbolic representations
 - Diversified learning modalities
- AAI Town Hall (Jan 28)
- Draft of final report ready for reviews and feedback (February)



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AI ROADMAP WS1

- **Societal Drivers**
 - Improve HealthCare
 - Accelerate Science
 - Education and Training
 - Improve Business Innovation
 - Cybersecurity Education and Advising
- **Lifelong Personal AIs**
 - Social Cognition
 - Creativity and Design
- **Science of Integrated AI**
 - Modeling Human Intelligence
 - Memory
- **Open Knowledge Repository**



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JIM KUROSE, NSF



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LUNCH



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PETER HARSHA, CRA



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TASK FORCES



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SYSTEMS AND ARCHITECTURE

- Workshops Run & Reports Done
 - Digital Computing Beyond Moore's Law, 5/18
 - Next Steps in Quantum Computing: CS's Role, 5/18
- Upcoming: Thermodynamic Computing, 1/19
 - Example of NOT conventional, quantum, or neuro-morphic
- Reviewing proposal for the Wide-Area Data Analytics workshop

FAIRNESS AND ACCOUNTABILITY

- Workshop: “Fair Representations and Fair Interactive Learning,” March 2018
 - Alexandra Chouldechova and Aaron Roth, leads
 - CACM paper submitted
- Economics and fairness workshop in planning stages
 - Spring 2019

CYBERSECURITY AND CYBERCRIME

- Embedded security
 - AAAS Panels, February 2019
 - Cybersecurity: Transcending Physics, Technology, and Society
 - Mark Hill, Zeynep Tufekci, Paul Kocher, Kevin Fu
 - Socio-technical Cybersecurity: It's All About People
 - Ann Drobnis, Keith Marzullo, Brian LaMacchia, Rebecca Wright, David Mussington
- Using CS to prevent Human Trafficking
 - Possible workshop with UN in Spring 2019

INTELLIGENT INFRASTRUCTURE

- Gave a CCC intro at NIST GCTC
- Thinking about other directions to take the task force

HEALTH AND HUMAN COMPUTER INTERACTION

- Content Generation for Workforce Training
 - March 14-15, 2019 in Atlanta, GA
 - Steering Committee:
 - Tony DeRose – Pixar, Jessica Hodgins -- CMU/Facebook (President of SIGGRAPH), Blair MacIntyre -- Georgia Tech/Mozilla, Kapil Madathil -- Clemson/Clemson Center for Workforce Development, Beth Mynatt -- Georgia Tech/CCC, Holly Rushmeier -- Yale/CCC
 - Target audience:
 - Computing researchers in HCI/Graphics/Haptics/Vision/AR/VR
 - Developers of training materials
 - Companies in need of workforce training



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HEALTH AND HUMAN COMPUTER INTERACTION

- Addiction, Opioids, Eldercare
 - Gaining national attention with investment by NIH, etc. especially around the use of technology and social media
 - Tech companies are starting to develop programs to address addiction (e.g., Google, Facebook)



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INFORMATION INTEGRITY AND PROVENANCE

- Talking about a potential one-day roundtable to discuss having a series of workshops in this area



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INDUSTRY ENGAGEMENT: TRANSPORTATION

- Reaching out to list of contacts and collecting some notes from the discussions
- Drafting some thoughts for a white paper



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STRATEGIC PLANNING



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