

AI and the FUTURE OF WORK

November 1- 2, 2017
MIT • Kresge Auditorium



Massachusetts
Institute of
Technology



futureofwork.mit.edu • #MITAIJobs

AI and the FUTURE OF WORK

Welcome to MIT's AI and The Future of Work Symposium

On behalf of CSAIL and IDE we are honored and delighted to welcome you to MIT. Over the next two days you will hear from industry, academia, economists and visionaries on the potential impact of AI. We have created a dynamic program with individual talks, hosted conversations and expert panels. There are also many opportunities for networking during the event and we invite you to join our LinkedIn group MIT AI and the Future of Work Online Discussion at <http://bit.ly/FOWforum> to continue this important conversation after the conference concludes.

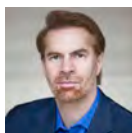
We'd like to thank each of you for bringing your expertise to our event. Throughout the conference, we ask you to stay engaged, participate in the dialogue and help us create a forum for sharing ideas, inspiration and information about AI's impact on the future of work.

Professor Daniela Rus and Professor Erik Brynjolfsson



Daniela Rus

Director, MIT CSAIL, and
Professor, MIT EECS



Erik Brynjolfsson

Director, MIT Initiative on
the Digital Economy, and
Professor, MIT Sloan
School of Management



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Share Your Questions

Over the next two days, tweet your questions for our speakers using **#MITAIJobs**. When possible, the session moderator will pose your questions to the panelists.

8:00am **Breakfast and Networking**

8:30am



Welcome
Rafael Reif
President, MIT

8:40am



Opening Remarks
Daniela Rus
Director, MIT CSAIL, and Professor, MIT EECS

8:50am



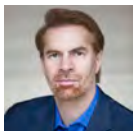
Open Plenary
Yann LeCun
Director, Facebook AI Research, and Professor, NYU



Day 1 Panel Moderator: John Markoff
Fellow, Center for Advanced Study in Behavioral Sciences

9:20am

The AI Revolution: Why now? What it means and how to realize the potential



Erik Brynjolfsson
Director, MIT Initiative on the Digital Economy, and
Professor, MIT Sloan School of Management



Kai-Fu Lee
Chairman and CEO, Sinovation Ventures and
President, Sinovation Ventures Artificial Intelligence
Institute



James Manyika
Chairman and Director, McKinsey Global Institute, and
Senior Partner, McKinsey & Company



Mona Vernon
CTO, Thomson Reuters Labs

10:05am **Break**

10:15am **Positioning for Success: Augmentation vs. Automation**



Dimitris Papageorgiou

Partner, People Advisory Services, Ernst & Young



John Van Reenen

Professor, MIT Department of Economics and MIT Sloan School of Management



Krystyn Van Vliet

Professor of Material Science and Engineering and Biological Engineering, MIT Department of Materials Science and Engineering



Sophie Vandebroek

Chief Operating Officer, IBM Research

11:00am **Strategies to Navigate the First Phase**



Allen Blue

Co-Founder & Vice President of Product Management, LinkedIn



Jennifer Chayes

Distinguished Scientist and Managing Director, Microsoft Research New England



Sam Madden

Professor, MIT CSAIL, and Faculty Co-Director, SystemsThatLearn@CSAIL



Alex "Sandy" Pentland

Professor, MIT Sloan School of Management, and Founding Director, MIT Connection Science Research Initiative

11:40am **Lunch** - Located in the Student Center, RM #W20-202

11:55am **Lunch Talk: The State of AI in China**



Kai-Fu Lee, Chairman & CEO, Sinovation Ventures, and President, Sinovation Ventures Artificial Intelligence Institute

AGENDA

Day 1 | November 1, 2017 *(continued)*

12:25pm

Thinking Machines: Robots Rising



Daniela Rus

Director, MIT CSAIL, and Professor, MIT EECS



Moshe Vardi

Professor, Computational Engineering, Rice University, and Director, Ken Kennedy Institute for Information Technology



Manuela Veloso

University Professor, and Head, Machine Learning Dept., School of Computer Science, Carnegie Mellon University

1:10pm

Intelligent Automation: Opportunities and Challenges



Josh Tenenbaum

Professor, MIT CSAIL



Simon Thompson

Head of Big Data and Customer Experience Practice, BT



Patrick Winston

Professor, MIT CSAIL

1:50pm

Afternoon Plenary: Fireside Chat



Eric Schmidt

Executive Chairman, Alphabet



Host: Daniela Rus

Director, MIT CSAIL, and Professor, MIT EECS

**AI and the
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WORK**

2:20pm

Reality Check: What Major Technological Challenges Still Need to be Addressed to Realize Full Potential?



Cynthia Breazeal

Co-Director, Center for Future Storytelling, and Associate Professor of Media Arts and Sciences, MIT Media Lab



John Leonard

Professor, MIT CSAIL, and Associate Department Head for Research, MIT Department of Mechanical Engineering



Daniel Theobald

Co-Founder and Chief Innovation Officer, Vecna Robotics



Antonio Torralba

Professor of Electrical Engineering and Computer Science, MIT CSAIL

3:05pm

AI, Ethics, Law and Policy



Todd Solomon

Head of Employee Benefits, Compensation & Employment Practice Group, McDermott Will & Emery



Katie Stebbins

Vice President of Economic Development, University of Massachusetts



Catherine Tucker

Chair, MIT Sloan PhD Program, and Professor of Marketing, MIT Sloan School of Management



Daniel Weitzner

Principal Research Scientist, MIT CSAIL, and Founding Director, MIT Internet Policy Research Initiative

“...Just remember that only two decades ago, computation was a task reserved for an expert few, because computers were large, expensive and hard to use. All that changed – now everyone uses computers – and I believe in the future, tasks will be equally changed by artificial intelligence.”

Daniela Rus, Director, MIT CSAIL, and Professor, MIT EECS

AGENDA

Day 1 | November 1, 2017 *(continued)*

3:50pm **Vision: Industry 2020-2050**



Rod Brooks

Founder, Chairman and CTO, Rethink Robotics



Tom Kochan

Co-Director and Professor, Work and Employment Research, MIT Sloan School of Management



Andrew McAfee

Co-Director, MIT Initiative on the Digital Economy, and Principal Research Scientist, MIT Sloan School of Management

4:30pm **Closing Remarks**



Lori Glover

Managing Director, Alliances, and Executive Director, SystemsThatLearn@CSAIL



The Computer Science and Artificial Intelligence Laboratory (CSAIL) at MIT seeks to invent the future of computing and explore novel applications, enabling solutions to important national and global challenges. CSAIL articulates compelling interdisciplinary research visions for computing, invents fundamental new technologies, conducts basic research activities that

strengthen the state of the art, and inspires and educates future generations of scientists, technology leaders, and the public. CSAIL is an innovative, passionate community that both drives the future of computing and harnesses its remarkable power.

With more than 50 research groups working on hundreds of diverse projects, CSAIL researchers focus on discovering novel ways to make systems and machines smarter, easier to use, more secure, and more efficient. The Lab's projects fall into three broad areas of inquiry: AI, Systems and Theory.

Learn more at csail.mit.edu.

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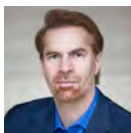
**AI and the
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AGENDA

Day 2 | November 2, 2017

8:00am **Breakfast and Networking**

8:50am

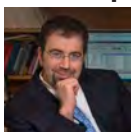


Opening Remarks
Erik Brynjolfsson

Director, MIT Initiative on the Digital Economy, and
Professor, MIT Sloan School of Management

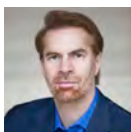
9:00am

**Mind vs Machine: Implications for Productivity, Wages
and Employment**



Moderator: Daron Acemoglu

Professor, MIT Department of Economics



Erik Brynjolfsson

Director, MIT Initiative on the Digital Economy, and
Professor, MIT Sloan School of Management



Robert Gordon

Professor of Social Sciences, Northwestern University



Joel Mokyr

Professor, Northwestern University

9:50am

Fireside Chat



Rusty Justice

Co-Owner, Bit Source



Host: Maria T. Zuber

Vice President for Research and E. A. Griswold Professor of
Geophysics, MIT

10:30am **Break**

**AI and the
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10:50am **Mind Plus Machine- How can AI help workers?**



Moderator: Anant Agarwal
CEO, edX, Inc.



Fred Goff
CEO, Jobcase



Andrew Lo
Professor, MIT Sloan School of Management;
Director, MIT Laboratory for Financial Engineering; and
Principal Investigator, MIT CSAIL



Sanjay Podder
Managing Director, Accenture Labs (India)

11:40am **The AI Skill Set**



Moderator: Barbara Dyer
Senior Lecturer, MIT Sloan School of Management



Becky Frankiewicz
President, Manpower Group, Inc.



Tom Hopcroft
President & CEO, Mass Technology Leadership Council
(MassTLC)



Tod Loofbourrow
CEO, ViralGains, and Digital Fellow, MIT Initiative on the
Digital Economy

12:30pm **Lunch and Networking**

“Let’s get on with inventing better and smarter AI. It is going to take a long time, but there will be rewards at every step along the way. Robots will become abundant in our homes, stores, farms, offices, hospitals, and all our work places. Like our current day handheld devices we won’t know how we lived without them.”

Erik Brynjolfsson, Director, MIT IDE, and Professor, MIT Sloan

1:30pm

Retrain and Retain



Moderator: David Autor

Professor of Economics and Associate Head,
MIT Economics



Lavea Brachman

Vice President of Programs, Ralph C. Wilson, Jr. Foundation



Randall Davis

Professor, MIT CSAIL



George Westerman

Principal Research Scientist, MIT Initiative on the Digital Economy



Christopher White

Head, Network Algorithms, Analytics, Control and Security
Research Lab, Nokia Bell Labs

2:15pm

Break

2:30pm

Video Presentation



Jeffrey Sachs

University Professor and Director, Center for Sustainable
Development, The Earth Institute, Columbia University



Led by MIT Sloan's Erik Brynjolfsson and Andrew McAfee, the MIT Initiative on the Digital Economy (IDE) explores how people and businesses work, interact, and prosper in the digital age. The IDE represents MIT at its best – collaborating closely with colleagues across MIT in disciplines such as economics, engineering, computer science, and robotics – to offer a solution space where stakeholders can research and experiment, discuss and debate, teach and learn, and chart a course for a world, economy, and society that is focused on economic inclusion.

No other initiative in the world is exploring the trends and impacts of the digital economy with the same determination, focus, or perspective as the IDE. While its research is academic in its approach, its charter is to understand, inform, and pragmatically solve for real-world challenges based on facts and causality. The IDE is unique amongst academic initiatives in its commitment to “action academics.” The IDE applies its insights to drive global economic, policy, and social change with its Inclusive Innovation Challenge (IIC). The IIC identifies, rewards, and promotes entrepreneurial organizations around the world that are using technology to reinvent the future of work to create shared prosperity in the digital age.

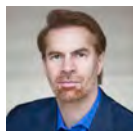
2:40pm

A Call to Action



Moderator: Kathleen Kennedy

Director, Special Projects, MIT



Erik Brynjolfsson

Director, MIT Initiative on the Digital Economy, and
Professor, MIT Sloan School of Management



Barbara Dyer

Senior Lecturer, MIT Sloan School of Management



Tom Kochan

Co-Director and Professor, Work and Employment Research,
MIT Sloan School of Management



Elisabeth B. Reynolds

Executive Director, MIT Industrial Performance Center



Daniela Rus

Director, MIT CSAIL, and Professor, MIT EECS



Sanjay Sarma

Vice President for Open Learning, MIT, and Professor,
MIT Department of Mechanical Engineering

3:40pm

Spotlight: Inclusive Innovation Challenge

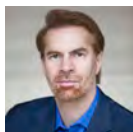


Devin Cook

Executive Producer, Inclusive Innovation Challenge,
MIT Initiative on the Digital Economy

4:10pm

Closing Remarks



Erik Brynjolfsson

Director, MIT Initiative on the Digital Economy,
and Professor, MIT Sloan School of Management



Daniela Rus

Director, MIT CSAIL, and Professor, MIT EECS

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