# Charting a new course
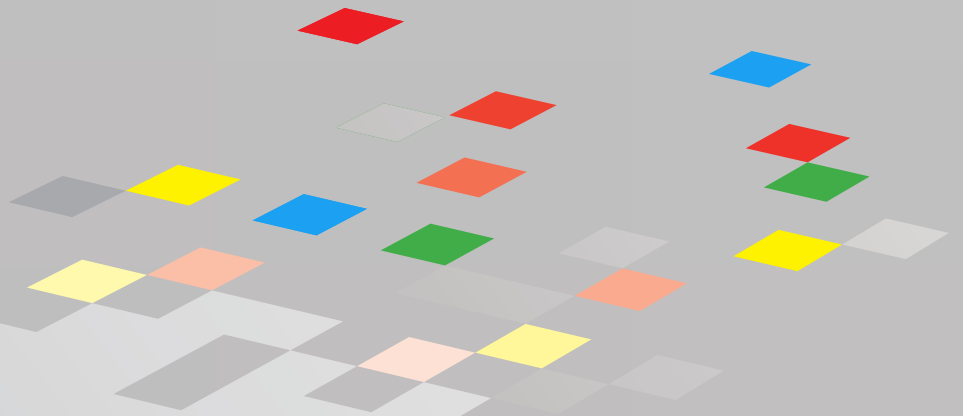
## for the digital era

MIT INITIATIVE ON THE DIGITAL ECONOMY

**M DIGITAL**

# The digital economy continues to surprise and disrupt.

In 2019, digital technologies continued to surprise, disrupt, and generate powerful new paradigms and opportunities in business, the economy, and society. In response, the MIT Initiative on the Digital Economy (IDE) accelerated our mission to examine and understand what we believe to be the most critical question of our time: How do we thrive in this era of profound digital transformation?

The tenor of our events in 2019 was quite different from years past, with a focus more on ideas, solutions, and examples of how technology is an accelerant for business, economic, and social growth.

The IDE is shining a bright light on the path forward, with a breadth of empirical research, amazing results from the Analytics Lab, and clear examples from the Inclusive Innovation Challenge.

The Research section of this Annual Report highlights a few of our important projects, and we encourage all of our stakeholders to attend the upcoming Annual Conference on May 20 to get a longer drink from the firehose.

The Analytics Lab, or A-Lab, featured 30 projects (many from our corporate Members, including the winning team working on an Accenture project) that could germinate new companies in 2020.

We are also proud of the IIC – the Impact Report was positively staggering, and shows that thousands of organizations around the world are using technology to re-invent the future of work.

**Our mission.** Share and apply our insights to drive dynamic and meaningful business outcomes, economic policy, and social change.
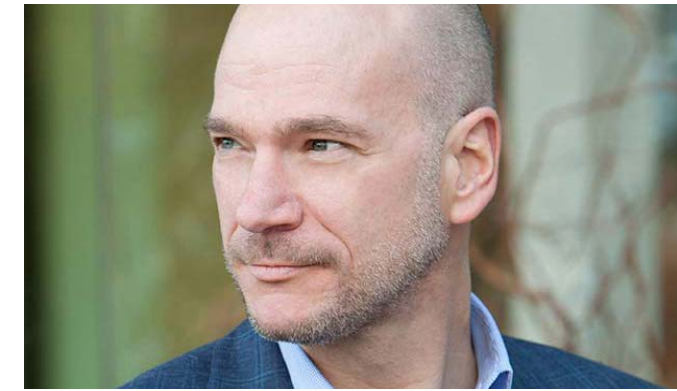


**We are explorers.** We seek solutions to help people and businesses work, interact, and prosper in the digital age.



*Clockwise from top: Research pillar heads Erik Brynjolfsson, Andrew McAfee, Alex "Sandy" Pentland, and Sinan Aral.*

The IDE strives to provide a unique solution space where stakeholders can research and experiment, discuss and debate, teach and learn.

Our ability to convene key stakeholders and build upon evidence-based research allows the IDE to generate ideas and mechanisms that will ensure a robust and inclusive global economy.

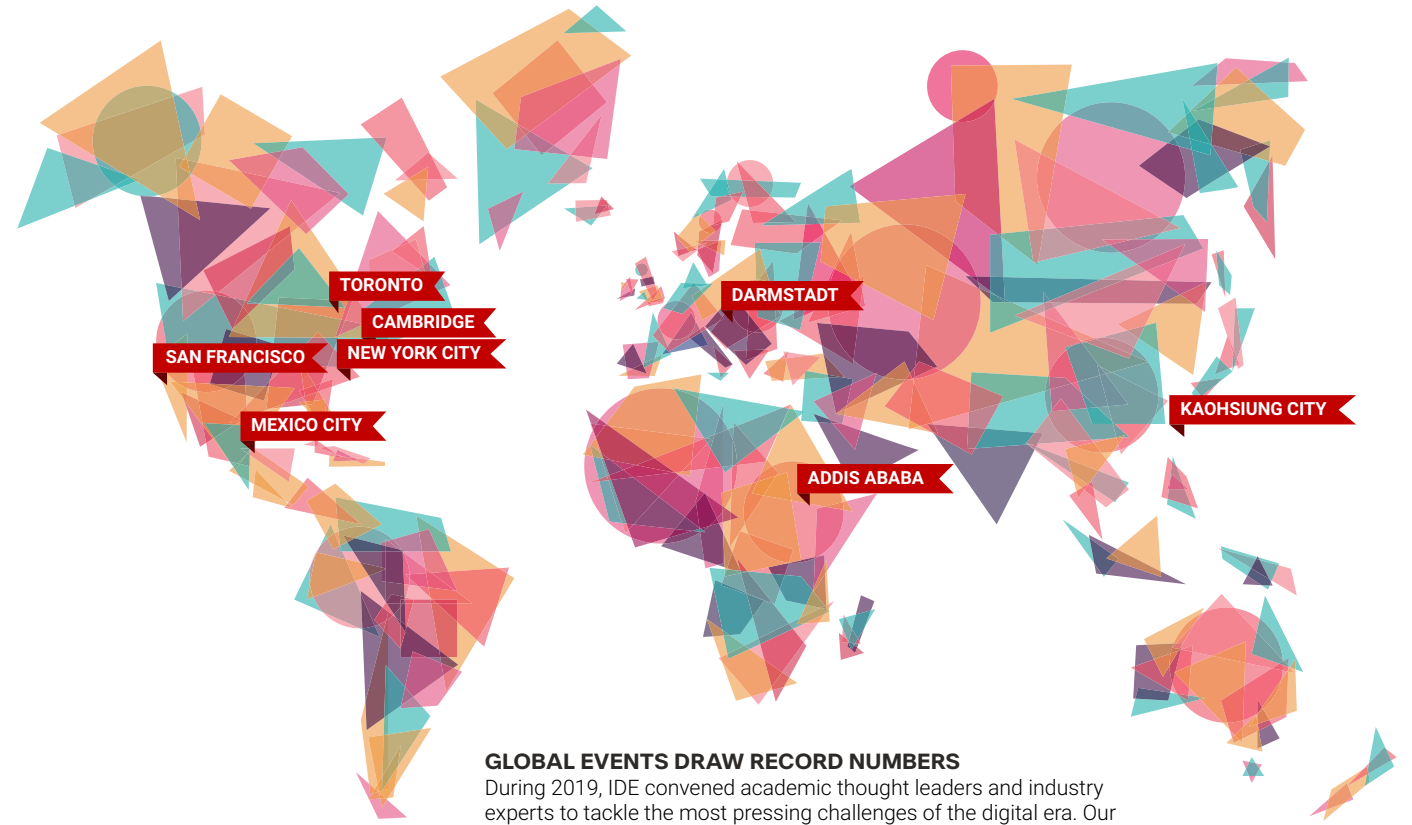Our research guides leading businesses and policy makers.

Our convenings gather global thought leaders and produce actionable insight.

Our Inclusive Innovation Challenge accelerates the entrepreneurial ecosystem across the globe to show how technology is reinventing the future of work for a broader spectrum of workers.

LEARN MORE ABOUT OUR MISSION, RESEARCH, AND EVENTS AT IDE.MIT.EDU

**GLOBAL COVERAGE MORE THAN DOUBLES**
The work of the IDE was prominently featured by international press and media outlets. Our social media presence continued to grow and we garnered thousands of new followers on our Medium blog.

*Devin Cook, IIC Executive Producer, speaks about the need for digital inclusion.*

**A year of incredible growth.** From Cambridge to Kaohsiung, we broadened our scope, expanded our reach, and created meaningful impact.



TORONTO
CAMBRIDGE
SAN FRANCISCO
NEW YORK CITY
DARMSTADT
MEXICO CITY
KAOHSIUNG CITY
ADDIS ABABA

**GLOBAL EVENTS DRAW RECORD NUMBERS**
During 2019, IDE convened academic thought leaders and industry experts to tackle the most pressing challenges of the digital era. Our gatherings were hosted on five continents and drew more than 7,000 attendees, plus thousands more via live streaming. *page 10*



**NEW SUPPORTERS DRIVE ADDED IMPACT**
The IDE continued to build and expand relationships with new and existing corporate members, with a roster of 27 supporters. Our members played prominent roles as event speakers and contributed significantly to our research agenda. *page 18*

**GROUNDBREAKING RESEARCH SETS COURSE FOR FUTURE**
Each year, our team of world-class researchers, fellows, and visiting scientists conducts more than 35 cutting-edge research projects in collaboration with stakeholders, business, government, and other institutions. *page 6*

**ACTION LEARNING YIELDS REAL-WORLD SOLUTIONS**
The IDE managed another successful year of the Analytics Lab (A-Lab), a project-based course with 30 teams applying analytics to real-world problems using data and business issues provided by our stakeholders. *page 13*

**IDE TEAM MEMBERS RECEIVE ACCOLADES**
Pillar leads, researchers, visiting scientists, and digital fellows from the IDE received numerous accolades and awards for their groundbreaking work on the digital economy. *page 14*

**NEW RELEASE FROM ANDREW McAFEE CREATES 'MORE' BUZZ**
MIT IDE co-director and *New York Times* bestselling author Andrew McAfee released his new book, *More from Less: The Surprising Story of How We Learned to Prosper Using Fewer Resources—and What Happens Next*. Hailed by critics as "a stimulating challenge to anti-capitalist alarmists" and "deeply engaging; understanding the roles of capitalism and technology in shaping humanity's future," the book presents a compelling argument on how to increase human prosperity while treading more lightly on our planet. Book available at bit.ly/AMcAfee.

**ERIK BRYNJOLFSSON REPORTS TO U.S. CONGRESS ON AI**
On September 24, 2019, IDE Director Erik Brynjolfsson addressed the House Science, Space, and Technology Committee on the issue of AI and the future of work. He was joined on the panel by an assistant director at the National Science Foundation; a ManpowerGroup executive who oversees the staffing company's manufacturing services; and the president of Ivy Tech Community College in Indiana. Watch the video at bit.ly/ErikBryn.

**A GLOBAL MOVEMENT**
In 2019, the MIT Inclusive Innovation Challenge (IIC) hosted seven events in five global regions where 20 leading organizations emerged as regional winners in four categories—Technology Access, Financial Inclusion, Income Growth & Job Creation, and Skills Development & Opportunity Matching. These outstanding organizations were invited to MIT in November where $1 million was awarded at the Global Grand Prize Gala. *page 8*

**Solving real-world problems.** In 2019, the IDE initiated, continued, or completed more than three dozen research projects. Here's a look at five from the past year.

**Corporate Innovation in the Digital Age: Getting Large Corporations to Innovate Again**
Professor Neil Thompson
Sponsored by Capgemini Consulting

The need to adopt digital technologies is forcing companies to re-think their approach to corporate innovation. The MIT-Capgemini collaboration on Corporate Innovation in a Digital Age is now in its third year. Results from 320 companies with $500M+ revenue from eight countries, reveals new facts about how large companies innovate. The project focuses on two particularly interesting research points: Differences in innovation in China (via a survey of 300 innovation leaders) and an exploration of how firms conduct their AI/Machine Learning research.
Read more at bit.ly/IDECorpInnovation.

**Automation and New Tasks: How Technology Displaces and Reinstates Labor**
Daron Acemoglu
Pascual Restrepo
Supported by Google.org

For centuries, wage and employment growth remained unaffected by automation since it was accompanied by new technologies that maintained the role of human labor in value creation. But in the era of AI, it's up to policymakers to ensure that the pattern continues. This research project presents a framework for understanding the confounding effects of automation and other types of technological changes on labor demand. It can help to interpret changes in U.S. employment over the recent past.
Read more at bit.ly/techdisplacement.

**Accounting for the Value of New and Free Goods in the Digital Economy Shows Surprising Results**
Erik Brynjolfsson
W. Erwin Diewert
Avinash Collis
Felix Eggers
Kevin J. Fox

How much are online services actually worth to consumers? That provocative question was one impetus for this groundbreaking research. Specifically, the welfare contributions of the digital economy, characterized by the proliferation of new and free goods, were not being adequately measured. The introduction of a totally new metric, GDP-B, quantifies digital benefits, rather than costs. When applied to several empirical examples— including Facebook and smartphone cameras—their valuations could be estimated more accurately. For example, including the welfare gains from Facebook would have added between 0.05 and 0.11 percentage points to U.S. GDP-B annual growth. Restated, Facebook is worth about $40 to $50 per month for U.S. consumers, according to the surveys
Read more at bit.ly/GDP-B.

**Data Strategy for Financial Services AI in a Platform World**
Geoffrey Parker
Joshua Creamer
Shivaji Dasgupta
Sophie-Louise Baratta
Sponsored by Deutsche Bank

Despite great interest in the so-called "FinTech" market, platform change has been slow to infiltrate the retail and commercial banking sector. Banks worldwide are only now experiencing the opportunity and risk from platforms, and one of the central challenges will be platform governance. This project, in collaboration with Deutsche Bank, examines strategies and models for data governance and monetization. The research will focus on the exploration of data strategies for companies that have built large platforms; monetization of platform business models for financial services, and governance models and regulation.

**Building a Productive Workforce: The Role of Structured Management**
Daniela Scur

What distinguishes productive workers? IDE Postdoctoral Associate Daniela Scur and her co-authors show how firms with structured management are better at hiring, firing, and retaining workers. Labor market models often overlook specialized investments in managerial processes or managerial talent. The Brazilian dataset used here uniquely allowed the researchers to observe the occupation of workers, as well as the reason for their separation from the job.
Read more at bit.ly/ProdWorkforce.

# Medium

Follow MIT IDE on Medium for fresh insights on the digital economy.

LEARN MORE ABOUT OUR RESEARCH AT IDE.MIT.EDU

## IDE Research Pillars

### Productivity, Employment, and Inequality

How can we accelerate the transformation of institutions, organizations, and human skills to keep up with digital innovation?
**Led by Erik Brynjolfsson**

### New Digital Business Models

How can entrepreneurs more quickly implement new digital business models in ways that create widespread benefits for all?
**Led by Andrew McAfee**

### Social Analytics and Digital Experimentation

How do new technologies and new means of social interaction impact productivity, consumer demand, political mobilization, and public health?
**Led by Sinan Aral**

### Big Data and Information Privacy

How can we harness the remarkably fine-grained, real-time data now available to answer age-old questions and identify new opportunities?
**Led by Alex "Sandy" Pentland**

*IIC winners and IDE staff celebrate at the Global Grand Prize Gala at MIT.*

## Accelerating the future of work worldwide. The 2019 MIT Inclusive Innovation Challenge named four Global Grand Prize Winners—and for the first time ever, a People's Choice Award.

### The IIC awarded $1M+ in 2019

In the spring of 2019, the MIT Inclusive Innovation Challenge (IIC), the flagship initiative of the IDE, opened our proprietary application and judging platform to entrepreneurs harnessing technology to generate economic opportunity and shared prosperity—the grand challenge of the digital era.

We convened thousands of innovation ecosystem leaders at events across the globe and awarded $1.6 million in prizes to accelerate the best inclusive innovation solutions on the planet.

The IIC worked with collaborators in five regions to identify 60 Regional Finalists. Twenty Regional Winners proceeded to MIT where we awarded a total of $1 million to four Global Grand Prize Winners.

### Inclusive Innovation Challenge impact, 2016-2019

**$1.05 BILLION**
CAPITAL RAISED

**6,800**
JOBS CREATED

**$178.9 MILLION**
REVENUE GENERATED

**43 COUNTRIES**
WITH IIC ORGANIZATIONS

**356 MILLION**
BENEFICIARIES SERVED

**41%**
FEMALE LEADERS & EXECUTIVES

## 2019 IIC Winners

The 2019 IIC Winners are exemplar Inclusive Innovators that are harnessing technology to create opportunities and prosperity for people at the bottom and middle of the economic pyramid.

**JobGet**

**JobGet (US and Canada)**
*Income Growth & Job Creation*
JobGet is an efficient, mobile platform that enables millions of low-income jobseekers to find their next career within seconds, and get hired within hours.

**Reaktor**

**Reaktor Education (Europe)**
*Global Grand Prize Winner*
*Skills Development & Opportunity Matching*
Reaktor Education is revolutionizing online education by empowering a wide range of people to learn what AI is, and what can (and can't) be done with AI.

**TiendaPago**

**TiendoPago (Latin America)**
*Global Grand Prize Winner*
*Financial Inclusion*
TiendaPago is an online lender that provides small, "mom and pop" stores with short-term (one week) working capital loans.

**AGROS**

**Agros (Latin America)**
*Global Grand Prize Winner*
*Technology Access Category*
Agros applies remote sensing and precision agriculture technologies to reduce the exclusion of small farmers from financial opportunities.

**Tiny Totos KENYA**

**Tiny Totos (Africa)**
People's Choice Winner
Tiny Totos transforms service standards across Nairobi's informal childcare market through innovative technology to benefit underserved preschool children and working mothers in slums.

**VIEW ALL WINNERS AT MITINCLUSIVEINNOVATION.COM**



### INCLUSION IN ACTION

TiendaPago, winner of the financial inclusion category, offers a lending tool that helps small stores in Latin America maintain inventory without relying on informal loan sharks. Users can apply for short-term credit via WhatsApp, SMS messaging, or the company's mobile app. TiendaPago has already enrolled more than 27,000 store owners in Mexico and Peru, and aims to help more than 150,000 families throughout Latin America during the next two years.



### MAKING A HUGE IMPACT

In 2019, the IDE released an impact report that illustrates the IIC impact on the inclusive innovation ecosystem. View at MITinclusiveinnovation.com

## A New Chapter: 2020 Challenge

**MIT | SOLVE**

After accelerating the global future of work movement for the past four years, the MIT IIC is proud to announce our evolution. In 2020, the IIC will transition into MIT Solve, a university-wide initiative designed to address the world's most pressing problems through partnership and open innovation.

Uniting with Solve to power its **2020 Economic Prosperity Challenge** will drive more resources and global awareness to the inclusive innovators who are creating an equitable future of work for all, and will magnify our impact on the innovative solutions needed to transform today's global economy..

**FOLLOW UPDATES AT SOLVE.MIT.EDU**

*MIT Sloan Researcher Renée Gosline previewed her latest work on the social media implications of technology.*

## Worldwide events. In 2019, MIT IDE hosted more than 7,000 people across five continents.

### MIT IIC Launch Event with Autodesk Foundation
03.13.2019
San Francisco, CA

The IIC celebrated the launch of the 2019 Challenge at an event at Autodesk's headquarters in San Francisco, CA, featuring IDE co-directors Erik Brynjolfsson and Andrew McAfee, Autodesk CEO Andrew Anagnost, and WIRED Magazine's Emily Dreyfuss.

### AInnovators Summit with Salesforce and Accenture
03.14.2019
San Francisco, CA

AI is fundamentally changing the way we work and the way jobs will be shaped in the future. But as an enterprise leader, how do you find the signal amid all the noise of change? This event at the Salesforce headquarters in San Francisco, brought together thought leaders to discuss how AI can make the biggest impact in business, while also ensuring that AI creates a more equitable future for all.

### MIT Sloan CIO Symposium
05.22.2019
Cambridge, MA

Hundreds of thought leaders and practitioners gathered at the 2019 CIO Symposium to investigate the theme of "Leading the Smarter Enterprise." Panels of experts provided insight into the most critical issues and opportunities around the digitization of business.
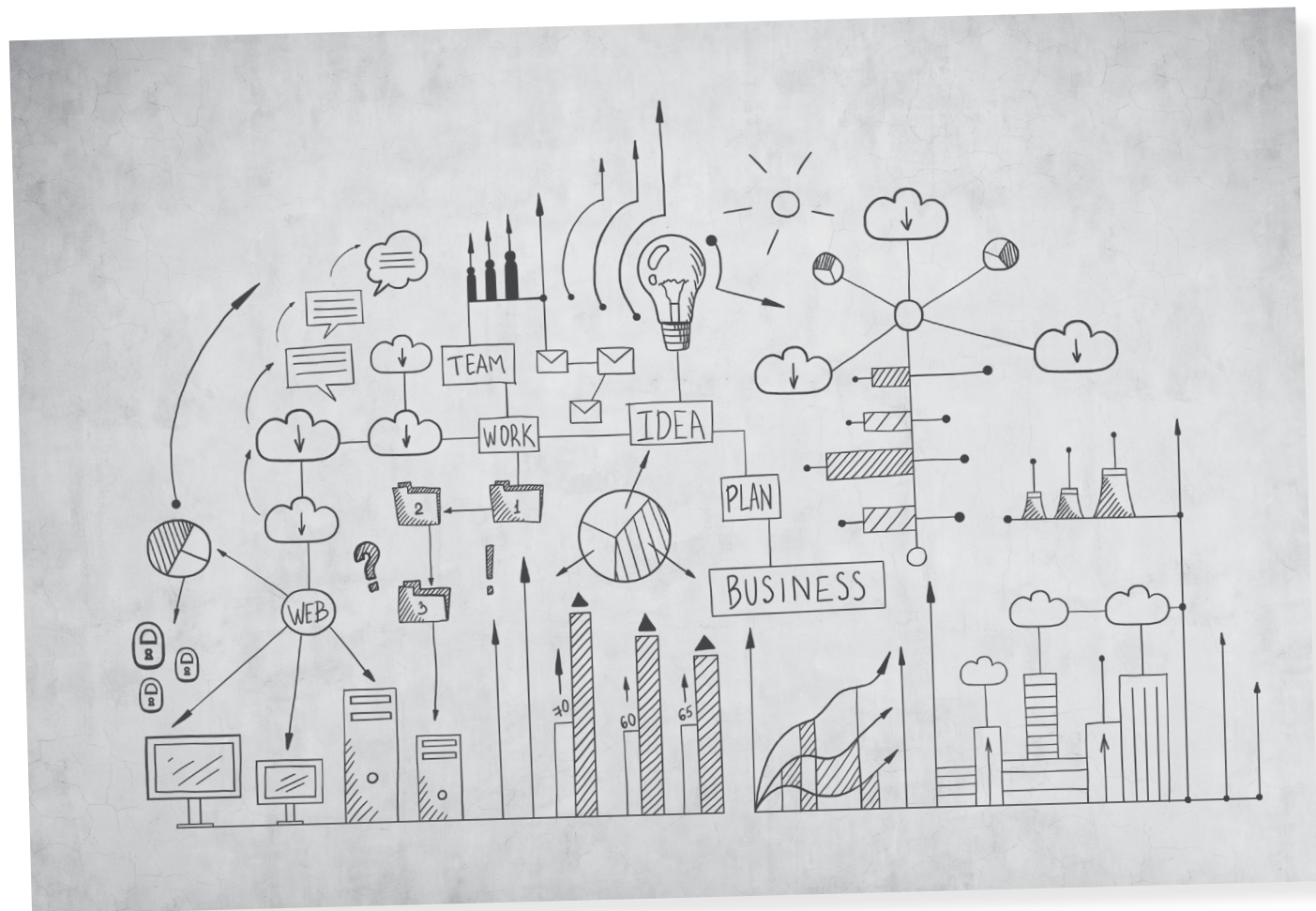
### Platform Strategy Summit
07.12.2019
Cambridge, MA

The IDE hosted the sixth annual workshop on platform-centered economics and management. We assembled a global community of executives to explore the economics and management of platform-centered markets and discuss their implications for managers, industry, and governmental policy. View the report at ide.mit.edu.

### IDE Annual Conference
05.23.2019
Cambridge, MA

The IDE Annual Conference is an unique opportunity for our stakeholders to hear our latest research results, discuss areas of focus going forward, and engage in dialogue with our researchers and each other. Our annual "drink from the firehose" event offered brief, TED-style presentations of our current research projects.

### Conference on Digital Experimentation (CODE)
11.1-2.2019
Cambridge, MA

The two-day Conference on Digital Experimentation (CODE) brought together leading researchers conducting and analyzing large-scale, randomized experiments in digitally mediated social and economic environments. The event attracted more than 200 attendees from various disciplines—including economics, computer science, and sociology—to gain better insights into human behavior. CODE hosted over 60 presentations, including a Fireside Panel on algorithms, transparency, and accountability

### MIT Inclusive Innovation Challenge Regional Celebrations
September - October 2019

The MIT IIC hosted celebrations in five geographical regions to accelerate the global future of work ecosystem. The events were held in: Toronto, Canada; Mexico City, Mexico; Darmstadt, Germany; Addis Ababa, Ethiopia; and Kaohsiung, Taiwan.

### MIT AI and the Work of the Future Congress
11.21.2019
Cambridge, MA

The IDE, along with the Computer Science and Artificial Intelligence Lab (CSAIL) and the Work of the Future Task Force, hosted the third annual MIT AI and the Work of the Future Congress. The event assembled thought leaders from academia and business, economists, and visionaries for an open dialogue about technology and its impact on work.

### MIT Inclusive Innovation Challenge Global Grand Prize Gala
11.22.2019
Cambridge, MA

At this invitation-only, capstone event, the IDE celebrated the 2019 IIC Global Finalist organizations from around the world and awarded a total of $1 million to four Global Grand Prize Winners. The gala culminated a year-long search for organizations that are reinventing the future of work today, and was attended by regional experts, academia, entrepreneurs, business leaders, funders, and media.

### MIT AI and the Work of the Future Congress UNCONFERENCE
11.21.2019
Cambridge, MA

Following the MIT AI and the Work of the Future Congress, the IDE and co-hosts CSAIL and the Work of the Future Task Force hosted our first Unconference. Nearly 100 Congress attendees, working in groups, defined the challenges they wished to tackle, shared and prioritized insights, selected delegates to report out their findings, and received real-time feedback from MIT faculty and alumni. The final summaries are being shared broadly by MIT in an effort to help guide the priorities of researchers, policymakers, and business leaders. View the report workofthefuturecongress.mit.edu.

### MIT Analytics Lab Final Presentations
12.13,.2019
Cambridge, MA

The MIT Analytics Lab offers an opportunity for IDE Stakeholders to submit projects and data to MIT graduate student teams that will use analytics, machine learning, and other methods of analysis to develop results that will diagnose, enable, or uncover solutions to real business issues and opportunities. The 2019 Final Presentations were held on December 13.



*Ananya Sen, IDE Postdoctoral Associate, shares his latest research at the IDE Annual Conference.*

## MIT IDE 2019 Seminar Series

Throughout the semester, noted speakers from academia and industry informally address the IDE community on their latest work. This year's seminars included:

**Tavneet Suri** MIT Sloan School of Management **Neil Thompson** MIT CSAIL and Harvard University / **Ben Jones** Northwestern Kellogg School of Management / **Gillian Hadfield** University of Toronto / **David Deming** Harvard Kennedy / **Chris Forman** Cornell University **Fiona Scott Morton** Yale University **César Hidalgo** MIT / **Sandy Pentland** MIT **Avinash Collis and Seth Benzell** MIT **Jean Tirole** IAST / **Susan Athey** Stanford **Oliver Hart** Harvard University / **Bengt Holmstrom and Zixia Sheng** MIT / **Sonny Tambe** Wharton School at University of Pennsylvania / **Wang Jin** MIT

## 2020 Events

Join us in 2020 for these IDE events:

### IDE Annual Conference
05.20.2020
MIT Media Lab, Cambridge, MA
bit.ly/IDEAC2020

### MIT Platform Strategy Summit
07.08.2020
MIT Media Lab, Cambridge, MA
platforms.mit.edu

### Conference on Digital Experimentation (CODE)
11.20-21.2020
Samberg Conference Center
Cambridge, MA
bit.ly/IDECODE2020

### MIT AI & the Work of the Future Congress
11.18.2020
bit.ly/MITWOTF

### IDE Seminar Series
Spring & Fall 2020
ide.mit.edu

### A-Lab 2020 Pitch Day
09.18.2020
Samberg Conference Center
Cambridge, MA
ide.mit.edu

What social and business benefits can we expect from a world saturated in data? A-Lab Teams seek the answers.



The winning team members are joined by judges Gary King, Kristina Lerman, Sandy Pentland, and Foster Provost, and A-Lab faculty, Erik Brynjolfsson and Abdullah Almaatouq.

This year's winning team was sponsored by Accenture. The MIT student team members were Abraham Eaton, Gabrielle Rappaport, Alexandru Socolov, and Nova Zhang.

**Rolling up their sleeves.** In A-Lab, student teams harness the power of analytics, machine learning, and other digital technologies.

MIT Analytics Lab (A-Lab), hosted by the IDE each fall semester, is part of MIT Sloan School of Management's suite of Action Learning offerings.

Student teams in A-Lab select and deliver projects that incorporate analytics, machine learning, and other digital technologies to solve real-world business problems. It is led by MIT IDE director Erik Brynjolfsson and the course co-instructor, MIT Sloan Assistant Professor, Abdullah Almaatouq.

This past year, 23 MBA student teams presented solutions at MIT's A-Lab Final Presentations. A panel of academic and business experts chose one winning team and two runners-up based on their project results and methodologies.

This year's winning team, sponsored by Accenture and Eaton Vance Management, applied analytics to predict " future M&A activity. Team members include Abraham Eaton, Gabrielle Rappaport, Alexandru Socolov, and Nova Zhang. Ravi Subrahmanyan and Thomas Stephens mentored the winning team.

The other exceptional teams represented the City of Dallas and Internacional Clinic in Peru. In the case of Dallas, the city is hoping to better anticipate and reduce fires in order to relieve its resource-constrained fire department. For the Peruvian healthcare system, the goal is more efficient patient care.

## A-Lab Judges

**Gary King**
Professor, Harvard University

**Kristina Lerman**
Research Professor, University of Southern California

**Sandy Pentland**
Professor, MIT

**Foster Provost**
Professor, New York University

## A-Lab Sponsors

**Accenutre**
**ISN**
**Nasdaq**
**Schneider Electric**

## A-Lab
2014-2019    **400** STUDENTS   **12+** MIT DEPARTMENTS   **110** WINNING PROJECTS

**Learning for a new generation.** Our digitally delivered executive education is equipping a new generation of principled leaders.

MIT Sloan's online executive education courses prepare leaders who recognize the power of technology to respect the human importance of "work."

IDE faculty and researchers taught a number of executive education courses 2019 including:

**Digital Marketing Analytics** Sinan Aral
**Machine Learning in Business** Sinan Aral, Erik Brynjolfsson, Sandy Pentland
**Digital Business Strategy: Harnessing Our Digital Future** Erik Brynjolfsson, Andrew McAfee
**Blockchain Technologies: Business Innovation and Application** Erik Brynjolfsson
**Internet of Things: Business Implications and Opportunities** Geoff Parker
**Artificial Intelligence: Implications for Business Strategy** Sandy Pentland
**Advanced Management Program** Renée Gosline
**Future Family Enterprise: Sustaining Multigenerational Success** Jonathan Ruane
**Executive Program in General Management** Michael Schrage

VIEW MORE ABOUT OUR ONLINE EDUCATION PROGRAMS AT EXECUTIVE.MIT.EDU

**Outstanding work.** IDE faculty and students continue to garner recognition from their peers and from organizations around the world. Here's a look at just a few of the awards our researchers won in 2019.

### Brynjolfsson Research Recognition

The LUT School of Business and Management chose IDE director, Erik Brynjolfsson, as the recipient of this year's Viipuri Prize for his strategic management and IT/economics research. The honor was awarded in June 2019 by the Society for Viipuri School of Economics (VITAKO) in Lahti, Finland, and is worth 10,000 euros.

### Thinkers50 Awards

MIT Sloan researchers were listed on the Thinkers50 biennial ranking of the leading management thinkers. Erik Brynjolfsson and Andrew McAfee ranked eighth on the 2019 list. Geoffrey Parker and Marshall Van Alstyne received a Thinkers50: Digital Thinking Award for their study of the inverted firm, which argues that value is increasingly created outside rather than inside the firm.

### Research Awards

Ananya Sen, assistant professor at Carnegie Mellon and former MIT IDE postdoctoral associate, was a co-author of the best paper awarded at the WISE 2019 Summit in Munich. The paper discussed how people perform in creative tasks (news editing) as compared to algorithms, and how algorithmic curation affects news consumption. WISE is an international forum for research on the economics of IT.
Read more at
bit.ly/AnanyaSen

### Dissertation Accolades

The winner and two honorable mentions were named by the 2019 Upjohn Institute Dissertation Award. Sydnee Caldwell, who received her PhD from MIT, won for her dissertation titled "Essays on Imperfect Competition in the Labor Market." Honorable mentions went to Sarah H. Bana, an MIT IDE postdoctoral associate, and Giulia Gioppo100, London School of Economics and Political Science." Read more at
bit.ly/SarahBana



*Marshall Van Alstyne and Geoffrey Parker open the 2019 MIT Platform Strategy Summit.*

### Platform Pioneers

MIT IDE Visiting Scholar Geoffrey Parker and Boston University's Marshall Van Alstyne, won Informs Best Paper award for Management Science in IS. The research provides a formal analysis of how platforms become the "social planners" for their ecosystems. The analysis helps address such questions as whether a firm should be open or closed, whether a firm should compete with its partners, and whether developers should prefer more open standards or more closed platforms. Read the paper at bit.ly/IDEIOPC

*Clockwise from top: Susan Young, Carrie Reynolds and Devin Cook at the 2019 MIT Inclusive Innovation Challenge Global Grand Prize Gala. / Graphical Facilitator Sita Magnuson of dpict at the 2019 Conference on Digital Experimentation (CODE) / Geoffrey Parker, Christie Ko, Marshall Van Alstyne, and Peter Evans at the 2019 MIT Platform Strategy Summit. / Christie Ko, Devin Cook, Susan Young, David Verrill, Carrie Reynolds, Shannon Farrelly, Jovi Koene at the 2019 MIT IDE Annual Conference. / David Verrill shows off the MIT Analytics Lab trophy.*

## The IDE team. We are enthusiastic supporters of research-based solutions for the digital economy.

# MIT Initiative on the Digital Economy

### Research Pillar Heads

**Erik Brynjolfsson** Director, IDE; Professor, MIT Sloan School of Management / **Andrew McAfee** Co-Director, IDE; Principal Research Scientist / **Alex "Sandy" Pentland** Professor, MIT Media Lab / **Sinan Aral** Professor, MIT Sloan School of Management

### Researchers

**Glen Urban** Professor, MIT Sloan School of Management / **Renée Gosline** Professor, MIT Sloan School of Management / **Michael Siegel** Principal Research Scientist, MIT Sloan School of Management **Roberto Rigobon** Professor, MIT Sloan School of Management / **David Autor** Professor, MIT Economics Department / **Catherine Tucker** Professor, MIT Sloan School of Management / **Scott Stern** Professor, MIT Sloan School of Management / **Neil Thompson** Research Scientist, MIT Sloan School of Management  & CSAIL / **Wang Jin** Research Associate, IDE / **Dean Eckles** Assistant Professor, MIT Sloan School of Management / **Christian Catalini** Assistant Professor, MIT Sloan School of Management **David Rand** Associate Professor, MIT Sloan School of Management / **John Van Reenen** Professor, MIT Sloan School of Management / **Daron Acemoglu** Professor, MIT Economics Department / **Mohammad Jalali** Research Scientist, MIT Sloan School of Management / **Georgia Perakis** Professor, MIT Sloan School of Management / **Jonathan Ruane** Research Scientist, IDE / **Erez Yoeli** Research Scientist, IDE **Amy Glasmeier** Professor, MIT Department of Urban Studies and Planning

### PhD Candidates and Postdoctoral Fellows

**Sarah Bana** / **Seth Benzell** / **Avinash Collis** **David Holtz**  / **Hadar Grader Ben Ari** **Mine Kansu** / **Wenjing "Rebecca" Lyu** / **Daniel Rock** **Morgan Frank** / **Alex Moehring** / **Zanele Munyikwa** **Jae-Joon Lee***** / **Zhen "Jeremy" Yang** **Xiupeng "Jeff" Wang** / **Georgios Petropoulos** **Korin Weinstok** / **Yuan Yuan** / **Michael Zhao** **Sebastian Steffen**

### Visiting Scientists

**Sarah Jaballah** Capgemini Consulting **Erik Metz** BASF

### Digital Fellows

**Tim Aeppel** Reporter, Reuters / **John Irons***** Future of Work Fellow, Center on Education and Skills at New America / **Allan Alter***** Strategist, Researcher / **Yannis Bakos** Associate Professor, New York University Stern School / **Sagit Bar-Gill** Assistant Professor, Tel Aviv University's Coller School of Management / **Matt Beane** Assistant Professor, Technology Management Program, University of California, Santa Barbara **Thomas Davenport** Professor, Babson College / **Alan Davidson** Digital Economy Director, U.S. Department of Commerce / **Andrey Fradkin** Assistant Professor, Boston University Questrom / **Joshua Gans** Professor, University of Toronto Rotman School of Management **Shane Greenstein** Professor Harvard Business School **Lorin Hitt** Professor, University of Pennsylvania Wharton School / **Yu Jeffrey Hu** Professor, Georgia Institute of Technology / **Xiang Hui** Assistant Professor, Washington University Olin Business School **Shan Huang** Assistant Professor, Foster School of Business at the University of Washington, Seattle / **Tod Loofbourrow** CEO, ViralGains / **Kristina McElheran** Assistant Professor, University of Toronto / **Christos Nicolaides** Assistant Professor, University of Cyprus **Geoffrey Parker** Professor, Tulane University A. B. Freeman School of Business / **Claudia Perlich***** Chief Scientist, Dstillery / **Michael Schrage** Visiting Fellow, Imperial College Department of Innovation and Entrepreneurship / **Sonny Tambe** Associate Professor, NYU Stern School of Business / **Marshall Van Alstyne** Questrom Professor in Management and Information Systems Department Chair, Boston University Questrom School of Business / **Irving Wladawsky-Berger** Professor, MIT Engineering Systems / **Lynn Wu** Assistant Professor, University of Pennsylvania **Ananya Sen** Assistant Professor, Carnegie Mellon University Tepper School of Business / **Daniela Scur** Assistant Professor, Cornell University Dyson School of Applied Economics and Management / **Paramveer Dhillon** Assistant Professor, University of Michigan **Erina Ytsma** Assistant Professor, Carnegie Mellon Tepper School of Business

### IDE Staff

**David Verrill** Executive Director / **Christie Ko** Associate Director / **Susan Young** Assistant Director  **Tammy Buzzell** Financial/Contract Administrator **Joanne Batziotegos** Finance Administrator  / **Devin Cook** Executive Producer, Inclusive Innovation Challenge / **Shannon Farrelly** Communications and Media Relations / **Paula Klein** Contributing Writer, Editorial Content Manager / **Adjovi Koene** Adminisrative Assistant II / **Carrie Reynolds** Program & Events Coordinator / **Naomi Stephen** Assistant to Erik Brynjolfsson / **Benn Egan** Sponsored Research Manager

**\* new faces at IDE**

*Attendees network at the MIT Inclusive Innovation Challenge 2019 Launch Event at the Autodesk Headquarters in San Fransisco.*

Thanks to your support, the results of our efforts are being increasingly shared and used to make an impact around the world.

# What's next? That's a great question.

In 2020, you'll learn more about the launch and global expansion of our groundbreaking measure of the digital economy through the GDP-B Index. You'll be able to search the impact of AI and ML on your city through the WorldSML app. You'll also meet new superstar faculty from the Sloan School as we broaden the footprint of the IDE. Engage with us throughout the year and beyond!

As always, our progress and impact are the direct result of your continued support. Thank you!

**David Verrill**
Executive Director
MIT IDE

**With gratitude.** We extend our thanks to the generous support from individuals, foundations, and corporations who make our mission possible.

### Advisory Board

**Carl Bass** Former President and CEO, Autodesk **Marc Benioff** CEO, Salesforce / **Reid Hoffman** CEO, Linkedin / **James Manyika** Director, McKinsey Global Institute / **Eric Schmidt** Technical Advisor, Alphabet / **Robert Solow** MIT Professor of Economics and Nobel Laureate **Michael Spence** NYU Professor of Economics and Nobel Laureate / **Mitchell Baker** Chairwoman and Co-Founder, Mozilla / **Mary Callahan Erdoes** CEO of Asset and Wealth Management, J.P. Morgan **Marissa Mayer** Co-Founder, Lumi Labs

### Foundations

**Ford Foundation** / **Google.org** / **JP Morgan Chase Foundation**\* / **Joyce Foundation** / **NASDAQ Foundation** / **Rockefeller Foundation** / **Ralph C. Wilson Jr. Foundation** / **TDF Foundation** **Walmart Foundation**

### Corporations

**Accenture** Founding Member / **Deutsche Bank** Founding Member / **3M** / **AI in Gov** / **Amazon.com** / **BASF**\* / **BenefitFocus** / **Boston Globe** / **Capgemini Consulting** / **Center for Global Enterprise**\* / **Dell** / **EMC** / **Deloitte Digital** **Gradus Management** / **Grant Thornton**\* / **IBM Watson** / **ING Group** / **IRC4HR** / **ISN** **JP Morgan Chase**\* / **KPMG**\* / **MassMutual** **Merck & Co.** / **Microsoft** / **Northwestern Mutual** **Nomura Research Institute** / **SAS** / **Schneider Electric** / **Suruga Bank** / **TDF Ventures** / **WeChat**

### Individuals

**Joseph Eastin** / **Wesley Chan** /**Aaron Cowen** **Steven A. Denning** / **Joe Eastin** / **Brad Feld & Amy Batchelor** / **Ellen and Bruce Herzfelder** **Ed Hyman** / **Gustavo Marini** / **Gustavo Pierini** **Eric and Wendy Schmidt** / **Jeff & Leisl Wilke** / and other individuals who prefer to remain anonymous

\* new to IDE

We invite you to connect, engage, and share ideas with other visionaries who are shaping the conversation about the digital economy and future of work. There are many ways that individuals and organizations can support the IDE to drive meaningful change and help shape the future economy. To learn more, visit ide.mit.edu.
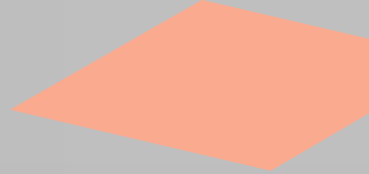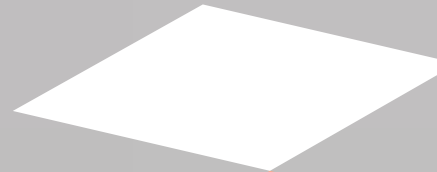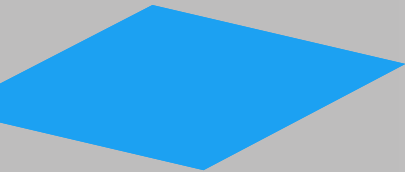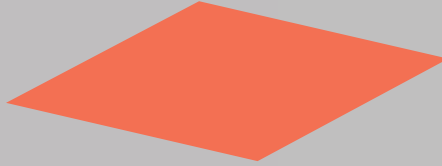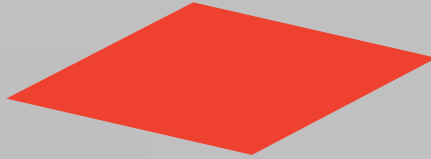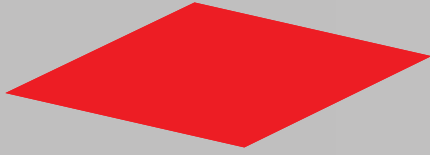
# MIT INITIATIVE ON THE DIGITAL ECONOMY

MIT Sloan School of Management
245 First St, Room E94-1521, Cambridge, MA 02142-1347