## 2019 MIT Work of the Future in London

## March 13, 2019 9:00 am - 5:00 pm

9:00am Registration

10:00am Welcome & Opening Remarks
Karl Koster
Executive Director, MIT Corporate Relations
Director, Alliance Management



Karl Koster
Executive Director, MIT Corporate Relations
Director, Alliance Management
MIT Office of Strategic Alliances & Technology Transfer

Karl Koster is the Executive Director of MIT Corporate Relations. MIT Corporate Relations includes the MIT Industrial Liaison Program and MIT Startup Exchange.

In that capacity, Koster and his staff work with the leadership of MIT and senior corporate executives to design and implement strategies for fostering corporate partnerships with the Institute. Koster and his team have also worked to identify and design a number of major international programs for MIT, which have been characterized by the establishment of strong, programmatic linkages among universities, industry, and governments. Most recently these efforts have been extended to engage the surrounding innovation ecosystem, including its vibrant startup and small company community, into MIT's global corporate and university networks.

Koster is also the Director of Alliance Management in the Office of Strategic Alliances and Technology Transfer (OSATT). OSATT was launched in Fall 2019 as part of a plan to reinvent MIT's research administration infrastructure. OSATT develops agreements that facilitate MIT projects, programs and consortia with industrial, nonprofit, and international sponsors, partners and collaborators.

He is past chairman of the University-Industry Demonstration Partnership (UIDP), an organization that seeks to enhance the value of collaborative partnerships between universities and corporations.

He graduated from Brown University with a BA in geology and economics, and received an MS from MIT Sloan School of Management. Prior to returning to MIT, Koster worked as a management consultant in Europe, Latin America, and the United States on projects for private and public sector organizations.

Steve Cunningham
Director of Leadership Learning & Talent, BT

Work of the Future: Hype, Reality and Unknowns Elisabeth B. Reynolds

Professor of the Practice, MIT Department of Urban Studies and Planning
Former Executive Director, MIT Task Force on the Work of the Future and IPC
Former Special Assistant to the President for Manufacturing and Economic Development



Elisabeth B. Reynolds

Professor of the Practice, MIT Department of Urban Studies and Planning
Former Executive Director, MIT Task Force on the Work of the Future and IPC
Former Special Assistant to the President for Manufacturing and Economic Development

Elisabeth B. Reynolds, Ph.D., is Professor of the Practice at the MIT Department of Urban Studies and Planning. She was Special Assistant to President Biden for Manufacturing and Economic Development at the National Economic Council (NEC, 2021-2022) where she helped lead the Administration's work on national manufacturing strategy, supply chain resilience, and industrial strategy. Before working at the NEC, Reynolds was a Principal Research Scientist and executive director of the MIT Industrial Performance Center (2010-2021), an interdisciplinary research center focused on systems of innovation and industrial transformation. She also co-led the MIT Task Force on the Work of the Future (2018-2021) which examined the relationship between emerging technologies and work. Reynolds' work and research focus on systems of innovation and manufacturing including growing innovative firms to scale and digital technology adoption.

Reynolds has worked on rebuilding manufacturing capabilities in the U.S. in a number of capacities including advising three Massachusetts governors. She is on the board of the non-profits, Advanced Functional Fabrics of America (AFFOA) and the Advanced Regenerative Manufacturing Institute (ARMI) as well as an advisor to the Special Competitive Studies Project, a Washington think tank focused on national security and critical technologies.

The remarkable innovations that imbue machines with human and superhuman capabilities are generating uncertainty and anxiety about the work of the future. Whether and how the current period of technological disruption differs from prior industrial epochs is a source of vigorous debate. But certainly there is an urgent sense of collective concern about how fast-moving technological innovations can be harnessed for social benefit. Dr. Elisabeth Reynolds discusses MIT's Work of the Future initiative and recent research on the relationship between technology, work and skills. She explores the lines between hype and reality, as well as gaps in our knowledge that future research should try to address.

Automation or Augmentation?
Rob McCargow
Director of Artificial Intelligence, PwC United Kingdom
Rob McCargow
Director of Artificial Intelligence
PwC United Kingdom

At PwC Rob works with partners across academia, government, technology vendors, startups, and other key stakeholders, in order to drive innovation within the Firm and develop new services for clients. He is an evangelist for responsible technology and promote awareness of the growing ethical agenda relating to Al. He is an advisory board member of the All-Party Parliamentary Group on Al, an adviser to The IEEE Global Initiative for Ethical Considerations in Al and Autonomous Systems. Rob will describe PwC's experiences in business and workforce transformation.

10:50am

Innovate in the corporate environment: From megatrends to business transformation Vincent Maret Innovation Director, Bouygues SA



Vincent Maret Innovation Director Bouygues SA

Vincent Maret is Open Innovation Director with Bouygues SA, where he focuses on open innovation, business development, and business transformation consulting across the whole group, with an emphasis on digital transformation, energy, and smartcities. Maret has experience as Marketing Manager, Deputy R&D Director with Bouygues Telecom, and previously as a Project Executive with IBM Global Services. He was the founder and CEO of the US Office of Bouygues Telecom (now Winnovation). Maret serves on the board of directors of Bouygues Asia, is also a board member of Cap Digital, serving as president of its Membership Committee, and sits on the board of ESPCI alumni. Maret is a graduate of ESPCI ParisTech with a master's in physics and a master's in chemistry and holds a master's in electronics from UPMC Paris.

This talk examines lessons learned at Bouygues, along with their implications and outcomes, including:

- Big corporations must re-invent themselves to survive in a dramatically changing ecosystem.
- The digital toolbox is changing our physical world/infrastructures.
- User experience is placed at the forefront of this evolution.
- Open innovation and agile methods are (a big) part of the answer.
- Methods have been developed from the inspiration of startups to help reinvent business proposals.
- Illustrative examples will be presented, such as "Innovate Like a StartUp," the Bouygues intrapreneurship program.

Professor of the Practice, MIT Department of Urban Studies and Planning
Former Executive Director, MIT Task Force on the Work of the Future and IPC
Former Special Assistant to the President for Manufacturing and Economic Development



Elisabeth B. Reynolds

Professor of the Practice, MIT Department of Urban Studies and Planning
Former Executive Director, MIT Task Force on the Work of the Future and IPC
Former Special Assistant to the President for Manufacturing and Economic Development

Elisabeth B. Reynolds, Ph.D., is Professor of the Practice at the MIT Department of Urban Studies and Planning. She was Special Assistant to President Biden for Manufacturing and Economic Development at the National Economic Council (NEC, 2021-2022) where she helped lead the Administration's work on national manufacturing strategy, supply chain resilience, and industrial strategy. Before working at the NEC, Reynolds was a Principal Research Scientist and executive director of the MIT Industrial Performance Center (2010-2021), an interdisciplinary research center focused on systems of innovation and industrial transformation. She also co-led the MIT Task Force on the Work of the Future (2018-2021) which examined the relationship between emerging technologies and work. Reynolds' work and research focus on systems of innovation and manufacturing including growing innovative firms to scale and digital technology adoption.

Reynolds has worked on rebuilding manufacturing capabilities in the U.S. in a number of capacities including advising three Massachusetts governors. She is on the board of the non-profits, Advanced Functional Fabrics of America (AFFOA) and the Advanced Regenerative Manufacturing Institute (ARMI) as well as an advisor to the Special Competitive Studies Project, a Washington think tank focused on national security and critical technologies.

Video Presentation Daniela Rus

Director, MIT Computer Science and Artificial Intelligence Laboratory (CSAIL)



Daniela Rus Director

MIT Computer Science and Artificial Intelligence Laboratory (CSAIL)

Daniela Rus is the Andrew (1956) and Erna Viterbi Professor of Electrical Engineering and Computer Science, director of MIT's Computer Science and Artificial Intelligence Laboratory. She brings deep expertise in robotics, artificial intelligence, data science and computation. She is a member of the National Academy of Engineering and the American Academy of Arts and Sciences, and a fellow of the Association for the Advancement of Artificial Intelligence, the Institute of Electrical and Electronics Engineer, and the Association for Computing Machinery. She is also a recipient of a MacArthur Fellowship, a National Science Foundation Career award, and an Alfred P. Sloan Foundation fellowship. Rus earned her PhD in computer science from Cornell University.

## View full bio

Daniela Rus will give a future view of where technology could take us in the future and the wider societal issues that will need to be resolved.

Noon

12:20pm

Lunch

1:20pm

What will motivation look like in the future?

Philip Stiles

University Senior Lecturer in Corporate Governance

Co-Director of the Centre for International Human Resource Management (CIHRM),

Cambridge Judge Business School

Philip Stiles

University Senior Lecturer in Corporate Governance

Co-Director of the Centre for International Human Resource Management (CIHRM)

Cambridge Judge Business School

Philip developed the Global Human Resource Research Alliance, a research group involving 30 companies worldwide - American Express, BAE Systems, BT, EDF, GE, General Mills, IBM, IKEA, Infosys, Matsushita, Oracle, Procter and Gamble, Rolls-Royce, SANYO, Sealed Air, Shell, Siemens, TCL, TNT, and Unilever. The project represents the most comprehensive worldwide research study in the subject. The contribution to knowledge has been to identify both innovative and best HR practices within companies, and to show how human capital integrates with key dimensions of social and organisational capital.

Philip is also engaged in work on corporate governance, focusing primarily on the dynamics of boards of directors. He was involved in research for the Higgs Review on the Effectiveness of Non-Executive Directors, and he is also involved in examining the nature of succession within companies, carried out in collaboration with an international headhunting organisation. He consults to a number of organisations in both the private and public sector, and is a member of the Cambridge Corporate Governance Network (CCGN).

Philip Stiles will talk about the nature of motivation as the nature of jobs changes.

1:40pm

Digital wellbeing in the workplace Monideepa Tarafdar Professor, <u>Lancaster University Management School</u> Monideepa Tarafdar Professor Lancaster University Management School

My doctoral degree is from the Indian Institute of Management, Calcutta. I joined Lancaster University in 2013. From 2003 to 2013, I was Asst /Assoc (tenured)/Full (tenured) professor at the University of Toledo, US. I have an undergraduate degree in Science and a graduate degree in telecommunications/electronics Engineering. Prior to my academic career, I worked as product engineer in the telecommunications equipment manufacturing sector.

My external appointments/fellowships inIclude Visiting Scholar/Research Affiliate at MIT Sloan CISR (since 2016), Lever Hulme Research Fellow, UK (2017-2018), and Visiting Professor at Indian Institute of Management Calcutta (since 2007). I serve as Senior Editor at Information Systems Journal, as Associate Editor at Information Systems Research, and as Editorial Review Board Member at Journal of the AIS and Journal of Strategic Information Systems.

Monideepa Tarafdar will discuss human capabilities needed for successful deployment of Al capability and digital wellbeing in the workplace.

2:00pm

Experiences of digitisation and major platform change – culture and skills Edward Jakeman

Director, Core Voice & All IP, BT

Edward Jakeman will talk about his experiences in managing technology change and employee involvement, culture and skills in the light of the massive transformation of BT's Voice Service platforms.

2:30pm

Afternoon Q&A

Philip Stiles University Senior Lecturer in Corporate Governance

Co-Director of the Centre for International Human Resource Management (CIHRM),

Cambridge Judge Business School

Philip Stiles

University Senior Lecturer in Corporate Governance

Co-Director of the Centre for International Human Resource Management (CIHRM)

Cambridge Judge Business School

Philip developed the Global Human Resource Research Alliance, a research group involving 30 companies worldwide - American Express, BAE Systems, BT, EDF, GE, General Mills, IBM, IKEA, Infosys, Matsushita, Oracle, Procter and Gamble, Rolls-Royce, SANYO, Sealed Air, Shell, Siemens, TCL, TNT, and Unilever. The project represents the most comprehensive worldwide research study in the subject. The contribution to knowledge has been to identify both innovative and best HR practices within companies, and to show how human capital integrates with key dimensions of social and organisational capital.

Philip is also engaged in work on corporate governance, focusing primarily on the dynamics of boards of directors. He was involved in research for the Higgs Review on the Effectiveness of Non-Executive Directors, and he is also involved in examining the nature of succession within companies, carried out in collaboration with an international headhunting organisation. He consults to a number of organisations in both the private and public sector, and is a member of the Cambridge Corporate Governance Network (CCGN).

2:50pm Networking Break

3:20pm Aviva (TBC)

3:40pm Knowledge Innovation Network

Steve Dale

Warwick University Business School

Steve Dale

Warwick University Business School

Steve Dale is a certified Knowledge Management specialist and facilitator/researcher for Warwick Business School's Innovation Network (KIN). KIN is a non-profit practitioners' network of large, predominantly blue-chip organisations, dedicated to sharing innovation and organisational learning practice. His current research focuses on the changing nature of work and the workplace through the introduction of 'Intelligent Automation' technologies such as AI and RPA.

Steve Dale will describe how AI and RPA can augment (but not replace) the skills and capabilities of the human workforce.

4:00pm Government initiatives in AI and the Future of Work in the UK

Simon Godfrey

Central Government, BT Enterprise

Closing Q&A Elisabeth B. Reynolds

Professor of the Practice, MIT Department of Urban Studies and Planning
Former Executive Director, MIT Task Force on the Work of the Future and IPC
Former Special Assistant to the President for Manufacturing and Economic Development



Elisabeth B. Reynolds

Professor of the Practice, MIT Department of Urban Studies and Planning
Former Executive Director, MIT Task Force on the Work of the Future and IPC
Former Special Assistant to the President for Manufacturing and Economic Development

Elisabeth B. Reynolds, Ph.D., is Professor of the Practice at the MIT Department of Urban Studies and Planning. She was Special Assistant to President Biden for Manufacturing and Economic Development at the National Economic Council (NEC, 2021-2022) where she helped lead the Administration's work on national manufacturing strategy, supply chain resilience, and industrial strategy. Before working at the NEC, Reynolds was a Principal Research Scientist and executive director of the MIT Industrial Performance Center (2010-2021), an interdisciplinary research center focused on systems of innovation and industrial transformation. She also co-led the MIT Task Force on the Work of the Future (2018-2021) which examined the relationship between emerging technologies and work. Reynolds' work and research focus on systems of innovation and manufacturing including growing innovative firms to scale and digital technology adoption.

Reynolds has worked on rebuilding manufacturing capabilities in the U.S. in a number of capacities including advising three Massachusetts governors. She is on the board of the non-profits, Advanced Functional Fabrics of America (AFFOA) and the Advanced Regenerative Manufacturing Institute (ARMI) as well as an advisor to the Special Competitive Studies Project, a Washington think tank focused on national security and critical technologies.

Closing Remarks Elisabeth B. Reynolds

Professor of the Practice, MIT Department of Urban Studies and Planning
Former Executive Director, MIT Task Force on the Work of the Future and IPC
Former Special Assistant to the President for Manufacturing and Economic Development



Elisabeth B. Reynolds

Professor of the Practice, MIT Department of Urban Studies and Planning
Former Executive Director, MIT Task Force on the Work of the Future and IPC
Former Special Assistant to the President for Manufacturing and Economic Development

Elisabeth B. Reynolds, Ph.D., is Professor of the Practice at the MIT Department of Urban Studies and Planning. She was Special Assistant to President Biden for Manufacturing and Economic Development at the National Economic Council (NEC, 2021-2022) where she helped lead the Administration's work on national manufacturing strategy, supply chain resilience, and industrial strategy. Before working at the NEC, Reynolds was a Principal Research Scientist and executive director of the MIT Industrial Performance Center (2010-2021), an interdisciplinary research center focused on systems of innovation and industrial transformation. She also co-led the MIT Task Force on the Work of the Future (2018-2021) which examined the relationship between emerging technologies and work. Reynolds' work and research focus on systems of innovation and manufacturing including growing innovative firms to scale and digital technology adoption.

Reynolds has worked on rebuilding manufacturing capabilities in the U.S. in a number of capacities including advising three Massachusetts governors. She is on the board of the non-profits, Advanced Functional Fabrics of America (AFFOA) and the Advanced Regenerative Manufacturing Institute (ARMI) as well as an advisor to the Special Competitive Studies Project, a Washington think tank focused on national security and critical technologies.