

# Future of Work at the Human-Technology Frontier: Fostering Reskilling, Upskilling, and Lifelong Learning

August 20, 2020 | 1:30 pm EDT  
Zoom Workshop

## About the Workshop

The National Science Foundation (NSF) seeks to understand the future of work at the human-technology frontier (FW-HTF) and develop useful, convergent research on human-technology partnerships. NSF's work will inform the design of new technologies to augment human performance, illuminate the emerging socio-technological landscape, understand the risks and benefits of new technologies (especially artificial intelligence) for workers, and foster lifelong learning. Workshop participants from industry, academia, non-profits, and government will work together to map the key issues and challenges created by rapid technological change and develop a framework for future collaboration.

Every discussion of new technologies in the workplace includes, in some way, a reference to the need for new skills, delivered in new ways, with far greater effectiveness than presently achieved. The increased rate of change and diffusion of new technologies places a new imperative on employers to substantially increase investment in worker training. Upskilling, in concert with technology investments, presents challenges to both the business and the worker. For example, access to discrete training locations is invariably limited, and existing credentials tend to be offered based on inflexible curricula. In practice, workers and employers need education and training orientated toward specific knowledge, competencies, and skills, delivered at a time and place that is seamlessly integrated into work schedules (schedules increasingly disrupted by technological change). How will workers identify the correct match between training offerings and employer needs? Can existing workforce institutions adapt? Can businesses and workers successfully negotiate the imperative for new skills given increased technological change? What are the implications for traditional institutions and methods of education and training? What new entities and modes for training are needed? How will credentials, credits, and skills be redefined, mixed, and packaged?

## Meeting Agenda

- 1:00 – 1:30 pm *Participants Log on*
- 1:30 – 1:35 pm *Welcome, Introductions, and Logistics*  
**Roland Stephen, PhD**, Director, Center for Innovation Strategy and Policy, SRI International
- 1:35 – 1:55 pm *NSF's Future of Work Big Idea: Fostering Reskilling, Upskilling, and Lifelong Learning*  
Presentation and Q&A  
**Karen A. Marrongelle, PhD**, Assistant Director, Education and Human Resources, NSF  
**Evan Keith Heit, PhD**, Director, Division of Research on Learning in Formal and Informal Settings, Directorate of Education and Human Resources, NSF, and Member, NSF FW-HTF Steering Committee

- 1:55 – 2:25 pm *Perspectives on Fostering Reskilling, Upskilling, and Lifelong Learning*  
Panelists will provide brief remarks [5-7 minutes each] on their views of the big issues facing society as change in work and the workplace accelerates.  
**Jeff Grann, PhD**, Credential Solutions Lead, Credential Engine  
**J. Kyle Dalpe, PhD**, Vice President, Instruction and Institutional Effectiveness, Western Nevada College  
**Chris Dede, EdD**, Timothy E. Wirth Professor in Learning Technologies, Harvard Graduate School of Education  
**Stefano Scarpetta, PhD**, Director, Employment, Labour, and Social Affairs, Organisation for Economic Co-operation and Development  
**Nicole Smith, PhD**, Research Professor and Chief Economist, Center on Education and the Workforce, Georgetown University
- 2:25 – 3:05 pm *Discussion on Fostering Reskilling, Upskilling, and Lifelong Learning*  
Facilitated Discussion with Panelists and NSF  
**NSF FW-HTF Steering Committee Members, Panelists**
- 3:05 – 3:55 pm *Breakout Sessions: Opportunities and Challenges in Fostering Reskilling, Upskilling, and Lifelong Learning*  
Facilitated breakouts with meeting participants  
**NSF and SRI International**
- 3:55 – 4:25 pm *Breakout Sessions Report Back*  
Implications of breakout session output for future investments by NSF  
**NSF FW-HTF Steering Committee Members**
- 4:25 – 4:30 pm *Wrap-up*  
**NSF**