

## Contributors

**Errol Arkilic** leads M34 Capital, a private investment firm that focuses on seed-stage investments in companies being spun out of academic and corporate research labs. Previously, he was the founding lead program director of the National Science Foundation I-Corps. Prior to his government service, he was founder and CEO of Strata-Gen Life Sciences. He has a PhD in Aero/Astronautics from MIT.

**Catherine Ashcraft** is director of research and a senior research scientist with the National Center for Women and Information Technology (NCWIT) at the University of Colorado, Boulder. Her research focuses on gender, diversity, and technology; organizational change and curriculum reform; and media representations and youth identity. She has an MA in organizational communication and a PhD in education from the University of Colorado.

**Leticia Britos Cavagnaro** is cofounder and codirector of the University Innovation Fellows program, an initiative of the Hasso Plattner Institute of Design (d.school) at Stanford University. She is also an adjunct professor at the d.school and was the deputy director of the NSF-funded National Center for Engineering Pathways to Innovation (Epicenter). She received a PhD developmental biology from Stanford's school of medicine.

**W. Bernard Carlson** is the Vaughan Professor of Humanities and chair of the Department of Engineering and Society, with a joint appointment in the Corcoran Department of History at the University of Virginia. He is the author of several books on the history of technology and entrepreneurship, including *Tesla: Inventor of the Electrical Age* (Princeton University Press, 2013). Carlson holds an AB from College of the Holy Cross and an MA and PhD from the University of Pennsylvania.

**Lisa D. Cook** is an associate professor of economics and international relations at Michigan State University. Her research interests include economic growth and development, financial institutions and markets, innovation, and economic history. She served as president of the National Economic Association from 2015 to 2016 and currently serves as codirector of the American Economic Association Summer Training Program. She holds a PhD from the University of California, Berkeley.

**Humera Fasihuddin** is cofounder and codirector of the University Innovation Fellows program, an initiative of the Hasso Plattner Institute of Design (d.school) at Stanford University. She founded the program after a decade of experience at a non-profit where she helped expand entrepreneurship and venture creation in academia. Her skills in building innovation movements come from seven years in industry and four years in economic development. She began her career with a liberal arts education at Smith College (mathematics, minor in economics) and expanded her interests in innovation at UMass Amherst (MBA).

**Maryann Feldman** is the Heninger Distinguished Professor in the Department of Public Policy at the University of North Carolina. Her research and teaching interests focus on innovation, technological change, and the commercialization of academic research. The author of *The Geography of Innovation* (Springer, 1994), her recent work explores emerging industries, entrepreneurship, and the process of regional transformation.

**Erik Fisher** is an associate professor in the School for the Future of Innovation in Society and the Consortium for Science, Policy, and Outcomes at Arizona State University. He also serves as the chair of the Human and Social Dimensions of Science and Technology PhD program. He is the editor-in-chief of the *Journal of Responsible Innovation*. Fisher studies the governance of emerging technologies from “lab to legislature.” He holds a PhD in environmental studies and an MA in classics from the University of Colorado, and a BA in liberal arts from St. John’s College.

**Benoît Godin** is a professor of science studies at the Institut national de la recherche scientifique in Montreal. His projects on the history of science and technology statistics and the intellectual history of innovation have produced many publications, including his books *Innovation Contested: The Idea of Innovation over the Centuries* (Routledge, 2015) and *Models of Innovation: The History of an Idea* (MIT Press, 2017). Godin holds a PhD in science studies from the University of Sussex.

**Jenn Gustetic** is the Small Business Innovation Research (SBIR/STTR) program executive at NASA and former assistant director of open innovation at the White House Office of Science and Technology Policy. She has worked with several governmental agencies to scale open innovation and entrepreneurial engagement as means of enrolling America’s innovators in technically innovative projects. Gustetic holds a BS in aerospace engineering from the University of Florida and an MS in technology policy from MIT.

**David Guston** is Foundation Professor and founding director of the School for the Future of Innovation in Society at Arizona State University, where he is also codirector of the Consortium for Science, Policy, and Outcomes. He is a fellow of the American Association for the Advancement of Science and holds a BA from Yale and a PhD from MIT.

**Eric S. Hintz** is a historian with the Lemelson Center for the Study of Invention and Innovation at the Smithsonian's National Museum of American History. He specializes in the history of invention and is currently working on a book that considers the changing fortunes of American independent inventors from 1900 to 1950, an era of expanding corporate R&D. He holds a BS in aerospace engineering from the University of Notre Dame and an MA and a PhD in the history and sociology of science from the University of Pennsylvania.

**Marie Stettler Kleine** is a doctoral candidate in Virginia Tech's Department of Science, Technology, and Society. Her research interests include the intersection of the social study of engineering, international development, and religion. She received a graduate certificate in the Interdisciplinary Graduate Education Program in Human Centered Design. She holds a BS in mechanical engineering and international studies from Rose-Hulman Institute of Technology and an MS in science and technology studies from Virginia Tech.

**Dutch MacDonald** is the director of BCG Platinion|MAYA Design, a digital innovation and engineering studio. Formerly, he was the president and CEO of MAYA, which was acquired by the Boston Consulting Group in 2017. He is a past president of the Pittsburgh chapter of the American Institute of Architects and serves on the board of the Carnegie Museum of Art. He holds a BArch from Carnegie Mellon University and has also studied at the École Polytechnique Fédérale de Lausanne and the University of Pittsburgh.

**Mickey McManus** is a senior advisor at BCG and is a visiting research fellow at Autodesk. A pioneer in pervasive computing, collaborative human/machine innovation, human-centered design, and education, he holds ten patents in the area of connected products, vehicles, and services. While chairman of MAYA he coauthored the award-winning book on the internet of things and beyond called *Trillions* (Wiley, 2012) and is currently working on his next book, code-named *Primordial: When Things Wake Up*.

**Sebastian Pfotenhauer** is an assistant professor for innovation research in the Munich Center for Technology in Society at the Technische Universität München. His research interests include innovation theory; national, regional, and institutional innovation strategies; and the governance of complex sociotechnical systems. He holds an MS in technology and policy from MIT and a PhD in physics from the Friedrich-Schiller-Universität in Jena, Germany.

**Natalie Rusk** researches and develops new technologies for learning at the MIT Media Lab. She is one of the creators of the Scratch programming language, which young people around the world use to code and share interactive animations, stories, and games. She initiated the Computer Clubhouse, which provides creative learning opportunities for youth in more than ninety community centers in twenty

countries. She earned a PhD in child development at Tufts and an EdM from the Harvard Graduate School of Education.

**Andrew L. Russell** is a professor of history and dean of the College of Arts and Sciences at SUNY Polytechnic Institute in Utica, New York. He is the author of *Open Standards and the Digital Age: History, Ideology, and Networks* (Cambridge University Press, 2014) and coeditor (with Robin Hammerman) of *Ada's Legacy: Cultures of Computing from the Victorian to the Digital Age* (ACM/Morgan & Claypool, 2015). With Lee Vinsel, he is a founder of the Maintainers, a global, interdisciplinary network of scholars and practitioners with interests in maintenance, infrastructure, repair, and the myriad forms of labor and expertise that sustain our human-built world.

**Lucinda M. Sanders** is cofounder and CEO of the National Center for Women and Information Technology (NCWIT), housed at the University of Colorado, Boulder. She held executive positions at AT&T/Bell Labs for over twenty years and was awarded the Bell Labs Fellow Award. She is a recipient of the 2013 U.S. News STEM Leadership Hall of Fame Award and holds six patents related to communications technology.

**Brenda Trinidad** is a doctoral candidate in human and social dimensions of science and technology at Arizona State University and a research assistant at the Center for Nanotechnology in Society. She has written on space tourism for Arizona State's Consortium for Science, Policy, and Outcomes and for *Slate.com*.

**Lee Vinsel** is an assistant professor of science, technology, and society at Virginia Tech. His work centers on the relationship between governance and technological change. His book manuscript *Taming the American Idol: Cars, Risks, and Regulations*, examines the history of auto regulation from the birth of the industry to the present. With Andrew L. Russell, he is a founder of the Maintainers, a global, interdisciplinary network of scholars and practitioners with interests in maintenance, infrastructure, repair, and the myriad forms of labor and expertise that sustain our human-built world. He earned a PhD in history from Carnegie Mellon University and held a postdoctoral fellowship at the Harvard Kennedy School.

**Matthew Wisnioski** is an associate professor of science, technology, and society and a senior fellow of the Institute for Creativity, Arts, and Technology at Virginia Tech. He is the author of *Engineers for Change: Competing Visions of Technology in 1960s America* (MIT Press, 2012). He is at work on a book titled *Every American an Innovator* that documents the rise of today's ubiquitous culture of innovation. He is also a critical participant in the NSF's Revolutionizing Engineering and Computer Science Department initiative at Virginia Tech. He received an MS in materials science and engineering from Johns Hopkins University and a PhD in history from Princeton University.