MIT Symposium on the History of Technology: Past, Present, and Future
Organized by the MIT Program in Science, Technology, and Society (STS)
Massachusetts Institute of Technology
Cambridge, MA
June 7-8, 2024

BIOS OF SPEAKERS

Ken Alder

Ken Alder was born under the sign of Sputnik. He was conceived at Bell Labs in Murry Hills, N.J. and raised near Berkeley, California. He received his Ph.D. in the History of Science from Harvard in 1991, but gratefully spent most of his graduate years at the STS program at MIT before it was a degree-granting program. He is currently Professor of History and Milton H. Wilson Professor in the Humanities at Northwestern University, where he is the founding director of the Science in Human Culture Program. He is the author of one novel and three books: *The White Bus* (1987), *Engineering the Revolution* (1997), *The Measure of All Things* (2002), and *The Lie Detectors* (2007).

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Gregory Clancey

Gregory Clancey is an Associate Professor in the Department of History, and the STS Cluster of the Asia Research Institute (ARI), both at the National University of Singapore (NUS). Clancey received his PhD in the Historical and Social Study of Science and Technology from MIT. He has been a Fulbright Graduate Scholar at the University of Tokyo, a Lars Hierta Scholar at the Royal Institute of Technology (KtH) in Stockholm, and an Honorary Visiting Professor at Nagasaki University. He has won three NUS teaching awards. Clancey's research centers on the cultural history of science & technology, particularly in modern Japan and East Asia. His book *Earthquake Nation: The Cultural Politics of Japanese Seismicity* (Berkeley: U. of California Press, 2006) won the Sidney Edelstein Prize from the Society for the History of Technology in 2007, and was selected as one of the "11 Best Books about Science" for the UC Berkeley Summer Reading List in 2009. He is co-editor of *Major Problems in the History of American Technology* (Boston: Houghton-Mifflin, 1998), *Historical Perspectives on East Asian Science, Technology and Medicine* (Singapore: Singapore U. Press & World Scientific 2002), and *The City as Target* (NY: Routledge,

2011). Clancey is the 2012 recipient of the Morison Prize from MIT for "combining humanistic values with effectiveness in the world of practical affairs, and in particular, in science and technology". He is currently heading a research project on the escalating use of animals in Asian 'traditional' medicines, and its effect on species conservation.

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Ruth Schwartz Cowan

Having retired twelve years ago from the Department of the History of Sociology of Science, at the University of Pennsylvania, Ruth Schwartz Cowan is now Janice and Julian Bers Professor Emerita. For the past decade, she has been writing (with Daniel J. Kevles and Peter Westwick) a 150-year contextual history of the National Academy of Sciences If the gods are kind, this book, tentatively titled, "The National Academy of Sciences in the American Democracy, 1863-2013," will be published in 2026 by Yale University Press. Within the discipline of history of technology, she is best known for *More Work for Mother: The Ironies of Household Technology from the Open Hearth to the Microwave* (Basic Books,1983) and for the two editions (the second, revised with the help of Matthew Hersch) of her textbook, *A Social History of American Technology* (Oxford, 1997, 2017). Unbeknown to many historians of technology, Ruth was originally trained as an historian of science; her doctoral dissertation (Johns Hopkins, 1969) focused on the history of genetics (particularly studies of human heredity) and its relationship to social movement called eugenics. She combined her knowledge of these subjects with her understanding of the history of technology in, *Heredity and Hope: The Case for Genetic Screening* (Harvard, 2008). Her remarks today will be based, in part, on her observations of how both these disciplines—history of technology and history of science--have evolved over the course of the past six decades.

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Colleen Dunlavy

Colleen Dunlavy is Professor Emerita of History at the University of Wisconsin-Madison. She received a B.A. in the History of Technology (independent major) at the University of California-Berkeley in 1980 and a PhD in Political Science (under the auspices of the STS Program) at M.I.T. in 1988. She taught the history of technology and business history (later, history of capitalism) in the Department of History at UW-Madison from 1987 to 2019. Her book *Politics and Industrialization: Early Railroads in the United*

States and Prussia (1994) was co-winner of the Thomas Newcomen Prize in business history. She has published a variety of articles on the history of shareholder voting rights and co-authored an article reassessing U.S. and German capitalism. Her study of the origins of standard sizes in the U.S.—*Small, Medium, Large: How Government Made the U.S. into a Manufacturing Powerhouse* (Polity Books)—will be released in the U.K. in September and in the U.S. in November. She is currently writing a history of the corporation in the U.S. for Polity Books.

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Deborah Fitzgerald

Deborah Fitzgerald is the [other] Cutten Professor, Head of the Program in Science, Technology and Society, and former Dean of the School of Humanities, Arts, and Social Sciences (2006-2015) at MIT. She is the author of *The Business of Breeding: Hybrid Corn in Illinois* (Cornell, 1990), and *Every Farm a Factory: The Industrial Ideal in American Agriculture* (Yale, 2003).

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Greg Galer

Greg Galer, Ph.D., Hon. AIA, HREDFP* is the Executive Director of the Association for Preservation Technology International. APT was formed in 1968 and now has members in 30 countries. They include the full spectrum of preservation specialists including architects, engineers, materials scientists and conservators to craftspeople such as restorations carpenters, masons, and decorative painters. APT promotes the best methods, materials, and research for protecting and evolving historic structures through publications (including a peer reviewed journal), educational programs, and an annual conference that draws to 1,000 from around the world. He previously served as Executive Director of the Boston Preservation Alliance where he impacted over $5 billion of Boston real estate development while engaging with local and national preservation policy. He impacted sites including National Historic Landmarks, skyscrapers, churches, bridges and Boston's famed CITGO sign and Fenway Park. His career spans the breadth of public history including historic preservation, collection management, object and paper conservation, museum exhibits, documentation of historic sites, and adaptation of historic structures to new uses. He currently lives in southwest Virginia. Greg holds a bachelor's degree from Brown University and completed his PhD with Roe Smith here in 2001.

*Historic Real Estate Development Finance Professional

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Daniel J. Kevles

Daniel Kevles has written about diverse subjects in science, technology, medicine, and society past and present. His works include *In the Name of Eugenics, The Baltimore Case, The Physicists,* and articles, essays, and reviews in scholarly and popular journals, among them *The New York Times*, the *New York Review of Books, The New Yorker,* and the *Times Literary Supplement*. From 1964 to 2001, he taught at the California Institute of Technology, then joined the history faculty of Yale University where he also taught as an adjunct in the Law School. Since retiring in June 2015, he has lived in New York City and has been affiliated with NYU Law School as a Visiting Interdisciplinary Fellow. His most recent works include *Heirloom Fruits of America: Selections from the USDA Pomological Watercolor Collection* (Heyday Press, 2021); "Novelties, Frauds, and Protection: The Seed and Nursery Businesses in Nineteenth-Century America," in Jose Bellido and Brad Sherman, eds., *Intellectual Property and the Design of Nature* (Oxford U. Press, 2023); and "The Establishment of Legal Electrical Standards, 1881-1897: The United States and the International Negotiation of the Ohm, Ampere, Volt, Watt, and Henry," in Jed Buchwald and Stefano Gattei**,** eds., [a memorial volume for John Heilbron], (Springer, forthcoming). He is currently working on a history of innovation, ownership, and the stuff of life from the Anglo-American colonial period to the present.

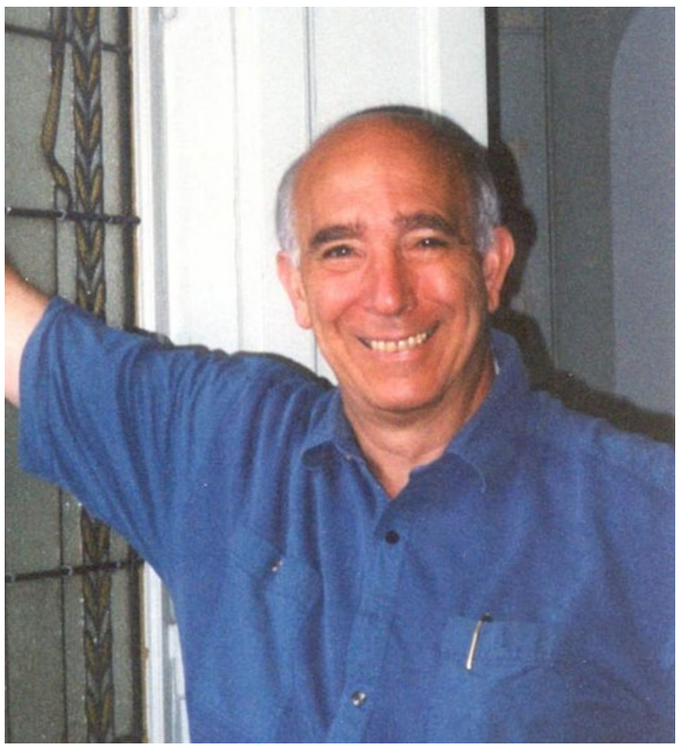

Photo credit: Bettyann Kevles

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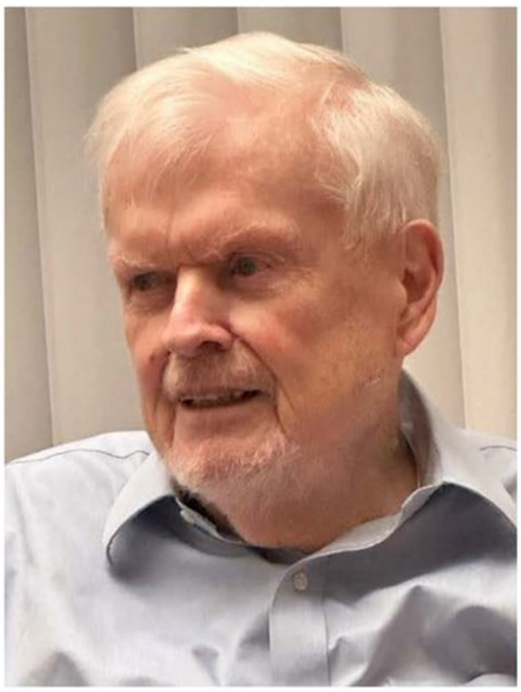
David Lucsko

Dave Lucsko is Professor of History at Auburn University, where he teaches history of technology survey courses as well as classes in the history of manufacturing, waste management, and transportation. He is delighted to be back in the classroom after serving two terms as department chair. He is the author of *The Business of Speed* (JHUP, 2008), and *Junkyards, Gearheads, and Rust* (JHUP, 2016).

Victor McElheny

Victor McElheny, affiliate of MIT's STS Program since 1998, headed the Phillips Exeter Academy student newspaper in its 75th year, 1952-53. On the Harvard Crimson, he covered a 1955-56 federal trial involving Sen. Joseph McCarthy. On the Charlotte N.C., Observer in 1957-63, he covered science in Antarctica, research at the atomic city of Oak Ridge, oceanography in North Carolina, and weather research. As a Nieman Fellow at Harvard in 1962-63, he studied economic development and attended the first UN conference on science for developing nations, in Geneva. From Stockholm, he reported on science in Swedish industry in 1963-64. As the first European correspondent of *Science* in 1964-67, based in London, he also covered technology in Israel, biology in Czechoslovakia, and nuclear power development in India. As science editor of the Boston Globe in 1966-72, he covered the Apollo moon missions, astronomy, and advances in molecular biology. At Polaroid Corporation in 1972, he wrote a 200-page lay-language description of Edwin Land's SX-70 camera and film system of instant photography. In 1973 to 1978, McElheny was the technology reporter of the New York Times, starting a weekly technology column for the Business section and covering the birth of "recombinant DNA," policy for energy and communications, explosive expansion in the semiconductor industry, and New York's electricity blackout of 1977. As inaugural director of the Banbury center of Cold Spring Harbor Laboratory in 1978-82, he organized 20 conferences on environmental influences on cancer, publishing the proceedings of 12, and held briefings for news organizations and Congressional staff. From 1982 to 1998, he was inaugural director of MIT's Knight Science Journalism Program of one-year mid-career fellowships and frequent short courses, now concluding its 41st year. He helped secure funds to start, continue, and endow the MIT program. With Sloan Foundation support, he has published biographies of Edwin Land and James Watson, and a general history of the Human Genome Project.



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David A. Mindell

David Mindell, PhD, is Professor of Aeronautics and Astronautics, and Dibner Professor of the History of Engineering and Manufacturing at the Massachusetts Institute of Technology. David has spent more than three decades researching the myriad relationships between people and machines and innovating to improve them. He served as an MIT department head for five years, has led or contributed to more than 25 oceanographic expeditions, and is an inventor on 34 patents for autonomous aircraft, precision navigation, and human-robotic collaboration. He is the author of six books, including *Our Robots, Ourselves: Robotics and the Myths of Autonomy* (2015), *Digital Apollo: Human and Machine in the First Six Lunar Landings* (2008), *Between Human and Machine: Feedback, Control, and Computing Before Cybernetics* (2000), and *The Work of the Future: Building Better Jobs in an age of Intelligent Machines* (2022, with E. Reynolds and D. Autor). David is an Associate Fellow of the American Institute of Aeronautics and Astronautics, and a Senior Member of the IEEE. He is Co-founder and Executive Chairman of Humatics Corporation and partner of Unless, which is revitalizing US industry around decarbonization and equitable work.

Peter C. Perdue

Peter Perdue is Professor of History Emeritus at Yale University. He is the author of *Exhausting the Earth: State and Peasant in Hunan, 1500-1850 A.D.* (1987), *China Marches West: The Qing Conquest of Central Eurasia* (2005), *Environmental History: Its Origins and Prospects* (in Chinese) (2019), and the coeditor of *Imperial Formations* (2007) and *Shared Histories of Modernity: China, India, and the Ottoman Empire* (2008). He has co-authored *Global Connections*: *Politics, Exchange, and Social Life in World*

History (2015), and *Asia Inside Out*, three volumes on inter-Asian connections (2015 - 2019), and the website visualizingcultures.mit.edu.

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Rebecca Perry

Dr. Rebecca Perry leads training and development for Lux Machina Consulting. During the pandemic she worked for Epic Games and helped shape an innovative, global, zoom-based education program for filmmakers. She has been a visual journalist for *The New York Times* and *The Los Angeles Times*, has taught the History of Computer Graphics at the University of Virginia and has worked with 3D scanning for the Smithsonian. Her research interests are centered on the histories of computer graphics, visual effects, and film production as reflected in the communities, cultures, tools and practices of 21st century builders of imagined worlds. Rebecca is currently a researcher on a generative AI project, led by Professor Sherry Turkle.

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Jamie Pietruska

Jamie Pietruska is Associate Professor of History at Rutgers University-New Brunswick and a graduate of MIT's Program in History, Anthropology, and STS, where she was very fortunate to have Roe Smith as her dissertation advisor and Deborah Fitzgerald on her committee. Her research focuses on technoscience and knowledge production in the 19th- and early 20th-century United States, specifically on how information networks and bureaucracies relate to the epistemologies of the everyday. Her first book, *Looking Forward: Prediction and Uncertainty in Modern America* (University of Chicago Press, 2017), is a history of forecasting that examines how the routinized predictions of everyday life functioned as new forms of knowledge and tools for risk management as late nineteenth and early twentieth-century Americans came to believe in the promise and accept the limitations of predicting the future. She is currently researching a book project titled "Data Driven: Information and Investigation in the Late Nineteenth- and Early Twentieth-Century United States" that explores the historical tension between data imaginaries and data practices.

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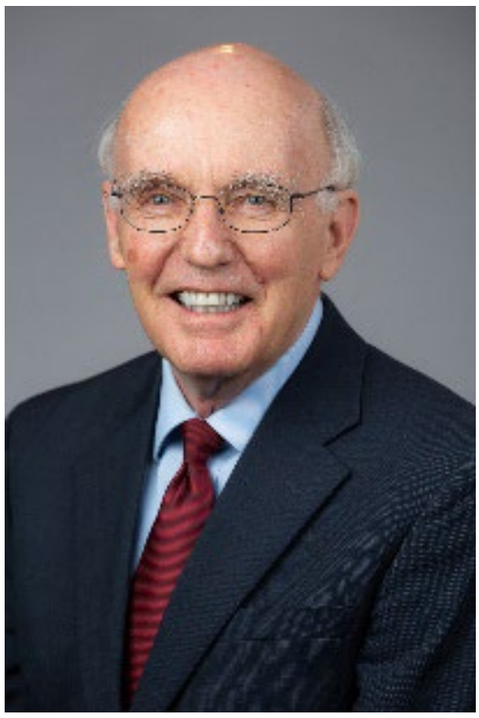
Alex Roland

Alex Roland is Professor History Emeritus at Duke University. He specializes in the history of technology and military history. His most recent books are *War and Technology: A Very Short Introduction* (New York: Oxford University Press, 2016) and *Delta of Power: The Military-Industrial Complex* (Baltimore: Johns Hopkins University Press, 2021), the latter in the SHOT/JHUP series "Technology in Motion." He is a past Secretary and President of SHOT and the 2023 recipient of the society's da Vinci Medal.



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Edmund Russell

Edmund Russell is the David M. Roderick Professor of Technology and Social Change, and professor of history, at Carnegie Mellon University. He has won the Edelstein Prize and Bernard Finn-IEEE Prize from SHOT, as well as prizes in environmental history and history of science. His books include *Evolutionary History* and *War and Nature*. He is past president of the American Society for Environmental History.

Merritt Roe Smith

Roe Smith is the Leverett and William Cutten Professor of the History of Technology at MIT. His primary research and teaching interest is American industrialization, particularly the role of the military as a catalyst of technological change. He is the author or editor of seven books, the most recent being *Reconceptualizing the Industrial Revolution* (MIT Press, 2010) and *Inventing America: A History of the United States* (2nd ed., W. W. Norton, 2006). He is currently working on a volume about technology and its implications during the American Civil War. His book, *Harpers Ferry Armory and the New Technology* (Cornell UP, 1977), received numerous honors, including the Frederick Jackson Turner Award (Organization of American Historians), the Pfizer Award (History of Science Society), and nomination for the Pulitzer Prize in History. He is an elected fellow of the American Academy of Arts and Sciences, the American Association for the Advancement of Science, and the Massachusetts Historical Society. Other recognitions include the Margaret MacVicar Faculty Fellowship (MIT), the Arthur C. Smith Award (MIT), the Levitan Teaching Award (MIT), an honorary guest professorship at Kanazawa Institute of Technology (Japan), an honorary doctorate from Rensselaer Polytechnic Institute, a Regents Fellowship from the Smithsonian Institution, a Guggenheim Fellowship, a Senior Fulbright Scholarship (Sweden), and a Thomas Newcomen Fellowship at the Harvard Business School. Professor Smith is a past president of the Society for the History of Technology from which he received the Leonardo da Vinci Medal, the Society's highest honor.

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Dave Unger

Dave Unger is a public historian with a focus on helping people imagine and build a better world. He has a background in museum exhibitions, education, and leadership and has worked at the American Textile

History Museum in Lowell, the Museum of History and Industry in Seattle, WA, and the Collection of Historical Scientific Instruments at Harvard University. Dave is currently helping a variety of organizations and museums tell transformative stories through exhibits, education programs, and interactive media. You can learn more about his work at daveunger.info .

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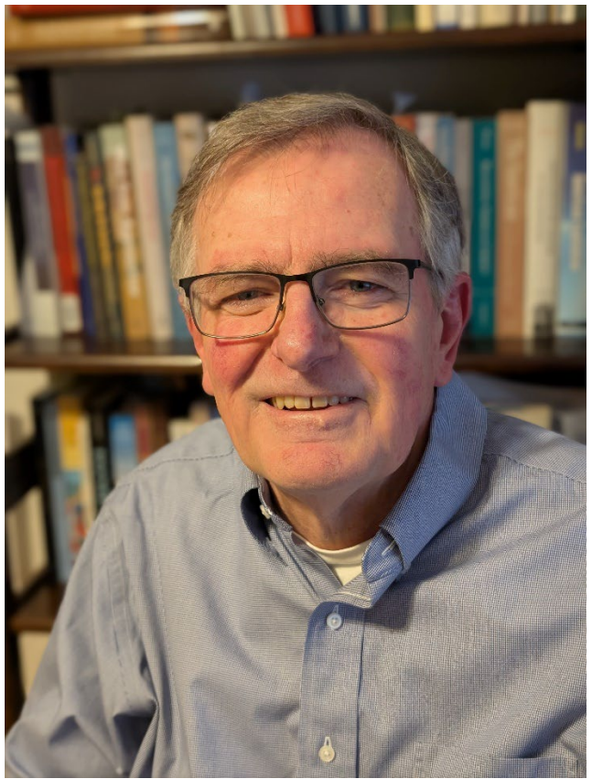
Steven Usselman

Steve Usselman is Professor of History and McEver Professor of Engineering and the Liberal Arts (Emeritus) at the Georgia Institute of Technology. His teaching and research have focused on technology, policy, and the evolution of American industries. In 2007-2008, he served as SHOT President.



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Timothy S. Wolters

Tim Wolters is a graduate of Notre Dame (B.A.), Maryland (M.A.), and MIT (Ph.D.). He is an associate professor of history at Iowa State University in Ames, where he teaches various courses in the history of technology and in military/naval history. He is the author of *Information at Sea* (Johns Hopkins University Press, 2013), and has published articles in *Technology and Culture*, *Enterprise and Society*, and the *Journal of Military History*. His current book manuscript, finally nearing completion, is a global history of shipboard navigational technology from sounding weights through the adoption of radio navigation in the early twentieth century. Before becoming a historian, Prof. Wolters was a submarine-qualified, U.S. Navy nuclear engineer.

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