First Annual Conference on

Governance of Emerging Technologies:
Law, Policy and Ethics

PROGRAM

7:30–8:30 a.m.  
Check-in and continental breakfast

8:30–8:45 a.m.  
Welcome  
Doug Sylvester, Dean, Sandra Day O’Connor College of Law, Arizona State University  
Jason Robert, Interim Director, Lincoln Center for Applied Ethics, Arizona State University

8:45–9:15 a.m.  
Opening Keynote Address  
Technology Innovation and the New Social Responsibility  
Andrew Maynard, University of Michigan

9:15–10:30 a.m.  
The Challenges and Opportunities in Governance of Emerging Technologies  
Session Chair, Gary Marchant, Arizona State University  
• Title TBA  
  Sally Tinkle, Science and Technology Policy Institute  
• Title TBA  
  Dietram A. Scheufele, University of Wisconsin  
• Policy Opportunities in the Global Crisis Being Created by AI, Robots, Desktop Manufacturing and BioMedicine  
  James Hughes, Institute for Ethics & Emerging Technologies

10:30–10:45 a.m.  
Coffee break

10:45 a.m.–12:45 p.m.  
Concurrent Session A

A.1 – Military Technologies  
Session Chair, Brad Allenby, Arizona State University  
• Emerging Military and Security Technologies and the Laws of War  
  Brad Allenby, Arizona State University  
• Engineering for Responsibility  
  Wendell Wallach, Yale Interdisciplinary Center for Bioethics  
• Ethical, Legal and Policy Issues in Military Genomics  
  Max Mehlman, Case Western Reserve University  
• Clearing Up the Fog in the Fifth Dimension: Regulating Cyber-warfare  
  Brian Orend, University of Waterloo  
• Guerrilla Science and Blitzkrieg Technology: Military Theories for Governing Emerging Technologies  
  Michael Burnham-Fink, Arizona State University
A.2 – Public Engagement and Risk: Synthetic Biology
Session Co-Chairs – Diana Bowman, University of Michigan, and Andrew Maynard, affiliation?

• Living the Global Social Experiment: An Analysis of Public Discourse on Solar Radiation Management and its Implications for Governance
  Phil Macnaghten, University of Campinas and Durham University

• Exploring Genome Editing: Actors, Arenas, and Attitudes Towards Governance
  Jennifer Kuzma and Aliya Kuzhabekova, University of Minnesota

• Beyond the Lab and Far Away: Immediate and Future Challenges in Governing the Bio-economy
  Todd Kuiken and Eleonore Pauwels, Woodrow Wilson Center

• Challenges for Public Engagement About the Ethics of Synthetic Biology
  Gregory Kaebnick and Michael Gusmano, The Hastings Center

• Synthetic Biology Practices at SynBERC
  Megan Palmer and Drew Endy, Stanford University

A.3 – New Tools for Governing Emerging Technologies
Session Chair – TBA

• In Pursuit of Third Generation Human Rights with Fourth Generation Technologies
  Hans Somsen, Tilburg University

• Federal Regulation of Robotic Aircraft
  Timothy Takahashi, Arizona State University

• The Invisible Handoff: Policy Issues along the Research to Deployment Continuum
  David Bjornstad, Amy Wolfe, Barry Shumpert and Maria Fernanda Campa, Oak Ridge National Laboratory

• Methodologies in Regulating Emerging Technologies and a Proposal for the Future
  Victoria Sutton, Texas Tech University

• Convergent Governance Principles & Stakeholder Capitalism
  Alan Singer, Appalachian State University

12:45–1:30 p.m. Lunch (boxed lunches provided)

1:30–3:10 p.m. Responsible Innovation
Session Chair – David Guston, Arizona State University?

• Governing Intent: Responsible Innovation and the Politics of Geoengineering
  Jack Stilgoe, University College London

• Governance of Financial Innovation and Perceptions of Responsibility: Insights from an Ethnographic Case Study
  Keren Asante and Richard Owen, University of Exeter Business School
Democratic Theory and Epochal Technologies: The Case of 3D Printing
Edward Woodhouse, Rensselaer Polytechnic Institute

The Collision of Incentive Structures of Actors and Proposed Mechanisms for Responsible Research and Innovation
Clare Shelley-Egan, Universiteit Twente, and Douglas Robinson, TEQNODE Limited; Université Paris-Est, LATT-S-IFRIS

3:10–3:30 p.m. Coffee break

3:30–5:30 p.m. Concurrent Session B

B.1 – Smarter Medicine
Session Chair – Gary Marchant, Arizona State University

Immunosignaturing: Towards Comprehensive, Consumer-based, Health Monitoring
Neal Woodbury, Arizona State University

International Governance Approaches to Whole Genome Sequencing
Rebecca Boxhorn and Susan Wolf, University of Minnesota

Liability Drivers and Impediments to Individualized Medicine
Rachel Lindor and Gary Marchant, Arizona State University

The Emerging Enterprise of Mobile Health Technology: Ethical Considerations in the Age of the Smartphone
Tsoni Tesfaye, Young Invincibles, and Donna Hanrahan, Columbia University

The Role of Informal Data Aggregated from Social Media Platforms in Disease Surveillance and Epidemiological Research
Donna Hanrahan, Columbia University

B.2 – Nanotechnology
Session Chair – TBA

Ground Control: Linking Top-Down and Bottom-Up Approaches for International Nanotechnology Governance
Rider Foley, Youngjae Kim and Michael Bernstein, Arizona State University

The Role of Social Responsibility in Leading Nano-Scientists’ Perceptions About Nanotech Research and Regulation
Youngjae Kim, Arizona State University, Elizabeth A. Corley, and Dietram A. Scheufele AFFILIATION?

Towards Regulating Engineered Nanomaterials: A Framework as a Tool for Overcoming the Existing Limitations
Kiril H. Hristovski, Arizona State University

Beefing Up FDA Oversight of Nano-Sunscreens and Nano-Cosmetics
Robin Fretwell Wilson, Washington and Lee University School of Law
- Evidence-based Regulation of Food Nanotechnologies: A Perspective from the European Union and United States
  Diana Bowman, University of Michigan

**B.3 – The Digital World**

Session Chair – Joshua Abbott, Arizona State University

- Complying with Facebook's Terms of Use in Academic Research: A Contractual, Regulatory, and Ethical Perspective on Data Mining
  Lauren Solberg, University of Florida

- Ubiquity, Interrupted? A Comparison of European, Chinese, and U.S. Governance of the Internet of Things as an Emerging Technology
  Mailyn Fidler, Stanford University

- Anticipatory Gaming: Governing Emerging Technologies through Digital Media
  Jesse Shedd, Arizona State University

- Implications of the Proliferation of In-the-Body Technologies
  Joseph Carvalko, AFFILIATION?

- Securing the Internet of Things
  Joshua Abbott, Arizona State University

---

5:30–6:30 p.m. Break

6:30–7 p.m. Dinner

7–7:45 p.m. Introduction of Dinner Speaker

**Novel Governance & Technology Strategies for BioSafety & Sharing Genomic/Brain Data**

Mildred Z. Solomon, The Hastings Center

**Dinner Speaker**

George Church, Harvard University

7:45–9 p.m. The Big Picture on Synthetic Biology and Emerging Technologies

Session Chair – Wendell Wallach, Yale Interdisciplinary Center for Bioethics

- Potential EPA Implications for Environmental Release of Synthetic Organisms
  Peter Jutro, U.S. Environmental Protection Agency

- Engaging the Public Through Personal Genetics
  Ting Wu, Harvard University

- Designing a “Solution-Focused” Governance Paradigm for Synthetic Biology
  Adam Finkel, University of Pennsylvania

- Governance of Emerging Technologies: Lessons from the Decade of Nano
  Christopher Bosso, Northeastern University
7:30–8:30 a.m.  Check-in and continental breakfast

8:30–10 a.m.  Neuroscience: The Next Big Emerging Technology?
Session Chair – Jennifer Kuzma, University of Minnesota
- The White House Neuroscience Initiative: Policy as Embodied Action
  Philip Rubin, White House Office of Science and Technology Policy
- The Neurolaw Revolution
  Adam Kolber, Brooklyn Law School
- Public (Mis)understanding of Transcranial Direct Current Stimulation as a Cognitive Enhancer
  Laura Cabrera and Peter Reiner, University of British Columbia
- The Future of Brain-Based Lie Detection: Beyond the Courtroom
  Francis Shen, University of Minnesota Law School

10–10:15 a.m.  Coffee break

10:15 a.m.–12:15 p.m.  Concurrent Session C
C.1 – New Approaches for Governing Emerging Technologies
Session Chair – TBA
- The Case for Adaptation in the Governance of Emerging Technologies
  Marc Saner, University of Ottawa
- Regulatory Competitive Shelters—An Emerging Mechanism for Encouraging Technological Innovation
  Yaniv Heled, Georgia State University College of Law
- Coding International Law
  Molly Land, New York ??? Law School
- Governing the Governance of Emerging Technologies
  Gary Marchant, Arizona State University, and Wendell Wallach, Yale Interdisciplinary Center for Bioethics
- Patent Law’s Neglect of the Extraordinary Role of the Ordinary User in Disseminating Technologies
  Gaia Bernstein, Seton Hall University
C.2. – Smart Machines
Session Chair – TBA

• *The Machine Question: Can Machines Have Rights?*
  David J. Gunkel, Northern Illinois University

• *Assuring Privacy and Security in Vehicle-to-Vehicle Safety Communications*
  Dorothy Glancy, Santa Clara University

• *The Ethical and Social Ramifications of Rossler’s Blueprint for Making Benevolent Robots*
  Kevin LaGrandeur, NYIT & IEET

• *Compliance Measures for an Autonomous Weapons Convention*
  Mark Gubrud, Princeton University

• *The “Bright Green Line” of Responsibility*
  Mark Waser, Digital Wisdom Institute

C.3 – Life Sciences Innovation
Session Chair – TBA

• *Policy Uncertainty, Ethical Controversy and Emerging Technologies: Lessons from the Funding of Stem Cell Science*
  Aaron Levine, Georgia Institute of Technology

• *From Lab Bench to Fuel Pump: Policy Implications in the Development of Lignocellulosic Biofuels*
  Maria Fernanda Campa, David Bjornstad, Amy Wolfe and Barry Shumpert, Oak Ridge National Laboratory

• *Different Risk, Different Name?: The Debate over Assignment of Nonproprietary Names for Biosimilar Biologics*
  Jordan Paradise, Seton Hall University

• *Privatizing Biomedical Citizenship*
  Jonathan Kahn, Hamline University School of Law

• *Leveraging the New Predictive Toxicology Paradigm in Evaluating Emerging Technology*
  Elizabeth Beryt and Timothy Malloy, UCLA

12:15–12:45 p.m. Lunch

12:45–1:30 p.m. Luncheon Speaker
*Title TBA*
George Poste, Arizona State University

1:30–2 p.m. Informal discussion and conference follow-up