Fifth Annual Conference on
Governance of Emerging Technologies: Law, Policy and Ethics

May 17-19, 2017
Beus Center for Law and Society | Phoenix, AZ

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8:00–8:30 a.m.  Breakfast
  W. P. Carey Foundation Armstrong Great Hall

8:30–9:00 a.m.  Welcome & Opening Address
  W. P. Carey Foundation Armstrong Great Hall
  • Gary Marchant, Sandra Day O’Connor College of Law, Arizona State University
  • Brad Allenby, School of Sustainable Engineering and the Built Environment, Arizona State University

9:00–10:15 a.m.  Plenary Session 1
  Emerging Technologies and Existential/Catastrophic Risks
  W. P. Carey Foundation Armstrong Great Hall
  Moderator: James Weinstein, Sandra Day O’Connor College of Law, Arizona State University
  • Anthony Barrett, Global Catastrophic Risk Institute
  • Haydn Belfield, Centre for the Study of Existential Risk, University of Cambridge
  • Margaret E. Kosal, Sam Nunn School of International Affairs, Georgia Institute of Technology
  • Catherine Rhodes, University of Cambridge

10:15–10:30 a.m.  Break

10:30 a.m.–12:00 p.m.  Concurrent Session 1

10:30 a.m.–12:00 p.m.  Concurrent Session 1
  Session 1: New Perspectives on Precaution
  Room 150
  Moderator: Daniel Bodansky, Sandra Day O’Connor College of Law, Arizona State University

  1. Precaution, Risk and Provisionality
     Jonathan B. Wiener, Duke University Law School

  2. Precaution and Cost-Benefit Analysis
     Gregory E. Kaebnick, Hastings Center for Bioethics

  3. Precaution and the Politics of Health Technology Assessment
     Michael K. Gusmano, Hastings Center for Bioethics

  4. Responsible Promising? Groundwork for an Ethics of Promising Technologies
     Robert Smith, Department of Global Health & Social Medicine, King’s College London

Session 2: Health Big Data
  Room 240
  Moderator: Michael Saks, Sandra Day O’Connor College of Law, Arizona State University
1. Evaluation of Effective Consent Strategies for Patients and Behavioral Health Conditions
   Adela Grando, College of Health Solutions, Arizona State University
   Anita Murcko, College of Health Solutions, Arizona State University

2. Third Party Clearinghouses: Protecting Big Data in the Medical Internet of Things
   Dov Greenbaum, Yale University

3. An Incompatible Mix: Big Health Data and Health Privacy.
   Brad Allenby, School of Sustainable Engineering and the Built Environment, Arizona State University

4. Does Whole Genome Sequencing Create a New Duty of Recontact?
   Gary Marchant, Sandra Day O'Connor College of Law, Arizona State University

Session 3: Governing Emerging Technologies

Room 250
Moderator: Wendell Wallach, The Hastings Center & Yale Interdisciplinary Center for Bioethics

   Dr. Shane H. Morris, The Hydropothecary, Inc

2. Governance of Emerging Technologies through Online Deliberation
   Michael Hoffman, School of Public Policy, Georgia Institute of Technology

   Joseph D’Agostino, Savannah Law School

4. Jetpack Regulation – It’s Coming
   Vickie Sutton, School of Law, Texas Tech University

12:20–1:05 p.m.  Lunch Keynote: Stuart Russell
Electrical Engineering and Computer Sciences, University of California, Berkeley

1:10–2:25 p.m.  Plenary Session 2
Responsible Development of AI

W. P. Carey Foundation Armstrong Great Hall
Moderator: Jason Robert, Lincoln Center for Applied Ethics, Arizona State University

- Wendell Wallach, The Hastings Center & Yale Interdisciplinary Center for Bioethics
- Subbarao Kambhampati, School of Computing, Informatics & Decision Systems Engineering, Arizona State University
- John C. Havens, The IEEE Global Initiative for Ethical Considerations in Artificial Intelligence and Autonomous Systems
- Spring Berman, Ira A. Fulton Schools of Engineering, Arizona State University
- Commentary: Stuart Russell, Electrical Engineering and Computer Sciences, University of California, Berkeley
2:35–4:05 p.m.  Concurrent Session 2  
Session 1: Roundtable/Book Panel: Technology, Employment, and the Future of Human Work  

Room 150  
Moderator: Kevin LaGrandeur, NYIT and The Institute for Ethics and Emerging Technology  

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2. **Policy Solutions to Technological Unemployment**  
   Yvonne Stevens, Sandra Day O’Connor College of Law, Arizona State University  

3. **Rethinking Education in the Face of Technological Unemployment**  
   David Gunkel, College of Liberal Arts and Sciences, Northern Illinois University  

4. **Unconditional Basic Income as a Solution to Technological Unemployment**  
   Scott Santens, independent author and coordinating committee member, U.S. Basic Income Guarantee Network  

Session 2: Modified Humans  

Room 240  
Moderator: Ellen Feigal, NDA Partners & Sandra Day O’Connor College of Law, Arizona State University  

1. **Genetic Paparazzi**  
   Yaniv Heled, College of Law, Georgia State University  
   Liza Vertinsky, Emory Law  

2. **Australian Regulation of Mitochondrial Donation**  
   Karinne Ludlow, Monash University  

3. **Emerging Humanities and the Narcissism of Small Differences**  
   Wayne Borody, Nipissing University  

4. **Alternative Model for Regenerative Generations**  
   Natasha Vita-More, Graduate Studies, University of Advancing Technology  

Session 3: Responsible Research and Innovation  

Room 250  
Moderator: Erik Fisher, School for the Future of Innovation in Society, Arizona State University  

1. **Responsible Research and Innovation in Practice – National Challenges Within a Global Framework**  
   Tess Doezema, School for the Future of Innovation in Society, Arizona State University
2. Experiments in Governance: Lessons for RRO from Engagement with a Synthetic Biology (xenobiology) Laboratory
   Alberto Aparicio, Department of Science and Technology Studies, University College London

3. The Value of Processes in the Development of Emerging Technologies: RRI Beyond Principles
   Hannot Rodriguez, Department of Philosophy, University of the Basque Country

4. Governing Assisted Living Technologies through Ethical Impact Assessment
   Erik Thorstensen, University of College of Applied Sciences, Oslo and Akershus University

4:05–4:15 p.m. Break

4:15–5:00 p.m. Keynote 2: Shobita Parthasarathy
   The Gerald R. Ford School of Public Policy, University of Michigan

W. P. Carey Foundation Armstrong Great Hall

5:10–6:40 p.m. Concurrent Session 3
   Session 1: International Governance

Room 150
Moderator: Wendell Wallach, The Hastings Center & Yale Interdisciplinary Center for Bioethics

1. The Global Law of Internet Governance
   Thomas Streinz, Institute for International Law, NYU School of Law

   Sally Randles, Institute of Innovation Research, Manchester Metropolitan University

3. Constructing Universal Principles of Good Governance
   Marc Saner, Institute for Science, Society and Policy, University of Ottawa

4. Beyond GDP - Wellbeing for Ethical AI
   John C. Havens, The IEEE Global Initiative for Ethical Considerations in Artificial Intelligence and Autonomous Systems
Session 2: New Dimensions of Privacy

Room 240
Moderator: Gary Marchant, Sandra Day O’Connor College of Law, Arizona State University

1. Neuro Exceptionalism” and Fourth Amendment Exceptions: Law Enforcement Freedom to Gather Brain-Based Evidence in Warrantless Searches
   Marc H. Blitz, Oklahoma City University

2. “A New World of Data”: Opportunities and Challenges for Sensor Technologies in Brazil
   Ana Paula Camelo, Fundação Getúlio Vargas Law School (Brazil)

3. Biometric Recognition – Legal, Policy and Ethical Issues
   James L. Wayman, Biometric Identification Research Program, San Jose State University

4. It’s Not Always About You: Protecting Corporate Knowledge Assets
   K Royal, TRUSTe

Session 3: Driverless Cars

Room 250
Moderator: Betsy Grey, Sandra Day O’Connor College of Law, Arizona State University

1. Machine Learning, Social Learning and Driverless Cars
   Jack Stilgoe, University College London

2. A Self-Driving Car is Not a Car: A View from the Sidewalk
   Robert Kirkman, Ivan Allen College of Liberal Arts, Georgia Institute of Technology

3. Mapping Institutional Dynamics to Anticipate (and govern) the Transformation Potential of Innovations: The Case of Autonomous Driving
   Torsten Fleischer, Institute of Technology Assessment and Systems Analysis & Jens Schippl, Karlsruhe Institute of Technology

4. Ethical Considerations with Autonomous Vehicles
   Robert Larson, Exponent
Day 2
Thursday, May 18

8:00–8:30 a.m.  Breakfast
W. P. Carey Foundation Armstrong Great Hall

8:30–9:45 a.m.  Plenary Session 3
Gene Drives, Trade and International Regulations
W. P. Carey Foundation Armstrong Great Hall
Moderator: Diana Bowman, Sandra Day O'Connor College of Law, Arizona State University
- Gary Marchant, Sandra Day O'Connor College of Law, Arizona State University
- Andrew Maynard, Risk Innovation Lab, Arizona State University
- Jennifer Kuzma, Genetic Engineering and Society, North Carolina State University
- Greg Kaebnick, Hastings Center for Bioethics
- Marc Saner, Institute for Science, Society and Policy, University of Ottawa

9:45–10:30 a.m.  Keynote 3: Gillian Hadfield
School of Law, University of Southern California
W. P. Carey Foundation Armstrong Great Hall

10:30–10:40 a.m. Break

10:40 a.m.–12:10 p.m. Concurrent Session 4

Session 1: Roundtable: Hyperloop One and Autonomous Transportation: A Test Case for Innovative Governance
Room 150
Moderator: Gillian Hadfield, School of Law, University of Southern California
- Omeed Tabiei, PinPoint Strategies
- Andrew Maynard, Risk Innovation Lab, Arizona State University
- Jennifer Kuzma, Genetic Engineering and Society, North Carolina State University
- Diana Bowman, Sandra Day O'Connor College of Law, Arizona State University

Session 2: New Risk Governance Approaches
Room 240
Moderator: Gary Marchant, Sandra Day O'Connor College of Law, Arizona State University
1. Incorporation of Emerging Technologies into Governance – The Use of In Silico Computational Models and Molecular-based In Vitro High-Throughput Screening Assays in the Endocrine Disruptor Screening Program
Alexis Abboud, Arizona State University
2. Conservative Risk Estimates Can be Harmful to Public Health  
   Richard Williams, Senior Affiliated Scholar with Mercatus Center

3. Instrument Choice for Adaptive Regulation of Emerging Technologies  
   Lori S. Bennear Nicholas School of the Environment, Duke University & Jonathan B. Wiener, Duke University School of Law

4. Risk-Based Governance Options for Improving NFL Worker Health  
   Adam M. Finkel, University of Michigan School of Public Health

Session 3: Precision Medicine

Room 250
Moderator: David Feigal, NDA Partners & Sandra Day O’Connor College of Law, Arizona State University

1. Transparency in DNA Biobanking: What Does That Mean to Biobank Donors  
   Richard Sharp, Mayo Clinic Biomedical Ethics Research Program

2. Revisiting Racial Patents in an Era of Precision Medicine  
   Jonathan Kahn, Mitchell Hamline School of Law

3. Should Parents be Allowed to Map the Genome of Their Fetus? Ethical Reflections on the Future of Prenatal Testing  
   Ravitsky Vardit, School of Public Health, University of Montreal

4. Cultivating Innovation in Precision Medicine through Regulatory Flexibility at the FDA  
   Jordan Paradise, School of Law, Loyola University Chicago

Session 4: AI and Security

Room 550
Moderator: Jim Hennessy, Center for Law, Science & Innovation, ASU Law

1. States’ Right and Obligations under International Law and Autonomous Weapon Systems  
   Metodi Hadju-Janev Military Academy, Macedonia & Kiril Hristovski, Arizona State University

2. Ensuring Safe AI via a Moral Emotion Motivational & Control System  
   Mark Waser, Digital Wisdom

3. Inclusive Artificial Intelligence: Technology and Policy and a Diverse Urban Future  
   Brandie M. Nonnecke, University of California, Berkeley, CITRIS

4. Post-Cyber: Regulation the Aftermath of Cyber-Conflict  
   Brian Orend, International Studies, University of Waterloo
12:30–1:45 p.m. **Plenary Session 4 (w/lunch)**

**Responsible and/or Permissionless Innovation**

*W. P. Carey Foundation Armstrong Great Hall*

Moderator: Wendell Wallach, The Hastings Center & Yale Interdisciplinary Center for Bioethics

- Ellen-Marie Forsberg, College of Applied Sciences, Høgskolen i Oslo og Akershus
- Adam Thierer, George Mason University

1:50–3:20 p.m. **Concurrent Session 5**

**Session 1: Biotechnology**

*Room 150*

Moderator: Guy Cardineau, Sandra Day O’Connor College of Law, Arizona State University

1. **Biotechnology Risk and Consumer Decision-Making**  
   Joanna K. Sax, California Western School of Law

2. **Beyond Product or Process: The Role of Context in Regulating Genetically-Modified Organisms**  
   Lalitha Sundaram, University of Cambridge

3. **Public Response to Proposed Field Trial of Genetically Engineered Mosquitoes in the United States**  
   Cinnamon S. Bloss, University of California San Diego

4. **International Governance Synthetic Biology under the Convention of Biological Diversity: Outcomes of the 14th Meeting of the Conference of the Parties, December 2016, and Issues Facing the 15th Meeting in 2018**  
   Robert M. Friedman, J. Craig Venter Institute

**Session 2: Big Data and the Individual**

*Room 240*

Moderator: Diva Galan, LG Tech-Link Global and Center for Law, Science & Innovation at ASU Law

1. **Who Owns “You”?: The Need to Craft a Means of Personal Ownership for One’s Digital Self**  
   Jeremy Weissman, College of Arts and Sciences, University of South Carolina

   Aviv Gaon, Osgoode Hall Law School, York University

3. **Coming to Grips with Evidence-Based Policing: Body Worn Video Recorders and Beyond**  
   Katina Michael, School of Computing and Information Technology, University of Wollongong, Australia

4. **Stakeholder Engagement at the Intersection of Big Data and Criminal Justice**  
   Kimberly Gardner, School of Public Service, Boise State University
Session 3: Fintech

Room 250
Moderator: Brad Biddle, Center for Law, Science & Innovation at ASU Law

1. **Too-Big-To-Fail 2.0: Cybersecurity & Key Digital Service Providers**  
   Nizan Geslevich Packin, City University of New York

2. **Legal Governance of Blockchain Token Sales**  
   Josh Boehm, Perkins Coie LLP

3. **Bitcoin, Libertarian Revolution and History of Monetary Technology**  
   Knut Jorgen Vie, Oslo and Akershus University

4. **Conceptualizing Cryptolaw**  
   Carla L. Reyes, Stetson University College of Law

3:20–3:30 p.m.  Break

3:30–4:45 p.m.  Plenary Session 5  
**Big Data**

*W. P. Carey Foundation Armstrong Great Hall*  
Moderator: Charlie Kennel, University of California San Diego

- George Poste, School of Life Sciences, Arizona State University
- Pilar Ossorio, University of Wisconsin
- Emily Shuckburgh, University of Cambridge
- Anupam Chander, School of Law, University of California Davis

4:45–5:30 p.m.  Keynote 4: Craig Shank  
VP & Assistant General Counsel, Microsoft

*W. P. Carey Foundation Armstrong Great Hall*

5:30–7:00 p.m.  Poster Presentation & Reception  
*Room 544 & Yavapai Nation Courtyard*
Special Session: Cybersecurity  
*W. P. Carey Foundation Armstrong Great Hall*

8:00–8:30 a.m. Breakfast

8:30–9:00 a.m. Introduction  
Yvonne Stevens, Sandra Day O’Connor College of Law, Arizona State University

9:00–10:15 a.m. Plenary Session 1  
Domestic Cybersecurity  
Moderator: Jamie Winterton, Strategy at Global Security Initiative, Arizona State University  
• James Melendres, Partner at Snell & Wilmer  
• Joe Gervais, Lifelock/Symantec  
• Caroline Lynch, Cybersecurity, National Security and Criminal Law, Arizona State University  
• Jessica Solper, NCC Group

10:15–10:30 a.m. Coffee Break

10:30–11:45 a.m. Plenary Session 2  
International Cybersecurity  
Moderator: Daniel Rothenberg, New America Foundation, Arizona State University  
• Brad Allenby, School of Sustainable Engineering and the Built Environment, Arizona State University  
• Andrew Gordon, Partner, Coppersmith & Brockelman, PLC  
• Josephine Wolff, New America Cybersecurity Initiative Fellow

11:45 a.m.–12:30 p.m. Keynote Address: Katina Michael  
School of Computing and Information Technology, University of Wollongong  
*W. P. Carey Foundation Armstrong Great Hall*