



Sixth Annual

Governance of Emerging Technologies & Science: Law, Policy and Ethics

May 16-18, 2018

Beus Center for Law and Society | Phoenix, AZ

ASU Lincoln Center
for Applied Ethics
Arizona State University

ASU Sandra Day O'Connor
College of Law
Arizona State University
Center for Law, Science and Innovation

ISSPA
INSTITUT DE RECHERCHE SUR LA SCIENCE,
LA SOCIÉTÉ ET LA POLITIQUE PUBLIQUE
INSTITUTE FOR SCIENCE, SOCIETY AND POLICY

8:00–8:30 a.m.

Breakfast

W. P. Carey Foundation Armstrong Great Hall

8:30–8:45 a.m.

Welcome

W. P. Carey Foundation Armstrong Great Hall

8:45–9:30 a.m.

Keynote: Eight Simple Rules for Regulating My Disruptive Innovation

Larry Downes, Author and Project Director at the Georgetown Center for Business and Public Policy

W. P. Carey Foundation Armstrong Great Hall

9:30–11:00 a.m.

Plenary Session 1: Success Stories in International Coordination

W. P. Carey Foundation Armstrong Great Hall

Moderator: **David Winickoff**, OECD and SciencesPo Law School (Neurotechnology)

- **Charlotte Stanton**, Carnegie Endowment for International Peace (Artificial Intelligence)
- **Chris Mondini**, ICANN (Internet Domain Names)
- **Megan Brown**, Wiley Rein (Internet of Things)

11:00–11:15 a.m.

Break

11:15 a.m.–12:45 p.m.

Concurrent Session 1.1: Neurotechnology

Room 150

- 1. Guiding Principles for Responsible Innovation in Neurotechnology for Health**
David Winickoff, OECD and SciencesPo Law School
- 2. Brain-Computer Interfaces: Guidelines for Responsible Robotic-Humanism**
Jeff Ward, Duke School of Law
- 3. Race on the Brain: Behavioral Realism and its Technical Fix for Racism**
Jonathan Kahn, Mitchell Hamline School of Law
- 4. Exploring Some Legal Implications of Neuroscience Research Finding Sex Differences in the Brain**
Betsy Grey, Arizona State University

Concurrent Session 1.2: AI & Values

Room 250

- 1. Safe-By-Design: Principled Methods of Embedding Values in Transformative Technologies**
Steven Umbrello, Institute for Ethics and Emerging Technologies
- 2. Artificial Intelligence in Geriatric Medicine and Caregiving: Legal and Ethical Challenges of Advancing Technologies**
Timothy S. Hall, Louis D. Brandeis School of Law; University of Louisville

3. Artificial Intelligence and Public Policy: A Systematic Review

Carlos Ignacio Gutierrez, Pardee RAND Graduate School

4. Immoral Software: How Artificial Intelligence Embeds Human Bias and Distorts Our Decision-Making

Antony Haynes, Albany Law School

5. In Algorithms We Trust: the Death of the Second Opinion

Nizan Geslevich Packin, Baruch College - CUNY

Concurrent Session 1.3: Privacy and Surveillance

Room 450

1. What Does May 26 Look Like? The GDPR Impact

K Royal, TrustArc

2. The Civilian Use of Drones at EU Borders: Legal Issues, the Impact on Privacy and a Privacy by Design Approach

Panagiotis Loukinas, Queen's University Belfast, United Kingdom

3. Transcending Cyber/Privacy/Compliance Silos with a Corporate Compliance Framework

Paul Flanagan, Thomas R. Kline School of Law, Drexel University

4. Native Nations and Identity: an Exercise in Balancing Security and Privacy

Richard Monette, University of Wisconsin School of Law

Concurrent Session 1.4: Gene Editing and Synthetic Biology

Room 550

1. The Challenges of Synthetic Biology and Digital Sequence Information for the Principles and Structures of the International Treaty for Plant Genetic Resources for Food and Agriculture

Todd Kuiken, North Carolina State University

2. How Gene Editing Reveals Regulatory Loopholes in the New GMO Labeling Law

Paul Enriquez, North Carolina State University

3. Biosecurity in the Age of Genome Editing: Exploring the Risks, Benefits, and Governance Options

Sarah Welch Denton, George Mason University

4. Enhancing Biosafety and Biosecurity across International Borders

Irene Mendoza, Arizona State University

5. Synthetic Biology Regulation and the Assurance Timeline

Justin Firestone, University of Nebraska

12:45–1:45 p.m.

Lunch

W. P. Carey Foundation Armstrong Great Hall, 2nd floor

1:45–3:15 p.m.

Concurrent Session 2.1: Blockchain, IoT and Personal Data

Room 150

- 1. Incorporating Blockchain into the Biosciences: What are we waiting for?**
Dov Greenbaum, IDC, Herzliya
- 2. Privacy, Anonymity, and the Myth of Decentralization: Challenges of Blockchain Technology in Light of EU Data Protection Law**
Martinho Lucas Pires, Nova Law School Lisbon, Portugal
- 3. Who Owns the Health Data on the Blockchain?**
Patricia Velarde Burnett, Weiss Brown & Gary Marchant, Arizona State University
- 4. Decentralized Governance and Reputation in Multi-Agent Systems: Hyper-Transparency, Social Impact Platforms, Tokenized Capitalism and Alternative Economic Models on the Blockchain**
Tomas Vrba, Arizona State University

Concurrent Session 2.2: Autonomous Weapons Systems

Room 250

- 1. The Privatization of Expertise: Analyzing the Role of the Private Sector in the Governance of Autonomous Weapons Systems**
Sophie-Charlotte Fischer, ETH Zurich
- 2. Autonomous Weapons Systems and the Search for New Forms of Public Accountability**
Laura A. Dickinson, George Washington University Law School
- 3. Autonomous Weapons Systems: An Incoherent Category**
Brad Allenby, Arizona State University

Concurrent Session 2.3: Medical Internet of Things

Room 450

- 1. The Food and Drug Administration and the Regulation of the Internet of Therapeutic Things (IoT)**
David Feigal, Arizona State University
- 2. Securing the “Internet of Persons”: Critical Infrastructure Protection**
Janine S. Hiller, Virginia Tech
- 3. The Internet of Bodies**
Andrea M. Matwyshyn, Northeastern University
- 4. Regulating the Mining of Consumer Medical Data from Internet of Things (IoT) Devices**
Mason Marks, Yale Law School

Concurrent Session 2.4: Biotechnology and Public Engagement

Room 550

- 1. Biotechnology: The Need for Acknowledging Disagreement**
Ruth Mampuy, The Netherlands Commission on Genetic Modification
- 2. Engaging the Public: Understanding Consumer Perceptions of Risk in Various Areas of Biotechnology**
Joanna K. Sax, California Western School of Law
- 3. Synthesizing Engagement for Synthetic Biology Governance**
Adam Kokotovich, North Carolina State University
- 4. Public Outreach and Community Engagement for Genetically Engineered Mosquitoes: Lessons from Oxitec and Mosquito Mate**
Cynthia E. Schairer, University of California, San Diego

3:15–3:30 p.m.

Break

3:30–5:00 p.m.

Plenary Session 2: Success Stories in Public Engagement – A Frankenstein Case Study

W. P. Carey Foundation Armstrong Great Hall

Moderator: **David Guston**, School for the Future of Innovation in Society, ASU

- **Ed Finn**, Center for Science and the Imagination, ASU
- **Ruth Wylie**, Center for Science and the Imagination, ASU
- **Judith Guston**, Rosenbach Museum and Library
- **Travis Rich**, MIT Media Lab

5:00–5:45 p.m.

Keynote: How the EU is Dictating Online Speech Norms and What Silicon Valley Can Do About It

Danielle Keats Citron, Morton & Sophia Macht Professor of Law, University of Maryland Carey School of Law

W. P. Carey Foundation Armstrong Great Hall

8:00–8:30 a.m.

Breakfast

W. P. Carey Foundation Armstrong Great Hall, 2nd floor

8:30–10:00 a.m.

Plenary Session 3: Success Stories in “Soft Law”

W. P. Carey Foundation Armstrong Great Hall

Moderator: **Craig Shank**, Microsoft

- **Diana Bowman**, Center for Law Science and Innovation/School for the Future of Innovation in Society, ASU
- **Ryan Hagemann**, Niskanen Center
- **Gary Marchant**, Center for Law, Science and Innovation, ASU
- **Marc Saner**, University of Ottawa

10:00–10:15 a.m.

Break

10:15–11:45 a.m.

Concurrent Session 3.1: Algorithmic Decision-Making

Room 150

- 1. Regulatory Architectures for Disruptive Technologies: Algorithmic Citizenship, Datafication and the Tyranny of Scoring**
David Levi-Faur, Hebrew University
- 2. Artificial Intelligence in the Court: Black Box, Due Process, and the Need for Greater Algorithmic Accountability**
Ching-Fu Lin, National Tsing Hua University
- 3. Self-Driving Cars and Responsible Innovation**
Miklos Lukovics, University of Szeged Hungary
- 4. Public Shaming in the Global Village**
Jeremy Weissman, University of South Carolina

Concurrent Session 3.2: Healthcare and Technology

Room 250

- 1. Development of a Genomic Orientation Scale: Is a Healthy Amount of Skepticism Necessary for Good Biobank Governance?**
Caroline Horrow, Mayo Clinic
- 2. Smartphone Applications as Adjuncts to Medical Devices: A Case Study in Health Regulation**
Ibrahim Garba, University of Arizona
- 3. The Dark Side of Patient Advocacy? Does the Role Expansion of Disease Advocacy Organizations Warrant Greater Governance?**
Christina Nyquist, Mayo Clinic & Caroline Horrow, Mayo Clinic
- 4. Recreational Genetic Testing – Legal and Ethical Issues**
Carol D. Scott, Law Offices of Carol D Scott

Concurrent Session 3.3: Soft Law

Room 450

- 1. Law Cannot Be Soft, Only Vague**
Joseph D’Agostino, Savannah Law School
- 2. Evolving Evidence Standards for Rare Diseases in Precision Medicine: The Role of Soft Law, Regulation and Governance**
Amalia M. Issa, USP
- 3. Global Governance Artificial Intelligence: Soft Law Solutions for a Technology in Flux**
Lucy Tournas, Arizona State University
- 4. Enforcing Soft Law**
Gary Marchant, Arizona State University

Concurrent Session 3.4: Technology and New Divisions at National Security

Room 550

- 1. 2050 Strategic Security: Future Imperfect**
Ina Wanca, NYU
- 2. Who Should Control Attempts to Message Alien Worlds?**
Kelly C. Smith, Clemson University
- 3. Identity as Design Platform and Battlespace**
Brad Allenby, Arizona State University
- 4. Emerging Technologies and the Weapons Review Process**
Eric Talbot Jensen, Brigham Young University Law School

11:45 a.m.–12:45 p.m. Lunch

W. P. Carey Foundation Armstrong Great Hall, 2nd floor

12:45–1:30 p.m.

Keynote: Machine Learning In a Global Context, Whose Rights Are At Risk?

Erica Kochi, Co Founder, UNICEF Innovation

W. P. Carey Foundation Armstrong Great Hall

1:30–3:00 p.m.

Plenary Session 4: The Most Important Emerging Technology Is...

W. P. Carey Foundation Armstrong Great Hall

Moderator: **Brad Allenby**, Fulton School of Engineering, ASU

- **Gillian K. Hadfield**, USC Gould School of Law (AI)
- **Caterina Rindi**, Blockchain Educator, Consultant, Public Speaker (Blockchain)
- **Genya Dana**, World Economic Forum (synthetic biology)
- **Justin (Gus) Hurwitz**, University of Nebraska College of Law (IoT)

3:00–3:15 p.m.

Break

3:15–4:45 p.m.

Concurrent Session 4.1: AI and Law

Room 150

- 1. The Robot Koseki – Using Japanese Family Law as a Model for Regulating Robots**
Colin P.A. Jones, Doshisha University Law School (Kyoto, Japan)
- 2. The Impact of Foreseeability Factor when Creating Law of Artificial Intelligence**
Tjasa Zapusek, University of Copenhagen
- 3. Incomplete Contracting and AI Alignment**
Gillian K. Hadfield, University of Southern California
- 4. 2018 A Legal Research Odyssey**
Jamie Baker, Texas Tech University School of Law

Concurrent Session 4.2: Big Data & Privacy

Room 250

- 1. Fog Computing in the Field: The Development of IoT Governance**
Mark Perry, University of New England
- 2. Regulating Technological Resistance to Government Surveillance**
Alan Z. Rozenshtein, University of Minnesota Law School
- 3. Internet of Things and Challenges to Insurance Sector**
Rujitha Shenoy, Cochin University, Luciprs, India
- 4. Social Impact of Emerging Technologies; The Smart City Context**
Luciano C. Oviedo, Warwick Business School & Sarma Vrudhula, Arizona State University

Concurrent Session 4.3: Human Gene Editing & Enhancement

Room 450

- 1. Governance Challenges Raised by Germline Gene-Editing: A Canadian Case Study**
Vardit Ravitsky, University of Montreal
- 2. The New Era of Gene Therapy and the Challenges of Equitable Access and Diversity**
Bob Bohrer, California Western School of Law
- 3. Cyborgs — Should We be Better Than We Are?**
Victoria Sutton, Texas Tech University School of Law
- 4. AI and Democratization of Genomics for the Regenerative Generation**
Natasha Vita-More, Humanity+, Inc

Concurrent Session 4.4: Risk Governance

Room 550

- 1. Regulating IOT Nutrition Devices**
Richard Williams, Mercatus Center at George Mason University
- 2. Emerging Risk Governance for Solar Radiation Management**
Tyler Felgenhauer, Duke University
- 3. Using Humane Cost-Benefit Analysis to Pick Emerging-Technology “Winners”**
Adam M. Finkel, University of Michigan School of Public Health
- 4. The Case for Robust Climate Policy**
Leslie Paul Thiele, University of Florida

4:45–6:30 p.m.

Poster Presentation & Reception

Room 544 / Ak-Chin Indian Community Conference Center and Fort McDowell Yavapai Nation Courtyard

8:00–8:30 a.m.

Breakfast

W. P. Carey Foundation Armstrong Great Hall, 2nd floor

8:30–9:15 a.m.

Keynote: Artificial Intelligence to Collective Intelligence: Open Governance and New Technologies

Beth Simone Noveck, Governance Lab (GovLab) & Professor in Technology, Culture, and Society at New York University’s Tandon School of Engineering

W. P. Carey Foundation Armstrong Great Hall

9:15–10:45 a.m.

Concurrent Session 5.1: Blockchain and Governance

Room: 150

- 1. Banking on Blockchain: Distribution, Democratization or Disruption**
Kristin N. Johnson, Tulane University Law School
- 2. The Arc of the Moral Universe is Long, but it Bends Towards – the Block Chain or a Wilderness of Mirrors?**
Greg Garvey, Quinnipiac University
- 3. Corporate Governance Guideposts for Distributed Ledger Technology**
Carla L. Reyes, Stetson University College of Law
- 4. No Gods, No Masters, No Coders? The Future of Sovereignty in a Blockchain World**
Sarah Manski, University of California Santa Barbara

Concurrent Session 5.2: The Pacing Problem

Room: 240

- 1. DELTA: The Law of Technological Change**
Joshua A.T. Fairfield, Washington and Lee University School of Law
- 2. The Pacing Problem Revisited: Why do Regulations Lag Behind?**
Marc Saner, University of Ottawa
- 3. Liberalism in the Digital Age—How to Safeguard Democracy in the Age of Big Tech**
Scott Nuzum, Van Ness Feldman LLP
- 4. Accelerating Technological Evolution and the Death of Institutions**
Brad Allenby, Arizona State University

Concurrent Session 5.3: Accountability of Autonomous Systems

Room: 250

- 1. How to Sue a Robot**
Roger Michalski, University of Oklahoma College of Law
- 2. Compensation at the Crossroads: Autonomous Vehicles and Alternative Victim Compensation Schemes**
Tracy Pearl, Texas Tech University School of Law
- 3. Navigating an Uncertain Legal and Regulatory Path Forward for Automated and Connected Vehicles**
Gregory Rodriguez, Best Best & Krieger
- 4. Responsibility Sensitive Safety: Towards a Meaningful Definition of Safety for Autonomous Vehicles**
Rida Bazzi, Arizona State University

Concurrent Session 5.4: International Governance and Data

Room: 550

- 1. The Openness of the Internet**
Olli Honkkila, University of Helsinki
- 2. Cross-Border Growth of Data-Centric Technologies & Intellectual Property Law Responses**
Tabrez Ebrahim, California Western School of Law
- 3. The Internet of Doing Things**
Oyeniji Oluyinka, FIRST CHRONICLES LP

10:45–11:00 a.m. **Break**

11:00 a.m.–12:30 p.m. Plenary Session 5: Innovations in Health Technology

W. P. Carey Foundation Armstrong Great Hall

Moderator: Jason Robert, Lincoln Center for Applied Ethics, ASU

- Making Precision Medicine A Reality: Molecular Diagnostics, Remote Health Status Monitoring and the Big Data Challenge
George Poste, Center for Complex Adaptive Systems, ASU
- Your Body and Your Brain “At Risk” – The Business of Recalling Biomedical Implants
Katina Michael, School of Computing and Information Technology, U. of Wollongong
- Dr. Robot
Jane Bambauer, James E. Rogers College of Law, University of Arizona
- A Case Study: Development of a Novel Prosthetic Heart Valve
Geoff D. Moggridge, Cambridge University

Save the Date



May 22-24, 2019

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events.asucollegeoflaw.com/gets/