



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

PROGRAM

Tuesday, May 26

11:30 a.m.–12:30 p.m.

Check-in / Lunch (Vista Verde Dining Room)

12:30–12:45 p.m.

Welcome

12:45–2:15 p.m.

Plenary Session I – Technological Unemployment (Maricopa I)

Chair: Gary Marchant, Arizona State University

Panelists:

- Martin Ford, author
- James Hughes, PhD, Institute for Ethics and Emerging Technologies (IEET)
- Yvonne Stevens, Arizona State University

2:15–2:30 p.m.

Break

2:30–4 p.m.

Concurrent Session I**Session 1.1 – Robotics and Autonomous Systems (Maricopa III)**

Moderator: Wendell Wallach, Yale University

- **Intentionless Free Speech: Robots & Receivers**
David Skover, Seattle University School of Law
- **Who's Johnny? Anthropomorphic Framing in Human-Robot Interaction, Integration, and Policy**
Kate Darling, MIT
- **The Robots Must Be Crazy: DSM TURING TEST**
Greg Garvey, Quinnipiac University
- **AI Safety: Why Has It Suddenly Become Important, and How Should It Be Addressed**
Wendell Wallach, Yale University

Session 1.2 – New Digital Technologies (Papago II)

Moderator: Joshua Abbott, Arizona State University

- **Digitized Spaces: Law and Policy Issues of Real-time 3D Mapping Technologies**
Joshua Abbott, Arizona State University
- **Slow Sunset of the Self**
Brad Allenby, Arizona State University
- **Protecting the Right to Be Left Alone from the Eyes of the Yik Yak “Herd”**
Jeremy Weissman, University of South Carolina
- **Intellectual Property and the Digitization of Taste**
John Cross, University of Louisville School of Law

Session 1.3 – Environment & Technology (Maricopa II)

Moderator: Lauren Burkhart, Arizona State University

- **Inducing Regulatory Innovation: Lessons from the Clean Air Act**
Jonas Monast, Duke University
- **Defining Resilience for Emerging Technologies**
Igor Linkov, U.S. Army Engineer R&D Center
- **Examination of a Negotiation Model for Addressing Community Concerns about Innovative Industrial Processes**
Michael Baram, Boston University
- **Innovation Rewards: Towards Solving the Twin Market Failures of Public Goods**
Gregory N. Mandel, Temple University School of Law

4–5:30 p.m.

6–8:30 p.m.

Session 1.4: Shaping Innovative Relationships (Papago I)

Moderator: Gary Marchant, Arizona State University

- **Emergence, Innovation, Supply Lines, Ecosystems and Public Engagement**
David Berube, North Carolina State University
- **Selling Smartness: How Corporations Shape “Smart City” Policy**
Jathan Sadowski, CSPO
- **Trauma Informed Care Educational Intervention**
Nicole Lamar, Arizona State University
- **The Biology of Romance: Genes, Pheromones & Oxytocin**
Gary Marchant, Arizona State University

Plenary Session II – Inter-Generational Equity and Emerging Technologies (Maricopa I)

Chair: David Guston, CNS-ASU

Panelists:

- Carolyn Raffensperger, Science & Environmental Health Network
- Stephen Gardiner, University of Washington

Commentators:

- Jennifer Kuzma, North Carolina State University
- David Guston, CNS-ASU

Dinner (Vista Verde Dining Room)**Film Screening (Maricopa I)***The Singularity: Will We Survive Our Technology?*

Q&A with Film Director Doug Wolens

Film will begin at 7 p.m.

PROGRAM

Wednesday, May 27

7:30–8:30 a.m.

Check-in / Breakfast (Vista Verde Dining Room)

8:30–10 a.m.

Plenary Session III – Just War Theories and Emerging Technologies (Maricopa I)

Chair: Brad Allenby, Arizona State University

Panelists:

- Diana Bowman, University of Michigan
- Brad Allenby, Arizona State University
- Daniel Rothenberg, Arizona State University
- Laura Dickinson, George Washington University

10–10:15 a.m.

Break

10:15–11:45 a.m.

Concurrent Session 2**Session 2.1 – Synthetic Biology (Maricopa III)**

Moderator: Jennifer Kuzma, North Carolina State University

- **Synthetic Biology: A State of Affairs**
Todd Kuiken, Woodrow Wilson Center
- **Two Complementary Governance Approaches to Maximizing Net Societal Benefit from Synthetic Biology**
Adam Finkel, University of Pennsylvania Law School
- **U.S. EPA GM/Synbio Algae Guidance Project**
Jeff Morris, U.S. Environmental Protection Agency
- **When Expert Opinion Meets Public Engagement: A Policy Delphi on Synthetic Biology**
Sheron King, North Carolina State University

Session 2.2. – Anticipatory Governance (Maricopa II)

Moderator: Lauren Burkhart, Arizona State University

- **Proactive Governance of Emerging Technologies: Top Ten Activities to Improve International Regulatory Cooperation**
Marc Saner, University of Ottawa
- **A Comprehensive Set of Approaches to Maintain Control of Emerging Technologies**
Wendell Wallach, Yale University
- **Developing Danger**
Bryant Walker Smith, University of South Carolina
- **Anticipatory Co-Governance and a Bridge between Goods-Centric and Functional Approaches to Governance**
Joseph Grossman, Arizona State University

Session 2.3 – Technology and Legal Oversight (Papago I)

Moderator: Gary Marchant, Arizona State University

- **Then Came the Lawyers, Then Came the Rules: The Need for Improved Understanding and Regulation of Neuroimaging Evidence in the Law**
Alison Lynch, Disability Rights New York
- **The U.S. Supreme Court and Emerging Technologies**
Vickie Sutton, Texas Tech University
- **Big Data and Data Analytics in the Courtroom**
Michael Arkfeld, Arkfeld & Associates

11:45 a.m.–1:15 p.m.

1:15–2:45 p.m.

2:45–3 p.m.

3–4:30 p.m.

Session 2.4 – Human Enhancement (Papago II)

Moderator: Joshua Abbott, Arizona State University

- **Untangling the Debate on Society and Human Enhancement**
Natasha Vita-More, University of Advancing Technology
- **Human-focused Turing Tests: A Framework for Judging Nudging and Techno-social Engineering of Human Beings**
Brett Frischmann, Cardozo Law School
- **Towards An Adaptive Ethic of Human Enhancement**
Brad Allenby, Arizona State University
- **Defining Deliberation from Asilomar to CRISPR**
Ben Hurlbut, Arizona State University

Lunch - Keynote Speaker (Maricopa I)**Mustafa Suleyman, Google DeepMind**

Introduced by Wendell Wallach, Yale University

Plenary Session IV – Free Speech, Privacy & Technology (Maricopa I)

Chair: Jim Weinstein, Arizona State University

Panelists:

- Meg Jones, Georgetown University
- Ash Bhagwat, UC Davis
- David Bodney, Ballard Spahr
- Amy Gajda, Tulane University

Break

Concurrent Session 3**Session 3.1 – Molecular Diagnostics and Medical Devices (Papago I)**

Moderator: Gary Marchant, Arizona State University

- **Molecular Diagnostics Regulation: Shifting from a Biomarker-Based Approach to an Algorithm-Based Approach**
Kathryn Scheckel, Arizona State University
- **Translating Next Generation Medical Tests: Ethical and Governance Challenges Raised by Medical Software**
Pilar Ossorio, University of Wisconsin
- **A Holistic Approach to Complex Medical Diagnostics**
Anna Laakmann, Lewis and Clark Law School
- **Medical Device Innovation - Updating Archaic Regulation**
Richard Williams, Mercatus Center

Session 3.2. – Big Data and Privacy (Papago II)

Moderator: Joshua Abbott, Arizona State University

- **The Internet of Things, Privacy, and the Need For Public Discourse**
D.A. Baker, CSPO
- **Contractual Regulation of Personal Fitness and Health Data Tracking: An Empirical Survey**
Timothy Hall, University of Louisville
- **We Know Who You Are and What You are Made Of: The Illusion of Internet Anonymity and Its Impact on Protection From Genetic Discrimination**
Christine Davik, University of Maine School of Law
- **Penny for All Your Thoughts?: Big Data and the Future of Thought Privacy**
Joshua Abbott, Arizona State University

PROGRAM

Wednesday, May 27 (cont.)

Session 3.3 – Digital Economy (Maricopa II)

Moderator: Lauren Burkhart, Arizona State University

- **Blockchains, Smart Contracts, Consensus Trust, and Pluralistic Morality**
Melanie Swan, Kingston University London
- **Why Bitcoin Fails as Money: An Operational Risk Analysis**
Angela Walch, St. Mary's University School of Law
- **The Dilemma of Digital Monopolies**
William Murphy, University of New Hampshire School of Law
- **Is Bitcoin the Future of Money? Perspective on Regulating Virtual Currency**
Emily McReynolds, University of Washington

Session 3.4 – Biotechnology (Maricopa III)

Moderator: Marc Saner, ISSP, University of Ottawa

- **Regulation of Crop Biotechnology in the European Union: 25 Years of Lessons and Lament**
Shane Morris, National University of Ireland
- **“New and Emerging Issues” at the UN Convention on Biological Diversity: Exploring Responses to Scientific Uncertainties**
Deborah Scott, Rutgers University
- **Anticipating Responsible Innovation: Genetically-Modified Trees and Conceptualizations of Technological and Regulatory Futures**
Jason Delborne, North Carolina State University
- **Joint Governance of Emerging and Degrading Technologies: Antimicrobials and Biomedical Innovation**
Sujatha Raman, University of Nottingham

4:30–6 p.m.

Plenary Session V – Politicization of Science and the Governance of Emerging Technologies (Maricopa I)

Chair: Jason Robert, Lincoln Center, Arizona State University

Panelists:

- Sally Satel, AEI
- Janet Radcliffe Richards, Oxford
- Mark Brown, California State University

6–7 p.m.

Reception/Student Poster Presentations (Maricopa II & III)

Thursday, May 28

8–9 a.m.

Check-in / Breakfast (Vista Verde Dining Room)

9–10:30 a.m.

Concurrent Session 4**Session 4.1 – Anti-Aging Technologies (Papago I)**

Moderator: Gary Marchant, Arizona State University

- **The Science of Anti-Aging**
James Kirkland, Mayo Clinic
- **Increasing Healthspan and Lifespan: The Potential for Regeneration through Senescent Cell Clearance**
Lewis Gruber, Siwa Corporation

10:30–11 a.m.

11 a.m.–12 p.m.

Thursday, May 28 (cont.)

▪ **Four Longevity Scenarios**

Joel Garreau, Arizona State University

▪ **Overcoming Regulatory Impediments to Anti-Aging Technologies**

Gary Marchant, Arizona State University

Session 4.2. – New Genetic Technologies (Maricopa III)

Moderator: Diana Bowman, University of Michigan

- **Governance of State-Mandated Newborn Screening Programs: Engaging Communities to Inform the Use of Novel Genome Sequencing Technologies**
Barbara Koenig, University of California, San Francisco
- **Non-Invasive Prenatal Testing: Addressing the Challenges of an Emerging Technology**
Vardit Ravitsky, University of Montreal
- **Governing the Pre-Demented: Genetic Testing for Alzheimer's Disease in Germany, the United Kingdom and the United States**
Margaret Curnutte, Baylor College of Medicine
- **Liability Prevention and Intergenerational Genomic or Epigenetic Harm**
Thomas Redick, Global Environmental Ethics Counsel, LLC

Session 4.3 – National Security and Technology (Papago II)

Moderator: Joshua Abbott, Arizona State University

- **Gain-of-Function Virus Research: An Uneven Regulatory Environment**
Eileen Kane, Penn State Dickinson School of Law
- **Emerging Technologies and Law of Armed Conflict Signaling**
Eric Talbot Jensen, Brigham Young University Law School
- **Command Responsibility for Lethal Autonomous Weapons**
Heather Roff, University of Denver
- **“Nano-enhanced” Weapons and the Law of Armed Conflict**
Kobi-Renee Leins, Melbourne University

Session 4.4: Health Care Innovation (Maricopa II)

Moderator: Lauren Burkhart, Arizona State University

- **mHealth: Legal Barriers to Disruptive Innovation in Healthcare**
Fazal Khan, University of Georgia School of Law
- **New Technologies and New Understandings of Human Being**
Majia Nadesan, New College, ASU West campus
- **Trust and Transparency in the Communication About Stem Cells for Spinal Cord Injury**
Karen Jacob, University of British Columbia
- **How Governance-Free Zones Emerged in Ethical Science Organizations: Research Breakdowns and Resilience in Translational Cancer Medicine**
Ellie Okada, Boston Cancer Policy Institute

Break**Closing Keynote (Maricopa I)****Jonathan Moreno, University of Pennsylvania***Lunch available after the close of the Conference in the Vista Verde Dining Room*

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