

## CONTACT DETAILS

NAME: Andrew David Maynard  
Associate Dean of Curricula and Student Success, College of Global Futures, and  
Professor, School for the Future of Innovation in Society, Arizona State University  
PO Box 875603, ASU, Tempe AZ 85387-5603

AFFILIATION: Arizona State University

EMAIL: [andrew.maynard@asu.edu](mailto:andrew.maynard@asu.edu)

ACADEMIC PROFILE: <https://isearch.asu.edu/profile/2670673>

ORCID: <http://orcid.org/0000-0003-2117-5128>

CENTER WEB PAGE: <https://riskinnovation.asu.edu/>

## EDUCATION

**PhD: University of Cambridge, U.K.** 1989 – 1992  
Cavendish Laboratory, Microstructural Physics Department. Ph.D. (Aerosol Physics).  
*Thesis: Ultrafine aerosol particle collection and analysis*

**BSc: University of Birmingham, U.K.** 1984 - 1987  
Physics. B.Sc. (Hons): Iii

## EMPLOYMENT

**Arizona State University** 8/3/15 - Present  
Associate Dean of Curricula and Student Success, College of Global Futures 7/15/20 – Present  
Associate Director of Faculty, School for the Future of Innovation in Society 8/1/19 – 7/14/19  
Professor, School for the Future of Innovation in Society 8/3/15 – Present  
Director, Risk Innovation Nexus 8/1/18 - Present  
Director, Risk Innovation Lab 8/3/15 – Present  
Chair, Master of Science & Technology Policy program 1/1/16 – Present

**University of Michigan** 4/1/10 – 7/30/15  
Professor, Environmental Health Sciences, School of Public Health 9/1/10 – 7/30/15  
Director, University of Michigan Risk Science Center 4/1/10 – 7/30/15  
Chair, Department of Environmental Health Sciences 6/1/12 – 11/30/14  
NSF International Chair of Environmental Health Sciences 1/1/13 – 11/30/14  
Charles and Rita Gelman Professor of Risk Science 9/1/10 - 12/31/12

**Woodrow Wilson International Center for Scholars** 8/15/05 – 3/31/10  
Chief Science Advisor, Project on Emerging Nanotechnologies  
Science Advisor, Synthetic Biology Project

**National Institute for Occupational Safety and Health** 1/18/00 – 7/8/05  
Team Leader – Aerosols Research Team (GS15) 1/1/04 – 7/8/05  
Senior Service Fellow (GS14). (2000 – 2004) 1/18/00 – 1/1/04

**Health and Safety Executive, U.K.** 9/21/92 – 1/17/00  
Head, Exposure Control Section, Health and Safety Laboratory 9/1/98 – 1/17/00  
Senior Scientific Officer (1994 – 1998) 9/1/94 – 9/1/98  
Higher Scientific Officer (1992 – 1994) 9/21/92 – 9/1/94

**Severn Trent Water Ltd., U.K.** 1/10/87 – 1/10/89  
Management Trainee.

## HONORS AND AWARDS

<b>American Association for the Advancement of Science</b> Elected Fellow	2020
<b>Society of Toxicology</b> Public Communications Award	2015
<b>National Institute for Occupational Safety and Health</b> Alice Hamilton Award, Biological Sciences Category Winner (co-author)	2009
<b>National Institute for Occupational Safety and Health</b> Alice Hamilton Award, Biological Sciences Category Winner (co-author)	2006
<b>National Institute for Occupational Safety and Health</b> Alice Hamilton Award, Biological Sciences Honorable Mention (co-author)	2005
<b>National Institute for Occupational Safety and Health</b> Alice Hamilton Award, Engineering & Physical Sciences Honorable Mention (co-author)	2004
<b>National Institute for Occupational Safety and Health</b> Alice Hamilton Award, Engineering & Physical Sciences Honorable Mention (co-author)	2003

## ACADEMIC AFFILIATIONS

<b>Global Sports Scholar</b> Global Sports Institute, ASU	2020 - Present
<b>Senior Sustainability Scholar</b> Julie Ann Wrigley Global Institute of Sustainability, ASU	2016 - Present
<b>Faculty Fellow</b> Center for Law, Science & Innovation, ASU	2015 - Present
<b>Affiliate Faculty Member</b> Global Security Initiative Center for Human, Artificial Intelligence, and Robot Teaming (CHART), ASU	2018 - Present

## EXECUTIVE & ADVISORY POSITIONS

<b>Canadian Institute for Advanced Research</b> Member of the President's Research Council	2017 - Present
<b>Institute for Advancing Food and Nutrition Science</b> IAFNS Board of Trustees (formerly ILSI NA) Co-chair (2021-2023)	2021 - Present
<b>International Life Science Institute North America</b> ILSI North America Board of Trustees Vice-chair (2019-2021)	2012 - 2021
<b>American Association for the Advancement of Science</b> AAAS Early Career Award for Public Engagement with Science Selection Committee	2015 - Present
<b>World Economic Forum</b> Global Futures Council on Agile Governance (2017 – 2019) Council on the Future of Technology, Values and Policy (2016 – 2017)	2008 - 2020

Global Agenda Council on Emerging Technologies. (2008 – 2014) Chair of the World Economic Forum Global Agenda Council on Emerging Technologies. (2010 – 2011) Co-chair, World Economic Forum Global Agenda Council on Nanotechnology (2014 – 2016). Metacouncil on Emerging Technologies (2014 – 2016) Advisory Committee, World Economic Forum Technology Pioneers (2012 – 2020) Committee on top ten emerging technologies (2012 – Present)	
<b>Nature Nanotechnology Advisory Panel</b> Advisory group to the editor on developing content on the relationship between technology and society	2017 - Present
<b>United Nations Expert Group on Exponential Technological Change</b> New group addressing exponential technological change, automation, and policy implications for sustainable development	2016 - 2017
<b>National Academies of Sciences Committees</b> National Academies of Science, Engineering and Medicine Committee on Emerging Areas of Science, Engineering, and Medicine for the Courts: Identifying Chapters for a Fourth Edition of The Reference Manual on Scientific Evidence – A Workshop. (2020 – 2021) National Academies of Science Planning Committee on New Technologies and Engagement Approaches to Enhance Research on the Communication about Individual Environmental Health Data. (2016) National Academies of Science Committee on the Science of Science Communication (2015 – 2016) National Academies of Science Committee to develop a research strategy for environmental, health, and safety aspects of engineered nanomaterials (2010 – 2013) National Academies of Science review panel for the National Nanotechnology Initiative Strategy for Nanotechnology Environmental Health and Safety Research (2008)	2008 - Present
<b>Keep on Questioning (I'm A Scientist USA)</b> Board of Advisors	2015 - 2017
<b>RELATE (Science Communication)</b> Faculty Advisor	2015 - 2019
<b>Center for Policy on Emerging Technologies</b> Senior Fellow	2012 – 2018
<b>Dow Distinguished Faculty Fellows</b> Member, University of Michigan Dow Distinguished Faculty Fellows	2013 - 2015
<b>Center for Nanotechnology in Society, ASU</b> Member, Board of Visitors	2012 - 2015
<b>Graham Sustainability Institute, University of Michigan</b> Member, Executive Committee	2012 - 2015
<b>Center for the Environmental Implications of Nanotechnology</b> Chair, External Advisory Board	2009 – 2016
<b>Nanoscale Informal Science Education Network</b> Advisory board member	2009 – 2015
<b>Environmental Protection Agency</b> Chair, External Peer Review of the U.S. Environmental Protection Agency Draft Nanomaterial Research Strategy	2008

<b>Environmental Protection Agency</b> Panel member, Public Meeting on Risk Management Practices for the U.S. Nanoscale Materials Stewardship Program	2008
<b>Council of Canadian Academies</b> Expert Panel on Nanotechnology Assessment	2007
<b>President's Council of Advisors on Science and Technology</b> Member of the Nanotechnology Working Group	2010 - 2012
<b>President's Council of Advisors on Science and Technology</b> Member of the Nanotechnology Technical Advisory Group	2006 - 2009
<b>Chemical &amp; Engineering News</b> Advisory Board member	2008 - 2011
<b>Organization for Economic Cooperation and Development</b> Working Party on Manufactured Nanomaterials. Project on Emerging Nanotechnologies representative.	2005 - 2007
<b>International Council On Nanotechnology (ICON)</b> Executive Committee member	2004 - 2011
<b>International Life Sciences Institute</b> Member of the ILSI Health and Environmental Sciences Institute Nanomaterial Safety Subcommittee Project Steering Team.	2004 - 2010

## EDITORIAL BOARDS

<b>Annals of Work Exposure and Health</b> International Advisory Board	2017 - Present
<b>Journal of Responsible Innovation</b> Member, Board of Editors	2013 - Present
<b>Annals of Occupational Hygiene</b> International Advisory Board	2006 - 2016
<b>Nano Today</b> Member of the editorial board	2006 - 2009
<b>Journal of Nanoparticle Research</b> Member of the editorial board	2006 - 2012
<b>Nanotoxicology</b> Member of the editorial board	2006 - Present

## GOVERNMENT TESTIMONY AND BRIEFINGS

*Formal testimony and briefings include:*

- President's Council on Science and Technology (PCAST)**  
Private Meeting on Nanotechnology. Invited briefing. *November 1 2011.*
- Wisconsin Assembly Committee on Public Health**  
Presentation at an information hearing on nanotechnology, potential impacts and regulation. *October 2009*

**National Organics Standards Board Materials Committee**

Comments on Proposed Recommendations for Nanotechnology in Organic Production and Processing *May 2009*.

**U.K. House of Lords Select Committee on Science and Technology.**

Written evidence to the Inquiry into the use of nanotechnology in the food sector. *March 2009*.

**Food and Drug Administration.**

Public meeting on FDA-regulated products that may contain nanoscale materials. *September 8 2008*.

**U.S. House of Representatives Committee on Science and Technology.**

Hearing on The National Nanotechnology Initiative Amendments Act of 2008. Invited testimony. *April 16 2008*.

**U.S. House of Representatives Committee on Science and Technology, Subcommittee on Research and Science Education.**

Hearing on Research on Environmental and Safety Impacts of Nanotechnology: Current Status of Planning and Implementation under the National nanotechnology Initiative. Invited testimony. *October 31 2007*.

**U.S. House of Representatives Committee on Science.**

Hearing on Research on Environmental and Safety Impacts of Nanotechnology: What Are the Federal Agencies Doing? Invited testimony. *September 21 2006*.

**President's Council on Science and Technology (PCAST)**

Public Meeting on Nanotechnology. Invited briefing. *June 25 2007*.

**President's Council on Bioethics.**

Nanotechnology. Invited briefing. *June 29 2007*.

**Nanoscale Science, Engineering and Technology Subcommittee, National Science and Technology Council, Committee on Technology;**

Research Needs and Priorities Related to the Environmental, Health, and Safety Aspects of Engineered Nanoscale Materials: Public Meeting. Submitted testimony. *January 4 2007*.

**Food and Drug Administration (FDA)**

Consideration of FDA-Regulated Products That May Contain Nanoscale Materials; Public Meeting. Submitted testimony. *September 9 2008*.

**European Food Safety Authority**

Written comments on nanomaterials and nanotechnology and food and feeds. *March 2008*.

**Congressional Nanotechnology Caucus.**

General Briefing on Nanotechnology. Chair. *March 3 2007*.

**Congressional Nanotechnology Caucus.**

Meeting on Nanotechnology and Environment, Health and Safety. Invited briefing. *November 19 2007*

**OTHER COMMITTEES**

**NSET**

NIOSH representative on the Nanomaterial Science, Engineering and Technology (NSET) subcommittee of the National Science and Technology Council (NSTC).

2004 - 2005

**NEHI**

Co-chair of the Nanotechnology Environmental and Health Impacts (NEHI) interagency working group.

2004 - 2005

**International Standards Organization**

Convener of the International Standards Organization working group TC146/SC2/WG1: Size-selective aerosol sampling and analysis.

2001 - 2005

## COURSES TAUGHT

<b>The Moviegoer's Guide to the Future (FIS 394)</b> 3 Credit Hours. Arizona State University School for the Future of Innovation in Society	2018 – Present
<b>Intro to Western Theory &amp; Response (HSD 591)</b> 2 Credit Hours. Co-taught Arizona State University School for the Future of Innovation in Society	2019 – Present
<b>Research &amp; Development Administration (HSD 598)</b> 3 Credit Hours. Co-taught. Arizona State University School for the Future of Innovation in Society	2017 – 2017
<b>Risk and the Future (FIS 332)</b> 3 Credit Hours Arizona State University School for the Future of Innovation in Society	2016 – 2018
<b>Advanced Science and Technology Policy (HSD 502)</b> 3 Credit Hours Arizona State University School for the Future of Innovation in Society	2015 – Present
<b>Introduction to Risk Innovation (HSD 598)</b> 3 Credit Hours Arizona State University School for the Future of Innovation in Society	2015 – 2016
<b>Entrepreneurial Ethics</b> 1.5 Credit Hours University of Michigan College of Engineering	2013 – 2015
<b>Principles of Risk Assessment</b> 2 Credit Hours University of Michigan School of Public Health	2011 - 2015
<b>Professional Perspectives in Environmental Health</b> 2 Credit Hours University of Michigan School of Public Health	2011 - 2014
<b>Environmental Health Policy</b> 2 Credit Hours University of Michigan School of Public Health	2012 - 2014
<b>Communicating Science through Social Media</b> 2 Credit Hours University of Michigan School of Public Health	2012 - 2013
<b>Aerosol Dynamics</b> 3 Credit Hours University of Cincinnati, Department of Environmental Health	2002 - 2004

## PHD COMMITTEES

Jonathan Klane (chair)	Current
Jason Brown (chair)	Current
Jamie Winterton (chair)	Current
Robert Sickler (chair)	Current

Nicole Mayberry (co-chair)	Current
Kevin Dwyer	Current
Jeishu Wang	Current
Dania Wright	Current
Shivam Zaveri	Current
Kevin Johnson	Current
Justin Kidd	2020
Changdeok Gim	2019
Elizabeth Garbee (chair)	2018
Ryan Lewis	2015
Dingsheng Li, University of Michigan	2014
Eiwin Lo, University of Michigan	2012
Kristen Russ, University of Michigan	2012
Sebastien Bau, INRS, France. Surface area measurement of nanoscale aerosols.	2008
Shu An Lee, University of Cincinnati. Laboratory and field evaluation of N95 respirators using a new method	2004

## CONFERENCE & WORKSHOP LEADERSHIP

Seventh International Symposium on Nanotechnology and Occupational Health  
South Africa (2015). Advisor, and member of the International Advisory Board

2015 Michigan Meeting: Academic engagement in public and political discourse  
Ann Arbor (2015). Meeting organizing committee

2013 Bernstein Symposium: Why Is It Hard to Pivot Based on Science?  
Ann Arbor (2013). Symposium Chair

Sixth International Symposium on Nanotechnology and Occupational Health  
Japan (2013). Advisor, and member of the International Advisory Board

2011 Risk Science Symposium: Risk, Uncertainty and Sustainable Innovation  
Ann Arbor MI (2011). Symposium Chair

Fifth International Symposium on Nanotechnology and Occupational Health  
Boston (2011). Advisor, and member of the International Advisory Board

Fourth International Symposium on Nanotechnology and Occupational Health  
Helsinki (2009). Advisor, and member of the International Advisory Board

Third International Symposium on Nanotechnology and Occupational Health  
Taiwan (2007). Co-chair

Second International Symposium on Nanotechnology and Occupational Health  
Minneapolis, USA (2005). Co-chair

Materials Research Society  
Symposium: Nanomaterials and the Environment (2005). Co-chair

First International Symposium: Nanotoxicology: Biomedical Aspects  
Miami (2005). Organizing committee

Developing Experimental Approaches for Evaluation of Toxicological Interactions of Nanoscale  
Materials  
Gainesville Florida (2004) Steering Committee member

First International Symposium on Nanotechnology and Occupational Health

Buxton, UK (2004). Co-chair

Emerging Issues in Nanoaerosol Science and Technology

Workshop sponsored by the National Science Foundation and the Environmental Protection Agency (2003).

Panel Member

Royal Society (London)

“Ultrafine Particles in the Atmosphere” (London, 2000). Co-chair

## EVENTS AND INITIATIVES – GENERAL (SELECT, FROM 2017)

*Including events and initiatives organized and led by Andrew Maynard, and those other than invited talks and presentations where Maynard had substantive input and involvement*

**Beneficial AI** – invited participant in the 2017 Beneficial AI conference at Asilomar, which was responsible for developing the Asilomar AI Principles. (Asilomar, January 2017)

**Challenges of Artificial Intelligence** – Invited participant in an Origins workshop. (Tempe, February 2017)

**Effective Video Techniques** – Developed a suite of online training resources for scientists and engineers interested in creating video content for a broad audience (March 2017) <https://riskinnovation.asu.edu/video-techniques/>

**Science communication through video** – developed, organized and ran a two-day workshop for researchers on creating effective science videos for general audiences. (Tempe, March 2017)

**Science communication through video** – developed, organized and ran a two-day workshop for researchers within the NEWT Engineering Research Center on creating effective science videos for general audiences. (Houston, June 2017)

**Swiss National Science Foundation videos** – co-creation of seven videos describing the work of researchers and its relevance in the NRP 64 research program (June 2017) <http://www.nrp64.ch/en/news-media/multimedia>

**Chief Science Officer Organization Summer camp** – developed and ran a session on science engagement and communication for 90 middle and high school CSOs. (Phoenix, July 2017)

**Homecoming** – developed and ran two exhibits designed to engage members of the public around science, technology, society and risk. (Tempe, October 2017)

**Chief Science Officer program and ASU Biodesign Institute** – co-developed and led a workshop for middle and high school students on science engagement and communication. (Tempe, November 2017)

## 10 MOST CITED PUBLICATIONS IN PEER REVIEW JOURNALS

*Google Scholar metrics: Citations: 19,793. H-index: 49, i10-index: 104 (Updated 7/30/20)*

1. Poland, C. A., R. Duffin, I. Kinloch, A. Maynard, W. A. H. Wallace, A. Seaton, V. Stone, S. Brown, W. MacNee and K. Donaldson (2008). "Carbon nanotubes introduced into the abdominal cavity of mice show asbestos-like pathogenicity in a pilot study." *Nature Nanotechnology* **3**: 423-428. (2637 citations)
2. Oberdörster, G., A. Maynard, K. Donaldson, V. Castranova, J. Fitzpatrick, K. Ausman, J. Carter, B. Karn, W. Kreyling, D. Lai, S. Olin, N. Monteiro-Riviere, D. Warheit and H. Yang (2005). "Principles for characterizing the potential human health effects from exposure to nanomaterials: elements of a screening strategy." *Part. Fiber Toxicol.* **2**(8): doi:10.1186/1743-8977-1182-1188. (2123 citations)
3. Maynard, A. D., R. J. Aitken, T. Butz, V. Colvin, K. Donaldson, G. Oberdörster, M. A. Philbert, J. Ryan, A. Seaton, V. Stone, S. S. Tinkle, L. Tran, N. J. Walker and D. B. Warheit (2006). "Safe handling of nanotechnology." *Nature* **444**(16): 267-269. (1604 citations)
4. Shvedova, A. A., E. R. Kisin, R. Mercer, A. R. Murray, V. J. Johnson, A. I. Potapovich, Y. Y. Tyurina, O. Gorelik, S. Arepalli, D. Schwegler-Berry, A. F. Hubbs, J. Antonini, D. E. Evans, B. K. Ku, D. Ramsey, A. Maynard, V. E. Kagan, V. Castranova and P. Baron (2005). "Unusual inflammatory and fibrogenic pulmonary responses to single-walled carbon nanotubes in mice." *Am. J. Physiol.-Lung Cell. Mol. Physiol.*

289: 698-708. (1440)

5. Shvedova, A. A., E. R. Kisin, A. R. Murray, V. Z. Gandelman, A. D. Maynard, P. A. Baron and V. Castranova (2003). "Exposure to carbon nanotube material: Assessment of the biological effects of nanotube materials using human keratinocyte cells." *J. Toxicol. Environ. Health* **66**(20): 1909-1926. (1417 citations)
6. Elder, A., R. Gelein, V. Silva, T. Feikert, L. Opanashuk, J. Carter, R. Potter, A. Maynard, J. Finkelstein and G. Oberdorster (2006). "Translocation of inhaled ultrafine manganese oxide particles to the central nervous system." *Environmental Health Perspectives* **114**(8): 1172-1178. (1073 citations)
7. Maynard, A. D., P. A. Baron, M. Foley, A. A. Shvedova, E. R. Kisin and V. Castranova (2004). "Exposure to Carbon Nanotube Material: Aerosol Release During the Handling of Unrefined Single Walled Carbon Nanotube Material." *J. Toxicol. Environ. Health* **67**(1): 87-107. (904 citations)
8. Shvedova, A. A., E. Kisin, A. R. Murray, V. J. Johnson, O. Gorelik, S. Arepalli, A. F. Hubbs, R. R. Mercer, P. Keohavong, N. Sussman, J. Jin, J. Yin, S. Stone, B. T. Chen, G. Deye, A. Maynard, V. Castranova, P. A. Baron and V. E. Kagan (2008). "Inhalation vs. aspiration of single-walled carbon nanotubes in C57BL/6 mice: inflammation, fibrosis, oxidative stress, and mutagenesis." *Am. J. Physiol.-Lung Cell. Mol. Physiol.* **295**: L552-L565. (636 citations)
9. Maynard, A. D. and E. D. Kuempel (2005). "Airborne nanostructured particles and occupational health." *Journal Of Nanoparticle Research* **7**(6): 587-614. (620 citations)
10. Tsuji, J. S., A. D. Maynard, P. C. Howard, J. T. James, C. W. Lam, D. B. Warheit and A. B. Santamaria (2006). "Research strategies for safety evaluation of nanomaterials, part IV: Risk assessment of nanoparticles." *Toxicological Sciences* **89**(1): 42-50. (526 citations)

## PUBLICATIONS IN ACADEMIC JOURNALS

Google Scholar: <https://scholar.google.com/citations?hl=en&user=b8NhWc4AAAAAJ>

1. Maynard, A. D. (2021). "How to Succeed as an Academic on YouTube." *Frontiers in Communication* **5**(130).
2. Kidd, J., P. Westerhoff and A. Maynard (2020). "Public perceptions for the use of Nanomaterials for in-home drinking water purification devices." *NanoImpact*: 100220. DOI: 10.1016/j.impact.2020.100220
3. Guseva Canu, I., K. Batsungnoen, A. Maynard and N. B. Hopf (2020). "State of knowledge on the occupational exposure to carbon nanotube." *International Journal of Hygiene and Environmental Health* **225**: 113472.
4. Tournas, L., W. Johnson, A. Maynard and D. Bowman (2019). "Germline Doping for Heightened Performance in Sport." *Australian and New Zealand Sports Law Journal* **12**(1): 1-24.
5. Maynard, A. D. and M. Scragg (2019). "The Ethical and Responsible Development and Application of Advanced Brain Machine Interfaces." *J Med Internet Res* **21**(10): e16321.
6. Maynard, A. D. and J. Kidd (2018). "Are assumptions of consumer views impeding nano-based water treatment technologies?" *Nature Nanotechnology* **13**(8): 673-674.
7. Finkel, A. M., et al. (2018). "A "solution-focused" comparative risk assessment of conventional and synthetic biology approaches to control mosquitoes carrying the dengue fever virus." *Environment Systems and Decisions* **38**(2): 177-197.
8. Maynard, A. D. (2018). "Thinking Differently about Risk." *Astrobiology* **18**(2).
9. Hansen, S. F., R. Hjorth, L. M. Skjolding, D. M. Bowman, A. Maynard and A. Baun (2017). "A critical analysis of the environmental dossiers from the OECD sponsorship programme for the testing of manufactured nanomaterials." *Environmental Science: Nano*: 4, 282-291.
10. Maynard, A. D. and R. J. Aitken (2016). "'Safe handling of nanotechnology' ten years on." *Nature Nanotechnology* **11**: 998-1000.
11. Maynard, A. D., D. M. Bowman and J. G. Hodge Jr (2016). "Mitigating Risks to Pregnant Teens from Zika Virus." *The Journal of Law, Medicine & Ethics* **44**(4): 657-659.

12. Maynard, A. D. (2016). "Is nanotech failing casual learners?" *Nature Nanotechnology* **11**(9): 734-735.
13. Lewis, R. C., R. Hauser, A. D. Maynard, R. L. Neitzel, L. Wang, R. Kavet, P. Morey, J. B. Ford, J. D. Meeker and R. Dadd (2016). "Personal Measures Of Power-Frequency Magnetic Field Exposure Among Men From An Infertility Clinic: Distribution, Temporal Variability And Correlation With Their Female Partners' exposure." *Radiation protection dosimetry* **172**(4): 401-408.
14. Wilding, L. A., C. M. Bassis, K. Walacavage, S. Hashway, P. R. Leroueil, M. Morishita, A. D. Maynard, M. A. Philbert and I. L. Bergin (2016). "Repeated dose (28-day) administration of silver nanoparticles of varied size and coating does not significantly alter the indigenous murine gut microbiome." *Nanotoxicology* **10**(5): 513-520.
15. Lewis, R. C., R. Hauser, A. D. Maynard, R. L. Neitzel, L. Wang, R. Kavet and J. D. Meeker (2016). "Exposure to Power-Frequency Magnetic Fields and the Risk of Infertility and Adverse Pregnancy Outcomes: Update on the Human Evidence and Recommendations for Future Study Designs." *Journal of Toxicology and Environmental Health - Part B: Critical Reviews* **19**(1): 29-45.
16. Wilding, L. A., C. M. Bassis, K. Walacavage, S. Hashway, P. R. Leroueil, M. Morishita, A. D. Maynard, M. A. Philbert and I. L. Bergin (2016). "Repeated dose (28-day) administration of silver nanoparticles of varied size and coating does not significantly alter the indigenous murine gut microbiome." *Nanotoxicology* **10**(5): 513-520.
17. Maynard, A. D. (2016). "Are we ready for spray-on carbon nanotubes?" *Nature Nanotechnology* **11**: 490-491.
18. Ault, A. P., D. I. Stark, J. L. Axson, J. N. Keeney, A. D. Maynard, I. L. Bergin and M. A. Philbert (2016). "Protein corona-induced modification of silver nanoparticle aggregation in simulated gastric fluid." *Environmental Science: Nano* **3**(6): 1510-1520.
19. Maynard, A. D. (2016). "Navigating the risk landscape." *Nature Nanotechnology* **11**(3): 211-212.
20. Bergin, I. L., L. A. Wilding, M. Morishita, K. Walacavage, A. P. Ault, J. L. Axson, D. I. Stark, S. A. Hashway, S. S. Capracotta, P. R. Leroueil, A. D. Maynard and M. A. Philbert (2016). "Effects of particle size and coating on toxicologic parameters, fecal elimination kinetics and tissue distribution of acutely ingested silver nanoparticles in a mouse model." *Nanotoxicology* **10**(3): 352-360.
21. Maynard, A. D. (2015). "Navigating the fourth industrial revolution." *Nature Nanotechnology* **10**: 1005–1006.
22. Maynard, A. D. (2015). "Why we need risk innovation." *Nature Nanotechnology* **10**: 730-731.
23. Axson, J. L., D. I. Stark, A. L. Bondy, S. S. Capracotta, A. D. Maynard, M. A. Philbert, I. L. Bergin and A. P. Ault (2015). "Rapid Kinetics of Size and pH-Dependent Dissolution and Aggregation of Silver Nanoparticles in Simulated Gastric Fluid." *Journal of Physical Chemistry C* **119**(35): 20632-20641.
24. Maynard, A. D. (2015). "Learning from the past" *Nature Nanotechnology* **10**: 482-483
25. Maynard, A. D. (2015). "Responsible Innovation – the (nano) entrepreneur’s dilemma." *Nature Nanotechnology* **10**: 199-200.
26. Harper, S., W. Wohlleben, M. Doa, B. Nowack, S. Clancy, R. Canady and A. Maynard (2015). "Measuring Nanomaterial Release from Carbon Nanotube Composites: Review of the State of the Science." *J Phys Conf Ser* **617**(1).
27. Maynard, A. D. (2014). Could we 3D print an artificial mind? *Nature Nanotechnology* **9**(12): 955-956.
28. Maynard A. D. (2014). Old materials, new challenges? *Nature Nanotechnology* **9**: 658-659
29. Scherer, L. D., A. Maynard, D. C. Dolinoy, A. Fagerlin and B. Zikmund-Fisher (2014). The psychology of 'regrettable substitutions': examining consumer judgments of Bisphenol A and its alternatives. *Health Risk & Society* **16**(7-8): 649-666.
30. Maynard A. D. (2014). Is novelty overrated? *Nature Nanotechnology* **9**(3): 409-410.
31. Hodge, G. A., A. D. Maynard and D. M. Bowman (2014). "Nanotechnology: Rhetoric, risk and regulation." *Science and Public Policy* **41**(1): 1-14.
32. Maynard A. D. (2014). A decade of uncertainty. *Nature Nanotechnology* **9**(3): 159-160.

33. Ramachandran, G., J. Howard, A. Maynard and M. Philbert (2012). "Handling Worker and Third-Party Exposures to Nanotherapeutics During Clinical Trials." *Journal of Law Medicine & Ethics* **40**(4): 856-864.
34. Fatehi, L., S. M. Wolf, J. McCullough, R. Hall, F. Lawrenz, J. P. Kahn, C. Jones, S. A. Campbell, R. S. Dresser, A. G. Erdman, C. L. Haynes, R. A. Hoerr, L. F. Hogle, M. A. Keane, G. Khushf, N. M. P. King, E. Kokkoli, G. Marchant, A. D. Maynard, M. Philbert, G. Ramachandran, R. A. Siegel and S. Wickline (2012). "Recommendations for Nanomedicine Human Subjects Research Oversight: An Evolutionary Approach for an Emerging Field." *Journal of Law Medicine & Ethics* **40**(4): 716-750.
35. Ramachandran G, Ostraat M, Evans DE, Methner MM, O'Shaughnessy P, D'Arcy J, et al. (2011). A Strategy for Assessing Workplace Exposures to Nanomaterials. *JOEH* 8(11): 673-685.
36. Kriegel, C., J. Koehne, S. Tinkle, A. D. Maynard and R. A. Hill (2011). "Challenges of Trainees in a Multidisciplinary Research Program: Nano-Biotechnology." *J. Chemical Edu.* **88**(1): 53-55.
37. Maynard AD, Warheit D, Philbert MA. (2011). The New Toxicology of Sophisticated Materials: Nanotoxicology and Beyond. *Tox Sci* 120(Suppl 1): S109-S129.
38. Maynard AD, Bowman D, Hodge G. (2011). The problem of regulating sophisticated materials. *Nature Mat* 10: 554-557.
39. Maynard A. D. (2011). Regulators: Don't define nanomaterials. *Nature* 475: 31.
40. Shatkin JA, Abbott LC, Bradley AE, Canady RA, Guidotti T, Kulinowski KM, et al. (2010). Nano Risk Analysis: Advancing the Science for Nanomaterials Risk Management. *Risk Analysis* 30(11): 1680-1687.
41. Abbott L.C., Maynard A.D. (2010). Exposure Assessment Approaches for Engineered Nanomaterials. *Risk Analysis* 30(11): 1634-1644.
42. Aitken, R. J., P. J. A. Borm, K. Donaldson, G. Ichihara, S. Loft, F. Marano, A. D. Maynard, G. Oberdörster, H. Stamm, V. Stone, L. Tran and H. Wallin (2009). "Nanoparticles: one word: a multiplicity of different hazards." *Nanotoxicology* **3**(4): 263-264.
43. Heitbrink, W. A., D. E. Evans, B. K. Ku, A. D. Maynard, T. J. Slavin and T. M. Peters (2009). "Relationships Among Particle Number, Surface Area, and Respirable Mass Concentrations in Automotive Engine Manufacturing." *J. Occup. Environ. Hyg.* **6**(1): 19-31.
44. Maynard, A. D. and Rejeski, D. (2009) Too small to overlook. *Nature* 460, July 2009
45. Maynard, A. D. (2009). "Commentary: Oversight of Engineered Nanomaterials in the Workplace." *J Law Med Ethics* **37**: 651-658.
46. Park, J. Y., Raynor, P. C., Maynard, A. D., Eberly, L. E. and Ramachandran, G. (2009). Comparison of two estimation methods for surface area concentration using number concentration and mass concentration of combustion-related ultrafine particles *Atm. Environ.* 43:502-509.
47. Maynard, A. D. (2009). "Nanotechnology: Ensuring Success through Safety." *Science & Technology* **3**: 66-67.
48. Shvedova, A. A., Kisin, E., Murray, A. R., Johnson, V. J., Gorelik, O., Arepalli, S., Hubbs, A. F., Mercer, R. R., Keohavong, P., Sussman, N., Jin, J., Yin, J., Stone, S., Chen, B. T., Deye, G., Maynard, A., Castranova, V., Baron, P. A. and Kagan, V. E. (2008). Inhalation vs. aspiration of single-walled carbon nanotubes in C57BL/6 mice: inflammation, fibrosis, oxidative stress, and mutagenesis. *Am. J. Physiol.-Lung Cell. Mol. Physiol.* 295:L552-L565.
49. Pui, D. Y. H., C. Qi, N. Stanley, G. Oberdörster and A. Maynard (2008). "Recirculating Air Filtration Significantly Reduces Exposure to Airborne Nanoparticles." *Environ Health Perspect* **16**(7): 863-866.
50. Poland, C. A., Duffin, R., Kinloch, I., Maynard, A., Wallace, W. A. H., Seaton, A., Stone, V., Brown, S., MacNee, W. and Donaldson, K. (2008). Carbon nanotubes introduced into the abdominal cavity of mice show asbestos-like pathogenicity in a pilot study. *Nature Nanotechnology* 3:423-428.
51. Hansen, S. F., Maynard, A., Baun, A. and Tickner, J. A. (2008). Late lessons from early warnings for nanotechnology. *Nature Nanotechnology* 3:444-447.
52. Maynard, A. D. and Pui, D. Y. H. (2007). Nanotechnology and occupational health: New technologies – new challenges. *J. Nanopart. Res.* 9:1-3.
53. Maynard, A. D., Ku, B. K., Emery, M., Stolzenburg, M. and McMurry, P. H. (2007). Measuring particle

- size-dependent physicochemical structure in airborne single walled carbon nanotube agglomerates. *J. Nanopart. Res.* 9:85-92.
54. Maynard, A. D. and Aitken, R. J. (2007). Assessing exposure to airborne nanomaterials: Current abilities and future requirements. *Nanotoxicology* 1:26-41.
55. Maynard, A., D. (2007). Nanotechnology: The next big thing, or much ado about nothing? *Ann. Occup. Hyg.* 51:1-12.
56. Ku, B. K., Maynard, A. D., Baron, P. A. and Deye, G. J. (2007). Observation and measurement of anomalous responses in a differential mobility analyzer caused by ultrafine fibrous carbon aerosols. *J. Electrostatics* 65:542-548.
57. Lubick, N. and A. Maynard (2007). "Spoonful of caution with NANO HYPE." *Environmental Science & Technology* 41(8): 2661-2665.
58. Maynard, A. D. (2007). *Nanotoxicology: Laying a firm foundation for sustainable nanotechnologies, in Nanotoxicology. Characterization, Dosing and Health Effects*, N. Monteiro-Riviere and C. L. Tran, eds., Informa, New York.
59. Maynard, A. D. and Pui, D. Y. H., eds. (2007). *Nanoparticles and Occupational Health*. Springer, Dordrecht, Netherlands.
60. Maynard, A. D. (2007). Nanoparticle Safety - A Perspective from the United States, in *Nanotechnology. Consequences for Human Health and the Environment. Issues in Environmental Science and Technology, Volume 24*, R. E. Hester and R. M. Harrison, eds., The Royal Society of Chemistry, Cambridge, UK.
61. Kandlikar, M., Ramachandran, G., Maynard, A., Murdock, B. and Toscano, W. A. (2007). Health risk assessment for nanoparticles: A case for using expert judgment. *J. Nanopart. Res.* 9:137-156.
62. Balbus, J. M., Maynard, A. D., Colvin, V. L., Castranova, V., Daston, G. P., Denison, R. A., Dreher, K. L., Goering, P. L., Goldberg, A. M., Kulinowski, K. M., Monteiro-Riviere, N. A., Oberdörster, G., Omenn, G. S., Pinkerton, K. E., Ramos, K. S., Rest, K. M., Sass, J. B., Silbergeld, E. K. and Wong, B. A. (2007). Hazard Assessment for Nanoparticles: Report from an Interdisciplinary Workshop. *Environ Health Perspect* 115:1654-1659.
63. Ku, B. K., Emery, M. S., Maynard, A. D., Stolzenburg, M. R. and McMurry, P. H. (2006). In situ structure characterization of airborne carbon nanofibres by a tandem mobility-mass analysis. *Nanotechnology* 17:3613-3621.
64. Wallace, W. E., M. J. Keane, D. K. Murray, W. P. Chisholm, A. D. Maynard and T.-M. Ong (2007). "Phospholipid lung surfactant and nanoparticle surface toxicity: Lessons from diesel soots and silicate dusts." *Journal of Nanoparticle Research* 9(1): 23-38.
65. Elder, A., R. Gelein, V. Silva, T. Feikert, L. Opanashuk, J. Carter, R. Potter, A. Maynard, J. Finkelstein and G. Oberdorster (2006). "Translocation of inhaled ultrafine manganese oxide particles to the central nervous system." *Environmental Health Perspectives* 114(8): 1172-1178.
66. Maynard, A. D., R. J. Aitken, T. Butz, V. Colvin, K. Donaldson, G. Oberdörster, M. A. Philbert, J. Ryan, A. Seaton, V. Stone, S. S. Tinkle, L. Tran, N. J. Walker and D. B. Warheit (2006). Safe handling of nanotechnology. *Nature* 444(16): 267-269.
67. Ku, B. K. and A. D. Maynard (2006). Generation and investigation of airborne silver nanoparticles with specific size and morphology by homogeneous nucleation, coagulation and sintering. *J. Aerosol Sci.* 37(4): 452-470.
68. Peters, T., W. A. Heitbrink, E. D. E., S. T. J. and A. D. Maynard (2006). The Mapping of Fine and Ultrafine Particle Concentrations in an Engine Machining and Assembly Facility. *Ann. Occup. Hyg.* 50(3): 249-257.
69. Tsuji, J. S., A. D. Maynard, P. C. Howard, J. T. James, C. W. Lam, D. B. Warheit and A. B. Santamaria (2006). Research strategies for safety evaluation of nanomaterials, part IV: Risk assessment of nanoparticles. *Toxicological Sciences* 89(1): 42-50.
70. Maynard, A. D. and E. D. Kuempel (2005). Airborne nanostructured particles and occupational health. *J. Nanoparticle Res.* 7: 587-614.

71. Beamer, B. R., S. Shulman, A. D. Maynard, D. Williams and D. Watkins (2005). "Evaluation of Misting Controls to Reduce Respirable Silica Exposure for Brick Cutting." *Ann. Occup. Hyg.* **49**: 503-510.
72. Andresen, P., Ramachandran, G., Pai, P., Lazovich, D. and Maynard, A. (2004). Women's personal and indoor exposure to PM<sub>2.5</sub> in Mysore, India: Impact of domestic fuel usage. *Atmos. Environ.* **39**:5500-5508.
73. Jones, A. D., R. J. Aitken, J. F. Fabries, E. Kauffer, G. Liden, A. Maynard, G. Riediger and W. Sahle (2005). Thoracic size-selective sampling of fibres: performance of four types of thoracic sampler in laboratory tests. *Ann. Occup. Hyg.* **49**: 481-492.
74. Ku, B. K. and A. D. Maynard (2005). Comparing aerosol surface-area measurement of monodisperse ultrafine silver agglomerates using mobility analysis, transmission electron microscopy and diffusion charging. *J. Aerosol Sci.* **36**(9), 1108-1124.
75. Oberdörster, G., A. Maynard, K. Donaldson, V. Castranova, J. Fitzpatrick, K. Ausman, J. Carter, B. Karn, W. Kreyling, D. Lai, S. Olin, N. Monteiro-Riviere, D. Warheit and H. Yang (2005). Principles for characterizing the potential human health effects from exposure to nanomaterials: elements of a screening strategy. *Part. Fiber Toxicol.* **2**(8): doi:10.1186/1743-8977-2-8.
76. Shvedova, A. A., E. R. Kisin, R. Mercer, A. R. Murray, V. J. Johnson, A. I. Potapovich, Y. Y. Tyurina, O. Gorelik, S. Arepalli, D. Schwegler-Berry, A. F. Hubbs, J. Antonini, D. E. Evans, B. K. Ku, D. Ramsey, A. Maynard, V. E. Kagan, V. Castranova and P. Baron (2005). Unusual inflammatory and fibrogenic pulmonary responses to single-walled carbon nanotubes in mice. *Am. J. Physiol.-Lung Cell. Mol. Physiol.* **289**: 698-708.
77. Chen, B. T., G. A. Feather, A. D. Maynard and C. Y. Rao (2004). Development Of A Personal Sampler For Collecting Fungal Spores. *J. Aerosol Sci.* **38**, 926-937.
78. Lee, S.-A., S. A. Grinshpun, A. Adhikari, W. Li, R. McKay, A. D. Maynard and T. Reponen (2004). Laboratory and Field Evaluation of a New Personal Set-up for Assessing the Protection of given by the N95 Filtering-Facepiece Respirators Against Particles. *Ann. Occup. Hyg.* **49**:245-257.
79. Maynard, A. D., Y. Ito, I. Arslan, A. T. Zimmer, N. Browning and A. Nicholls (2004). Examining elemental surface enrichment in ultrafine aerosol particles using analytical Scanning Transmission Electron Microscopy. *Aerosol Sci. Tech.* **38**, 365-381
80. Maynard, A. D., P. A. Baron, M. Foley, A. A. Shvedova, E. R. Kisin and V. Castranova (2004). Exposure to Carbon Nanotube Material. Aerosol Release During the Handling of Unrefined Single Walled Carbon Nanotube Material. *J. Toxicol. Environ. Health* **67**(1), 87-107
81. Pui, D. Y. H., Flagan, R. C., Kaufman, S. L., Maynard, A. D., de la Mora, J. F., Hering, S. V., Jimenez, J. L., Prather, K. A., Wexler, A. S. and Ziemann, P. J. (2004). Experimental methods and instrumentation. *Journal Of Nanoparticle Research* **6**:314-315.
82. Maynard, A. D. and A. T. Zimmer (2003). Development and validation of a simple numerical model for estimating workplace aerosol size distribution evolution through coagulation. *Aerosol Sci. Tech.* **37**, 804-817
83. Maynard, A. D. (2003). Estimating aerosol surface area from number and mass concentration measurements. *Ann. Occup. Hyg.* **47**(2): 123-144.
84. Shvedova, A. A., V. Castranova, E. R. Kisin, A. R. Murray, V. Z. Gandelsman, A. D. Maynard, and P. A. Baron (2003). Exposure to carbon nanotube material: Assessment of nanotube cytotoxicity using human keratinocyte cells. *Journal of Toxicology and Environmental Health-Part a* **66**(20): 1909-1926.
85. Maynard, A. D. (2002). Thoracic size-selection of fibers - dependence of penetration on fiber length for five thoracic sampler types. *Ann. Occup. Hyg.* **46**(6): 511-522.
86. Maynard, A. D. (2002). Experimental determination of ultrafine TiO<sub>2</sub> de-agglomeration in surrogate pulmonary surfactant – preliminary results. *Ann. Occup. Hyg.* **46**(Suppl. 1): 197-202.
87. Maynard, A. D. and R. L. Maynard (2002). A derived association between ambient aerosol surface area and excess mortality using historic time series data. *Atmos. Env.* **36**: 5561-5567.
88. Maynard, A. D. and R. L. Maynard (2002). Ambient aerosol exposure-response as a function of particulate surface-area: re-interpretation of historic data using numerical modeling. *Ann. Occup. Hyg.* **46**(Supp. 1):

444-449.

89. Maynard, A. D. and A. T. Zimmer (2002). Evaluation of grinding aerosols in terms of alveolar dose: The significance of using mass, surface-area and number metrics. *Ann. Occup. Hyg.* **46**(Suppl. 1): 320-322.
90. Zimmer, A. T. and A. D. Maynard (2002). Investigation of the Aerosols Produced by a High-Speed, Hand-Held Grinder Using Various Substrates. *Ann. Occup. Hyg.* **46**(8): 663-672.
91. Maynard, A. D. (2000). Overview of methods for analysing single ultrafine particles. *Philosophical Transactions of the Royal Society of London Series a-Mathematical Physical and Engineering Sciences* **358**(1775): 2593-2609.
92. Maynard, A. D. (2000). A simple model of axial flow cyclone performance under laminar flow conditions." *Journal of Aerosol Science* **31**(2): 151-167.
93. Maynard, A. D., J. Thompson, J. Cain and B. Rajan (2000). Air movement visualisation in the workplace - Current methods and new approaches. *Am. Ind. Hyg. Assoc. J.* **61**: 51-55.
94. Brown, L. M., N. Collings, R. M. Harrison, A. D. Maynard and R. L. Maynard (2000). "Ultrafine particles in the atmosphere: introduction." *Philosophical Transactions of the Royal Society of London Series a-Mathematical Physical and Engineering Sciences* **358**(1775): 2563-2565.
95. Maynard, A. D. (1999). "Measurement of aerosol penetration through six personal thoracic samplers under calm air conditions." *Journal of Aerosol Science* **30**(9): 1227-1242.
96. Aitken, R. J., P. E. J. Baldwin, G. C. Beaumont, L. C. Kenny and A. D. Maynard (1999). "Aerosol inhalability in low air movement environments." *Journal of Aerosol Science* **30**(5): 613-626.
97. Kenny, L. C., R. J. Aitken, P. E. J. Baldwin, G. C. Beaumont and A. D. Maynard (1999). "The sampling efficiency of personal inhalable aerosol samplers in low air movement environments." *Journal of Aerosol Science* **30**(5): 627-638.
98. Baldwin, P. E. J. and A. D. Maynard (1998). "A survey of wind speeds in indoor workplaces." *Annals of Occupational Hygiene* **42**(5): 303-313.
99. Maynard, A. D., C. Northage, M. Hemingway and S. D. Bradley (1997). "Measurement of short-term exposure to airborne soluble platinum in the platinum industry." *Annals of Occupational Hygiene* **41**(1): 77-94.
100. Maynard, A. D., R. J. Aitken, L. C. Kenny and P. E. J. Baldwin (1997). "Preliminary investigation of aerosol inhalability at very low wind speeds." *Ann. Occup. Hyg.* **41**(Supplement 1): 695-699.
101. Maynard, A. D. (1996). "Sampling errors associated with sampling plate-like particles using the Higgins- and Dewell-type personal respirable cyclone." *Journal of Aerosol Science* **27**(4): 575-585.
102. Maynard, A. D. (1995). "The Application of Electron-Energy-Loss Spectroscopy to the Analysis of Ultrafine Aerosol-Particles." *Journal of Aerosol Science* **26**(5): 757-777.
103. Maynard, A. D. (1995). "The Development of a New Thermophoretic Precipitator For Scanning-Transmission Electron-Microscope Analysis of Ultrafine Aerosol-Particles." *Aerosol Science and Technology* **23**(4): 521-533.
104. Maynard, A. D. and L. C. Kenny (1995). "Performance assessment of three personal cyclone models, using an aerodynamic particle sizer." *J. Aerosol Sci.* **26**(4): 671-684.
105. McGibbon, A. J., L. M. Brown, A. L. Bleloch, N. D. Browning, F. cadete Santos Aires, P. J. Fallon, P. H. Gaskell, K. W. R. Gilkes, P. L. Hansen, A. Howie, A. D. Maynard, D. W. McComb, D. McMullan, H. Müllejans, Y. Murooka, J. H. Paterson, D. D. perovic, W. T. Pike, I. A. rauf, J. M. Rodenburg, A. Saeed, N. Stelmashenko, K. N. Tu, M. G. Walls, C. A. walsh, J. Yuan and J. Zhao (1993). "Microscopy in Solid State Science." *Microsc. Res. Technique* **24**: 299-315.

## BOOKS AND BOOK CHAPTERS

1. Maynard, Andrew (2020) *Future Rising: A Journey from the Past, to the Edge of Tomorrow*. Mango Publishing.
2. Maynard, A. D. and E. Garbee (2019). *Responsible innovation in a culture of entrepreneurship: a US*

- perspective. International Handbook on Responsible Innovation. A Global Resource. R. von Schomberg and J. Hankins, Edward Elgar.
3. Maynard, Andrew (2018). *Films from the Future: The Technology and Morality of Sci-Fi Movies*. Mango Publishing.
  4. M. Bowman, D., N. D. May and A. D. Maynard (2018). *Nanomaterials in Cosmetics: Regulatory Aspects. Analysis of Cosmetic Products (Second Edition)*. A. Salvador and A. Chisvert, Elsevier: pp 289-302.
  5. Maynard, A. D. (2018). Exploring boundaries around the safe use of advanced materials: A prospective product-based case studies approach. Nanotechnology environmental health and safety. Risks, regulations and management. Third Edition. M. Hull and D. Bowman. Netherlands, Elsevier: 427-450.
  6. Maynard, A. D. (2017). *Rethinking Risk*. In: *Visions, Venues, Escape Velocities: A collection of Space Futures*. Eds. E. Finn and J. Eschrich. ASU, Tempe.
  7. Maynard, A. D. and J. Stilgoe, Eds. (2017). *The Ethics of Nanotechnology, Geoengineering and Clean Technology*. The Library of Essays on the Ethics of Emerging Technologies. London, Routledge.
  8. Maynard, A. D. and J. Stilgoe (2017). The Ethics of Noumenal Technologies. In *The Ethics of Nanotechnology, Geoengineering and Clean Technology*. Eds. A. D. Maynard and J. Stilgoe. London, Routledge.
  9. Maynard, A. D. (2016). Chapter 1. The Challenge of Nanomaterial Risk Assessment. in Assessing Nanoparticle Risks to Human Health. 2nd Edition. Ed. G. Ramachandran. William Andrew. pp 1-20.
  10. Maynard, A. D. (2014). Exploring boundaries around the safe use of advanced materials: A prospective product-based case studies approach. In *Nanotechnology environmental health and safety. Risks, regulations and management. Second Edition*. Eds. M. Hull and D. Bowman. Kidlington, Oxford, William Andrews.
  11. Hansen, S. F., A. Maynard, A. Baun, J. A. Tickner and D. M. Bowman (2013). Nanotechnology — early lessons from early warnings. In *Late lessons from early warnings: science, precaution, innovation*, European Environment Agency: 562 - 591.
  12. Maynard, A. D., A. Grobe and O. Renn (2012). Responsible innovation, Global Governance, and Emerging Technologies. In *Can Emerging Technologies Make a Difference in Development?* R. A. Parker and R. P. Applebaum. New York, Routledge: 168-187.
  13. Volkwein, J. C., A. D. Maynard and M. Harper (2011). Workplace aerosol measurement. In *Aerosol Measurement. Principles, Techniques and Applications. Third Edition*. Eds. P. Kulkarni, P. A. Baron and K. Willeke. Hoboken, NJ, John Wiley & Sons, Inc.: 571-590.
  14. Maynard, A. D. (2011). Challenges in Nanoparticle Risk Assessment. In *Assessing Nanoparticle Risks to Human Health*. Ed. G. Ramachandran. Norwich, William Andrew Inc: 1-19.
  15. Hodge, G., D. Bowman and A. D. Maynard, Eds. (2010). *International Handbook on Regulating Nanotechnologies*. Cheltenham, England, Edward Elgar.
  16. Hodge, G. A., D. M. Bowman and A. D. Maynard (2010). Introduction: The Regulatory Challenges for Nanotechnologies. In *International Handbook on Regulating Nanotechnologies*. Eds. G. A. Hodge, D. M. Bowman and A. D. Maynard. Cheltenham, Edward Elgar.
  17. Maynard, A. D., D. M. Bowman and G. A. Hodge (2010). Conclusions: Triggers, gaps, risks and trust. In *International Handbook on Regulating Nanotechnologies*. Eds. G. A. Hodge, D. M. Bowman and A. D. Maynard. Cheltenham, Edward Elgar.
  18. Maynard, A. D. (2010). Nanotechnology Environmental Health and Safety: Risks, Regulation and Management Foreword. In *Nanotechnology Environmental Health and Safety: Risks, Regulation and Management*. Eds. M. Hull and D. Bowman. Amsterdam, Elsevier Science Bv: VIII-IX.
  19. Poland, C. A., R. Duffin, I. Kinloch, A. Maynard, W. A. H. Wallace, A. Seaton, V. Stone, S. Brown, W. MacNee and K. Donaldson (2009). Multi-wall carbon nanotubes and the asbestos fibre pathogenicity paradigm. In *Inhaled Particles X*. L. Kenny. **151**.
  20. Maynard, A. D. (2008). Engineered Nanomaterials. In *Encyclopedia of Quantitative Risk Assessment*. Chichester, John Wiley and Sons Ltd.

21. Maynard, A. D. and D. Y. H. Pui, Eds. (2007). *Nanoparticles and Occupational Health*. Dordrecht, Netherlands, Springer.
22. Maynard, A. D. (2007). Nanotoxicology: Laying a firm foundation for sustainable nanotechnologies. In *Nanotoxicology. Characterization, Dosing and Health Effects*. Eds. N. Monteiro-Riviere and C. L. Tran. New York, Informa: 1-6.
23. Maynard, A. D. (2007). Nanoparticle Safety - A Perspective from the United States. In *Nanotechnology. Consequences for Human Health and the Environment. Issues in Environmental Science and Technology, Volume 24*. Eds. R. E. Hester and R. M. Harrison. Cambridge, UK, The Royal Society of Chemistry.
24. Maynard, A. D. (2007). Nanotechnologies: Overview and issues. In *Nanotechnology - Toxicological issues and environmental safety*. Eds. P. P. Simeonova and M. Luster, Springer: 1-14.
25. Maynard, A. D. and P. A. Baron (2004). Aerosols in the Industrial Environment. In *Aerosols Handbook. Measurement, Dosimetry and Health Effects*. Eds. L. S. Ruzer and N. H. Harley. Boca Raton, CRC Press: 225-264.
26. Brown, L. M., N. Collings, R. M. Harrison, A. D. Maynard and R. L. Maynard, Eds. (2003). *Ultrafine Particles in the Atmosphere*. London, UK, Imperial College Press.
27. Maynard, A. D. (2003). Overview of methods for analysing single ultrafine particles. In *Ultrafine Particles in the Atmosphere*. Eds. L. M. Brown, N. Collings, R. M. Harrison, A. D. Maynard and R. L. Maynard. London, UK, Imperial College Press.
28. Maynard, A. D. and P. A. Jensen (2001). Aerosol Measurement in the Workplace. In *Aerosol Measurement, Principles, Techniques and Applications. Second Edition*. Eds. P. A. Baron and K. Willeke. New York, Wiley Interscience: 779-799.
29. Jones, A. D., R. J. Aitken, L. Armbruster, P. Byrne, J. F. Fabriès, E. Kauffer, G. Lidén, M. Lumens, A. Maynard, G. Riediger and W. Sahle (2001). *Thoracic sampling of fibres*. Norwich, UK, HSE Books.

## REPORTS (SELECTED)

1. National Academies of Science (2017). Communicating Science Effectively: A Research Agenda. National Academies Press. <https://www.nap.edu/catalog/23674/communicating-science-effectively-a-research-agenda>
2. National Academies of Science (2013). Research Progress on Environmental, Health, and Safety Aspects of Engineered Nanomaterials. National Academies Press. <https://www.nap.edu/catalog/18475/research-progress-on-environmental-health-and-safety-aspects-of-engineered-nanomaterials>
3. National Academies of Science (2012). A Research Strategy for Environmental, Health, and Safety Aspects of Engineered Nanomaterials. National Academies Press. <https://www.nap.edu/catalog/13347/a-research-strategy-for-environmental-health-and-safety-aspects-of-engineered-nanomaterials>
4. Maynard, A. D. and T. Harper (2011). Building a Sustainable Future: Rethinking the role of technology Innovation in an increasingly interdependent, complex and resource-constrained world. A report from the World Economic Forum Global Agenda Council on Emerging Technologies. Geneva, World Economic Forum.
5. National Academies of Science (2009). Review of the Federal Strategy for Nanotechnology-Related Environmental, Health, and Safety Research. National Academies Press. <https://www.nap.edu/catalog/12559/review-of-the-federal-strategy-for-nanotechnology-related-environmental-health-and-safety-research>
6. Aitken, R. J., S. M. Hankin, B. Ross, C. L. Tran, V. Stone, T. F. Fernandes, K. Donaldson, R. Duffin, Q. Chaudhry, T. A. Wilkins, S. A. Wilkins, L. S. Levy, S. A. Rocks and A. Maynard (2009). EMERGNANO: A review of completed and near completed environment, health and safety research on nanomaterials and nanotechnology. Edinburgh, UK, Institute for Occupational Medicine.
7. Maynard, A. D. (2008). United States House of Representatives Committee on Science & Technology Hearing on: The National Nanotechnology Initiative Amendments Act of 2008. Testimony of: Andrew D. Maynard, Ph.D. Chief Science Advisor, Project on Emerging Nanotechnologies, Woodrow Wilson

- International Center for Scholars, Washington, DC. April 16 2008. Washington DC, Project on Emerging Nanotechnologies.
8. Maynard, A. D. (2006). Nanotechnology: A research strategy for addressing risk. Washington DC, Woodrow Wilson International Center for Scholars, Project on Emerging Nanotechnologies.
  9. Maynard, A. D. (2005). Inventory of Research on the Environmental, Health and Safety Implications of Nanotechnology Washington DC, Woodrow Wilson International Center for Scholars, Project on Emerging Nanotechnologies.
  10. Baron, P. A., A. D. Maynard and M. Foley (2003). Evaluation of aerosol release during the handling of unrefined carbon nanotube material. Cincinnati, OH, NIOSH.
  11. Kenny, L. C., A. D. Maynard, R. C. Brown, B. Crook, A. Curran and D. J. swan (1999). A scoping study into ultrafine aerosol research and HSL's ability to respond to current and future reasearch needs, health and Safety Laboratory, UK.

## PUBLIC WRITING (SELECTED)

1. Maynard (2020) “10 ways we can build a better relationship with the future” World Economic Forum <https://www.weforum.org/agenda/2020/12/10-ways-we-can-build-a-better-relationship-with-the-future/>
2. Johnson, Bowman, Tournas and Maynard (2019) “We Are Not Ready to Deal With Gene-Edited Athletes” Future Tense <https://slate.com/technology/2019/12/crispr-prime-editing-gene-doping-athletes.html>
3. Maynard (2019) “The Many Ways Elon Musk’s Neuralink Could Go Wrong” OneZero <https://onezero.medium.com/how-to-build-a-better-brain-machine-interface-while-not-falling-at-the-first-hurdle-cc238836a2b7>
4. Maynard (2019) “How to Ensure Our Digital Legacy Isn’t Lost to the Future” OneZero <https://onezero.medium.com/how-to-ensure-our-digital-legacy-isnt-lost-to-the-future-f6a226bc6792>
5. Maynard (2019) “Neuralink’s Technology Is Impressive. Is It Ethical?” OneZero <https://onezero.medium.com/neuralinks-technology-is-impressive-is-it-ethical-812afb38b19e>
6. Maynard (2019) “Ethics Boards Won’t Save Big Tech” OneZero <https://onezero.medium.com/tech-companies-need-an-ethics-reset-4d936a27960e>
7. Lathan and Maynard (2019) “Collaborative Telepresence Could Render Distance (Relatively) Meaningless” Scientific American <https://www.scientificamerican.com/article/collaborative-telepresence-could-render-distance-relatively-meaningless/>
8. Maynard (2019) “The Forgotten Risk of Fitness Trackers” OneZero <https://onezero.medium.com/personal-fitness-tracking-and-the-hidden-risks-of-seductive-technologies-4070bf17897f>
9. Maynard (2018) “The 1995 Anime “Ghost in the Shell” is more relevant than ever in today’s technologically complex society” BoingBoing <http://boingboing.net/2018/11/16/the-1995-anime-ghost-in-the.html>
10. Maynard (2018) “It’s time for tech startups and their funders to take “orphan risks” seriously” LinkedIn. <https://www.linkedin.com/pulse/its-time-tech-startups-funders-take-orphan-risks-andrew-maynard/>
11. Maynard (2018) “The True Cost of Stain-Resistant Pants” Future Tense <https://slate.com/technology/2018/11/man-in-the-white-suit-nanotechnology-science-innovation.html>
12. Maynard (2018) “Sci-Fi Movies Are the Secret Weapon That Could Help Silicon Valley Grow Up” Singularity Hub <https://singularityhub.com/2018/11/17/sci-fi-movies-are-the-secret-weapon-that-could-help-silicon-valley-grow-up/>
13. Finn and Maynard (2018) “How Google Became an Architect of Reality” Slate. <https://slate.com/technology/2018/09/google-manufactures-reality.html>
14. Johnson, Maynard, and Kirshenbaum (2018) “Burgers grown in a lab are heading to your plate. Will you bite?” Washington Post. <https://www.washingtonpost.com/national/health-science/burgers-grown-in-a-lab-are-heading-to-your-plate-will-you-bite/2018/09/07/1d048720-b060-11e8-a20b->

- [5f4f84429666\\_story.html?utm\\_term=.7bc29683d45f](#)
15. Maynard (2018) “Nanotechnology: sifting the science from what Elon Musk calls ‘BS’” Australian Broadcasting Company. <http://www.abc.net.au/news/2018-05-30/nanotechnology-elon-musk-bs-science-nanometres/9810978>
  16. Maynard (2018) “When will the companies behind self-driving cars listen to the public?” Houston Chronicle. <https://www.houstonchronicle.com/local/gray-matters/article/self-driving-cars-need-community-engagement-12770306.php>
  17. Maynard (2018) “Hold Off Dyeing Your Hair With Graphene Nanoparticles” Discover Magazine. <http://blogs.discovermagazine.com/crux/2018/03/20/graphene-nanoparticle-hair-dye/>
  18. Flegal and Maynard (2017) ‘Geostorm’ movie shows dangers of hacking the climate – we need to talk about real-world geoengineering now. The Conversation US. <https://theconversation.com/geostorm-movie-shows-dangers-of-hacking-the-climate-we-need-to-talk-about-real-world-geoengineering-now-85866> (republished in a number of outlets, including Popular Science)
  19. Maynard (2017) Elon Musk’s Sexy Spacesuit Is One Giant Leap for Space Tourism. Fortune. <http://fortune.com/2017/08/24/spacex-spacesuit-elon-musk-design-space/>
  20. Maynard (2017) Dear Elon Musk: Your dazzling Mars plan overlooks some big nontechnical hurdles. The Conversation US. <https://theconversation.com/dear-elon-musk-your-dazzling-mars-plan-overlooks-some-big-nontechnical-hurdles-84948> (republished in a number of outlets, including the Chicago Tribune)
  21. Szejda and Maynard (2017) Is lead in the US food supply decreasing our IQ? The Conversation US. <https://theconversation.com/is-lead-in-the-us-food-supply-decreasing-our-iq-79481>
  22. Garbee and Maynard (2017) In Praise of Self-Driving Cars and Fender-Benders. Slate Future Tense. [http://www.slate.com/articles/technology/future\\_tense/2017/04/fender\\_benders\\_tell\\_us\\_more\\_about\\_self\\_driving\\_cars\\_than\\_the\\_trolley\\_problem.html](http://www.slate.com/articles/technology/future_tense/2017/04/fender_benders_tell_us_more_about_self_driving_cars_than_the_trolley_problem.html)
  23. Stilgoe and Maynard (2017) It’s time for some messy, democratic discussions about the future of AI. The Guardian. <https://www.theguardian.com/science/political-science/2017/feb/01/ai-artificial-intelligence-its-time-for-some-messy-democratic-discussions-about-the-future>
  24. Maynard (2016) In a Post-Truth World, how should we communicate about science? US News & World Report (reposted from The Conversation) <http://www.usnews.com/news/national-news/articles/2016-12-13/what-does-research-say-about-how-to-effectively-communicate-about-science>
  25. Maynard and Scheufele (2016) What does research say about how to effectively communicate about science? The Conversation US. <https://theconversation.com/what-does-research-say-about-how-to-effectively-communicate-about-science-70244>
  26. Maynard (2016). Will driving your own car become the socially unacceptable public health risk smoking is today? The Conversation US. <https://theconversation.com/will-driving-your-own-car-become-the-socially-unacceptable-public-health-risk-smoking-is-today-65891>
  27. Maynard, A. D. (2016) Frankenstein foods, nanotech and the trouble with communicating technology. World Economic Forum. <https://www.weforum.org/agenda/2016/10/the-trouble-with-technology-innovation/>
  28. Maynard, A. D. (2016) Why I’m Suffering From Nanotechnology Fatigue. Slate Future Tense. [http://www.slate.com/articles/technology/future\\_tense/2016/09/why\\_i\\_m\\_suffering\\_from\\_nanotechnology\\_fatigue.html](http://www.slate.com/articles/technology/future_tense/2016/09/why_i_m_suffering_from_nanotechnology_fatigue.html)
  29. Maynard, A. D. (2016). Considering ethics now before radically new brain technologies get away from us. The Conversation US. <https://theconversation.com/considering-ethics-now-before-radically-new-brain-technologies-get-away-from-us-65215>
  30. Maynard, A. D. (2016). How Risky are These Top 10 Emerging Technologies? Brink. <http://www.brinknews.com/how-risky-are-these-top-10-emerging-technologies/>
  31. Maynard, A. D. (2016). It’ll take more than tech for Elon Musk to pull off audacious new Tesla master plan. The Conversation US. <https://theconversation.com/itll-take-more-than-tech-for-elon-musk-to-pull-off-audacious-new-tesla-master-plan-62884>

32. Maynard, A. D. (2016) How Terrified Should We Be of This Year's World Economic Forum Top 10 Emerging Technologies? Slate Future Tense. [http://www.slate.com/blogs/future\\_tense/2016/06/27/world\\_economic\\_forum\\_2016\\_emerging\\_technologies\\_imperil\\_humanity.html](http://www.slate.com/blogs/future_tense/2016/06/27/world_economic_forum_2016_emerging_technologies_imperil_humanity.html)
33. Garbee, E. and Maynard, A. D. (2016). The future of personal satellite technology is here – are we ready for it? The Conversation US. <https://theconversation.com/the-future-of-personal-satellite-technology-is-here-are-we-ready-for-it-58478>
34. Maynard, A. D. (2016) What Do You Think About Scientists Creating Human-Nonhuman Hybrids? Slate Future tense. [http://www.slate.com/articles/technology/future\\_tense/2016/08/nih\\_asks\\_for\\_public\\_input\\_on\\_chimeras\\_human\\_nonhuman\\_hybrids.html](http://www.slate.com/articles/technology/future_tense/2016/08/nih_asks_for_public_input_on_chimeras_human_nonhuman_hybrids.html)
35. Maynard, A. D. (2016). There are microscopic needles in your baby's formula. Just how worried should you be? Salon. [http://www.salon.com/2016/05/21/there\\_are\\_nanoparticles\\_in\\_your\\_babys\\_formula\\_just\\_how\\_worried\\_should\\_you\\_be\\_partner/](http://www.salon.com/2016/05/21/there_are_nanoparticles_in_your_babys_formula_just_how_worried_should_you_be_partner/)
36. Maynard A. D. (2016). Public universities must do more: the public needs our help and expertise. The Conversation US. <https://theconversation.com/public-universities-must-do-more-the-public-needs-our-help-and-expertise-56016>
37. Maynard, A. D. (2016). Three ways synthetic biology could annihilate Zika and other mosquito-borne diseases. The Conversation US. <https://theconversation.com/three-ways-synthetic-biology-could-annihilate-zika-and-other-mosquito-borne-diseases-54087>
38. Maynard, A. D. (2016). A further reading list on the Fourth Industrial Revolution. World Economic Forum. <https://www.weforum.org/agenda/2016/01/mastering-the-social-side-of-the-fourth-industrial-revolution-an-essential-reading-list/>
39. Maynard, A. D. (2016). Can citizen science empower disenfranchised communities? The Christian science Monitor. <http://www.csmonitor.com/World/Making-a-difference/Change-Agent/2016/0129/Citizen-science-can-empower-communities> (Also in The Conversation)
40. Maynard, A. D. (2016). The fourth industrial revolution: what does WEF's Klaus Schwab leave out? The Conversation US. <https://theconversation.com/the-fourth-industrial-revolution-what-does-wefs-klaus-schwab-leave-out-53049>
41. Maynard, A. D. (2016). Thinking innovatively about the risks of tech innovation. The Conversation US. <https://theconversation.com/thinking-innovatively-about-the-risks-of-tech-innovation-52934>
42. Maynard, A. D. (2015). If Elon Musk is a luddite, count me in! The Conversation US. <https://theconversation.com/if-elon-musk-is-a-luddite-count-me-in-52630>
43. Maynard, A. D. (2015) Are hoverboards bad for you? The Houston Chronicle. <http://www.houstonchronicle.com/local/gray-matters/article/Are-hoverboards-bad-for-you-6723610.php>
44. Maynard, A. D. (2015) What's the real risk from drones this holiday season? The Conversation US. <https://theconversation.com/whats-the-real-risk-from-consumer-drones-this-holiday-season-52330>
45. Maynard, A. D. (2015) Is public engagement really career limiting? Times Higher Education. <https://www.timeshighereducation.com/blog/public-engagement-really-career-limiting>
46. Hoffman, A. J. and Maynard, A. D. (2015) American Universities: Reclaiming our role in society. The Conversation US. <https://theconversation.com/american-universities-reclaiming-our-role-in-society-42522>
47. Maynard, A. D. (2015) Dunkin' Donuts ditches titanium dioxide – but is it actually harmful?. The Conversation US. <https://theconversation.com/dunkin-donuts-ditches-titanium-dioxide-but-is-it-actually-harmful-38627>
48. Maynard, A. D. (2015). Responsible development of new technologies critical in complex, connected world. The Conversation US. <https://theconversation.com/responsible-development-of-new-technologies-critical-in-complex-connected-world-38195>
49. Maynard, A. D. (2015). Are quantum dot TVs – and their toxic ingredients – actually better for the

- environment? The Conversation. <https://theconversation.com/are-quantum-dot-tvs-and-their-toxic-ingredients-actually-better-for-the-environment-35953>
50. Maynard, A. D. (2014). We might be able to 3-D print an artificial mind one day. Slate. [http://www.slate.com/blogs/future\\_tense/2014/12/11/3d\\_printing\\_an\\_artificial\\_mind\\_might\\_be\\_possible\\_one\\_day.html](http://www.slate.com/blogs/future_tense/2014/12/11/3d_printing_an_artificial_mind_might_be_possible_one_day.html)
  51. Maynard, A. D. (2014). How Can We Balance the Risks and Rewards of New Technologies? Huffington Post. [http://www.huffingtonpost.com/andrew-maynard/how-can-we-balance-the-risks-and-rewards\\_b\\_4868729.html](http://www.huffingtonpost.com/andrew-maynard/how-can-we-balance-the-risks-and-rewards_b_4868729.html)
  52. Maynard, A. D. (2014). No, Metal Oxides in your food Won't Kill You. The Conversation US. <https://theconversation.com/no-metal-oxide-nanoparticles-in-your-food-wont-kill-you-27545>
  53. Maynard, A. D. (2014). Small Packages. A new case study on the health risks of nanotech doesn't tell the whole story: Slate. [http://www.slate.com/articles/technology/future\\_tense/2014/05/nanotechnology\\_health\\_risks\\_why\\_you\\_shouldn\\_t\\_be\\_concerned.html](http://www.slate.com/articles/technology/future_tense/2014/05/nanotechnology_health_risks_why_you_shouldn_t_be_concerned.html)
  54. Zikmund-Fisher, Scherer and Maynard (2014) What that 'BPA-free' label isn't telling you. The Conversation U. S. <https://theconversation.com/what-that-bpa-free-label-isnt-telling-you-34725>
  55. Maynard, A. D. (2008). Living with nanoparticles. Nano Today 3:64.
  56. Maynard, A. D. (2008). Setting the nanotech research agenda, in Bulletin of the Atomic Scientists. <http://thebulletin.org/setting-nanotech-research-agenda-0>
  57. Maynard, A. D. (2007). Weighing nanotechnology's risks. New York Times. <http://www.nytimes.com/2007/03/28/opinion/28iht-edmaynard.1.5055157.html>
  58. Maynard, A. (2006). Nanodollars. New Scientist 189 (2540): 25-25. <https://www.newscientist.com/letter/mg18925400-700-nanodollars/>

## ONLINE CONTENT – SELECTED

### Risk Bites (<https://www.youtube.com/user/riskbites>)

Risk Bites is a YouTube channel produced by and featuring content created by Andrew Maynard. Risk Bites uses white board videos to explore risk for a broad audience. Launched July 2012.

Analytics as of 12/9/20: Subscribers: 16,651. Views: 2,923,523. Watch Time: 105.359 hours.

Recent videos (selection):

1. Should you get the COVID vaccine? (December 5, 2020) <https://youtu.be/OC9vnISihKM>
2. Five Ethical Challenges of Advanced Brain Computer Interfaces (November 23, 2020) <https://youtu.be/514agonyu7c>
3. A Practical Guide to Responsible Innovation (October 12, 2020) <https://youtu.be/qFYG9ZnQjHs>
4. The Risks and Ethics of Facial Recognition Technology (June 25, 2020) <https://youtu.be/2SdpzTZTznw>
5. How Do Facemasks and Respirators Work (March 29, 2020) <https://youtu.be/CpbJFk311Lw>
6. A Guide to Self-Care while Social Distancing (March 23, 2020) [https://youtu.be/jnrxtAmdQ\\_w](https://youtu.be/jnrxtAmdQ_w)
7. A social distancing guide for students living with coronavirus (March 10, 2020) <https://youtu.be/BzfueLoRjwM>
8. How do air filters work? (January 25, 2019) <https://www.youtube.com/watch?v=WhiTkZlwl4>
9. Can sci-fi movies lead to more ethical technologies? (January 20, 2019) [https://www.youtube.com/watch?v=pMuO7zJa5\\_Q](https://www.youtube.com/watch?v=pMuO7zJa5_Q)
10. Cultured Meat: What is lab grown meat, and would you eat it? (with Mariya Voytyuk) (October 22 2018) <https://www.youtube.com/watch?v=eRtB9N3tl8U>
11. How dangerous is radon to your health? (May 2 2018). <https://www.youtube.com/watch?v=SIRVdKdTBFE>
12. Can eating pasta help you lose weight? (April 20 2018).

- <https://www.youtube.com/watch?v=R1VEM7rRFTA>
13. Just how dangerous is a cup of coffee? (March 30 2018).  
<https://www.youtube.com/watch?v=2OQaV7HGyJA>
  14. How safe are self driving cars? (March 25 2018). [https://www.youtube.com/watch?v=j- ---qMv\\_Y](https://www.youtube.com/watch?v=j- ---qMv_Y)
  15. AI Safety: Ten possible risks of artificial intelligence (March 7 2018).  
<https://www.youtube.com/watch?v=1oeoosMrJz4>
  16. Why Science Communication? (Feb 15 2018). <https://www.youtube.com/watch?v=CndVeN-yAaw>
  17. Will gene editing in sports lead to super-athletes? (Feb 8 2018).  
<https://www.youtube.com/watch?v=sHxnnWZv5TU>
  18. What is the Fourth Industrial Revolution? And why should you care? (Jan 16 2018).  
<https://www.youtube.com/watch?v=qhLvHvYFLoWE>
  19. How can Solution Focused Risk Assessment help govern Emerging Technologies? (with Adam Finkel) (Jan 2 2018). <https://www.youtube.com/watch?v=n7XkdbpYWHk>
  20. What is Epidemiology (with Mariya Voytyuk) (July 27 2017).  
<https://www.youtube.com/watch?v=r9poHB-ldqk>
  21. Measuring radiation dose using Sieverts. (April 23 2017). <https://youtu.be/vRYwUPBZ-J4>
  22. What is nanotechnology? (July 2016). <https://www.youtube.com/watch?v=DAOFpgocfrg>
  23. Les nanoparticules sont-elles dangereuses? (April 2016)  
<https://www.youtube.com/watch?v=TNYJhpCLUfo>
  24. Are Engineered Nanoparticles Dangerous? (March 2016)  
<https://www.youtube.com/watch?v=wxFbYoF7SLc>
  25. Should young kids avoid peanut products? (March 2016)  
<https://www.youtube.com/watch?v=cnfuMzHsbOo> (in collaboration with ACS Reactions)
  26. Cinco coisas que valem a pena saber sobre o Zika e a microcefalia (Portuguese) (March 2016)  
<https://www.youtube.com/watch?v=hGkNpkhnT8M>
  27. Cinco cosas que valen la pena saber sobre el Zika y la microcefalia (Spanish) (March 2016)  
<https://www.youtube.com/watch?v=gyCoNibaFoU>
  28. Zika and microcephaly: Five things worth knowing (March 2016)  
[https://www.youtube.com/watch?v=w3XX\\_W7pLAM](https://www.youtube.com/watch?v=w3XX_W7pLAM)
  29. What are gene drives? A Risk Bites guide (November 2015)  
<https://www.youtube.com/watch?v=KgvhUPiDdq8>
  30. Should you be worried about Microbeads? (September 2015)  
<https://www.youtube.com/watch?v=K5tdhilRoW0>
  31. A New Way to Evaluate Chemical Safety - TOX21 (July 2015)  
<https://www.youtube.com/watch?v=vKhnlHRXgn8>
  32. What's Pluto got to do with risk? (July 2015) <https://www.youtube.com/watch?v=mElO5WRgvvyg>
  33. How Safe are Tanning beds? (June 2015) <https://www.youtube.com/watch?v=jyAwGIRnnNk>
  34. What does "Probably Cause Cancer" actually mean? (March 2015)  
<https://www.youtube.com/watch?v=CbBk81ySxQ>
  35. The Risk Bites Guide to Staying Alive - a Toxicology Primer (March 2015)  
[https://www.youtube.com/watch?v=b\\_y9VTDlmIE](https://www.youtube.com/watch?v=b_y9VTDlmIE)
  36. Five things you should know about concussion and contact sports (December 2014)  
<https://www.youtube.com/watch?v=1M-T5yzkeBs>
  37. 5 things worth knowing about Ebola (October 2014) <https://www.youtube.com/watch?v=jRv5zZUcWRc>
  38. Why Aren't We More Scared of Measles? (September 2014)  
<https://www.youtube.com/watch?v=X9udphYRJmw>
  39. Five things worth knowing about nanoparticles and sunscreens (June 2014)

<https://www.youtube.com/watch?v=VV0cCg4clMw>

40. Electronic cigarettes and health - the basics (April 2014)  
<https://www.youtube.com/watch?v=mToznqKD5Ac>
41. How much pee could you end up swallowing while swimming? (April 2014)  
<https://www.youtube.com/watch?v=GIU8Qwf6Snk>

**Future Out Loud** (<https://soundcloud.com/user-723097380>)

Future Out Loud is a podcast conceived and produced by Heather Ross, and co-hosted by Andrew Maynard. It explores the intersection between science, technology and society.

Launched November 2016.

Recent episodes (selection):

1. Estonian Election Security (June 2019) <https://soundcloud.com/user-723097380/estonian-election-security>
2. Elections for the Next Generation (June 2019) <https://soundcloud.com/user-723097380/elections-for-the-next-generation>
3. Ranked Choice Voting (April 2019) <https://soundcloud.com/user-723097380/ranked-choice-voting>
4. Election Security with Maricopa County Recorder Adrian Fontes (April 2019)  
<https://soundcloud.com/user-723097380/election-security-adrian-fontes>
5. AZ Secretary of State Katie Hobbs (April 2019) <https://soundcloud.com/user-723097380/az-secretary-of-state-katie-hobbs>
6. Elections (April 2019) <https://soundcloud.com/user-723097380/elections>
7. Films from the Future (2018) <https://soundcloud.com/user-723097380/films-from-the-future>
8. Should technology solve humanity's problems? (2018) <https://soundcloud.com/user-723097380/google-ceo>
9. 3D printed guns (2018) <https://soundcloud.com/user-723097380/3d-guns>
10. Global innovation in human rights, with Erica Kochi (May 2018) <https://soundcloud.com/user-723097380/human-rights>
11. How to govern emerging technologies, with Gillian Hadfield (May 2018) <https://soundcloud.com/user-723097380/hadfield>
12. DIY Biohacking, with Todd Kuiken (May 2018) <https://soundcloud.com/user-723097380/diy-biohacking>
13. Autonomous Vehicle Fatality Number 1 (2018) <https://soundcloud.com/user-723097380/av-fatality>
14. Future of Energy Systems (2018) <https://soundcloud.com/user-723097380/future-energy-systems>
15. EpiFinder (2018) <https://soundcloud.com/user-723097380/epifinder>
16. GeneSports (February 2018) <https://soundcloud.com/user-723097380/genesports>
17. Can My Tech Feel Me? (February 2018) <https://soundcloud.com/user-723097380/can-my-tech-feel-me>
18. Sci Fi Grounded in Space (January 2018) <https://soundcloud.com/user-723097380/sci-fi-grounded-in-space>
19. Net Neutrality (January 2018) <https://soundcloud.com/user-723097380/net-neutrality>
20. Greg Benford (December 2017) <https://soundcloud.com/user-723097380/greg-benford>
21. WriterGuy Ken Eklund (December 2017) <https://soundcloud.com/user-723097380/writerguy>
22. Huthority – 2017 Disruptive Innovation Festival (November 2017) <https://soundcloud.com/user-723097380/huthority>
23. Renewlogy – 2017 Disruptive Innovation Festival (November 2017) <https://soundcloud.com/user-723097380/renewlogy>
24. Hygiea – 2017 Disruptive Innovation Festival (November 2017) <https://soundcloud.com/user-723097380/hygiea>
25. RISE Puerto Rico (November 2017) <https://soundcloud.com/user-723097380/rise-pr>
26. Machine Translation (November 2017) <https://soundcloud.com/user-723097380/machine-translation>

27. Cyber Grand Challenge (November 2017) <https://soundcloud.com/user-723097380/cyber-grand-challenge>
28. Richard Harris (October 2017) <https://soundcloud.com/user-723097380/richard-harris>
29. Fringe (in collaboration with the Center for Science and the Imagination) (October 2017) <https://soundcloud.com/user-723097380/fringe>
30. Stem Cell Clinics: FDA update (September 2017) <https://soundcloud.com/user-723097380/stem-cell-clinics-fda-update>
31. Should we trust robots? (September 2017) <https://soundcloud.com/user-723097380/should-we-trust-robots>
32. DNA cyberhacking (September 2017) <https://soundcloud.com/user-723097380/dna-cyberhack>
33. PV Energy Transitions (September 2017) <https://soundcloud.com/user-723097380/pv-energy-transitions>
34. International Cybersecurity (August 2017) <https://soundcloud.com/user-723097380/intl-cybersecurity>
35. Marissa Duarte (July 2017) <https://soundcloud.com/user-723097380/marisa-duarte>
36. A Boring Episode (June 2017) <https://soundcloud.com/user-723097380/boring>
37. Jessica Rajko Feels your Data (June 2017) <https://soundcloud.com/user-723097380/rajko>
38. Waymo Ride (May 2017) <https://soundcloud.com/user-723097380/waymo-ride>
39. Nadya Bliss on Security Research (May 2017) <https://soundcloud.com/user-723097380/nadya-bliss>
40. Cybersecurity and the FDA (May 2017) <https://soundcloud.com/user-723097380/cyber-fda>
41. Autonomous since 1939 (May 2017) <https://soundcloud.com/user-723097380/autonomous-since-1939>
42. Drive Safe (April 2017) <https://soundcloud.com/user-723097380/drive-safe>
43. Unsilencing the Future of Energy (April 2017) <https://soundcloud.com/user-723097380/unsilencing-the-future-of-energy>
44. WikiCyberLeaks (April 2017) <https://soundcloud.com/user-723097380/wikicyberleaks>
45. What Algorithms Want (April 2017) <https://soundcloud.com/user-723097380/ed-finn>
46. Beyond the Pocket Protector: How to Identify as a 21st Century Engineer (April 2017) <https://soundcloud.com/user-723097380/darshan-karwat>
47. Cybersecurity Research Ethics (March 2017) <https://soundcloud.com/user-723097380/cyberethics>
48. Frankenstein (March 2017) <https://soundcloud.com/user-723097380/frankenstein>
49. Solar SPELL (March 2017) <https://soundcloud.com/user-723097380/solarspell>
50. Stem Cell Clinics (February 2017) <https://soundcloud.com/user-723097380/stem-cell-clinics>
51. Deborah Strumsky: A Tall Drink of Interdisciplinary Kool Aid (January 2017) <https://soundcloud.com/user-723097380/deborah-strumsky>
52. Hands Off? Jack Stilgoe on Autonomous Vehicles (January 2017) <https://soundcloud.com/user-723097380/hands-off>
53. Clark Miller Returns: More On Election Systems (January 2017) <https://soundcloud.com/user-723097380/clark-miller-returns-more-on-election-systems>
54. American Dream Lab (January 2017) <https://soundcloud.com/user-723097380/american-dream-lab>
55. Felonious Bunk (December 2016) <https://soundcloud.com/user-723097380/felonious-bunk>
56. Have Yourself a Cybersecure Holiday (December 2017) <https://soundcloud.com/user-723097380/have-yourself-a-cybersecure-holiday>
57. Camille Nebeker: CORE Project (December 2017) <https://soundcloud.com/user-723097380/camille-nebeker-core-project>
58. Britt Crow-Miller (December 2017) <https://soundcloud.com/user-723097380/britt-crow-miller>
59. Sarewitz Saves Science? (December 2017) <https://soundcloud.com/user-723097380/sarewitz-saves-science>

**Edge of Innovation** (<https://theconversation.com/columns/andrew-maynard-128048>)

Edge of Innovation was a column written for The Conversation between 2015 – 2016 (when column writers were

incorporated into mainstream articles on the website). A full list of articles on The Conversation can be found here: <https://theconversation.com/profiles/andrew-maynard-128048/articles>

Recent articles (also listed elsewhere in CV):

1. Will driving your own car become the socially unacceptable public health risk smoking is today? (September 2016) <https://theconversation.com/will-driving-your-own-car-become-the-socially-unacceptable-public-health-risk-smoking-is-today-65891>
2. Considering ethics now before radically new brain technologies get away from us (September 2016) <https://theconversation.com/considering-ethics-now-before-radically-new-brain-technologies-get-away-from-us-65215>
3. It'll take more than tech for Elon Musk to pull off audacious new Tesla master plan (July 2016) <https://theconversation.com/itll-take-more-than-tech-for-elon-musk-to-pull-off-audacious-new-tesla-master-plan-62884>
4. How risky are the World Economic Forum's top 10 emerging technologies for 2016? (June 2016) <https://theconversation.com/how-risky-are-the-world-economic-forums-top-10-emerging-technologies-for-2016-61349>
5. Nanoparticles in baby formula: should parents be worried? (May 2016) <https://theconversation.com/nanoparticles-in-baby-formula-should-parents-be-worried-59246>
6. We don't talk much about nanotechnology risks anymore, but that doesn't mean they're gone (March 2016) <https://theconversation.com/we-dont-talk-much-about-nanotechnology-risks-anymore-but-that-doesnt-mean-theyre-gone-56889>
7. Public universities must do more: the public needs our help and expertise (March 2016) <https://theconversation.com/public-universities-must-do-more-the-public-needs-our-help-and-expertise-56016>
8. Three ways synthetic biology could annihilate Zika and other mosquito-borne diseases (February 2016) <https://theconversation.com/three-ways-synthetic-biology-could-annihilate-zika-and-other-mosquito-borne-diseases-54087>
9. Can citizen science empower disenfranchised communities? (January 2016) <https://theconversation.com/can-citizen-science-empower-disenfranchised-communities-53625>
10. The fourth industrial revolution: what does WEF's Klaus Schwab leave out? (January 2016) <https://theconversation.com/the-fourth-industrial-revolution-what-does-wefs-klaus-schwab-leave-out-53049>

### Science Showcase (<http://scienceshowcase.org>)

Science Showcase is a new YouTube platform that is curated by Andrew Maynard. It provides a forum for researchers to showcase highly accessible videos on the "what" and "how" of science, technology and engineering. More information: <https://riskinnovation.asu.edu/science-showcase-info/>

In 2017, the first Science Showcase science video contest was run, encouraging scientist-communicators to create and submit compelling and effective science videos. Prizes were awarded for three videos: <https://riskinnovation.asu.edu/2017-science-showcase-winners/>

### Miscellaneous

Select online content featuring Andrew Maynard:

1. KJZZ: 'Future Rising': How Technology Might Stop Humanity From Repeating Past Mistakes (November 23, 2020): <https://kjzz.org/content/1638027/future-rising-how-technology-might-stop-humanity-repeating-past-mistakes>
2. KPCW: A Journey From The Past To The Edge of Tomorrow with Dr. Andrew Maynard (November 19, 2020) <https://www.kpcw.org/post/journey-past-edge-tomorrow-dr-andrew-maynard#stream/0>
3. WAMC: "Future Rising" By Andrew Maynard (October 29, 2020) <https://www.wamc.org/post/future->

[rising-andrew-maynard](#)

4. ASU Now: 'Future Rising' looks back to design for the future (October 20, 2020) <https://asunow.asu.edu/20201020-creativity-future-rising-looks-back-design-future>
5. NPR: Precautionary Behavior Around Coronavirus Aligns With Perceived Risk (March 21, 2020) <https://www.npr.org/2020/03/21/819629077/precautionary-behavior-around-coronavirus-aligns-with-perceived-risk>
6. KJZZ: ASU Professor: Some Businesses Struggle To Adapt, Innovate (December 16, 2019) <https://kjzz.org/content/1357611/asu-professor-some-businesses-struggle-adapt-innovate>
7. The Future Will Not Be Podcast podcast: Science Fiction (September 17, 2019) <http://www.thefuturewillnotbepodcast.com/sci-fi>
8. ASU Thought Huddle Podcast: Future Visions, Past Reflections (September 2019) <https://asunow.asu.edu/thought-huddle/future-visions-past-reflections>
9. Tech2025 podcast: Tech News Roundup with Andrew Maynard (August 5, 2019) <https://tech2025.com/2019/08/05/tech-news-roundup-with-andrew-maynard-your-face-is-a-weapon-google-employees-love-berniewarren-new-bill-on-tech-addiction-and-turning-children-into-cyborgs/>
10. This Week in Tech – Andrew Maynard, Films from the Future (August 2, 2019) <https://twit.tv/shows/triangulation/episodes/408>
11. Balancing the speed of innovation and regulation (panel discussion at CES 2019 – February 2019) <https://videos.ces.tech/detail/video/5987711783001/balancing-the-speed-of-innovation-and-regulation>
12. Big Picture Science – Sci-Fi From the Future (January 2019) <http://radio.seti.org/episodes/sci-fi-future>
13. KJZZ – What Science Fiction Can Teach Us About Today's Social Issues (November 2018) <https://kjzz.org/content/731355/what-science-fiction-can-teach-us-about-todays-social-issues>
14. Spark Radio – From precogs to T-rex, sci-fi films teach us about the ethics of new technology (December 2018) <https://www.cbc.ca/radio/spark/from-precogs-to-t-rex-sci-fi-films-teach-us-about-the-ethics-of-new-technology-1.4955887>
15. IEEE Spectrum – Q&A: Can Sci-fi Movies Help Us Avoid Technological Disaster? (November 2018) <https://spectrum.ieee.org/tech-talk/at-work/innovation/can-scifi-movies-help-us-avoid-disaster>
16. ASU/Got a Minute – Andrew Maynard on Fear (September 2018) <https://asunow.asu.edu/content/andrew-maynard-fear>
17. FastCompany – How The World Economic Forum Is Tackling The Dangers Of Big Tech (January 2018) <https://www.fastcompany.com/40518077/how-wef-tackles-dangers-of-big-tech>
18. World Economic Forum – Podcast: The Fourth Industrial Revolution and the future of work (February 2018) <https://www.weforum.org/agenda/2018/02/podcast-work-in-the-4ir/>
19. The State Press – Frankenstein Project is starting conversations about scientific responsibility (October 2017) <http://www.statepress.com/article/2017/10/spscience-frankenstein-is-used-to-start-conversations-about-scientific-responsibility>
20. Salon – The Impossible Burger wouldn't be possible without genetic engineering (September 2017) [https://www.salon.com/2017/09/03/the-impossible-burger-would-not-be-possible-without-genetic-engineering\\_partner-2/](https://www.salon.com/2017/09/03/the-impossible-burger-would-not-be-possible-without-genetic-engineering_partner-2/)
21. ASU Now – ASU prof hosts video contest to bolster science communication (August 2017) <https://asunow.asu.edu/20170803-solutions-asu-prof-hosts-video-contest-bolster-science-communication>
22. Space.com – Planetary Protection: Contamination Debate Still Simmers (May 2017) <https://www.space.com/36708-planetary-protection-astrobiology-nasa-missions.html>
23. Scientific American – Could "Planetary Protection" Scuttle Otherworldly Exploration? (May 2017) <https://www.scientificamerican.com/article/could-planetary-protection-scuttle-otherworldly-exploration/>
24. Express – Nanotechnology among us but regulators aren't doing enough to protect humans, experts warn (March 2017) <https://www.express.co.uk/news/science/776686/nanotechnology-danger-cancer-brain-lungs>
25. KEDtalks – Risk is not just a four letter word (January 2017) <https://vimeo.com/196890016>

26. Big Picture Science – Amelia Earhart: Andrew Maynard / Inescapable Uncertainty (January 2017) <http://blog.bigpicture-science.org/2017/01/big-picture-science-amelia-earhart-andrew-maynard-inescapable-uncertainty/>
27. Big Picture Science – Skeptic Seth: Andrew Maynard / Fearing Technology (August 2015) <http://blog.bigpicture-science.org/2015/08/big-picture-science-skeptic-seth-andrew-maynard-fearing-technology/>
28. Big Picture Science – The Me in Measles: Andrew Maynard / Accurate Data (March 2015) <http://blog.bigpicture-science.org/2015/03/big-picture-science-the-me-in-measles-andrew-maynard-accurate-data/>
29. Big Picture Science – Tale of the Distribution: Andrew Maynard / Risk Assessment (October 2014) <http://blog.bigpicture-science.org/2014/10/big-picture-science-tale-of-the-distribution-andrew-maynard-risk-assessment/>
30. Michigan Radio – Here's why so few people get flu shots (October 2014) <https://www.michiganradio.org/post/heres-why-so-few-people-get-flu-shots>
31. University of Michigan School of Public Health: Think Small (as in Nano Small). (May 2012). <https://www.youtube.com/watch?v=p77fzbfNyes>
32. Discovery – Nanotech Risks (April 2009) <https://www.youtube.com/watch?v=qc0KLV8CW08>
33. Discovery – Nanotech Rewards (April 2009) [https://www.youtube.com/watch?v=yYXWHVZU0\\_g](https://www.youtube.com/watch?v=yYXWHVZU0_g)

**Interplanetary Community in a Box Project** (Medium – <https://medium.com/interplanetary-community-in-a-box-initiative>)

The Interplanetary Community in a Box Project is a multi-author Medium publication with Maynard as Editor-in-Chief, that is designed to kick-start conversations around off-world community building.

**Edge of Innovation** (Medium – <https://medium.com/edge-of-innovation>)

Edge of Innovation is a Medium publication that continues on where the blog 2020 Science ends, and explores emerging technologies and responsible innovation.

**2020 Science** (2007 – 2019) (<http://2020science.org>)

2020 Science is a personal blog exploring emerging technologies and responsible innovation. It started life as a blog at SafeNano in 2007. New posts are infrequent these days as content is developed for and posted on other platforms.

**Mind the Science Gap** (<http://mindthesciencegap.org>)

Mind the Science Gap was launched in 2012 as a unique approach to helping public health graduate students at the University of Michigan hone their science communication skills, and ran until 2014. While active, it had nearly 400 posts, over 4000 comments, and half a million page views.

## INVITED LECTURES AND ADDRESSES - SELECTED

A selection from over 250 invited lectures, talks and presentations:

1. Invited presentation at ISTAS20: Living on the Edge of Tomorrow: A Moviegoer's Guide to Public Interest Technology (11/12/20)
2. Security and Sustainability Forum, moderator for panel discussion "Prove I Made a Low Carbon Choice – Can smart systems do this?" (10/28/20)
3. Invited comments to the National Academies of Science, Engineering and Medicine Committee on Science, Technology, and Law (10/2/20)
4. Arizona MedTech Summit, keynote address: Living on the Edge of Tomorrow: A Moviegoer's Guide to MedTech? (8/26/20)
5. ANSI Nanotechnology Standards Panel, invited remarks on advanced materials (8/20/20)

6. ILSI NA Annual Meeting: Panel Discussion on Trust in Science (moderator) (7/23/20)
7. Phoenix Arts, Science & Culture Salon (Spirit of the Senses): Future Rising (5/21/20)
8. AZ Tech Council Med Tech Roundtable – presenter (5/19/20)
9. Preparing Future Minority Faculty 2020 Symposium, North Carolina Agricultural and Technical State University: Rethinking the “Pipeline” – Thoughts on Thriving as a STEM PhD (with Elizabeth Garbee) (5/14/20)
10. AME Digital Culture series (ASU): Future Rising: A Journey from the Past to the Edge of Tomorrow (2/27/20)
11. KEEN National Conference: Thin Different: New Tools for Creating Value in an Uncertain World (1/4/20)
12. Arizona Biosecurity Workshop: Innovative ways of thinking about risk in emerging technologies (12/5/19)
13. Phoenix Arts, Science & Culture Salon (Spirit of the Senses): Films from the Future (12/4/19)
14. Waymo: Fireside chat with Governor Doug Ducey (9/19/19)
15. Arizona STEM & Innovation Summit: Pardon my science! (9/17/19)
16. Marsh Digital: Thinking Differently About Risk (7/15/19)
17. ILSI North America: A Moviegoer’s Guide to Responsible and beneficial Innovation (6/24/19)
18. Phoenix Fan Fusion: Multiple panels (5/24/19)
19. Governance of Emerging Technology and Science: Films from the Future (5/22/19)
20. CSPO 20<sup>th</sup> anniversary: Sci-Fi Snug (5/9/19)
21. Film Bar: Introduction to Planet of the Apes (4/25/19)
22. Let’s Talk Self-Driving: A Fireside Conversation with Waymo’s Tekedra Mawakana (4/11/19)
23. Emerge 2019: Engines of Desire (3/30/19)
24. ASU Law & Society Salon: The Future: Insights from Sci-Fi Films. 1/31/19
25. CES panel *Balancing the speed of innovation and regulation*. Las Vegas 1/9/19
26. Sparks & Honey Daily Briefing—Films from the Future and Cultural Trends. New York City, NY. 12/13/18
27. Films from the Future: What Sci-Fi Movies Can Teach Tech Companies About Socially Responsible Innovation. Tech 2025, Brooklyn NY, 12/13/18
28. Films from the Future: Can science fiction movies really teach us anything about technology innovation? NEXT Conference, San Francisco. 12/5/18
29. The Moviegoer’s Guide to the Future. Alamo Draft House Cinema, Tempe AZ. 11/27/18
30. Base Code: How convergent technologies are transforming the future of sustainable materials, and the challenges and opportunities they in turn present. McGill’s Sustainability Sciences Initiative Annual Symposium, Montreal, Canada. (10/23/18)
31. Humility is not a four-letter word. ASU Grad College Knowledge Impact Awards Keynote. 4/26/18
32. Risk Innovation: The roles of creativity, imagination, and rigor, in exploring future pathways around existential risk. Cambridge Conference on Existential Risk, Cambridge UK, 4/18/18
33. Presentation to a meeting of the National Academies of Science Board of Lifesciences Annual Meeting, on risk, 11/30/17
34. Workshop leader, workshop on agile governance at the World Economic Forum Annual Meeting of the Global Future Councils, Dubai, 11/9/17
35. Workshop on Agile Governance, World Economic Forum Annual Center for the Fourth Industrial Revolution, 9/25/17
36. Presentation to the National Academies of Science Meeting of Experts: Planetary Protection and Terrestrial Contamination Requirements Associated with Sample Caching and Return. 7/31/17
37. Interdisciplinary Perspectives on Complex Risk Analysis Relevant to Emerging Technologies. Presentation to the National Academies of Science Committee to Review Planetary Protection Policy Development Processes, 6/27/17

38. Swiss National Science Foundation: Invited keynote on the culmination of the NRP 64 program on Opportunities and Risks of Nanotechnology. 6/2/17
39. Planetary Protection: Assessing the Risks. A Community Conversation. Plenary at the 2017 Astrobiology Science Conference 4/24/17
40. Risk Communication & Talking to the Public About Chemicals. Panel at GlobalChem 2017, 2/24/17
41. Emerging technologies and their applications – a presentation to the United Nations Expert Meeting on Exponential Technological Change, automation, and their policy implications for sustainable development, 12/6/16
42. Innovating for Social and Economic Success. NEWT Science Seminar, 11/28/16
43. The Future of Zika. Event hosted by the School for the Future of Innovation in Society, 11/9/16
44. American Industrial Hygiene Association Fall Conference. Risk Innovation and the Workplace of the Future. 10/25/16
45. Responsible Industry workshop, Berlin: Responsible Research and Innovation [SEP] A US Perspective. 6/22/16
46. Future Tense: Engineering Away Disease (panel discussion). 2/23/16
47. AAAS 2016 Annual Meeting. Moderating panel on Public Engagement and Risk Communication: Case Study of Synthetic Biology. 2/11/16
48. World Economic Forum Summit on the Global Agenda. Panel discussion on the Fourth Industrial evolution. 10/26/15. <https://www.youtube.com/watch?v=Oj3a7O-73bY>
49. NanOEH conference, South Africa. Plenary Presentation “Responsible Innovation and Nanotechnology”. 10/18/15
50. Notre Dame University. Invited lecture “Is responsible nanotechnology doomed to failure?” 10/27/14
51. Royal Society of London meeting on bio-nano interactions: new tools, insights and impacts. Invited lecture: “Innovative approaches to emergent risks”. 5/1/14
52. National Academy of Sciences Forum on Synthetic Biology invited presentation: “Innovative approaches to emergent risks” 3/13/14
53. World Economic Forum Annual Meeting of the New Champions, Dalian China. Panelist “Building the 21<sup>st</sup> century regulatory system” 9/12/13
54. Argentinean Foundation of Nanotechnology. “Thinking critically and imaginatively about the challenges of sophisticated materials” 10/30/12
55. 2012 Arnold Small Lecture, Human Factors and Ergonomics Society Annual Meeting. “From the nanoscale to the human scale: Connecting nanotechnology and human factors” 10/24/12
56. Harvard University. “The new science of sophisticated materials: Nanomaterials and beyond” 4/13/12
57. Swiss National Science Foundation. “The new science of sophisticated materials: Nanomaterials and beyond” 3/3/11
58. World Economic Forum Annual Meeting, Davos. Challenge to the panel. “The science agenda in 2011” 1/26/11
59. Cincinnati Contemporary Arts Center. “Small Gods... and the art of technology innovation” 12/11/10
60. University of Cambridge Center for Research in the Arts, Social Sciences and Humanities (CRAASH). 6/1/10 “Governing emerging technologies under conditions of uncertainty”
61. Johnson & Johnson. “Effective evidence-based communication strategies. Lessons from nanotechnology” 5/19/10
62. Wisconsin Assembly Committee on Public Health. “Nanotechnology. Opportunities and challenges.” 10/6/09
63. Brookings Institution. “Controlling wayward science: Dangers of unanticipated consequences.” 6/19/09
64. Transatlantic Consumer Dialogue. “Nanomaterials and consumer products. A perspective from the US.” 6/10/08
65. International Joint Commission. “Nanotechnology in perspective. New technologies, new challenges?” 3/30/09

66. Oxford University. "Rethinking science and technology innovation for the 21st century: A nanoscale perspective." 3/12/09
67. Royal Society. Briefing on Synthetic Biology 10/17/08
68. European Aerosol Conference. "Developing Responsible Nanotechnologies. An Aerosol Perspective." 8/28/08
69. Gothenburg University, Gothenburg, Sweden. "Managing the Small Stuff. Ensuring the success of safe nanotechnologies." 5/13/08
70. Swedish Academies of Science. "Smart Science. Challenges and opportunities in the race to develop safe nanotechnologies." 5/12/08
71. New York Academy of Sciences. "Nanotechnology. Science, society and policy." 5/14/07
72. Nanoscience Centre, University of Cambridge, UK. "Nanotechnology and potential risk. Challenges to measuring exposure to engineered nanomaterials." 05/05/07
73. Johns Hopkins University. "The science of nanotechnology and public health" 4/10/07
74. Health Effects Institute annual conference. "Nanoparticles from manufacturing." 4/16/07
75. CalEPA. "Nanotechnology. Maximizing the benefits. Minimizing the risks." 3/8/07
76. Senior Management at the Hong Kong Department of Labor. "Nanotechnology benefits and challenges." 2/8/07
77. Rabobank North American Agribusiness Advisory Board. "Nanotechnology. Why should you care?" 1/30/07
78. University of Virginia. Invited comments on the Opening ceremony for Wilsdorf Hall. 11/10/06
79. NATO ARW, Bulgaria. "Nanotechnology: Overview and issues." 8/13/06
80. The Conference Board. "Nanotechnology. An introduction to the technology, and its EH&S implications." 06/08/06
81. Warner Lecture, British Occupational Hygiene Society. "Nanotechnology: The next big thing, or much ado about nothing?" 04/25/06
82. Robert and Floretta Austin Distinguished Lecture in Science. University of Idaho, Moscow. "Nanotechnology: The next big thing, or much ado about nothing?" 04/17/06
83. Institute of Occupational Safety and Health (IOSH), Taiwan. "Working at the Nanoscale. Nanotechnology and Potential Occupational Health Risk" 01/05/06
84. Academia Sinica, Taiwan. "Nanotechnology: Environment, Safety and Health." 01/04/06
85. Asia Nanotechnology Forum. "Assessing the environmental safety and human health risk of emerging nanotechnologies" 12/9/05
86. Australian Institute for Occupational Hygiene. "Engineered Nanomaterials and Occupational Health" 12/4/05
87. Society Of Toxicology. "Engineered Nanomaterials and Occupational Health" 11/2/05
88. NASA. "Nanotechnology: Overview and relevance to Occupational Health" 10/21/05
89. National Academies of Science, Chemical Sciences Round Table. "Nanotechnology: Opportunities and Challenges in a Changing World." 09/21/05
90. American Industrial Hygiene Association "Nanotechnology: Overview and Relevance to Occupational Health. 09/14/05
91. EPA. "Nanotechnology and Occupational Health." 6/13/05
92. Korean Society of Toxicology. "Nanotechnology and occupational health – addressing potential health risks." 5/13/05
93. American Association for the Advancement of Science. "Nanoaerosol exposure. Generating and characterizing airborne nanoparticles." 2/20/05
94. American Chemistry Council. Nanotechnology and Occupational Health. "Ensuring a safe and healthful workforce in a changing environment." 10/24/04

95. NIOSH Board of Scientific Councilors. "The NIOSH Nanotechnology Initiative. Ensuring a safe and healthful workforce in a changing environment." 10/21/04
96. California Department of Health Services". Perspectives on a 'small' problem. Nanotechnology and Occupational Health." 3/25/04
97. Scandinavian Electron Microscopy Conference. "From Nuisance dusts to Nanoparticles. The Role of Electron Microscopy in Occupational and Environmental Health." 6/13/03
98. Royal Society. "Overview of methods for analyzing single ultrafine particles." 3/15/00

## RESEARCH SUPPORT (Post 2010)

### **Risk Innovation Accelerator**

Funding: ASU, 2017 – 2019

Role: Principle Investigator

Direct Costs: \$250,000

### **Nanosystems Engineering Research Center for Off-Grid Nanotechnology Enabled Water Treatment (NEWT).**

Funding: NSF 2015 – 2025

Role: Investigator

### **Center for Ingredient Safety and Risk Assessment-Risk Communications Subcontract**

Funding: Michigan State University 2014 – 2017

Role: Principle Investigator

Direct costs: \$370,149

### **Designing a "Solution-Focused" Governance Paradigm for SynBio: Case Studies of Improved Risk Assessment and Creative Regulatory Design**

Funding: Alfred P Sloan Foundation (via University of Pennsylvania subcontract) 2013 - 2014

Role: Participating Investigator

Direct costs (personal): \$7,964

### **Seminar series: Information Communication through Data Visualization**

Funding: University of Michigan OVPR. 2012 – 2013

Role: Principle Investigator

Direct costs: \$7,500

### **Workshop: A roadmap for developing and implementing minimum nanomaterial characterization reporting requirements within regulatory and development communities**

Funding: NSF CBET-1239092. 2012 – 2013

Role: Principle Investigator

Direct costs: \$29,500

### **Modulation of immune-GI function by nanoAg. The goal is to better understand the mechanisms by which ingested engineered nanomaterials interact with the GI tract and the microbiome, and impact on further organs and systems.**

Funding: NIEHS, U01. 2010 - 2015

Role: Co-Investigator

Direct costs: \$387,276.00

**Support for 2011 Risk Science Symposium. 2011**

Funding: Sloan Foundation (B2011-23) 2011

Role: Principle Investigator

Direct costs: \$20,000

**University of Michigan Risk Science Center**

Funding: Private Donation

Role: Director (2010 – 2015)

Direct costs: ~\$5M