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
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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. Physics. B.Sc. (Hons): Iii	1984 - 1987

EMPLOYMENT

Chief Science Advisor, Project on Emerging Nanotechnologies Science Advisor, Synthetic Biology Project1/18/00 – 7/8/05National Institute for Occupational Safety and Health Team Leader – Aerosols Research Team (GS15) Senior Service Fellow (GS14). (2000 – 2004)1/18/00 – 7/8/05Health and Safety Executive, U.K. Head, Exposure Control Section, Health and Safety Laboratory Senior Scientific Officer (1994 – 1998) Higher Scientific Officer (1992 – 1994)9/21/92 – 1/17/00	Arizona State University Associate Dean of Curricula and Student Success, College of Global Futures Associate Director of Faculty Professor, School for the Future of Innovation in Society Director, Risk Innovation Lab Chair, Master of Science & Technology Policy program	8/3/15 - Present 7/15/20 - Present 8/1/19 - 7/14/19 8/3/15 - Present 8/3/15 - Present 1/1/16 - Present
Chief Science Advisor, Project on Emerging Nanotechnologies Science Advisor, Synthetic Biology Project1/18/00 – 7/8/05National Institute for Occupational Safety and Health Team Leader – Aerosols Research Team (GS15) Senior Service Fellow (GS14). (2000 – 2004)1/18/00 – 1/1/04 – 7/8/05Health and Safety Executive, U.K. Head, Exposure Control Section, Health and Safety Laboratory Senior Scientific Officer (1994 – 1998) Higher Scientific Officer (1992 – 1994)9/21/92 – 1/17/00Severn Trent Water Ltd., U.K.9/21/92 – 9/1/94	Professor, Environmental Health Sciences, School of Public Health Director, University of Michigan Risk Science Center Chair, Department of Environmental Health Sciences NSF International Chair of Environmental Health Sciences	9/1/10 - 7/30/15 4/1/10 - 7/30/15 6/1/12 - 11/30/14 1/1/13 - 11/30/14
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. $1/10/87 - 1/10/88$	Chief Science Advisor, Project on Emerging Nanotechnologies	8/15/05 – 3/31/10
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. $1/10/87 - 1/10/85$	Team Leader – Aerosols Research Team (GS15)	1/1/04 - 7/8/05
•	Head, Exposure Control Section, Health and Safety Laboratory Senior Scientific Officer (1994 – 1998)	9/1/94 - 9/1/98
		1/10/87 – 1/10/89

ACADEMIC AFFILIATIONS

Senior Sustainability Scholar Julie Ann Wrigley Global Institute of Sustainability, ASU

2016 - Present

Faculty Fellow Center for Law, Science & Innovation, ASU	2015 - Present
Affiliate Faculty Member Global Security Initiative Center for Human, Artificial Intelligence, and Robot Teaming (CHART), ASU	2018 - Present
EXECUTIVE & ADVISORY POSITIONS	
Canadian Institute for Advanced Research Member of the President's Research Council	2017 - Present
International Life Science Institute North America ILSI North America Board of Trustees; vice-chair (2019-2021)	2012 - Present
American Association for the Advancement of Science AAAS Early Career Award for Public Engagement with Science Selection Committee	2015 - Present
 World Economic Forum Global Futures Council on Agile Governance (2017 – 2019) Council on the Future of Technology, Values and Policy (2016 – 2017) 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 Committee on top ten emerging technologies (2012 – Present) 	2008 - 2020
Nature Nanotechnology Advisory Panel Advisory group to the editor on developing content on the relationship between technology and society	2017 - Present
United Nations Expert Group on Exponential Technological Cha New group addressing exponential technological change, automation, and policy implications for sustainable development	ange 2016 - 2017
 National Academy of Sciences Committees National Academy of Sciences Planning Committee on New Technologies Engagement Approaches to Enhance Research on the Communication abore Individual Environmental Health Data. (2016) National Academy of Sciences Committee on the Science of Science Commit (2015 – 2016) National Academy of Sciences Committee to develop a research strategy freenvironmental, health, and safety aspects of engineered nanomaterials (2010) National Academy of Sciences review panel for the National Nanotechnology 	ut munication for 10 – 2013) ogy Initiative
Keep on Questioning (I'm A Scientist USA) Board of Advisors	2015 - 2017
RELATE (Science Communication) Faculty Advisor	2015 - 2019
Center for Policy on Emerging Technologies Senior Fellow	2012 – 2018
Dow Distinguished Faculty Fellows Member, University of Michigan Dow Distinguished Faculty Fellows	2013 - 2015
Center for Nanotechnology in Society, ASU	

	Graham Sustainability Institute, University of Michigan Member, Executive Committee	2012 - 2015
	Center for the Environmental Implications of Nanotechnology Chair, External Advisory Board	2009 – 2016
	Nanoscale Informal Science Education Network Advisory board member	2009 – 2015
	Environmental Protection Agency Chair, External Peer Review of the U.S. Environmental Protection Agency Draft Nanomaterial Research Strategy	2008
	Environmental Protection Agency Panel member, Public Meeting on Risk Management Practices for the U.S. Nanoscale Materials Stewardship Program	2008
	Council of Canadian Academies Expert Panel on Nanotechnology Assessment	2007
	President's Council of Advisors on Science and Technology Member of the Nanotechnology Working Group	2010 - 2012
	President's Council of Advisors on Science and Technology Member of the Nanotechnology Technical Advisory Group	2006 - 2009
	Chemical & Engineering News Advisory Board member	2008 - 2011
	Organization for Economic Cooperation and Development Working Party on Manufactured Nanomaterials. Project on Emerging Nanotechnologies representative.	2005 - 2007
	International Council On Nanotechnology (ICON) Executive Committee member	2004 - 2011
	International Life Sciences Institute Member of the ILSI Health and Environmental Sciences Institute Nanomaterial Safety Subcommittee Project Steering Team.	2004 – 2010
ED	ITORIAL BOARDS	
	Annals of Work Exposure and Health International Advisory Board	2017 - Present
	Journal of Responsible Innovation Member, Board of Editors	2013 - Present
	Annals of Occupational Hygiene International Advisory Board	2006 - 2016
	Nano Today Member of the editorial board	2006 - 2009
	Journal of Nanoparticle Research Member of the editorial board	2006 - 2012
	Nanotoxicology 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

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

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: Nanotoxocology: Biomedical Aspects Miami (2005). Organizing committee

Developing Experimental Approaches for Evaluation of Toxicological Interactions of Nanoscale Materials

Gainsville 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) <u>https://riskinnovation.asu.edu/video-techniques/</u>

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) <u>http://www.nrp64.ch/en/news-media/multimedia</u>

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. 9Tempe, 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)

- 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." <u>Nature Nanotechnology</u> 3: 423-428. (2637 citations)
- 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." <u>Part. Fiber Toxicol.</u> 2(8): doi:10.1186/1743-8977-1182-1188. (2123 citations)
- 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." <u>Nature</u> 444(16): 267-269. (1604 citations)
- 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." <u>Am. J. Physiol.-Lung Cell. Mol. Physiol.</u> 289: 698-708. (1440)
- Shvedova, A. A., E. R. Kisin, A. R. Murray, V. Z. Gandelsman, 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)
- 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." <u>Environmental Health Perspectives</u> 114(8): 1172-1178. (1073 citations)
- 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." <u>Am. J. Physiol.-Lung Cell. Mol. Physiol.</u> **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)
- 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." <u>Toxicological Sciences</u> 89(1): 42-50. (526 citations)

PUBLICATIONS IN ACADEMIC JOURNALS

Google Scholar: <u>https://scholar.google.com/citations?hl=en&user=b8NhWc4AAAAJ</u>

- 1. Kidd, J., P. Westerhoff and A. Maynard (2020). "Public perceptions for the use of Nanomaterials for inhome drinking water purification devices." NanoImpact: 100220. DOI: 10.1016/j.impact.2020.100220
- Guseva Canu, I., K. Batsungnoen, A. Maynard and N. B. Hopf (2020). "State of knowledge on the occupational exposure to carbon nanotube." <u>International Journal of Hygiene and Environmental Health</u> 225: 113472.
- Tournas, L., W. Johnson, A. Maynard and D. Bowman (2019). "Germline Doping for Heightened Performance in Sport." <u>Australian and New Zealand Sports Law Journal</u> 12(1): 1-24.
- 4. 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.
- 5. Maynard, A. D. and J. Kidd (2018). "Are assumptions of consumer views impeding nano-based water treatment technologies?" <u>Nature Nanotechnology</u> **13**(8): 673-674.
- 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." <u>Environment Systems</u> <u>and Decisions</u> 38(2): 177-197.
- 7. Maynard, A. D. (2018). "Thinking Differently about Risk." Astrobiology 18(2).
- 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.
- 9. Maynard, A. D. and R. J. Aitken (2016). "Safe handling of nanotechnology' ten years on." Nature Nanotechnology **11**: 998-1000.
- 10. 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.
- 11. Maynard, A. D. (2016). "Is nanotech failing casual learners?" Nature Nanotechnology 11(9): 734-735.
- 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.
- 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.
- 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.
- 15. 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.

- Maynard, A. D. (2016). "Are we ready for spray-on carbon nanotubes?" Nature Nanotechnology 11: 490-491.
- 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.
- 18. Maynard, A. D. (2016). "Navigating the risk landscape." Nature Nanotechnology 11(3): 211-212.
- 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.
- Maynard, A. D. (2015). "Navigating the fourth industrial revolution." Nature Nanotechnology 10: 1005– 1006.
- 21. Maynard, A. D. (2015). "Why we need risk innovation." Nature Nanotechnology 10: 730-731.
- 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.
- 23. Maynard, A. D. (2015). "Learning from the past" Nature Nanotechnology 10: 482-483
- 24. Maynard, A. D. (2015). "Responsible Innovation the (nano) entrepreneur's dilemma." Nature Nanotechnology **10**: 199-200.
- 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." <u>J Phys</u> <u>Conf Ser</u> 617(1).
- 26. Maynard, A. D. (2014). Could we 3D print an artificial mind? Nature Nanotechnology 9(12): 955-956.
- 27. Maynard A. D. (2014). Old materials, new challenges? Nature Nanotechnology 9: 658-659
- 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.
- 29. Maynard A. D. (2014). Is novelty overrated? Nature Nanotechnology 9(3): 409-410.
- Hodge, G. A., A. D. Maynard and D. M. Bowman (2014). "Nanotechnology: Rhetoric, risk and regulation." Science and Public Policy 41(1): 1-14.
- 31. Maynard A. D. (2014). A decade of uncertainty. Nature Nanotechnology 9(3): 159-160.
- 32. 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.
- 33. 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.
- 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.
- 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.
- Maynard AD, Warheit D, Philbert MA. (2011). The New Toxicology of Sophisticated Materials: Nanotoxicology and Beyond. *Tox Sci* 120(Suppl 1): S109-S129.
- 37. Maynard AD, Bowman D, Hodge G. (2011). The problem of regulating sophisticated materials. Nature Mat

10: 554-557.

- 38. Maynard A. D. (2011). Regulators: Don't define nanomaterials. Nature 475: 31.
- 39. 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.
- 40. Abbott L.C., Maynard A.D. (2010). Exposure Assessment Approaches for Engineered Nanomaterials. *Risk Analysis* 30(11): 1634-1644.
- 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.
- 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.
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ONLINE CONTENT – SELECTED

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

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 7/30/20: Subscribers: 15.703. Views: 2,703,893. Watch Time: 97,300 hours.

Recent videos (selection):

- 1. The Risks and Ethics of Facial Recognition Technology (June 25, 2020) https://youtu.be/2SdpzTZTznw
- 2. How Do Facemasks and Respirators Work (March 29, 2020) https://youtu.be/CpbJFk311Lw
- 3. A Guide to Self-Care while Social Distancing (March 23, 2020) <u>https://youtu.be/jnrtxAmdQ_w</u>
- A social distancing guide for students living with coronavirus (March 10, 2020) <u>https://youtu.be/</u> <u>BzfueLoRjwM</u>
- 5. How do air filters work? (January 25, 2019) https://www.youtube.com/watch?v=WhiTlkZlwl4
- 6. Can sci-fi movies lead to more ethical technologies? (January 20, 2019) <u>https://www.youtube.com/watch?</u> <u>v=pMuO7zJa5_Q</u>
- 7. 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
- 8. How dangerous is radon to your health? (May 2 2018). https://www.youtube.com/watch?v=SIRVdKdTBFE
- 9. Can eating pasta help you lose weight? (April 20 2018). <u>https://www.youtube.com/watch?</u> <u>v=R1VEM7rRFTA</u>
- 10. Just how dangerous is a cup of coffee? (March 30 2018). <u>https://www.youtube.com/watch?</u> <u>v=2OQaV7HGyjA</u>
- 11. How safe are self driving cars? (March 25 2018). https://www.youtube.com/watch?v=j-_--qMv_Y
- 12. AI Safety: Ten possible risks of artificial intelligence (March 7 2018). <u>https://www.youtube.com/watch?</u> v=loeoosMrJz4
- 13. Why Science Communication? (Feb 15 2018). https://www.youtube.com/watch?v=CndVeN-yAaw
- 14. Will gene editing in sports lead to super-athletes? (Feb 8 2018). <u>https://www.youtube.com/watch?</u> <u>v=sHxnnWZv5TU</u>
- 15. What is the Fourth Industrial Revolution? And why should you care? (Jan 16 2018). <u>https://www.youtube.com/watch?v=qhLvhYFLoWE</u>
- 16. How can Solution Focused Risk Assessment help govern Emerging Technologies? (with Adam Finkel) (Jan 2 2018). <u>https://www.youtube.com/watch?v=n7XkdbpYWHk</u>
- 17. What is Epidemiology (with Mariya Voytyuk) (July 27 2017). <u>https://www.youtube.com/watch?v=r9poHB-ldqk</u>
- 18. Measuring radiation dose using Sieverts. (April 23 2017). https://youtu.be/vRYwUPBZ-J4
- 19. What is nanotechnology? (July 2016). <u>https://www.youtube.com/watch?v=DAOFpgocfrg</u>
- 20. Les nanoparticules sont-elles dangereuses? (April 2016) <u>https://www.youtube.com/watch?</u> <u>v=TNYJhpCLUfo</u>
- 21. Are Engineered Nanoparticles Dangerous? (March 2016) <u>https://www.youtube.com/watch?</u> <u>v=wxFbYoF7SLc</u>
- 22. Should young kids avoid peanut products? (March 2016) <u>https://www.youtube.com/watch?</u> <u>v=cnfuMzHsbOo</u> (in collaboration with ACS Reactions)
- 23. Cinco coisas que valem a pena saber sobre o Zika e a microcefalia (Portuguese) (March 2016) <u>https://www.youtube.com/watch?v=hGkNpkhnT8M</u>
- 24. Cinco cosas que valen la pena saber sobre el Zika y la microcefalia (Spanish) (March 2016) <u>https://www.youtube.com/watch?v=gyCoNibaFoU</u>
- 25. Zika and microcephaly: Five things worth knowing (March 2016) https://www.youtube.com/watch?

v=w3XX_W7pLAM

- 26. What are gene drives? A Risk Bites guide (November 2015) <u>https://www.youtube.com/watch?</u> <u>v=KgvhUPiDdq8</u>
- 27. Should you be worried about Microbeads? (September 2015) <u>https://www.youtube.com/watch?</u> <u>v=K5tdhilRoW0</u>
- 28. A New Way to Evaluate Chemical Safety TOX21 (July 2015) <u>https://www.youtube.com/watch?</u> <u>v=vKhn1HRXgn8</u>
- 29. What's Pluto got to do with risk? (July 2015) https://www.youtube.com/watch?v=mElO5WRgvyg
- 30. How Safe are Tanning beds? (June 2015) https://www.youtube.com/watch?v=jyAwGlRnnNk
- 31. What does "Probably Cause Cancer" actually mean? (March 2015) <u>https://www.youtube.com/watch?</u> <u>v=CbBkB81ySxQ</u>
- 32. The Risk Bites Guide to Staying Alive a Toxicology Primer (March 2015) <u>https://www.youtube.com/</u> watch?v=b_y9VTDlmlE
- 33. Five things you should know about concussion and contact sports (December 2014) <u>https://www.youtube.com/watch?v=1M-T5yzkeBs</u>
- 34. 5 things worth knowing about Ebola (October 2014) <u>https://www.youtube.com/watch?v=jRv5zZUcWRc</u>
- 35. Why Aren't We More Scared of Measles? (September 2014) <u>https://www.youtube.com/watch?</u> <u>v=X9udphYRJMw</u>
- 36. Five things worth knowing about nanoparticles and sunscreens (June 2014) <u>https://www.youtube.com/</u> watch?v=VV0cCg4clMw
- 37. Electronic cigarettes and health the basics (April 2014) <u>https://www.youtube.com/watch?</u> <u>v=mToznqKD5Ac</u>
- 38. How much pee could you end up swallowing while swimming? (April 2014) <u>https://www.youtube.com/</u> 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) <u>https://soundcloud.com/user-723097380/estonian-election-security</u>
- 2. Elections for the Next Generation (June 2019) <u>https://soundcloud.com/user-723097380/elections-for-the-next-generation</u>
- 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) <u>https://soundcloud.com/</u> user-723097380/election-security-adrian-fontes
- 5. AZ Secretary of State Katie Hobbs (April 2019) <u>https://soundcloud.com/user-723097380/az-secretary-of-state-katie-hobbs</u>
- 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) <u>https://soundcloud.com/user-723097380/3d-guns</u>
- 10. Global innovation in human rights, with Erica Kochi (May 2018) <u>https://soundcloud.com/user-723097380/</u> <u>human-rights</u>
- 11. How to govern emerging technologies, with Gillian Hadfield (May 2018) <u>https://soundcloud.com/user-723097380/hadfield</u>
- 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 Ekland (December 2017) https://soundcloud.com/user-723097380/writerguy
- 22. Hathority 2017 Disruptive Innovation Festival (November 2017) <u>https://soundcloud.com/</u> <u>user-723097380/hathority</u>
- 23. Renewlogy 2017 Disruptive Innovation Festival (November 2017) <u>https://soundcloud.com/user-723097380/renewlogy</u>
- 24. Hygiea 2017 Disruptive Innovation Festival (November 2017) <u>https://soundcloud.com/user-723097380/</u> 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) <u>https://soundcloud.com/user-723097380/cyber-grand-challenge</u>
- 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) <u>https://soundcloud.com/user-723097380/fringe</u>
- 30. Stem Cell Clinics: FDA update (September 2017) <u>https://soundcloud.com/user-723097380/stem-cell-clinics-fda-update</u>
- 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 (Mayn 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) <u>https://soundcloud.com/user-723097380/unsilencing-the-future-of-energy</u>
- 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) <u>https://soundcloud.com/user-723097380/darshan-karwat</u>
- 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) <u>https://soundcloud.com/</u> <u>user-723097380/deborah-strumsky</u>
- 52. Hands Off? Jack Stilgoe on Autonomous Vehicles (January 2017) <u>https://soundcloud.com/user-723097380/</u> hands-off
- 53. Clark Miller Returns: More On Election Systems (January 2017) <u>https://soundcloud.com/user-723097380/</u> <u>clark-miller-returns-more-on-election-systems</u>
- 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) <u>https://soundcloud.com/user-723097380/have-yourself-a-cybersecure-holiday</u>
- 57. Camille Nebeker: CORE Project (December 2017) <u>https://soundcloud.com/user-723097380/camille-nebeker-core-project</u>
- 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: <u>https://theconversation.com/profiles/andrew-maynard-128048/articles</u>

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) <u>https://theconversation.com/will-driving-your-own-car-become-the-socially-unacceptable-public-health-risk-smoking-is-today-65891</u>
- Considering ethics now before radically new brain technologies get away from us (September 2016) <u>https://</u> <u>theconversation.com/considering-ethics-now-before-radically-new-brain-technologies-get-away-from-</u> us-65215
- 3. It'll take more than tech for Elon Musk to pull off audacious new Tesla master plan (July 2016) <u>https://</u> <u>theconversation.com/itll-take-more-than-tech-for-elon-musk-to-pull-off-audacious-new-tesla-master-plan-62884</u>
- How risky are the World Economic Forum's top 10 emerging technologies for 2016? (June 2016) <u>https://theconversation.com/how-risky-are-the-world-economic-forums-top-10-emerging-technologies-for-2016-61349</u>
- 5. Nanoparticles in baby formula: should parents be worried? (May 2016) <u>https://theconversation.com/</u> 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) <u>https://theconversation.com/we-dont-talk-much-about-nanotechnology-risks-anymore-but-that-doesnt-mean-theyre-gone-56889</u>
- 7. Public universities must do more: the public needs our help and expertise (March 2016) <u>https://</u> <u>theconversation.com/public-universities-must-do-more-the-public-needs-our-help-and-expertise-56016</u>
- Three ways synthetic biology could annihilate Zika and other mosquito-borne diseases (February 2016) <u>https://theconversation.com/three-ways-synthetic-biology-could-annihilate-zika-and-other-mosquito-borne-diseases-54087</u>
- 9. Can citizen science empower disenfranchised communities? (January 2016) <u>https://theconversation.com/</u> <u>can-citizen-science-empower-disenfranchised-communities-53625</u>
- 10. The fourth industrial revolution: what does WEF's Klaus Schwab leave out? (January 2016) <u>https://</u> 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: <u>https://riskinnovation.asu.edu/science-showcase-info/</u>

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: <u>https://</u>riskinnovation.asu.edu/2017-science-showcase-winners/

Miscellaneous

Select online content featuring Andrew Maynard:

- 1. KJZZ: ASU Professor: Some Businesses Struggle To Adapt, Innovate (December 16, 2019) <u>https://kjzz.org/content/1357611/asu-professor-some-businesses-struggle-adapt-innovate</u>
- 2. The Future Will Not Be Podcast podcast: Science Fiction (September 17, 2019) <u>http://www.thefuturewillnotbepodcast.com/sci-fi</u>
- 3. ASU Thought Huddle Podcast: Future Visions, Past Reflections (September 2019) <u>https://asunow.asu.edu/thought-huddle/future-visions-past-reflections</u>
- 4. Tech2025 podcast: Tech News Roundup with Andrew Maynard (August 5, 2019) <u>https://tech2025.com/</u> 2019/08/05/tech-news-roundup-with-andrew-maynard-your-face-is-a-weapon-google-employees-loveberniewarren-new-bill-on-tech-addiction-and-turning-children-into-cyborgs/
- 5. This Week in Tech Andrew Maynard, Films from the Future (August 2, 2019) <u>https://twit.tv/shows/</u> triangulation/episodes/408
- 6. Balancing the speed of innovation and regulation (panel discussion at CES 2019 February 2019) <u>https://videos.ces.tech/detail/video/5987711783001/balancing-the-speed-of-innovation-and-regulation</u>
- 7. Big Picture Science Sci-Fi From the Future (January 2019) http://radio.seti.org/episodes/sci-fi-future
- 8. KJZZ What Science Fiction Can Teach Us About Today's Social Issues (November 2018) <u>https://kjzz.org/content/731355/what-science-fiction-can-teach-us-about-todays-social-issues</u>
- Spark Radio From precogs to T-rex, sci-fi films teach us about the ethics of new technology (December 2018) <u>https://www.cbc.ca/radio/spark/from-precogs-to-t-rex-sci-fi-films-teach-us-about-the-ethics-of-new-technology-1.4955887</u>
- 10. 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
- 11. ASU/Got a Minute Andrew Maynard on Fear (September 2018) <u>https://asunow.asu.edu/content/andrew-maynard-fear</u>
- 12. 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
- 13. World Economic Forum Podcast: The Fourth Industrial Revolution and the future of work (February 2018) <u>https://www.weforum.org/agenda/2018/02/podcast-work-in-the-4ir/</u>
- 14. The State Press Frankenstein Project is starting conversations about scientific responsibility (October 2017) <u>http://www.statepress.com/article/2017/10/spscience-frankenstein-is-used-to-start-conversations-about-scientific-responsibility</u>
- Salon The Impossible Burger wouldn't be possible without genetic engineering (September 2017) <u>https://www.salon.com/2017/09/03/the-impossible-burger-would-not-be-possible-without-genetic-engineering_partner-2/</u>
- 16. ASU Now ASU prof hosts video contest to bolster science communication (August 2017) <u>https://asunow.asu.edu/20170803-solutions-asu-prof-hosts-video-contest-bolster-science-communication</u>
- 17. Space.com Planetary Protection: Contamination Debate Still Simmers (May 2017) <u>https://www.space.com/36708-planetary-protection-astrobiology-nasa-missions.html</u>
- 18. Scientific American Could "Planetary Protection" Scuttle Otherworldly Exploration? (May 2017) https://

www.scientificamerican.com/article/could-planetary-protection-scuttle-otherworldly-exploration/

- 19. Express Nanotechnology among us but regulators aren't doing enough to protect humans, experts warn (March 2017) <u>https://www.express.co.uk/news/science/776686/nanotechnology-danger-cancer-brain-lungs</u>
- 20. KEDtalks Risk is not just a four letter word (January 2017) https://vimeo.com/196890016
- Big Picture Science Amelia Earhart: Andrew Maynard / Inescapable Uncertainty (January 2017) <u>http://blog.bigpicturescience.org/2017/01/big-picture-science-amelia-earhart-andrew-maynard-inescapable-uncertainty/</u>
- 22. Big Picture Science Skeptic Seth: Andrew Maynard / Fearing Technology (August 2015) <u>http://blog.bigpicturescience.org/2015/08/big-picture-science-skeptic-seth-andrew-maynard-fearing-technology/</u>
- 23. Big Picture Science The Me in Measles: Andrew Maynard / Accurate Data (March 2015) <u>http://blog.bigpicturescience.org/2015/03/big-picture-science-the-me-in-measles-andrew-maynard-accurate-data/</u>
- 24. Big Picture Science Tale of the Distribution: Andrew Maynard / Risk Assessment (October 2014) <u>http://blog.bigpicturescience.org/2014/10/big-picture-science-tale-of-the-distribution-andrew-maynard-risk-assessment/</u>
- 25. Michigan Radio Here's why so few people get flu shots (October 2014) <u>https://www.michiganradio.org/</u> post/heres-why-so-few-people-get-flu-shots
- 26. University of Michigan School of Public Health: Think Small (as in Nano Small). (May 2012). <u>https://www.youtube.com/watch?v=p77fzbfNyes</u>
- 27. Discovery Nanotech Risks (April 2009) https://www.youtube.com/watch?v=qc0KLV8CW08
- 28. Discovery Nanotech Rewards (April 2009) https://www.youtube.com/watch?v=yYXWHVZU0_g

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

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) (<u>http://2020science.org</u>)

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 (<u>http://mindthesciencegap.org</u>)

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. ILSI NA Annual Meeting: Panel Discussion on Trust in Science (moderator) (7/23/20)
- 2. Phoenix Arts, Science & Culture Salon (Spirit of the Senses): Future Rising (5/21/20)
- 3. AZ Tech Council Med Tech Roundtable presenter (5/19/20)
- 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)
- 5. AME Digital Culture series (ASU): Future Rising: A Journey from the Past to the Edge of Tomorrow (2/27/20)

- 6. KEEN National Conference: Thin Different: New Tools for Creating Value in an Uncertain World (1/4/20)
- 7. Arizona Biosecurity Workshop: Innovative ways of thinking about risk in emerging technologies (12/5/19)
- 8. Phoenix Arts, Science & Culture Salon (Spirit of the Senses): Films from the Future (12/4/19)
- 9. Waymo: Fireside chat with Governor Doug Ducey (9/19/19)
- 10. Arizona STEM & Innovation Summit: Pardon my science! (9/17/19)
- 11. Marsh Digital: Thinking Differently About Risk (7/15/19)
- 12. ILSI North America: A Moviegoer's Guide to Responsible and beneficial Innovation (6/24/19)
- 13. Phoenix Fan Fusion: Multiple panels (5/24/19)
- 14. Governance of Emerging Technology and Science: Films from the Future (5/22/19)
- 15. CSPO 20th anniversary: Sci-Fi Snug (5/9/19)
- 16. Film Bar: Introduction to Planet of the Apes (4/25/19)
- 17. Let's Talk Self-Driving: A Fireside Conversation with Waymo's Tekedra Mawakana (4/11/19)
- 18. Emerge 2019: Engines of Desire (3/30/19)
- 19. ASU Law & Society Salon: The Future: Insights from Sci-Fi Films. 1/31/19
- 20. CES panel Balancing the speed of innovation and regulation. Las Vegas 1/9/19
- 21. Sparks & Honey Daily Briefing-Films from the Future and Cultural Trends. New York City, NY. 12/13/18
- 22. Films from the Future: What Sci-Fi Movies Can Teach Tech Companies About Socially Responsible Innovation. Tech 2025, Brooklyn NY, 12/13/18
- 23. Films from the Future: Can science fiction movies really teach us anything about technology innovation? NEXT Conference, San Francisco. 12/5/18
- 24. The Moviegoer's Guide to the Future. Alamo Draft House Cinema, Tempe AZ. 11/27/18
- 25. 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)
- 26. Humility is not a four-letter word. ASU Grad College Knowledge Impact Awards Keynote. 4/26/18
- 27. 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
- Presentation to a meeting of the National Academies of Science Board of Lifesciences Annual Meeting, on risk, 11/30/17
- 29. Workshop leader, workshop on agile governance at the World Economic Forum Annual Meeting of the Global Future Councils, Dubai, 11/9/17
- Workshop on Agile Governance, World Economic Forum Annual Center for the Fourth Industrial Revolution, 9/25/17
- 31. 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
- 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
- 33. Swiss National Science Foundation: Invited keynote on the culmination of the NRP 64 program on Opportunities and Risks of Nanotechnology. 6/2/17
- 34. Planetary Protection: Assessing the Risks. A Community Conversation. Plenary at the 2017 Astrobiology Science Conference 4/24/17
- 35. Risk Communication & Talking to the Public About Chemicals. Panel at GlobalChem 2017, 2/24/17
- 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
- 37. Innovating for Social and Economic Success. NEWT Science Seminar, 11/28/16
- 38. The Future of Zika. Event hosted by the School for the Future of Innovation in Society, 11/9/16

- American Industrial Hygiene Association Fall Conference. Risk Innovation and the Workplace of the Future. 10/25/16
- 40. Responsible Industry workshop, Berlin: Responsible Research and Innovation A US Perspective. 6/22/16
- 41. Future Tense: Engineering Away Disease (panel discussion). 2/23/16
- 42. AAAS 2016 Annual Meeting. Moderating panel on Public Engagement and Risk Communication: Case Study of Synthetic Biology. 2/11/16
- 43. World Economic Forum Summit on the Global Agenda. Panel discussion on the Fourth Industrial evolution. 10/26/15. <u>https://www.youtube.com/watch?v=Oj3a7O-73bY</u>
- NanOEH conference, South Africa. Plenary Presentation "Responsible Innovation and Nanotechnology". 10/18/15
- 45. Notre Dame University. Invited lecture "Is responsible nanotechnology doomed to failure?" 10/27/14
- 46. Royal Society of London meeting on bio-nano interactions: new tools, insights and impacts. Invited lecture: "Innovative approaches to emergent risks". 5/1/14
- National Academy of Sciences Forum on Synthetic Biology invited presentation: "Innovative approaches to emergent risks" 3/13/14
- 48. World Economic Forum Annual Meeting of the New Champions, Dalian China. Panelist "Building the 21st century regulatory system" 9/12/13
- 49. Argentinean Foundation of Nanotechnology. "Thinking critically and imaginatively about the challenges of sophisticated materials" 10/30/12
- 50. 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
- 51. Harvard University. "The new science of sophisticated materials: Nanomaterials and beyond" 4/13/12
- 52. Swiss National Science Foundation. "The new science of sophisticated materials: Nanomaterials and beyond" 3/3/11
- World Economic Forum Annual Meeting, Davos. Challenge to the panel. "The science agenda in 2011" 1/26/11
- 54. Cincinnati Contemporary Arts Center. "Small Gods... and the art of technology innovation" 12/11/10
- 55. University of Cambridge Center for Research in the Arts, Social Sciences and Humanities (CRAASH). 6/1/10 "Governing emerging technologies under conditions of uncertainty"
- Johnson & Johnson. "Effective evidence-based communication strategies. Lessons from nanotechnology" 5/19/10
- Wisconsin Assembly Committee on Public Health. "Nanotechnology. Opportunities and challenges." 10/6/09
- 58. Brookings Institution. "Controlling wayward science: Dangers of unanticipated consequences." 6/19/09
- Transatlantic Consumer Dialogue. "Nanomaterials and consumer products. A perspective from the US." 6/10/08
- International Joint Commission. "Nanotechnology in perspective. New technologies, new challenges?" 3/30/09
- Oxford University. "Rethinking science and technology innovation for the 21st century: A nanoscale perspective." 3/12/09
- 62. Royal Society. Briefing on Synthetic Biology 10/17/08
- European Aerosol Conference. "Developing Responsible Nanotechnologies. An Aerosol Perspective." 8/28/08
- 64. Gothenburg University, Gothenburg, Sweden. "Managing the Small Stuff. Ensuring the success of safe nanotechnologies." 5/13/08
- 65. Swedish Academies of Science. "Smart Science. Challenges and opportunities in the race to develop safe nanotechnologies." 5/12/08
- 66. New York Academy of Sciences. "Nanotechnology. Science, society and policy." 5/14/07
- 67. Nanoscience Centre, University of Cambridge, UK. "Nanotechnology and potential risk. Challenges to measuring exposure to engineered nanomaterials." 05/05/07

- 68. Johns Hopkins University. "The science of nanotechnology and public health" 4/10/07
- 69. Health Effects Institute annual conference. "Nanoparticles from manufacturing." 4/16/07
- 70. CalEPA. "Nanotechnology. Maximizing the benefits. Minimizing the risks." 3/8/07
- Senior Management at the Hong Kong Department of Labor. "Nanotechnology benefits and challenges." 2/8/07
- Rabobank North American Agribusiness Advisory Board. "Nanotechnology. Why should you care?" 1/30/07
- 73. University of Virginia. Invited comments on the Opening ceremony for Wilsdorf Hall. 11/10/06
- 74. NATO ARW, Bulgaria. "Nanotechnology: Overview and issues." 8/13/06
- 75. The Conference Board. "Nanotechnology. An introduction to the technology, and its EH&S implications." 06/08/06
- 76. Warner Lecture, British Occupational Hygiene Society. "Nanotechnology: The next big thing, or much ado about nothing?" 04/25/06
- 77. 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
- Institute of Occupational Safety and Health (IOSH), Taiwan. "Working at the Nanoscale. Nanotechnology and Potential Occupational Health Risk" 01/05/06
- 79. Academia Sinica, Taiwan. "Nanotechnology: Environment, Safety and Health." 01/04/06
- Asia Nanotechnology Forum. "Assessing the environmental safety and human health risk of emerging nanotechnologies" 12/9/05
- Australian Institute for Occupational Hygiene. "Engineered Nanomaterials and Occupational Health" 12/4/05
- 82. Society Of Toxicology. "Engineered Nanomaterials and Occupational Health" 11/2/05
- 83. NASA. "Nanotechnology: Overview and relevance to Occupational Health" 10/21/05
- National Academies of Science, Chemical Sciences Round Table. "Nanotechnology: Opportunities and Challenges in a Changing World." 09/21/05
- 85. American Industrial Hygiene Association "Nanotechnology: Overview and Relevance to Occupational Health. 09/14/05
- 86. EPA. "Nanotechnology and Occupational Health." 6/13/05
- Korean Society of Toxicology. "Nanotechnology and occupational health addressing potential health risks." 5/13/05
- American Association for the Advancement of Science. "Nanoaerosol exposure. Generating and characterizing airborne nanoparticles." 2/20/05
- 89. American Chemistry Council. Nanotechnology and Occupational Health. "Ensuring a safe and healthful workforce in a changing environment." 10/24/04
- 90. NIOSH Board of Scientific Councilors. "The NIOSH Nanotechnology Initiative. Ensuring a safe and healthful workforce in a changing environment." 10/21/04
- 91. California Department of Health Services". Perspectives on a 'small' problem. Nanotechnology and Occupational Health." 3/25/04
- 92. Scandinavian Electron Microscopy Conference. "From Nuisance dusts to Nanoparticles. The Role of Electron Microscopy in Occupational and Environmental Health." 6/13/03
- 93. 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