

WENDELL A WALLACH
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PROFESSIONAL EXPERIENCE:

Yale University ISPS Interdisciplinary Center for Bioethics **2005-Present**
Chair – Technology and Ethics Study Group ('05 – Present)
Center Scholar – ('08-Present)
Seminar Instructor – Technology and Ethics for bioethics interns ('08)
Program Director – Bioethics program for summer interns ('05-'07)
Coordinator – Religious and Spiritual Issues in Bioethics ('05-'06)
Member – Working study groups on Neuroethics ('06-'08), PTSD ('08-'10),
Animal Ethics ('07-'Present), End-of-Life Issues ('05-'Present),
Research Ethics ('05-'06), Technology & Ethics ('02-'05)

The Hastings Center – Senior Advisor **2014-Present**
Study Advisor (Synthetic Biology) **2014-Present**
Visiting Scholar **2012-2013**
Study Group on Synthetic Biology ('12-'13)

ASU: Lincoln Center for Applied Ethics – Scholar **2012-Present**

Institute for Ethics & Emerging Technology – Fellow **2011-Present**

WW Associates **2001-Present**
Consultant and Writer

Saint Francis Hospital **2010-2014**
Institutional Review Board (Member)

TOPICS in Cognitive Science **2009-2012**
Associate Editor of the Journal of the Cognitive Science Society

Yale College Seminar Program **2004 & 2005**
Lecturer
Taught undergraduate seminars on *Robot Morals and Human Ethics*.

- GlassStone Studio** **1988-Present**
Artist/Designer
 Design, build, and install stained glass windows for homes and churches.
- Farpoint Solutions LLC/Omnia Consulting, Inc.** **1994-2001**
President/CEO
 Co-founder of two computer-consulting firms. The companies provided a broad range of services from network installation to the design, development and implementation of computer based business solutions for multi-national corporations. PepsiCo International, The State of Connecticut, and United Aircraft were among the companies' larger clients.
- WW Associates** **1984-1994**
Computer and Business Consultant
 Microcomputer consulting and short-term management services for businesses, law offices, educational institutions, and non-profits.
- Office Systems Magazine** **1985-1987**
Columnist
- Small Business Computer Magazine** **1984-1987**
Associate Editor
- Multi-Business Computer Systems** **1982-1984**
Education and Business Consultant
- Wesleyan University Summer Computer Institute** **1982,1983**
Faculty Lecturer
- Journey Publications** **1976-1982**
Partner, Founder, and Director
 Published original works in Philosophy, Psychology and Religion.
- Counseling and Lecturing** **1974-1982**
Counseling
 Practice in Ithaca and Woodstock NY with individuals interested in cognitive self-understanding and meditation.
Lecturer
 Lectured on cognitive self-understanding at Cornell University, The University of Ottawa, and The University of Florida.
- Church Society for College Work** **1969-1973**
Assistant Program Director ('72-'73)
 Managed a Danforth Foundation grant for an ethics think tank. Organized a week long conference and edited a quarterly titled *New Faculty News*.

Consultant ('69-'70)
 Seminar programs in ethics for faculty members at various New England colleges, including M.I.T., Harvard, and Episcopal Theological Seminary.
- Massachusetts Institute of Technology** **1970**
Lecturer
 Department of Social Enquiry – Courses on New Age Philosophies
- Harvard University** **1969**
Graduate Teaching Fellowship
 Department of Social Relations –Taught a course on *Existential Psychology*.

Non-Profit Experience

Board Member

2004-2008

All Together Now International – Led a project to upgrade an orthopedic children’s hospital (HRDC) in Nepal.

Acting Executive Director

1991

The International Center for Better Health. Women’s Health and AIDS Education in the former Soviet Union.

Relief Work

1971

Bangladesh Refugees, West Bengal, India.

Education:

Harvard Graduate School of Education (*M.Ed.*, ‘71)

1970-1971

Harvard Divinity School

1968-1969

Wesleyan University (*B.A., College of Social Studies*, ‘68)

1964-1968

Recent Award

World Technology Award – Ethics

2014

PUBLICATION LIST

Books:

Wallach, W. (June 2, 2015) *A Dangerous Master: How to Keep Technology from Slipping Beyond Our Control*. New York: Basic Books

Wallach W. (series ed.) (Forthcoming 2015) *Library of Essays on Ethics and Emerging Technologies*. UK: Ashgate Publishing.

Marchant, G. and Wallach, W. (volume eds.) (Forthcoming 2015) *Emerging Technologies: Ethics, Law, and Governance* in the *Library of Essays on Ethics and Emerging Technologies*. UK: Ashgate Publishing.

Wallach W. and Asaro, P. (volume eds.) (Forthcoming 2015) *Robot Ethics and Machine Ethics* in the *Library of Essays on Ethics and Emerging Technologies*. UK: Ashgate Publishing.

Wallach, W. and Allen, C. (2009) *Moral Machines: Teaching Robots Right From Wrong*. New York: Oxford University Press.

Wallach, W. (1978) *Silent Learning: The Undistracted Mind*. Woodstock, NY: Journey Publications.

Articles and Book Chapters

Marchant, G. and Wallach W. (2014) Governing the governance of emerging technologies. In Marchant, G.E., Abbot, K.W., & Allenby, B. (eds.) Innovative Governance Models for Emerging Technologies. Edward Elgar.

Wallach, W. (2013) Ethics, Law, and Governance: In the Development of Robots. In Sandler, R. (ed.) Ethics and Emerging Technologies. Palgrave-Macmillan.

Wallach W. (2013) Terminating the Terminator: What to do About Autonomous Weapons. Published simultaneously on the Science Progress and IEET websites.
<http://scienceprogress.org/2013/01/terminating-the-terminator-what-to-do-about-autonomous-weapons/>

Wallach W. and Allen, C. (2012) Framing Robot Arms Control. *Ethics and Information Technology*. Available at: <http://link.springer.com/article/10.1007%2Fs10676-012-9303-0>

Wallach, W. (2012) A Singularity Sceptic. *Issues*. Volume 98, March 2012. p. 31-34.

Wallach W. (2012) Mechanizing Ethics. In Bainbridge, W.S. (ed.) Leadership in Science and Technology: A Reference Handbook. Sage Publications, p. 149-156.

Wallach, W. (2012) Establishing Limits on Autonomous Weapons Capable of Initiating Lethal Force. Unpublished yet widely circulate proposal for an executive order from the US President.

Wallach, W. (2012) Yovan's Boats. In Parrott, R. (ed.) Rescued Art Stories.

Wallach, W. (2011) From Robots to Techno Sapiens: Ethics, Law, and Public Policy in the Development of Robots and Neurotechnologies. *Law, Innovation and Technology*, Volume 3, Issue 2, p. 185-208.

Wallach, W., Allen, C., and Franklin, S. (2011) Consciousness and Ethics: Artificially Conscious Moral Agents. *International Journal of Machine Consciousness*, Vol 3:1, pp. 177-192.

Allen, C., and Wallach, W. (2011) Moral Machines: Contradiction in Terms, or Abdication of Human Responsibility? In Lin, P., Bekey, G., and Abney, K. (eds.) Robot Ethics: The Ethical and Social Implications of Robots. MIT Press, p. 55-68.

Allen, A. and Wallach, W. (2011). Wise machines? *On the Horizon*, Vol. 16 No.4, p.253-258.

Wallach, W.(2011) From Robots to Techno Sapiens: Ethics, law, and public policy in the development of robots and neurotechnologies. In van den Berg, B. and Klaming, L. (eds.) *Technologies on the stand: Legal and ethical questions in neuroscience and robotics*. Wolf, the Netherlands, p. 249-271.

Allen, C., Wallach, W., and Smit, I. (2011). Why Machine Ethics? In Anderson, M., and Anderson, S. (eds.) Machine Ethics. Cambridge University Press, p. 51-61.

Wallach, W. (2010) Cognitive Models of Moral Decision Making. *TopiCS: Topics in Cognitive Science*, July: 1-10.

Wallach, W., Franklin, S., and Allen, C. (2010) A Conceptual and Computational Model of Moral Decision Making in Humans and in AI. *TopiCS: Topics in Cognitive Science*, July.

Wallach, W. (2010) Applied ethicists: Naysayers or problem solvers? Invited response to Sharkey, N. and Sharkey, A., The crying shame of robot nannies: an ethical appraisal. *Journal of Interactive Studies*, 11:2, 283-289.

Wallach, W. (2010). Robot Minds and Human Ethics. *Ethics and Information Technology*, special

issue on Robot Ethics and Human Ethics.

Wallach, W. (2010). Robot Minds and Human ethics: The Seminar. *Teaching Ethics*, Vol. 11 Number 1, p. 85-90.

Wallach, W. (workshop article). Societal and Ethical Ramifications of Research on PTSD: Models of Cognition, Therapy, and Enhancement. In Smith, D., and Landwirth, J. (eds.), *Ethical Issues in the Treatment of Post Traumatic Stress Disorder*, Yale University.

Wallach, W. (2009) The Conscience of the Machine. *Philosophy Now*, 72: 4.

Wallach, W. (2009) The Challenge of Moral Machines. *Philosophy Now*, 72: 6-9.

Wallach, W. (2008) Implementing moral decision making faculties in computers and robots. *AI & Society*, 22 (4): 483-475.

Wallach, W., Allen, C. & Smit, I. (2008) Machine Morality: bottom-up and top-down approaches for modelling human moral faculties. *AI & Society*, 22 (4): 565-582.

Allen, C., Wallach, W. & Smit, I. (2006) Why Machine Ethics? *IEEE Intelligent Systems*, 21 (4): 12-17.

Allen, C., Smit, I. & Wallach, W. (2006) Artificial Morality: top-down, bottom-up, and hybrid approaches. *Ethics and Information Technology*, 7: 149-155.

Wallach, W. (2005) Choice, ethics, and the evolutionary function of consciousness. In Smit, I., Wallach, W. & Lasker, G. (eds.) *Cognitive, Emotive and Ethical Aspects of Decision Making in Humans and in Artificial Intelligence*, IAS, IV: 1-21.

Wallach, W. (2005) First-person science, cognitive science, and spiritual practice. In Lasker, G. and Hiwaki, K. (eds.) *Personal and Spiritual Development in the World of Cultural Diversity*, IAS, II.

Wallach W. (2004) Artificial Morality: Bounded Rationality, Bounded Morality and Emotions. In Smit, I., Wallach, W. & Lasker, G. (eds.) *Cognitive, Emotive and Ethical Aspects of Decision Making in Humans and in Artificial Intelligence*, IAS, III: 1-6.

Wallach W. (2004) Spiritual states, pre-conceptual cognition, and the homeodynamic design of organisms. In Lasker, G. and Hiwaki, K. (eds.) *Personal and Spiritual Development in the World of Cultural Diversity*, IAS, I.

Wallach, W. (2003) Robert Morals and Human Ethic. In Smit, I., Wallach, W. & Lasker, G. (eds.) *Cognitive, Emotive and Ethical Aspects of Decision Making in Humans and in Artificial Intelligence*, IAS, II, 1-5.

Wallach, W. (2002) Moral Intelligence: Are there psychological states and inner qualities that function as indicators that an action is correct or good? In Smit, I. & Lasker, G. (eds.) *Cognitive, Emotive and Ethical Aspects of Decision Making and Human Action*, IAS, I : 7-12.

Articles Before 2000

Software reviews, articles, and monthly columns in *PC World*, *PC Computing*, *Office Systems*, or *Small Business Computer* magazines.

Refereed Conference Publications

Wallach W. and Allen, C. (2012) Hard Problems: Framing the Chinese Room in Which a Robot Takes a Moral Turing Test. Symposium on Moral Cognition and Theory of Mind. AISB/IACAP, University of Birmingham, July 5, 2012, Birmingham, UK.

Allen, C., Smit, I. & Wallach, W. (2006) Artificial Morality: top-down, bottom-up, and hybrid approaches. In Brey, P., Grodzinsky, F., & Introna, L. (eds.) *Ethics of New Information Technology: Proceedings of the Sixth International Conference of Computer Ethics: Philosophical Enquiry (CEPE 2005)*, Enschede, Netherlands: Center for Telematics and Information Technology (CTIT); pp. 21-28.

Wallach, W., Allen, C. & Smit, I. (2005) Machine Morality: bottom-up and top-down approaches for modeling human moral faculties. In Proceedings of AAAI Workshop on Machine Ethics, Washington, D.C., November 2005.

Editor for Journals, Magazines, and Conference Proceedings

Wallach, W. and Franklin, S. (eds.) (2010) Cognitive Models of Moral Decision Making. Special issue of *TopiCS: Topics in Cognitive Science*, July.

Wallach, W. (2009) Moral Machines. Special issue of *Philosophy Now*, March/April.

Smit, I., Wallach, W. & Lasker, G. (eds.) (2005) *Cognitive, Emotive and Ethical Aspects of Decision Making in Humans and in Artificial Intelligence*. International Conference on Advanced Systems Research 17, Baden Baden, Germany, July, Vol IV.

Smit, I., Wallach, W. & Lasker, G. (eds.) (2004) *Cognitive, Emotive and Ethical Aspects of Decision Making in Humans and in Artificial Intelligence*. International Conference on Advanced Systems Research 16, Baden Baden, Germany, July, Vol III.

Smit, I., Wallach, W. & Lasker, G. (eds.) (2003) *Cognitive, Emotive and Ethical Aspects of Decision Making in Humans and in Artificial Intelligence*. International Conference on Advanced Systems Research 15, Baden Baden, Germany, July, Vol II.

Keynotes, Plenary Addresses, and Invitations to Testify to National Committees

June 2015 "Technological Unemployment, A Distribution Crisis, and a Functional Singularity." ISSP-The Future of Work. The University of Ottawa, Canada.

November 2014 "Moral Machines." Keynote - Noble Energy Compliance Conference, Houston, TX

August 2014 "Machine Morality and Human Ethics." Plenary - Robot-Philosophy, University of Aarhus, Denmark.

May 2014 "Complexity and Governance." Plenary - Governance of Emerging Technologies Conference, Arizona State University, Phoenix, AZ.

November 2013 “Techno Sapiens, Moral Machines and the Combinatorial Impact of the Emerging Technologies.” Keynote RoboLaw Conference on Future Technologies, Self, and Society, Pisa, Italy.

October 2013 “Public Participation in the Governance of the Emerging Technologies.” Plenary - Emerging Agendas for Citizens and the Sciences, University of Ottawa, Quebec, Canada.

September 2013 “Emerging Technologies: Hype and Reality.” TEDxUCONN, Storrs, CT. Available at: <http://www.youtube.com/watch?v=JzV0mwKPNHk> (Accessed Dec. '13)

August 2013 “ELSI, Autonomy and Civil Aeronautics.” National Resource Council’s Committee on Autonomy Research for Civil Aviation.” Irving, CA.

April 2013 “Opportunities and Challenges in the Governance of Social Robotics.” Keynote - Social Robotics: Future Visions and Governance, University of Minnesota.

October 2012 “From Robots to TechnoSapiens: Science Policy and Governance in the Development of AI.” AAAS Committee on Scientific Freedom and Responsibility, Washington, DC.

July 2011 “Moral Machines: From Philosophy to Engineering.” Keynote - Bridging the Robotics Gap, University of Twente, Enschede, The Netherlands.

April 2011 “From Robots to Techno Sapiens: Ethics, law, and public policy in the development of robots and neurotechnologies.” Keynote - Technologies on the stand: Legal and ethical questions in neuroscience and robotics, Tilburg University, Tilburg, the Netherlands.

July 2010 “Navigating the Future: Moral Machines, Techno Sapiens, and the Singularity.” Keynote - World Future Society Conference, Boston, MA.

Refereed Conference/Workshop Presentations

October 2013 “Towards a Comprehensive Approach for Governing Emerging Technologies.” S.NET 2013: Society for the study of Nanoscience and Emerging Technologies, Northeastern University, Boston, MA.

May 2013 “Engineering for Responsibility.” Governance of Emerging Technologies: Law Policy and Ethics, Phoenix, AZ.

May 2013 “Governing the Governance of Emerging Technologies (with Gary Marchant).” Governance of Emerging Technologies: Law Policy and Ethics, Phoenix, AZ.

July 2012 “Hard Problems: Framing the Chinese Room in Which a Robot Takes a Moral Turing Test.” AISB/IACAP, University of Birmingham, Birmingham, UK.

April 2007 “Robot Minds and Human Ethics.” Conference on Understanding Other Minds and Moral Agency, College of the Holy Cross, Worcester, MA.

April 2006 “Attention, Choice, and the Co-evolution of Consciousness and Ethics.” Towards a Science of Consciousness, Tucson, AZ.

November 2005 “Machine Morality: Bottom-Up and Top-Down Approaches for Modeling Human Moral Faculties.” AAAI Fall 2005 Symposium on Machine Ethics, Alexandria, VA. (with Colin Allen)

July 2005: “Android Ethics: Bottom-up and Top-Down Approaches for Modeling Human Moral Faculties.” CogSci 2005 Workshop: Toward Social Mechanism of Android Science, Stresa, Italy (with Colin Allen)

July 2005 "Artificial Morality: top-down, bottom-up, and hybrid approaches" Sixth International Conference of Computer Ethics: Philosophical Enquiry, University of Twente, Enschede, The Netherlands (with C. Allen and I. Smit)

Invited Faculty Seminar

May 2014 (5 lectures) 1.) Navigating the Future: Ethics and Governance in the Development of the Emerging Technologies 2.) Moral Machines: Robot Minds and Human Ethics 3.) Framing Robot Arms Control 4.) Tech Storm: Acceleration and Complexity 5.) Emerging Technologies: Ethics, Law, and Governance. – Utah Valley University

Presentations and Guest Lectures

June 2015 “A Dangerous Master: How to keep technology from slipping beyond our control.” Carnegie Council for Ethics in International Relations, New York, NY.

February 2015 “A Dangerous Master.” Dartmouth College, Hanover, NH.

December 2014 “Moral Machines, Robo Philosophy, and Applied Ethics.” American Philosophical Association, Philadelphia, PA.

November 2014 “Should Killer Robots Ne Banned?” The Ethics of Autonomous Weapons Systems, Pennsylvania Univeristy Law School, Philadelphia, PA.

November 2014 “A Dangerous Master.” World Technology Forum, New York, NY.

August 2014 Discussion leader “Engineered and Technological Systems: Science, Policy and Ethic.” Gordon Research Conference on Science and Technology Policy, Waterville Valley, NH.

June 2014 “From Robots to Techno Sapiens: Ethics, Law, and Public Policy in the development of Robotics and Other Emerging Technologies.” Yale Bioethics Interns, New Haven, CT.

March 2014 “Tech Storm: Navigating a Dangerous Future.” Lotos Club, NYC.

March 2014 Presentation at *Robot Dialogues*. The New School, NYC.

February 2014 Commentary after a screen showing of Doug Wolens’ *The Singularity*, The Brattle Theater, Cambridge, MA

December 2013 “Animal.Human/Corporation/Robot: Appropriating ‘Personhood’ for Different Purposes.” Personhood Beyond the Human Conference, Yale University, CT.

December 2013 “Tech Storm.” Adult Learning Project, Bloomfield, CT

July 2013 “Engineering for Responsibility.” The World Future Society, Chicago, IL.

June 2013 “Case Studies in the Applied Ethics of Human Enhancement.” Presentation to the Board of The Hastings Center, Garrison, NY.

June 2013 “From Robots to Techno Sapiens: Ethics, Law, and Public Policy in the development of Robotics and Neurotechnologies.” Yale Bioethics Interns, New Haven, CT.

April 2013 “Navigating the Future: Governance and Ethics in the Development of the Emerging Technologies.” Humphrey School of Public Affairs, University of Minnesota.

November 2012 “Moral Machines.” Leadership Legacy Experience. University of Connecticut.

June 2012 “Navigating the Future: Moral Machines, Techno Sapiens, and the Singularity.” Yale Bioethics Interns, New Haven, CT.

April 2012 “Issues in the Development of Robotics and Neurotechnologies.” SCSU, Hamden, CT.

April 2012 “The Illusion of a Technological Moral Fix.” The Moral Brain Conference, NYU, NYC.

March 2012 “Proposal for Governance Coordination Committees.” Workshop on Pacing Governance with Technology, ASU, Tempe, AZ.

February 2012 “Eye to Eye, Drone to Drone: The (De)Personalization of Warfare.” Conflict in the 21st Century Conference, Tufts University, Medford, MA.

February 2012 “Neurotechnologies and the Future Soldier.” Conflict in the 21st Century Conference, Tufts University, Medford, MA.

February 2012 “Social Barriers and Challenges Related to Directed Energy Weapons.” Arizona State University, Tempe, AZ.

June 2011 “Navigating the Future: Moral Machines, Techno Sapiens, and the Singularity.” Yale Bioethics Interns, New Haven, CT.

March 2011 “Robot Minds and Human Ethics.” Speaker at Robolift, Lyon, France.

December 2010 “Navigating the Future: Managing the Combinatorial Impact of Emerging Technologies.” Conference on Transforming Humanity at the University of Pennsylvania.

September 2010 “Framing Robot Arms Control.” Arms Control for Robots, Berlin, Germany.

June 2010 “Navigating the Future: Moral Machines, Techno Sapiens, and the Singularity.” Yale Bioethics Interns, New Haven, CT.

June 2010 “Moral Machines: Teaching Robots Right From Wrong.” Presentation to an online course on Singularity Studies: The Future of Humanity in the Age of Superhuman Artificial Intelligence, Rutgers University, Camden, NJ.

April 2010 “Authors meet the Critics: *Moral Machines: Teaching Robots Right From Wrong.*” Pac-APA, San Francisco, CA.

March 2010 “Navigating the Future: Hype, fear, and bad policy choices in the enhancement

debate.” President’s College Lecture, University of Hartford, Hartford, CT.

March 2010 “Near-term, Mid-term, and Long-term Public Policy Challenges Posed by Bio-Tech, Info-Tech, and Nano-Tech.” Yale University Whitney Center Science, Technology and Utopian Visions Faculty Study Group, New Haven, CT.

October 2009 “Redesigning Humanity – The New Frontier.” A panel discussion with Martine Rothblatt and Ray Kurzweil at the Woodstock Film Festival, Woodstock, NY.

September 2009 “What is Happiness.” Presentation to a Class on Happiness at Trinity College, Hartford, CT.

June 2009 “The Road to Singularity: Comedic Complexity, Technological Thresholds, and Bioethical Broadjumps on the Route.” Yale Bioethics Interns, New Haven, CT.

March 2009 “Author Meets the Critics: Moral Machines: Teaching Robots Right From Wrong.” Association for Practical and Professional Ethics, Cincinnati, Ohio.

March 2009 “Societal and Ethical Ramifications of Research on PTSD: Models of Cognition, Therapy, and Enhancement. Yale Bioethics study group on PTSD, New Haven, CT.

March 2009. “Public Policy and Human Enhancement: Embrace, Reject or Regulate?” Ethical and Social Impact of Human Enhancement Technologies, Western Michigan University, Kalamazoo, Michigan.

February 2009 “Moral Machines: Teaching Robots Right From Wrong.” President’s College Lecture, University of Hartford, Hartford, CT.

January 2009 “Beyond Reason: Are emotions, consciousness, and being embodied in a world with other people necessary to make moral decisions?” Hartford Ethics Group, Hartford, CT.

December 2008 “Moral Machines: Teaching Robots Right From Wrong.” The Terasem Movement 4th Colloquium on the Law of Futuristic Person, Melbourne, FL.

November 2008. “Robot Ethics. NSF-sponsored workshop for the NY’s Capital District Colleges, Schenectady, NY.

October 2008 “Moral Machines: Teaching Robots Right From Wrong.” WesSeminar, Wesleyan University, Middletown, CT. Video of the talk is available at http://condor.wesleyan.edu/openmedia/upub/video/weseminars/08_fall/03_wes_moral.mp4

June 2008 “The Road to Singularity: Comedic Complexity, Technological Thresholds, and Bioethical Broadjumps on the Route.” Yale Bioethics Interns, New Haven, CT.

March 2008 “Cybersoul: Self-Understanding in the Information Age.” Yale University Whitney Center Mind, Brain, Culture, and Consciousness Faculty Study Group, New Haven, CT.

February 2008 “Robot Minds and Human Ethics.” Rapaport Ethics across the Curriculum Initiative, Union College, Schenectady, NY.

February 2008 “Cybersoul: Self-Understanding in the Information Age.” Presentation to a Class on Cyberculture and “The Self”, Union College, Schenectady, NY.

February 2008 “Predicting the Future: Science Fiction, Hype, and Public Policy.” Presentation to a

Class on Science Fiction, Union College, Schenectady, NY.

January 2008 “Neurotechnological Enhancements: Embrace, Reject or Regulate?” Connecticut Future Problem Solvers, Marlborough, CT.

October 2007 “The Road to Singularity: Comedic Complexity, Technological Thresholds, and Bioethical Broadjumps on the Route.” The Singularity Summit 2007, San Francisco, CA. Video available at <http://www.youtube.com/watch?v=mYH23WTchZk>

August 2007 “Consciousness, Animal Cognition, and Animal Rights.” Yale Bioethics Interns, New Haven, CT.

July 2007 “Robot Minds and Human Ethics.” Yale Bioethics Interns, New Haven, CT.

June 2007 “Review of Moral Theories.” Yale Bioethics Interns, New Haven, CT.

May 2007 “The Silent Ethic: Science, Spirit, and Self-Understanding.” Two day seminar at The Bleddfa Center, Bleddfa, Wales, UK.

April 2007 “How Embodied Is Consciousness.” First-Person Approaches to Consciousness Studies and Ethics, Cazadero, CA.

April 2007 “Do preconceptual states or inner silence have an ethical importance?” First-Person Approaches to Consciousness Studies and Ethics, Cazadero, CA.

December 2006 “Artificial Moral Agents.” 2nd Annual Terasem Colloquium on the Law of Transbeman Persons, Melbourne Beach, Florida

November 2006 “Cutting Edge Technology: Embrace, Reject, or Regulate.” International Conference on Ethics Across the Curriculum, Organizer and Symposium Chair, Dartmouth University, Hanover, N.H.

November 2006 “Robot Morals and Human Ethics: An approach to teaching issues in technology and ethics”, International Conference on Ethics Across the Curriculum, Dartmouth U., Hanover. N.H.

June 2006 “EthicALife: A new field of inquiry?” Alife X Symposium co-chair, Bloomington, IN.

June 2006 “Robot Minds and Human Ethics.” Yale Bioethics Interns, New Haven, CT.

April 2006 “Moral Intelligence in the Information Age.” Two day seminar at The Bleddfa Center, Bleddfa, Wales, UK.

April 2006 “Machine Morality: Top-Down and Bottom-Up Approaches for Modeling Human Moral Faculties.” University of Sussex, Sussex, UK.

April 2007 “The co-evolution of consciousness and ethics.” First-Person Approaches to Consciousness Studies and Ethics, Cazadero, CA.

April 2006 “Goals, Interpretations, Plasticity, and Transformation: The coloring of an expert’s mind.” First-Person Approaches to Consciousness Studies and Ethics, Cazadero, CA.

March 2006 “Nanotechnological Enhancements: Embrace, Reject or Regulate?” Nanoethics Conference, Dartmouth, N.H.

March 2006 “Moral Intelligence in the Information Age.” Yale University Whitney Center Science, Technology and Utopian Visions Faculty Study Group, New Haven, CT.

August 2005 “Choice, ethics, and the evolutionary function of consciousness.” International Conference on Advanced Systems Research 17, Baden-Baden, Germany.

August 2005 “First-person science, cognitive science, and spiritual practice.” International Conference on Advanced Systems Research 17, Baden-Baden, Germany.

July 2005 "Artificial Morality: Top-down, bottom-up, and hybrid approaches" Sixth International Conference of Computer Ethics: Philosophical Enquiry, University of Twente, Enschede, The Netherlands (with C. Allen and I. Smit)

June 2005 “Robot Minds and Human Ethics.” Yale Bioethics Interns, New Haven, CT.