

Defining the Human Standard for Artificial Intelligence (Workshop)

20 July 2017, 2-5 PM

IEEE International Humanitarian Conference

Toronto, Ontario, Canada

When is it too early to set standards for the Artificial Intelligence and Autonomous Systems (AI/AS) that are quickly becoming pervasive in our lives and society? While some worry that it is too early to set standards around AI/AS for fear of hindering innovation, others feel we may actually be late in the game to establish “soft governance” principles around these technologies.

How can we best prioritize ethical considerations for AI/AS that prioritize human wellbeing without slowing their positive and beneficial growth?

Featuring experts from the IEEE Global Initiative for Ethical Considerations in Artificial Intelligence and Autonomous Systems who helped create *Ethically Aligned Design: A Vision for Prioritizing Human Wellbeing with Artificial Intelligence and Autonomous Systems*, along with individuals leading standards working groups inspired by its content, this workshop will help demonstrate how to effectively build consensus around complex ethical challenges for the positive benefit of society, including an interactive session where all participants will discuss where they see AI/AS being the most useful in solving humanitarian problems and what stakeholders are needed to participate in determining the ethical solutions to these challenging issues.

Program Agenda:

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| 2-2:25 | The Story of the IEEE Global Initiative on Ethical Considerations in Artificial Intelligence and Autonomous Systems,
<i>Kay Firth Butterfield, Executive Committee Vice-Chair, The IEEE Global Initiative for Ethical Considerations in Artificial Intelligence and Autonomous Systems; Executive Director, AI Austin</i> |
| 2:25-2:50 | Can We Protect Our Personal Lives Yet Still Enjoy Personalization in our Data-Driven Age?
<i>Marsali Hancock, Chief Digital Officer, DQ Institute; Vice-Chair, IEEE P7004™, Standard for Child and Student Data Governance Working Group</i> |
| 2:50-3:15 | How Can We Create Ethically Driven Robotic Automation Systems?
<i>Edson Prestes, Head, ϕ-Robotics Research Group, Informatics Institute, Federal University of Rio Grande do Sul; Chair, IEEE P7007™, Ontological Standard for Ethically Driven Robotics and Automation Systems Working Group</i> |
| 3:15-3:20 | Intro to Post-Break Interactive Activity, <i>Mary Lynne Nielsen, Global Operations and Outreach Program Director, IEEE Standards Association</i> |
| 3:20-3:40 | Break |
| 3:40-4:30 | Interactive Activity: How to Ethically Use Artificial Intelligence and Autonomous Systems to Solve Humanitarian Problems |
| 4:30-5 | Report-Out: Sharing Concepts from Interactive Activity |



Kay Firth-Butterfield

Kay Firth-Butterfield is a barrister and part-time judge who has worked as a mediator, arbitrator, business owner, and professor in the United Kingdom. In the United States, she is the Executive Director and Founding Advocate of AI-Austin, which is a globally focused non-profit dedicated to the responsible design, development, and use of AI and the socially beneficial use of AI in the community, specifically in healthcare, education and ethical governance of AI. She is the former chief officer of the Lucid.ai Ethics

Advisory Panel.

Kay is a senior fellow and distinguished scholar at the Robert S. Strauss Center for International Security and Law, University of Texas, Austin, and is the vice-chair for the IEEE Global Initiative for Ethical Considerations in Artificial Intelligence and Autonomous Systems. Additionally, she is a partner in the cognitive finance group and an adjunct professor of law. Kay is a humanitarian with a strong sense of social justice and has advanced degrees in law and international relations. She advises governments, think tanks, businesses, inter-governmental bodies, and non-profits about artificial intelligence, law, and policy.

Kay co-founded the Consortium for Law and Policy of Artificial Intelligence and Robotics at the University of Texas and taught its first course (Artificial Intelligence and Emerging Technologies: Law and Policy). She thinks about and works on how AI and other technologies will impact society and business. Kay regularly speaks to international audiences addressing many aspects of these challenging changes. Twitter: @KayFButterfield



Marsali Hancock

Marsali Hancock chairs the IEEE P7004 Draft Standard for Child and Student Data Governance Working Group. The standard will define specific methodologies to help users certify how they approach accessing, collecting, storing, utilizing, sharing, and destroying child and student data.

Hancock serves as Chief Digital Officer at the DQ Institute, a nonprofit organization dedicated to preparing children for their digital future, improving digital culture, and innovation. She also serves as a commissioner with the international nonprofit Global Information Infrastructure Commission, where she works with nation-state leaders to foster positive, healthy digital environments.

Hancock engages with both national and international groups on digital citizenship issues. She was the first to develop a public health approach to online safety and identify the core critical skills and competencies required to reduce known online risks. The primary focus of her work is to identify critical policies, programs and support structures needed to create a positive digital culture and to build the networks of support needed for youth to thrive. Hancock has assisted in the development of safer internet practices in multiple countries around the world.

Hancock's research partners include UNESCO, UNICEF, Rochester Institute of Technology, EdTech Pro, and others. She directs and supports initiatives with the UN Scientific and Cultural Organization (UNESCO), The Berkman Center for Internet & Society at Harvard University, US Department of Justice, US Department of Education, World Economic Forum, The Internet Governance Forum (IGF), EduSummit, National Technology Leadership Summit, National Telecommunications and Information Administration (NTIA), UN's International Telecommunication Union (ITU) Child Online Protection Group (COP), and UN Counter-Terrorism Committee Executive Directorate (CTED).



Mary Lynne Nielsen has worked in the technology standards field for over 25 years, supporting the creation of industry consensus at the IEEE Standards Association (IEEE-SA). Currently, she is the IEEE-SA's Global Operations and Outreach Program Director, developing and leading effective coordination and collaboration for successful IEEE-SA outreach efforts with national, regional, and global organizations. Her particular geographic areas of focus are North, Central, and South America. Mary Lynne also assists in developing IEEE's programs focusing on the intersection of technology and policy.

Mary Lynne also acts as a catalyst for collaboration within IEEE and between IEEE and others in advancing emerging and converging technologies and supporting multi-stakeholder discussions, serving as a speaker at multiple conferences. A graduate of Indiana University, Mary Lynne also completed executive education at Cornell University. She received an IEEE Computer Society Certificate of Appreciation as well as an Appreciation Award from the IEEE-SA Standards Board.



Edson Prestes received his PhD in computer science from the Universidade Federal do Rio Grande do Sul (UFRGS) Brazil in 2003. He is currently a professor at UFRGS, a CNPq Productivity Fellow, and Head of the φ -Robotics Research Group. Edson is an IEEE Senior Member and participates in the IEEE Robotics and Automation Society (IEEE RAS) and IEEE Standards Association (IEEE-SA) as chair of the IEEE RAS/SA P7007 working group that is developing an ontological standard for ethically driven robotics and automation systems.

Edson is vice-chair of the IEEE RAS Ontologies for Robotics and Automation Working Group that published IEEE 1872-2015, the very first IEEE RAS standard, and that won the IEEE-SA Emerging Technology Award. Edson is past vice-chair of the IEEE RAS Standing Committee for Standards Activities; the founding chair of the IEEE South Brazil RAS Chapter; an advisory committee member of the IEEE RAS Standing Committee for Standards Activities and the IEEE RAS Special Interest Group on Humanitarian Technology; a member of the IEEE Global Initiative for Ethical Considerations in the Design of Autonomous Systems; and co-organizer of the IEEE RAS Humanitarian Robotics and Automation Technology Challenge. Edson has won the Jabuti Award, the most important established literary award in Brazil.