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(1 January 2019)

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### **Executive Committee Descriptions & Members**

### Raja Chatila – Executive Committee Chair, The IEEE Global Initiative on Ethics of Autonomous and Intelligent Systems

Raja Chatila, IEEE Fellow, is Professor at Sorbonne Université, Paris, France, and Director of the Institute of Intelligent Systems and Robotics (ISIR). He is also Director of the Laboratory of Excellence "SMART" on human-machine interactions.

His work covers several aspects of autonomous and interactive Robotics, in robot navigation and SLAM, motion planning and control, cognitive and control architectures, human-robot interaction, and robot learning, and to applications in the areas of service, field and space robotics. He is author of over 150 international publications on these topics. He is past President of the IEEE Robotics and Automation Society (2014-2015), member of the French Commission on the Ethics of Research in Digital Sciences and Technologies (CERNA) and member of the European Commission High Level Expert Group on Artificial Intelligence.

IEEE Pioneer Award in Robotics and Automation.

### Kay Firth-Butterfield – Executive Committee Vice-Chair, The IEEE Global Initiative on Ethics of Autonomous and Intelligent Systems

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 Project Head of AI and Machine Learning at the World Economic Forum, based in San Francisco. She is a Founding Advocate of AI-Global which is a non-profit dedicated to the exploring and creating laws and ethics around the development and use of AI and to the socially beneficial use of AI the community specifically in Healthcare and Education. She is the former Chief Officer of the Lucid.ai Ethics Advisory Panel. Kay is an Associate Fellow of the Leverhulme Centre for the Future of Intelligence at the University of Cambridge and a Senior Fellow and Distinguished Scholar at the Robert S. Strauss Center for International Security and Law, University of Texas, Austin. She is Vice-Chair, The IEEE Global Initiative on Ethics of Autonomous and Intelligent 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



### John C. Havens – Executive Director of The IEEE Global Initiative on Ethics of Autonomous and Intelligent Systems

John C. Havens is a regular contributor on issues of technology and wellbeing to Mashable, The Guardian, and Quartz and is author of *Heartificial Intelligence:* Embracing Our Humanity To Maximize Machines and Hacking Happiness: Why Your Personal Data Counts and How Tracking it Can Change the World.

John is also Executive Director of The Council on Extended Intelligence.

John was an EVP of a Top Ten PR Firm, a VP of a tech startup, and an independent consultant where he has worked with clients such as Gillette, P&G, HP, Wal-Mart, Ford, Allstate, Monster, Gallo Wines, and Merck. He is also the Founder of The Happathon Project, a non-profit utilizing emerging technology and positive psychology to increase human wellbeing.

John has spoken at TEDx, at SXSW Interactive (six times), and as a global keynote speaker for clients like Cisco, Gillette, IEEE, and NXP Semiconductors. John was also a professional actor on Broadway, TV and Film for fifteen years. Twitter:

@johnchavens

### **Greg Adamson – IEEE Society on Social Implications of Technology President 2015-16**

Dr. Greg Adamson is a past-president of the IEEE Society on Social Implications of Technology (SSIT) 2015-16. SSIT has addressed issues of ethics and emerging technologies throughout its 47-year history. Greg is Enterprise Fellow in Cyber Security and Associate Professor at the University of Melbourne School of Engineering, and a consultant in cyber security, blockchain, and professional ethics. He is Chair of the IEEE-SA Industry Connection program Digital Inclusion through Trust and Agency (DITA). He initiated the IEEE Conference Series on Norbert Wiener in the 21<sup>st</sup> Century, (Boston 2014, Melbourne 2016). Wiener's 20<sup>th</sup> century work in both the technical and social impact of technology fields foreshadowed current discussions in ethics in the design of autonomous and intelligent systems. Greg was the invited keynote on Ethics at the World Engineering Conference and Convention in Kyoto November 2015. His primary research interest is barriers to the uptake of socially beneficial technology.



#### Karen Bartleson - IEEE President and CEO 2017

Karen Bartleson has over 35 years of experience in the semiconductor industry, specifically in electronic design automation. She served as the President and CEO of IEEE in 2017, and currently is a member of the Champions Board of the National Girls Collaborative Project, the Toy Association's STEM/STEAM Strategic Committee, the Council on Extended Intelligence, and the Executive Committee of The IEEE Global Initiative on Ethics of Autonomous and Intelligent Systems. In 2016, Karen was also appointed to the U.S. Department of Commerce Digital Economy Board of Advisors. She is the Chair of the Editing Committee for Ethically Aligned Design, First Edition.

As a member of and leader within the IEEE Board of Directors, she chaired and led the development of the strategic plan for the IEEE Internet Initiative, whose charter is to raise IEEE's influence and profile in the areas of Internet governance, cybersecurity, and cyber-privacy policy development. She was also a member of the IEEE Strategy Committee, overseeing the development of the role of IEEE in global public policy.

Karen has published numerous articles about standards and universities and has authored the book, The Ten Commandments for Effective Standards: Practical Insights for Creating Technical Standards (Synopsys Press, 2010). In 2003, she received the Marie R. Pistilli Women in Electronic Design Automation Achievement Award. She earned a B.S. in Engineering Science with a concentration in Electronic Engineering from California Polytechnic State University in 1980.

#### Virginia Dignum - Professor of Social and Ethical AI, Umeå University

Virginia Dignum is Full Professor at Umeå University, Sweden. She is also associated with the Faculty of Technology Policy and Management at the Delft University of Technology in the Netherlands. Her research focuses on value-sensitive design of intelligent systems and multi-agent organizations, in particular on the ethical and societal impact of AI. She is a Fellow of the European Artificial Intelligence Association (EURAI), a member of the European Commission High Level Expert Group on Artificial Intelligence, and of the Executive Committee of the IEEE Initiative on Ethics of Autonomous Systems. She is member of the scientific boards of the Delft Design for Values Institute, the AI4People - European Global Forum on AI, the Responsible Robotics Foundation, the SIDNfonds, and initiator of ALLAI-NL the Dutch AI Alliance. In 2006, she was awarded the prestigious Veni grant by the NWO (Dutch Organization for Scientific Research) for her work on agent-based organizational frameworks. She a well-known speaker on the social and ethical impacts of Artificial Intelligence, and is member of the reviewing boards for all major journals and conferences in AI. She has also chaired many international conferences and workshops, including ECAI2016, the European Conference on AI. She has published more than 180 peer-reviewed papers and edited several books. From 2011 to 2017, she was vice-president of the Benelux AI Association (BNVKI).



### Danit Gal – Chair of IEEE Standard P7009 on the Fail-Safe Design of Autonomous and Semi-Autonomous Systems

Danit Gal is Project Assistant Professor at the Cyber Civilizations Research Center at the Keio University Global Research Institute in Tokyo, Japan. She is interested in technology geopolitics and strategic planning to maximize shared social benefit. Danit is an Associate Fellow at the Leverhulme Centre for the Future of Intelligence at the University of Cambridge, and an Affiliate at the Center for Information Technology Policy at Princeton University, and the Berkman Klein Center for Internet and Society at Harvard University. Danit also serves as a board trustee at the Seed Token Project. Prior to joining Keio University, Danit was a Yenching Scholar at Peking University and International Strategic Advisor to the iCenter at Tsinghua University in Beijing, China. Among her current projects is an ongoing study of the uses and gratifications of AI under the Association of Pacific Rim Universities - Google research project 'AI for Everyone: Building Trust in and Benefiting from the Technology'.

Danit also chairs the IEEE standard P7009 on the Fail-Safe Design of Autonomous and Semi-Autonomous Systems working group.

#### Malavika Jayaram - Executive Director, The Digital Asia Hub

Malavika is the inaugural Executive Director of the <u>Digital Asia Hub</u>. Prior to her relocation to Hong Kong, she spent three years as a Fellow at the Berkman Klein Center for Internet and Society at Harvard University: she has been a Faculty Affiliate of the centre since 2017. A technology lawyer for over 15 years, she practised law at Allen & Overy, London, and was Vice President and Technology Counsel at Citigroup. She was featured in the International Who's Who of Internet e-Commerce & Data Protection Lawyers, and voted one of India's leading lawyers.

A graduate of the National Law School of India, Malavika has an LL.M. from Northwestern University, Chicago. She taught India's first course on information technology and law in 1997, and has taught at Northwestern's Pritzker School of Law as part of the Master of Science in Law program bridging STEM subjects and the law. She has been a Fellow with the Centre for Internet & Society, India, since 2009 where she helped start their privacy program. She was a Visiting Scholar at the Annenberg School for Communication, University of Pennsylvania, and has had fellowships at the University of Sydney and the Institute for Technology & Society, Rio de Janeiro.

Malavika is on the Advisory Boards of the Electronic Privacy Information Center (EPIC) and Mozilla's Tech Policy Fellowship. She is an Associate Fellow with Chatham House (the Royal Institute of International Affairs), as part of its Asia-Pacific Programme. She is a member of the High-level Expert Advisory Group to the OECD project, "Going Digital: Making the Transformation Work for Growth and Well-being". Malavika is also a member of the World Economic Forum Global Future Council on Human Rights and Technology for the 2018-2019 term.

**Sven Koenig – Professor of Computer Science, University of Southern California, USA** 



Sven Koenig is a professor of computer science at the University of Southern California and was also a program director at the US National Science Foundation from 2010 to 2012. Most of his research centers around techniques for decision making that enable single situated agents (such as robots or decision-support systems) and teams of agents to act intelligently in their environments. Sven has published more than 200 papers on this topic in artificial intelligence and robotics.

Sven is a fellow of the Association for the Advancement of Artificial Intelligence (AAAI) and the American Association for the Advancement of Science (AAAS), a distinguished speaker of the Association for Computing Machinery (ACM), and the recipient of several research and teaching awards, including recently a best paper award at the International Conference on Automated Planning and Scheduling (ICAPS) in 2016 and a Computer Science and Engineering Undergraduate Teaching Award from the Institute of Electrical and Electronics Engineers (IEEE) in 2017. He is a chair of the ACM Special Interest Group on Artificial Intelligence (ACM SIGAI), is an associate editor or editor of several artificial intelligence journals (such as ACS, AIJ, CACM, and JAAMAS), and was a conference or program co-chair of several artificial intelligence conferences (such as ICAPS, SoCS, and AAMAS) - including recently the AAAI Conference in 2015 and the Symposium on Educational Advances in Artificial Intelligence (EAAI) in 2016 and 2017.

Sven was recently part of the organizing committee of the AAAI Workshops on Artificial Intelligence and Ethics (and Society) in 2015 and 2016, helped to initiate the ACM SIGAI Student Essay Contest on the Responsible Use of Artificial Intelligence Technologies in 2016, moderated the EAAI Panel on Artificial Intelligence Ethics Education in 2016, co-authored an article in Artificial Intelligence Magazine in 2017 on Ethical Considerations in Artificial Intelligence Courses, and helped to found the AAAI/ACM Conference on Artificial Intelligence, Ethics, and Society (AIES) in 2018.



### Eileen M. Lach – IEEE General Counsel and Chief Compliance Officer, 2011 - 2018

Eileen joined IEEE in 2011 and served as its first General Counsel and Chief Compliance Officer until her retirement in April 2018. In her role as a senior executive at IEEE, Ms. Lach had been engaged in IEEE's major initiative on Ethics and Artificial Intelligence, the Internet of Things and the protection of patent rights for technology innovators and implementers through the IEEE standards development process. In addition to being a Member of *The IEEE Global Initiative on Ethics of Autonomous and Intelligence Systems*, Ms. Lach is currently a member of the Board of Directors of IEEE's for-profit subsidiary, IEEE GlobalSpec, Inc., and a member of the IEEE Ad Hoc Committee on Africa (AHCA) focused on capacity building on the African continent. In addition to her work in the technology and ethics arena, Ms. Lach has focused her philanthropic work on the protection of victims of international trafficking, theater and the arts, as a member of the Board of Governors of St. Thomas University Law School in Minneapolis, Minnesota, and as an arbitrator in the Civil Courts of the City of New York.

Ms. Lach is experienced in a wide variety of legal issues, strategic planning, risk assessment, and corporate responsibility in complex, domestic and international corporate environments. Her background includes a strong orientation and expertise in global acquisition and divestiture negotiations, corporate governance and integrity, and arbitration, gained in the pharma, biotech, consumer products, and not-for-profit sectors, with additional focus on corporate sustainability as it relates to philanthropy, environmental impact, and investment in emerging markets. Ms. Lach has worked in both the public and private sectors on significant international investments with broadly based experience in Europe, the Pacific Rim, Latin America and Africa. Prior to joining IEEE, Ms. Lach was employed by Wyeth/Pfizer from 1989 to 2009. She was the Vice President, Corporate Secretary and Associate General Counsel, and earlier served as its Associate General Counsel for International. Prior to that time, she was a partner with the national law firm, Drinker, Biddle and Reath. Ms. Lach began her career with a Wall Street law firm and for seven years simultaneously served on a *probono* basis as the General Counsel of Amnesty International in the United States.

Ms. Lach is admitted to practice law in New York and has also been a member of the Pennsylvania bar. She holds court admissions to the United States Supreme Court, the Southern and Eastern Districts of New York and Court of Appeals for the Federal Circuit.

Ms. Lach earned her B.A. degree in International Relations from the University of Minnesota (*magna cum laude and* Phi Beta Kappa). She earned a Juris Doctor degree from the New York University School of Law, and a Master of Public Affairs with a concentration in International Relations and Development Economics from Princeton University's Woodrow Wilson School of Public and International Affairs.



### Raj Madhavan – Founder & CEO, Humanitarian Robotics Technologies, LLC, Maryland, USA

Raj Madhavan is an internationally recognized expert in humanitarian robotics and automation technologies. His current research interests lie in the application and tailoring of technologies that are cost effective, reliable, efficient, and geared towards improving the quality of lives of people in underserved and underdeveloped communities around the globe with emphasis on ethical, legal, and societal considerations of emerging technologies. He received a Ph.D. in Field Robotics from the University of Sydney, and an ME (Research) in Systems Engineering from the Australian National University, respectively.

Dr. Madhavan is the Founder & CEO of Humanitarian Robotics Technologies, LLC, focusing on applied technology consulting, training, and research. He has held appointments with the Oak Ridge National Laboratory as an R&D staff member based at the National Institute of Standards and Technology, and as an assistant and associate research scientist, and as a member of the Maryland Robotics Center with the University of Maryland, College Park. Over the last 22 years, he has contributed to various topics in field robotics, humanitarian technologies, and systems and control theory. He has published over 200 papers in archival journals, conferences, and magazines and has co-edited two books and four journal special issues. He has served as an invited independent judge for robotics competitions, has given numerous invited presentations in research organizations in several countries, has served on editorial boards and program and organization committees of premier robotics, automation, and control conferences, and on several national and international panels and review boards. He is a senior member of IEEE, a 2008 Volunteer of the Year awardee of the IEEE Washington Section, was recognized for his services to RAS as VP of the Industrial Activities in 2014 & 2016, and is the 2016 recipient of the IEEE Robotics and Automation Society's Distinguished Service Award for his "distinguished service and contributions to RAS industrial and humanitarian activities".

### Richard Mallah - Director of Artificial Intelligence Projects Future of Life Institute

Richard is Director of AI Projects at NGO the Future of Life Institute, where he works to support the robust, safe, beneficent development of both short-term and long-term artificial intelligence via analysis, metaresearch, organization, research direction, and advocacy. Issues tackled range from AI-induced unemployment and legal issues around autonomy to meaningful control and deep value alignment. Mallah also heads research in AI at recruiting automation platform firm Avrio AI, Inc., leading R&D of technologies for knowledge representation, machine learning including deep learning, and computational linguistics, using AI to help get people jobs rather than destroying jobs.



He is an advisor to other nonprofits and companies where he advises on AI, knowledge management, and sustainability. He has over fifteen years' experience in AI algorithms development, product team management, and CTO-level roles. An enterprise text analytics platform he created at prior firm Cambridge Semantics garnered Forrester's highest rating for such a system. Richard holds a degree in intelligent systems and computer science from Columbia University.

# Hagit Messer Yaron – Professor of Electrical Engineering, Tel Aviv University and a member of COMEST, UNESCO committee for Ethics in Science and Technology

Hagit Messer, IEEE Life Fellow, received the Ph.D. in Electrical Engineering from Tel Aviv University (TAU), ISRAEL, and after a postdoctoral fellowship at Yale University, she joined the faculty of Engineering at Tel Aviv University in 1986, where she is a Professor of Electrical Engineering and the The Kranzberg Chair in Signal Processing.

On 2000 - 2003 she has served as the Chief Scientist at the Ministry of Science, ISRAEL. After returning to TAU she was the head of the Porter school of environmental studies (2004-6), and the Vice President for Research and Development (2006-8). She has served as the President of the Open University in Israel (2008-2013). Since October 2013 to January 2016 she has been the Vice-Chair of the Council of Higher Education, Israel. On 2016 she has also become a co-founder of the start-up company ClimaCell.

Hagit Messer is an active researcher in the field of Statistical Signal Processing. She is also interested in various aspects of higher-education and science policy, including: ethics, science-society interplay, and commercialization of academic research. Prof. Messer-Yaron is committed to the advancement of women in science and technology.

#### AJung Moon - Director, Open Roboethics Institute

AJung Moon is Co-Founder, CEO, and Technology Analyst of Generation R Consulting Inc., a company that assists organizations in making informed design and policy decisions to innovate with advanced technologies without compromising the organization's values. She is also currently serving as Senior Advisor for the UN Secretary-General's High-level Panel on Digital Cooperation. She became a Vanier Scholar in 2013 and received her doctorate in Mechanical Engineering from the University of British Columbia with a specialization in the design of human-inspired interactive robot behaviors.

As a roboticist with experience in both roboethics and human-robot interaction, Dr. Moon has been heavily involved in national and international discussions on artificial intelligence and autonomous systems. She is a founder and Director of Open Roboethics Institute – a Canadian think tank specializing in roboethics issues – and serves on the Board of Advisor for Ada-AI, among others. She frequently serves as an expert panelist, speaker, and guest lecturer on roboethics.

**Monique Morrow - President, Co-Founder, Humanized Internet** 



Monique has a track record of co-innovating with customers that has transcended the globe from North America, Europe and Asia. Monique's current focus in on the intersection between research in economics and technology to portfolio execution (e.g. Circular and Exponential Economies) along with defining mechanisms and marketplace scenarios for cloud federation constructs to include security.

Monique is passionate about the humanitarian use of technology, in addition to exploring the use of AI/VR to create a people neutral system that is both experiential and ethical without losing the beauty of randomness in human behavior. She is focused on developing the use of blockchain to create identity as a service, applying humanistic and purposeful values in an organization, and creating modes of privacy that are understood by all members of our ecosystem. Monique delivered two TEDx talks, and will be delivering a third TEDx talk all related to identity, randomness and the rise of the human. She is a sought after global speaker. Monique holds several patents and is a published author. She is active in multiple industry advisory positions, most recently in the Venture Partner Sparklabs Accelerator for Cybersecurity and Blockchain, Wash D.C.:

https://venturebeat.com/2018/09/19/sparklabs-launches-accelerator-in-d-c-for-cybersecurity-and-blockchain-startups/amp/

Monique was selected as one of the top Digital Shapers 2018 in Switzerland.

### Francesca Rossi – Full Professor of Computer Science University of Padova, Italy

Francesca Rossi is a full professor of computer science at the University of Padova, Italy, currently on leave at the IBM Research Center at Yorktown Heights, NY. Her research interests include constraint reasoning, preferences, multi-agent systems, computational social choice, and artificial intelligence. She has been president of the international association for constraint programming (ACP) and of the international joint conference on AI (IJCAI). She has been program chair of severe international conferences, among which CP 2003 and of IJCAI 2013. She is a Radcliffe fellow, as well as an AAAI and an ECCAI fellow.

She is in the editorial board of Constraints, Artificial Intelligence, AMAI, and KAIS. She is the associate editor in chief of JAIR. She has published more than 170 papers and one book, and she co-edited 13 volumes, among which the handbook of constraint programming. She is co-chairing the AAAI committee on AI and ethics and she is in the scientific advisory board of the Future of Life Institute and of Insight (Ireland). She has given interviews on various topics related to AI to several media and newspapers, such as the Wall Street Journal, CNBS Italy, Motherboard, Science, the Washington Post, Sydney Morning Herald, Euronews, New Scientist, La Repubblica, Corriere della Sera. She has delivered three TEDx talks on Artificial Intelligence.



### Alan Winfield – Professor of Robot Ethics, University of the West of England, Bristol UK

Alan Winfield is Professor of Robot Ethics at the University of the West of England (UWE), Bristol, UK, Visiting Professor at the University of York and Associate Fellow of the Leverhulme Centre for the Future of Intelligence at the University of Cambridge. He received his PhD in Digital Communications from the University of Hull in 1984, then co-founded and led <u>APD Communications Ltd</u> until taking-up appointment at UWE, Bristol in 1992. Alan co-founded the <u>Bristol Robotics Laboratory</u> where his research is focussed on the engineering and science of cognitive robotics.

Alan is passionate about communicating research and ideas in science, engineering and technology; he led UK-wide public engagement project Walking with Robots, awarded the 2010 Royal Academy of Engineering Rooke medal for public promotion of engineering. Until recently he was director of UWE's <u>Science Communication Unit</u>. Alan is frequently called upon by the press and media to comment on developments in AI and robotics; he was a guest on BBC national radio series <u>The Life Scientific</u> and more recently interviewed for BBC News <u>HARDtalk</u>.

Alan is an advocate for robot ethics; he is a member of the British Standards Institute technical committee that drafted BS 8611: *Guide to the Ethical Design of Robots and Robotic Systems*. He chairs IEEE Working Group P7001, drafting a new standard on transparency in Autonomous Systems, and sits on the WEF Global AI Council. Alan has published over 240 works, including *Robotics: A Very Short Introduction* (Oxford University Press, 2012); he lectures widely on robotics, presenting to both academic and public audiences, and blogs at <a href="http://alanwinfield.blogspot.com/">http://alanwinfield.blogspot.com/</a>



### Content Committee Descriptions & Members

(As of 1 January 2019)

### **General Principles**

- Alan Winfield (Founding Chair) Professor, Bristol Robotics Laboratory, University of the West of England; Visiting Professor, University of York
- Mark Halverson (Co-Chair) Founder and CEO at Precision Autonomy
- Peet van Biljon (Co-Chair) Founder and CEO at BMNP Strategies LLC, advisor on strategy, innovation, and business transformation; Adjunct professor at Georgetown University; Business ethics author
- Shahar Avin Research Associate, Centre for the Study of Existential Risk, University of Cambridge
- Bijilash Babu Senior Manager, Ernst and Young, EY Global Delivery Services India LLP
- Richard Bartley Senior Director Analyst, Security & Risk Management, Gartner, Toronto, Canada Security Principal Director, Accenture, Toronto, Canada.
- R. R. Brooks Professor, Holcombe Department of Electrical and Computer Engineering, Clemson University
- Nicolas Economou Chief Executive Officer, H5; Chair, Science, Law and Society Initiative at The Future Society Chair, Law Committee, Global Governance of AI Roundtable; Member, Council on Extended Intelligence (CXI)
- **Hugo Giordano** Engineering Student at Texas A&M University
- Alexei Grinbaum Researcher at CEA (French Alternative Energies and Atomic Energy Commission) and Member of the French Commission on the Ethics of Digital Sciences and Technologies CERNA
- Jia He Independent Researcher, Graduate Delft University of Technology in Engineering and Public Policy, project member within United Nations, ICANN, and ITU Executive Director of Toutiao Research (Think Tank), Bytedance Inc.
- Bruce Hedin Principal Scientist, H5
- Cyrus Hodes Advisor AI Office, UAE Prime Minister's Office, Co-founder and Senior Advisor, AI Initiatives@The Future Society; Member, AI Expert Group at the OECD, Member, Global Council on Extended Intelligence; Co-founder and Senior Advisor, The AI Initiative @ The Future Society
- Nathan F. Hutchins Applied Assistant Professor, Department of Electrical and Computer Engineering, The University of Tulsa
- Narayana GPL. Mandaleeka ("MGPL") Vice President & Chief Scientist, Head, Business Systems & Cybernetics Centre, Tata Consultancy Services Ltd.
- Vidushi Marda Programme Officer, ARTICLE 19
- George T. Matthew Chief Medical Officer, North America, DXC Technology
- Nicolas Miailhe Co-Founder & President, The Future Society; Member, AI Expert Group at the OECD; Member, Global Council on Extended Intelligence; Senior Visiting Research Fellow, Program on Science Technology and Society



- at Harvard Kennedy School. Lecturer, Paris School of International Affairs (Sciences Po); Visiting Professor, IE School of Global and Public Affairs
- Rupak Rathore Principal Consultant at ATCS for Telematics, Connected Car and Internet of Things; Advisor on strategy, innovation and transformation journey management; Senior Member, IEEE
- Peter Teneriello Investment Analyst, Private Equity and Venture Capital, TMRS
- **Niels ten Oever** Head of Digital, Article 19, Co-chair Research Group on Human Rights Protocol Considerations in the Internet Research Taskforce (IRTF)
- Alan R. Wagner Assistant Professor, Department of Aerospace Engineering, Research Associate, The Rock Ethics Institute, The Pennsylvania State University.



### **Classical Ethics in A/IS**

- **Jared Bielby** (Chair) President, Netizen Consulting Ltd; Chair, International Center for Information Ethics; editor, *Information Cultures in the Digital Age*
- Soraj Hongladarom (Co-chair) President at The Philosophy and Religion Society of Thailand
- Miguel Á. Pérez Álvarez Professor of Technology in Education, Colegio de Pedagogía, Facultad de Filosofía y Letras, Universidad Nacional Autónoma de México
- Oliver Bendel Professor of Information Systems, Information Ethics and Machine Ethics, University of Applied Sciences and Arts Northwestern Switzerland FHNW
- Dr. John T. F. Burgess Assistant Professor / Coordinator for Distance Education, School of Library and Information Studies, The University of Alabama
- Rafael Capurro Founder, International Center for Information Ethics
- Corinne Cath-Speth PhD student at Oxford Internet Institute, The University of Oxford, Doctoral student at the Alan Turing Institute, Digital Consultant at ARTICLE 19
- Dr. Paola Di Maio Center for Technology Ethics, ISTCS.org UK and NCKU Taiwan
- Robert Donaldson Independent Computer Scientist, BMRILLC, Hershey, PA
- Rachel Fischer Research Officer: African Centre of Excellence for Information Ethics, Information Science Department, University of Pretoria, South Africa.
- **Dr. D. Michael Franklin** Assistant Professor, Kennesaw State University, Marietta Campus, Marietta, GA
- Wolfgang Hofkirchner Associate Professor, Institute for Design and Technology Assessment, Vienna University of Technology
- Dr. Tae Wan Kim Associate Professor of Business Ethics, Tepper School of Business Carnegie Mellon University
- Kai Kimppa University Research Fellow, Information Systems, Turku School of Economics, University of Turku
- Sara R. Mattingly-Jordan Assistant Professor Center for Public Administration & Policy Virginia Tech
- Dr Neil McBride Reader in IT Management, School of Computer Science and Informatics, Centre for Computing and Social Responsibility, De Montfort University
- **Bruno Macedo Nathansohn** Perspectivas Filosóficas em Informação (Perfili); Brazilian Institute of Information in Science and Technology (IBICT)
- Marie-Therese Png PhD Student, Oxford Internet Institute, PhD Intern, DeepMind Ethics & Society



- Derek Poitras Independent Consultant, Object Oriented Software Development
- **Samuel T. Segun** PhD Candidate, Department of Philosophy, University of Johannesburg. Fellow, Philosophy Node of the Centre for Artificial Intelligence Research (CAIR) at the University of Pretoria and Research fellow at the Conversational School of Philosophy (CSP)
- Dr. Ozlem Ulgen Reader in International Law and Ethics, School of Law, Birmingham City University
- Kristene Unsworth Assistant Professor, The College of Computing & Informatics, Drexel University
- Dr. Xiaowei Wang Associate professor of Philosophy, Renmin University of China
- Dr Sara Wilford Senior Lecturer, Research Fellow, School of Computer Science and Informatics, Centre for Computing and Social Responsibility, De Montfort University
- Pak-Hang Wong Research Associate, Department of Informatics, University of Hamburg
- **Bendert Zevenbergen** Oxford Internet Institute, University of Oxford & Center for Information Technology Policy, Princeton University



### Well-being

- John C. Havens (Co-Chair) Executive Director, The IEEE Global Initiative on Ethics of Autonomous and Intelligent Systems; Executive Director, The Council on Extended Intelligence; Author, Heartificial Intelligence: Embracing Our Humanity to Maximize Machines
- Laura Musikanski (Co-Chair) Executive Director at The Happiness Alliance - home of The Happiness Initiative & Gross National Happiness Index
- Liz Alexander PhD Futurist
- Anna Alexandrova Senior Lecturer in Philosophy of Science at Cambridge University and Fellow of Kings College
- Christina Berkley Executive Coach to leaders in exponential technologies, cutting-edge science, and aerospace
- Catalina Butnaru UK AI Ambassador for global community City.AI, and Founder of HAI, the first methodology for applications of AI in cognitive businesses
- Celina Beatriz Project Director at the Institute for Technology & Society of Rio de Janeiro (ITS Rio)
- Peet van Biljon Founder and CEO at BMNP Strategies LLC, advisor on strategy, innovation, and business transformation; Adjunct faculty at Georgetown University; Business ethics author
- Amy Blankson Author of The Future of Happiness and Founder of TechWell, a research and consulting firm that aims to help organizations to create more positive digital cultures
- Marc Böhlen Professor, University at Buffalo, Emerging Practices in Computational Media. www.realtechsupport.org
- Rafael A. Calvo Professor and ARC Future Fellow at The University of Sydney. Co-author of Positive Computing: Technology for Well-Being and Human Potential
- Rumman Chowdhury PhD Senior Principal, Artificial Intelligence, and Strategic Growth Initiative Responsible AI Lead, Accenture
- **Dr. Aymee Coget** CEO and Founder of Happiness For HumanKind
- Danny W. Devriendt Managing director of Mediabrands Dynamic (IPG) in Brussels, and the CEO of the Eye of Horus, a global think-tank for communication-technology related topics
- Eimear Farrell Eimear Farrell, independent expert/consultant on technology and human rights (formerly at OHCHR)
- Danit Gal Project Assistant Professor, Keio University; Chair, IEEE Standard P7009 on the Fail-Safe Design of Autonomous and Semi-Autonomous Systems
- Marek Havrda PhD Strategy Advisor, GoodAI
- Andra Keay Managing Director of Silicon Valley Robotics, cofounder of
- Dr. Peggy Kern Senior Lecturer, Centre for Positive Psychology at the University of Melbourne's Graduate School of Education



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The Editing Committee is tasked with helping take drafts of *Ethically Aligned Design* and iterating them with Committee Chairs.

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- **Eileen M. Lach** (Co-Chair) IEEE General Counsel and Chief Compliance Officer, 2011 2018
- **Greg Adamson** Associate Professor, University of Melbourne
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### A Special Thanks

A special thanks to our esteemed colleagues – Initiative Members providing feedback for and helping translate *Ethically Aligned Design*, Version 1 into Arabic:

 Khaled Mokhtar - Emerging Technologies & Innovation Manager, Etisalat UAE and IEEE Senior Member.

A special thanks to our esteemed colleagues – The China Translation Team who translated the Executive Summary of *Ethically Aligned Design*, Version 1:

● 王亮迪:博士、IEEE董事会高级顾问

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● 赵盟:IEEE标准协会中国区经理

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#### Thanks also to:

● 顾学雍:清华大学 基础工业训练中心(iCenter)副教授 **Ben Koo** – Associate professor, iCenter, Tsinghua University

A special thanks to our esteemed colleagues – Initiative Members from Japan providing feedback for and helping translate Ethically Aligned Design, Version 1:

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A special thanks to our esteemed colleagues – Initiative Members from South Korea providing feedback for and helping translate *Ethically Aligned Design*, Version 1:

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A special thanks to our esteemed colleagues – Initiative Members from Brazil providing feedback for and helping translate *Ethically Aligned Design*, Version 1:

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A special thanks to our esteemed colleagues – Initiative Members from Thailand providing feedback for and helping translate *Ethically Aligned Design*, Version 1:

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A special thanks to our esteemed colleagues – Initiative Members from The Russian Federation providing feedback for and helping translate *Ethically Aligned Design*, Version 1:

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A special thanks to our esteemed colleagues – Initiative Members from Hong Kong providing feedback and reports for *Ethically Aligned Design*, Version 1:

- Brian W. Tang Managing Director, Asia Capital Markets Institute (ACMI)
- Ron Yu Board of Governors, International IP Commercialization Council (IIPCC)



### A special thanks to people who contributed feedback to our Request For Input for Ethically Aligned Design, Version 1:

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- Corinne Cath and Jon Crowcroft, Alan Turing Institute
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- Dr. Yanqing Hong Researcher at the Cybersecurity Research Institute of Sichuan University; Lead, the Standardization Task Force of the Personal Data Protection Specification, National Information Security Standardization Technical Committee of China
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- Lawrence Sheraton EthicsDefined.org
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- Rogelio Piña Vega Autonomous University of Querétaro
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- Dr. Christopher A. Tucker Cartheur Robotics, spol. s r.o., Prague, Czech Republic
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- AI for Social Good (Participants at Workshop provided feedback) Waseda University, Tokyo, Japan - 7 March, 2017, Autonomous Weapon Systems Group
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# A special thanks to people who contributed feedback to our Request For Input for *Ethically Aligned Design*, Version 2:

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- Gary Crocker, James Isaak (www.JimIsaak.com, Declan Prendergast, Xiafei Yang, Daniel Hoerauf, Peyton Hooker, Sarah Donaire – 4th year Engineering students, School of Engineering and Applied Science, University of Virginia
- William (Bill) A. Adams on behalf of The Faith and Science Forum North Grenville, Ontario, Canada
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   Lucy Fitzgerald, and Mark Restrepo Institute: School of Engineering and
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- Sean Lei, Gabriel Groover, Sina Yazdi, Sam Weber, Eric Xie − Institute: School of Engineering and Applied Science, University of Virginia ☐ Elise Brosnan, Joses Choy, Anthony Quach, Bowei Sun, Yingxiang Sun School of Engineering and Applied Science, University of Virginia
- Angie Campo, Gabriella Greiner, Monique Mezher, Jim Roach, and Noah Rohrlich – University of Virginia engineering students
- Josiah Perrin, Derek Boylan, Justin Varnum, Harrison Covert –
   University of Virginia: School of Engineering and Applied Science



- Lucas Abelanet, Joseph Daly, Adam Guo, Ryan Probus, Hans Zhang -University of Virginia
- Kyle Burnett, George Ingber, Kelvin Sparks, Brian Morris -Organization: School of Engineering and Applied Science, University of Virginia
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- **AI4ALL** submission



# A special thanks to attendees of our SEAS United States Event (2017) that contributed to the iteration of our document, *Ethically Aligned Design*, v2:

Rosalie Day, Elizabeth Alexander, Ronald Arkin, Thomas Arnold, Peter Asaro, Amar Ashar, Shahar Avin, James Beetem, Christina Berkley, Christina J. Colclough, Jared Bielby, Malo Bourgon, Joanna Bryson, Walter Burrough, John Casey, Corinne Cath-Speth, Renaud Champion, Rosalie Day, Louise Dennis, Deven Desai, Laurence Devillers, Danny Devriendt, Eileen Donahoe, Katryna Dow, Takashi Egawa, Arisa Ema, Dan Faggella, Kay Firth-Butterfield, Michael Fisher, Ayako Fukui, Liz Gibbons, Tony Gillespie, Tom Guarriello, Mark Halverson, Noreen Herzfeld, Cyrus Hodes, William Hoffman, Jay Iorio, Sara Jordan, Ryota Kanai, Konstantinos Karachalios, Scott Kesselman, Takayuki Kato, Sven Koenig, Eileen M. Lach, Brenda Leong, Richard Mallah, Bertram Malle, Jeanna Matthews, Jacob Metcalf, Nicolas Miailhe, Preeti Mohan, Clara Neppel, Deborah Peel, Walter Pienciak, Huw Price, Heather Roff, Matthew Scherer, Leanne Seeto, Sarah Spiekermann, John Sullins, Peter Teneriello, Cherry Tom, Shannon Vallor, Peet van Biljon, Mark A. Vasquez, Sandra Wachter, Nell Watson, Yueh-Hsuan Weng, Alan Winfield, Don Wright.

### A special thanks to attendees of our SEAS Europe Event (2016) that contributed to the iteration of our document, *Ethically Aligned Design*:

Ronald Arkin, Thomas Arnold, Peter Asaro, Shahar Avin, Elizabeth Barnes, Dr. Shima Beigi, Irakli Beridze, Jordi Bieger, Paula Boddington, Malo Bourgon, Miles Brundage, Joanna Bryson, Thomas Burri, Prof. Dr. Rafael Capurro, Corinne Cath-Speth, Stephen Cave, Renaud Champion, Raja Chatila, Alexander Deak, Louise Dennis, Deven Desai, Laurence Devillers, Danny Devriendt, Virginia Dignum, Ebru Dogan, Katryna Dow, Kay Firth-Butterfield, Ryan Gariepy, Tony Gillespie, Thomas Dale Grant, Mark Halverson, Sobia Hamid, Robert Hart, Gry Hasselbalch, John C. Havens, Dirk Helbing, Cyrus Hodes, Brianna Hunt, Tim Hwang, Sara Jordan, Konstantinos Karachalios, Anja Kaspersen, Daan Kayser, Scott Kesselman, Irene Kitsara, Jun Lin, Raj Madhavan, Richard Mallah, Bertram Malle, AJung Moon, Monique Morrow, Paul Moseley, Clara Neppel, Carolyn Nguyen, Bjoern Niehaves, Pablo Noriega, Sean O Heigeartaigh, Sofia Olhede, Brian O'Rourke, Julian Padget, Ugo Pagallo, Jerome Perrin, Walter Pienciak, Edson Prestes, Huw Price, Heather Roff, Francesca Rossi, Stuart Russell, Anders Sandberg, Filippo Santoni De Sio, Daniel Saxon, Matthias Scheutz, Bernhard Schölkopf, Leanne Seeto, Andrew Snyder-Beattie, Sarah Spiekermann, Bas Steunebrink, Suhas Subramanyam, John P. Sullins, Zoltán Szlávik, Jaan Tallinn, Valerio Targon, Niels Ten Oever, Catherine Tessier, Cherry Tom, Aimee Van Wynsberghe, Harko Verhagen, Wendell Wallach, Toby Walsh, Axel Walz, Victoria Wang, Alan Winfield, Bendert Zevenbergen.



### A special thanks to the Working Group Chairs of the IEEE P7000™ Series

### **IEEE P7000™** - Engineering Methodologies for Ethical Life-Cycle Concerns Working Group

- Chair: Ali Hessami Professor of Systems Assurance, Visiting Professor Beijing Jiaotong UNiversity and London City University, Director Vega Systems
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# **IEEE P7009™** - <u>Standard for Fail-Safe Design of Autonomous and Semi-Autonomous Systems</u>

- Chair: Danit Gal Project Assistant Professor, Keio University; Chair, IEEE Standard P7009 on the Fail-Safe Design of Autonomous and Semi-Autonomous Systems
- Vice-Chair: Ken Wallace Head of Software Engineering, Maritime, BAE Systems plc



# **IEEE P7010™** - Wellbeing Metrics Standard for Ethical Artificial Intelligence and Autonomous Systems

- **Chair: Laura Musikanski** Executive Director at The Happiness Alliance home of The Happiness Initiative & Gross National Happiness Index
- Vice-Chair: John C. Havens Executive Director, The IEEE Global Initiative on Ethics of Autonomous and Intelligent Systems; Executive Director, The Council on Extended Intelligence; Author, Heartificial Intelligence: Embracing Our Humanity to Maximize Machines

# **IEEE P7011**<sup>™</sup> - <u>Standard for the Process of Identifying and Rating the</u> Trustworthiness of News Sources

- Chair: Joshua Hyman Cloud and Software Administration Manager at the University of Pittsburgh; Author, *Addressing Fake News Open Standards & Easy Identification*
- Vice-Chair & Secretary: Sean La Roque-Doherty Attorney & Counselor at Law

#### **IEEE P7012**™ - Standard for Machine Readable Personal Privacy Terms

- Chair: David P. Reed President, Deep Plum Research
- Vice-Chair: Lisa LeVasseur VP Research & Technology, Wrethinking, The Foundation

**IEEE P7013**™ - <u>Inclusion and Application Standards for Automated Facial Analysis</u> Technology

Chair: TBDVice-Chair: TBD



#### **Names of the IEEE Global Initiative Members**

Thank you to our IEEE Global Initiative Community beyond our Committee Members. We have included the following truncated list of our over 1,600 members who provided their information in time for the creation of this document.

Special thanks to Lisa Morgan, Program Director, Content and Community, IEEE Global Initiative on Ethics of Autonomous and Intelligent Systems who serves to help drive our IEEE Global Initiative community.

Rediet Abebe, Joseph Ahor Abandoh-Sam, Tauheedul Ali, Steven Babin, Sandipan Banerjee, Bijilash Babu, Anahiby Becerril, Catherine Berger, B.C. Biermann, Pedro Bizarro, Meher Bnouni, Raymond Bond, Manfred Bürger, James Butcher, Abhik Chaudhuri, Melvin Chen, Ruby Childs, Steven R Clark, Keeley Crockett, Scott L. David, Rosalie Day (Glossary Committee), Eileen Donahoe, Bob Donaldson, Julien Durand, Lola Ololade Durodola, Christopher Ekren, Brian Fisher, Susan Fourtané, Albert Fox Cahn, Dan Friedman, Erny Gillen, Tony Gillespie, Gian Maria Greco, Adrian Gropper, Gregg Gunsch, Patrick Henz, Ali Hessami, David S. Hinley, Michael Hofbaur, Maynard Holliday, Chi En Huang, Keeyeon Hwang, Joachim Iden, Laura James, Blair Jennings, Reyes Jiménez-Segovia, Peter H. Jones, Stamatis Karnouskos, Ansgar Koene, Kashyap Kompella, Paul Mario Koola, Frauke Kreuter, Frederick Kronz, Chai Lam, Dongik Lee, Theresa Leigh, Ruth Lewis, Rohan Light, Ben van Lier, Kenneth A. Lloyd, Leon S. George D. Magoulas, Lukas, Ioannis C. Matsas, Fiona J. McEvoy, Suzanne McIntosh, Andrew McStay, Diana Medina Calle, Nikki Mirghafori, Nicolas Moës, Lisa Morgan, Lyria Bennett Moses, Vincent C. Müller, Geoffrey Odlum, Brian K. O'Donnell, Denise Oram, Hirotaka Osawa, Brian Pagán, Sreekanth Pallavoor, Ittoopunny Paul, Louise Parberry, Juan Pavón, Pedro Pavón, Isabel Pedersen, Sridhar Perumbavoor, Gerol Petruzella, Walter Pienciak, Adam Poulsen, Alexander Prenter, João Quintas, Babita Ramlal, Pablo Rivas, Paul W Robinson, Sylvie Saget, Idoia Salazar, Alejandro Saucedo, Rodrigue Savoie, Randale Sechrest, Adam Leon Smith, Krishna Sood, Anna Spagnolli, Charlotte Stanton, Roberta Stempfley, Ethan Sweet, Alex Teichmann, Peter Teneriello, Carme Torras, Kristene Unsworth, Ville Vakkuri, Galo E. Valverde, Martijn van Otterlo, William Wallace, Don Wright, Robin L. Zebrowski, John Zerilli, Jiyu Zhang

