

#203-1432 West 10th Ave
Vancouver, BC, Canada
V6H 1J9

+1.778.321.2952 📞
@roboethics 🐦
ajung@openroboethics.org ✉️
<http://profile.amoon.ca> 🌐

AJUNG MOON

Education	University of British Columbia Ph.D. in Mechanical Engineering Advisors: Elizabeth A. Croft, H. F. Machiel Van der Loos	2012/1 – 2017/6
	École Polytechnique Fédérale de Lausanne (EPFL) Visiting Doctoral Student Advisor: Aude Billard	2015/3 – 2016/5
	University of British Columbia M.A.Sc. in Mechanical Engineering Advisors: Elizabeth A. Croft, H. F. Machiel Van der Loos	2009/9 – 2012/4
	University of Waterloo B.A.Sc. in Mechatronics Engineering (with distinction) Minor: Philosophy	2004/4 – 2009/6
Notable Awards	Vanier Canada Graduate Scholarships, NSERC	2013 – 2016
	Four Year Doctoral Fellowship, University of British Columbia	2012 - 2016
	TD Canada Trust Scholarship for Outstanding Community Leadership, TD Canada Trust	2004
External Activities	The IEEE Global Initiative for Ethical Considerations in the Design of Autonomous Systems – Executive	2016/1 – present
	Canadian Robotics Strategy – Co-chair	2017/1 – present
	International Panel on the Regulation of Autonomous Weapon Systems – Panelist	2017/3 – present
	Committee on Embedding Values into Autonomous Intelligent Systems – Founding Chair	2016/1 – 2017/6
	Robohub – Contributor, Panelist, Podcaster	2013/10 – present
Journal Publications	J1. Cooperative Gestures for Industry: Exploring the Efficacy of Robot Hand Configurations in Expression of Instructional Gestures for Human-Robot Interaction Sheikholeslami, S., Moon, A., Croft, E. A.	IJRR 2017

	J2. Impact of robot head gaze on robot-to-human handover Zheng, M., Moon, A., Croft, E. A., Meng, M. Q. H.	SORO 2016
	J3. Design and Impact of Hesitation Gestures during Human-Robot Resource Conflicts Moon, A., Parker, C.A.C., Croft, E.A., and Van der Loos, H.F.M.	JHRI 2013
	J4. Survey-based Discussions on Morally Contentious Applications of Interactive Robotics Moon, A., Danielson, P., and Van der Loos, H.F.M.	SORO 2012
Submitted/ In Prep	C1. Accepted Lessons Learned: An Ethics Roadmap for Real-time Predictions Moon, A., Kim, S., Rismani, S., Millar, J.	PAPIS 2018
	J5. In Press Impacts of Visual Occlusion and its Resolution in Telepresence Collaborations Radmard, S., Moon, A., Croft, E. A.	SORO 2018
	J6. In Prep Development of Negotiative Interaction for Nonverbal Resolution of Human-Robot Conflicts Moon, A., Van der Loos, H. F. M., Croft, E. A., Billard, A.	
Conference Publications	C2. How to Engage the Public on the Ethics and Governance of Lethal Autonomous Weapons Millar, J., Moon, A.	We Robot 2016
	C3. Exploring the Effect of Robotic Poseable Hand in Task Based Gestures in Human-robot Interaction Sheikholeslami, S., Moon, A., Croft, E. A.	IROS 2015
	C4. Nominated Best Paper Interface Design and Usability Analysis for a Robotic Telepresence Platform Radmard, S., Moon, A., Croft, E. A.	RO-MAN 2015
	C5. The Emerging Policy and Ethics of Human Robot Interaction Riek, L.D., Hartzog, W., Howard, D., Moon, A., Calo, R.	HRI 2015
	C6. Human Behavioural Responses to Robot Head Gaze during Robot-to-Human Handovers Zheng, M., Moon, A., Gleeson, B., Troniak, D.M., Pan, M.K.X.J., Blumer, B.A., Meng, M.Q.H., Croft, E.A.	ROBIO 2014
	C7. Awarded Best Paper Meet Me where I'm Gazing: How Shared Attention Gaze Affects Human-Robot Handover Timing Moon, A., Troniak, D.M., Gleeson, B., Pan, M.K.X.J., Zheng, M., Blumer, B.A., MacLean, K., and Croft, E.A.	HRI 2014
	C8. Open Roboethics: Accelerated Policy Design, Implementation and Demonstration of Socially Acceptable Behaviors Calisgan, E., Moon, A., Bassani, C., Ferreira, F., Operto, F., Veruggio, G., Croft, E. A., and Van der Loos, H.F.M.	We Robot 2013

	C9. Open Roboethics: Establishing an Online Community for Accelerated Policy and Design Change	We Robot 2012
	Moon, A., Calisgan, C., Operto, F., Veruggio, G., and Van der Loos, H.F.M.	
	C10. Did You See It Hesitate? – Empirically Grounded Design of Hesitation Trajectories for Collaborative Robots	IROS 2011
	Moon, A., Parker, C.A.C., Croft, E.A., and Van der Loos, H.F.M.	
	C11. Now, Where Was I? - Physiologically-Triggered Bookmarking	CHI 2011
	Pan, M., Cheng, G., Himmetoglu, G., Moon, A., Hazelton, T., MacLean, K., Croft E. A.	
	C12. Galvanic skin response-derived bookmarking of an audio stream	CHI 2011
	Pan, M.K.X.J., Chang, J.-S., Himmetoglu, G.H., Moon, A., Hazelton, T.W., MacLean, K.E., Croft, E.A.	
	C13. Robots, Multi-User Virtual Environments and Healthcare: Synergies for Future Directions	ITCH 2011
	Moon, A., Grajales, F., and Van der Loos, H.F.M.	
Workshop Publications	W1. Nonverbal Dialogues for Conflict Resolution: Exploring Hesitation Gestures in Human-Robot Conflict of Resource Scenarios	HRI 2014
	Moon, A., Van der Loos, H.F.M., and Croft, E. A.	
	W2. Gesture, Gaze, Touch, and Hesitation: Timing Cues for Collaborative Work	HRI 2014
	Hart, J. W., Gleeson, B., Pan, M., Moon, A., MacLean, K., and Croft, E. A.	
	W3. Galvanic skin response-derived bookmarking of an audio stream	CHI 2011
	Pan, M.K.X.J., Chang, J.S., Himmetoglu, G.H., Moon, A., Hazelton, T.W., MacLean, K.E., Croft, E.A.	
	W4. Using Hesitation Gestures for Safe and Ethical Human-Robot Interaction	ICRA 2010
	Moon, A., Panton, B., Van der Loos, H.F.M., and Croft, E.A.	
Thesis	T1. Negotiating with Robots: Meshing Plans and Resolving Conflicts in Human-Robot Collaboration	PhD. 2017
	T2. What Should a Robot Do?: Design and Implementation of Human-like Hesitation Gestures as a Response Mechanism for Human-robot Resource Conflicts	MASc. 2012
Book Chapter	B1. The Open Roboethics Initiative and the Elevator-Riding Robot in Robot Law, Calo, R., Froomkin, M. A., and Kerr, I. (eds.), Edward Elgar Publishing	2016
	Moon, A., Calisgan, E., Bassani, C., Ferreira, F., Operto, F., Veruggio, G., Croft, E. A., Van der Loos, H. F. M.	
Organized Workshops	Towards a national robotics strategy for Canada	2017/9
	Co-Chair, An NSERC Stakeholder Meeting, Vancouver, BC	
	Best practices in designing effective roadmaps for robotics innovation	2017/9
	Co-organizer, International Conference on Intelligent Robots and Systems 2017, Vancouver, BC	

- | | | |
|-------------------------|---|---------|
| | Workshop on Bridging the Gap between HRI and Robot Ethics Research | 2015/10 |
| | <i>Program Committee, International Conference on Social Robotics 2015, Paris, France</i> | |
| | The Emerging Policy and Ethics of Human-Robot Interaction Workshop | 2015/3 |
| | <i>Co-chair, Conference on Human-Robot Interaction 2015, Portland, OR</i> | |
| | HRI Pioneers Workshop | 2015/3 |
| | <i>Publicity Chair, Conference on Human-Robot Interaction 2015, Portland, OR</i> | |
| Expert
Consultations | 2017 The Organisation for Economic Co-operation and Development (OECD) | |
| | <i>"Expert Consultation on "Neurotechnology and Society". Washington, DC</i> | |
| | International Committee of the Red Cross (ICRC) | |
| | <i>"Roundtable Meeting on Ethics and Autonomous Weapon Systems." Geneva, Switzerland</i> | |
| | The Senate of Canada | |
| | <i>"Oral evidence to the Standing Senate Committee study on the role of robotics, 3D printing and artificial intelligence in the healthcare system." Ottawa, Canada</i> | |
| | 2015 United Nations Convention on Certain Conventional Weapons (CCW) | |
| | <i>"Meeting of States Parties." Geneva, Switzerland</i> | |
| Invited
Talks | 2017 International Panel on the Regulation of Autonomous Weapons | |
| | <i>"What on Earth is AI?: A hype-free discussion of computational systems." Berlin, Germany</i> | |
| | Cambridge University | |
| | * repeated at Johns Hopkins Applied Physics Lab, University of Toronto, University of Waterloo | |
| | <i>"AI Ethics? Roboethics?: Practical Approaches to the Growing Ethics Discussion about Machine Autonomy." Cambridge, UK</i> | |
| | Get Your Bot On Robotics | |
| | <i>"Women in Robotics: AI Ethics? Roboethics?: A Taster for the Growing Ethics Discussion about Machine Autonomy." Toronto, Canada</i> | |
| | WorkSafeBC | |
| | <i>"How Machine Autonomy is Changing the Way We Work." Richmond, Canada</i> | |
| | Engineers & Geoscientists BC | |
| | <i>"AI and Robotics: Addressing the Growing Ethics Discussion about Machine Autonomy." Richmond, Canada</i> | |
| | Austrian Research Institute for Artificial Intelligence (OFAI) | |
| | <i>"Ethics as a Catalyst for the Social Robotics Industry." Vienna, Austria</i> | |
| | Vancouver Club | |
| | <i>"How interactive robots are bringing ethics back." Vancouver, Canada</i> | |
| | 2016 Softbank Robotics | |
| | <i>"What Should a Robot Do?." Paris, France</i> | |
| | 2015 3TU: University of Twente | |
| | <i>"Charting the Course for Practical Robot Ethics." Twente</i> | |
| | United Nations CCW Meeting of Experts on Lethal Autonomous Weapons Systems Side Event | |
| | <i>"Listen to the Dictates of the Public Conscience: Why Fully Autonomous Weapons are Ethically Unacceptable." Geneva, Switzerland</i> | |
| | Vancouver General Hospital | |
| | <i>"BrainTalksUBC: Moral Decision Making and Human-Robot Interaction." Vancouver</i> | |
| | 2014 Tällberg Workshop at CERN | |
| | <i>"Robots and Ethics." Geneva, Switzerland</i> | |
| | 2013 FIREtalk 2013 | |
| | <i>"The Case for Negotiating Robots." Vancouver</i> | |

- University of British Columbia
"Roboethics: What, Why and How." Vancouver
- 2012 University of Genoa
"What Should a Robot Do?: Importance of and Precautions for Human-Robot Interaction." Genoa, Italy
 CITEC Summer School on Verbal and Nonverbal Interaction, Bielefeld University
"Exploring the Intersection of Roboethics and Human-Robot Interaction." Bielefeld, Germany
- 2011 International Conference for Info Tech and Communications in Health
"Robots, Multi-User Virtual Environments and Healthcare: Synergies for Future Directions." Victoria, Canada
- 2010 University of British Columbia
"Saturating and Exploring the Space of Reasons: N-Reasons Deliberation of Roboethics Issues." Vancouver, Canada
 Stanford University
"MediaX Workshop on Virtual Medical Environments: Nonverbal Human-Robot Interaction and Opportunities for Cognitive Rehabilitation in Virtual World." Stanford, USA
- Invited Panels**
- 2017 The United Nations CCW Group of Governmental Experts
"Entrepreneurial Perspectives on Emerging Technologies in the Field of AI and Autonomous Systems." Geneva, Switzerland
 University of Guelph
"Derry Dialogue: Living Among Intelligent Machines." Guelph, Canada
 EXCELeRATE Conference
"Roboethics for Business Leaders." Vancouver, Canada
 The Senate of Canada
"Designing Canada's Future with Robotics and AI." Ottawa, Canada
 Open Caucus, The Senate of Canada
"Ethics as a catalyst for driving innovation in robotics and AI." Ottawa, Canada
- 2016 13th Annual Leadership Program for Physicians and Leaders in Long Term Care
"Panel: Roboethics." Vancouver
 An IEEE TechEthics Event
"Conversations on Ethical and Social Implications of Artificial Intelligence." The Hague, The Netherlands
 American Philosophical Association
"AI, Automation & the Good Life." San Francisco
 University of British Columbia
"100 Years WISE: Women in Science and Engineering, Bridging the Past and the Future." Vancouver, Canada
- 2013 Workshop at IROS 2013
"Understanding Robotics and Public Opinion: Best Practices in Public Science Communication and Online Dissemination." Tokyo
- 2010 Australian National Science Week
"Robot World Live! Exploring the Unknown." Melbourne
- Service to the Profession**
- AAAI/ACM Conference on AI, Ethics, and Society, Program Committee, (2018)
 HRI Conference Proceedings, Reviewer, (2011, 2012, 2014, 2015, 2016, 2017)
 HRI Workshop and Late Breaking Paper, Reviewer, (2014, 2016, 2017)
 IROS Conference Proceedings, Reviewer, (2015, 2017)
 RO-MAN Conference Proceedings, Reviewer, (2015)
 JHRI Journal Articles Reviewer, Reviewer, (2012)
- Guest Lectures**
- 2017 University of Guelph
"Addressing the Growing Ethics Discussion about Machine Autonomy." Guelph, Canada
 Virginia Polytechnic Institute and State University
"ORi and the Future of Roboethicists." Blacksburg, USA

2011 Northern Michigan University

“Seven Deadly Sins Event Series: Stretching the Moral Yard Stick with Robots.” Marquette

Teaching

MECH 550R – Roboethics, University of British Columbia 2012/5 – 2012/6
Co-lecturer

Collaboratively designed and improved course plan and taught roboethics concepts to graduate students with the lead instructor, Dr. Machiel Van der Loos

MECH 220 – Mechanical Engineering Technical Skills Practicum 2010/9 – 2010/12
Teaching Assistant 2013/9 – 2013/12

Taught fundamental engineering skills for second year Mechanical Engineering students through hands-on community service learning sessions

Employment

Open Roboethics Institute 2012/4 – present
Executive Director

Founded a nonprofit think tank that specializes in stakeholder-inclusive research of ethical issues pertaining to driverless cars, autonomous weapons, and care robots.

Generation R Consulting Inc. 2017/4 – present
Chief Executive Officer

Founded the first consulting firm in the world to develop and employ an ethics assessment process to deliver AI ethics roadmap for today's enterprises.

Korean Roboethics Charter Committee 2009/5 – 2009/8
Translator

Translated thirteen roboethics workshop papers presented at the 2009 IEEE International Conference on Robotics and Automation from English to Korean

Precision Controls Laboratory, University of Waterloo 2008/5 – 2008/8
Research Assistant

Developed a mechatronics design to retrofit a router into a combined printing-cutting system; Designed mechanical, electrical, hydraulic, and control systems for vertical inkjet print-heads

Toyota Motors Manufacturing Canada 2007/1 – 2007/4
Manufacturing Engineer

Designed and installed safety equipment for various vehicle paint process areas; Independently carried out and supervised installation of automation projects; Improved Corolla/Matrix topcoat paint appearance

Prodomax Automation 2006/5 – 2006/8
Controls Specialist

Independently designed and implemented a multiple-PLC network system; Provided PLC and control panel support for Robotics and Electrical Departments

GE Hydro Canada 2005/1 – 2005/4
Design Engineer

Analyzed mechanical failures of hydrogenerators as part of a root cause analysis team; Worked with lead engineers to assist on analysis