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# Curriculum Vitae

## Jesse Hoey

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## Summary Biography

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Dr. Jesse Hoey is a professor in the David R. Cheriton School of Computer Science at the University of Waterloo, where he leads the Computational Health Informatics Laboratory (CHIL). He is a Faculty Affiliate at the Vector Institute, and an affiliate scientist at KITE/TRI, both in Toronto. Dr. Hoey holds a Ph.D degree (2004) in computer science from the University of British Columbia. He has published over one hundred peer reviewed scientific papers. His primary research interest is to understand the nature of human emotional intelligence by attempting to build computational models of some of its core functions, and to apply them in domains with social and economic impact. He is Editor-in-Chief for the IEEE Transactions on Affective Computing and an Area Chair for the International Joint Conferences on Artificial Intelligence (IJCAI 2022).

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## Education

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<b>Ph.D. Computer Science</b> , University of British Columbia, Vancouver, Canada	<b>1997-2004</b>
<b>M.Sc. Physics/Oceanography</b> , University of British Columbia, Vancouver, Canada	<b>1992-1994</b>
<b>B.Sc. Physics</b> (Honours), McGill University, Montreal, Canada	<b>1989-1992</b>

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## Positions Currently Held

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<b>Professor</b> , School of Computer Science, University of Waterloo	<b>2020-</b>
<b>Affiliate Scientist</b> , Toronto Rehabilitation Institute, Toronto	<b>2006-</b>
<b>Faculty Affiliate</b> , Vector Institute, Toronto	<b>2019-</b>

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## Positions Previously Held

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<b>Associate Dean, Innovation &amp; Entrepreneurship</b> , Faculty of Mathematics, University of Waterloo	<b>2020-2021</b>
<b>Associate Professor</b> , School of Computer Science, University of Waterloo	<b>2013-2020</b>
<b>Visiting Professor</b> , Institut de Recherche en Informatique et Automatique (INRIA), France	<b>2014-2015</b>
<b>Assistant Professor</b> , School of Computer Science, University of Waterloo	<b>2010-2013</b>
<b>Lecturer (Assistant Professor)</b> , School of Computing, University of Dundee	<b>2006-2010</b>
<b>Postdoctoral Fellow</b> , Department of Computer Science and Department of Occupational Therapy and (cross-appointed), University of Toronto Member: Intelligent Assistive Technology and Systems Laboratory (IATSL). Supervisors: Prof. Craig Boutilier and Dr. Alex Mihailidis.	<b>2004-2006</b>

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## Awards and Citations

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- Cheriton Faculty Fellow 05/2021-04/2024  
School of Computer Science, University of Waterloo
- Faculty of Mathematics Golden Jubilee Research Excellence Award 2019  
Conferred to early or mid-career faculty members who have made an outstanding research contribution (\$2,500 cash prize)
- Outstanding Performance Award. University of Waterloo 2021  
To reward faculty members for outstanding contribution in teaching and scholarship. One of 8 awarded to the School of Computer Science (100 professors total).
- Outstanding Performance Award. University of Waterloo 2018  
To reward faculty members for outstanding contribution in teaching and scholarship. One of 6 awarded to the School of Computer Science (82 professors total).
- American Sociological Association Section on Social Psychology  
**Outstanding Recent Contribution in Social Psychology Paper Award** 2019  
For the paper: Robert Freeland and Jesse Hoey The Structure of Deference: Modeling Occupational Status Using Affect Control Theory. American Sociological Review, 83, 2, April, 2018.
- Best reviewer award, NeurIPS 2018, 2019, 2020
- Graham Faculty Fellow 09/2018-08/2020  
School of Computer Science, University of Waterloo
- American Sociological Association Section on Social Psychology  
**Outstanding Recent Contribution in Social Psychology Paper Award** 2017  
For the Paper: Tobias Schröder, Jesse Hoey and Kimberly B. Rogers. Modeling dynamic identities and uncertainty in social interactions: Bayesian affect control theory. American Sociological Review.
- American Sociological Association Section on Mathematical Sociology **Outstanding Article Award** 2017  
For the paper: Tobias Schröder, Jesse Hoey and Kimberly B. Rogers. Modeling dynamic identities and uncertainty in social interactions: Bayesian affect control theory. American Sociological Review.
- Best reviewer award, International Conference on Multimodal Interaction (ICMI) 2017
- Cheriton Faculty Fellow 05/2014-04/2017  
School of Computer Science, University of Waterloo
- Highly accessed** rating assigned by BMC Geriatrics 2009  
For the paper : Alex Mihailidis, Jennifer N. Boger, Tammy Craig, and **Jesse Hoey**. The COACH prompting system to assist older adults with dementia through handwashing: An efficacy study. *BMC Geriatrics*, 8 (28), 2008.
- Microsoft/AAAI **Distinguished Contribution Award** 2009  
at IJCAI 2009 Workshop on Intelligent Systems for Assisted Cognition (\$2,500 USD Prize)
- The COACH - Named "**Solution of the Year**" 2007 by Advanced Imaging Magazine. 2008
- The COACH - Named **top 20** Science & Medicine Stories of the Year 2007 - The Toronto Star. 2008
- International Association for Pattern Recognition (IAPR) **Best Paper Award** 2007  
For the paper *Assisting Persons with Dementia during Handwashing Using a Partially Observable Markov Decision Process* at the International Conference on Vision Systems, Bielefeld, Germany, (€500 cash prize).

Canesta <sup>TM</sup> Vision Contest <b>Grand Prize Winner</b> Innovative Application of Canesta's electronic perception technology, <i>Wheelchair collision obstacle avoidance</i> (\$10,500 USD cash prize).	<b>2005</b>
Canesta <sup>TM</sup> Vision Contest <b>Winner</b> (Phase One) Innovative Application of Canesta's electronic perception technology, <i>Wheelchair collision avoidance using 3D sensors</i> (\$7,500 USD In-kind prize).	<b>2005</b>
<b>First place</b> , 2001 <i>Hors D'œuvres Anyone?</i> Mobile Robot Competition. Seattle, WA, August, 2001.	<b>2001</b>
<b>Horace Watson Medal</b> . McGill University, Montreal, Canada. Awarded for highest academic standing in Honours Physics.	<b>1992</b>

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## Editorial Experience

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Editor-in-Chief, IEEE Transactions on Affective Computing.	<b>2023-</b>
Associate Editor, IEEE Transactions on Affective Computing.	<b>2019-2023</b>
Area Chair, International Joint Conferences on Artificial Intelligence (IJCAI),	<b>2019,2020,2021,2022</b>
Senior Program Committee member/Area Chair, Association for Advancement of AI (AAAI) Conference,	<b>2011,2013,2015,2018,2019,2020,2021,2022</b>
Reviewer for major computer science journals, e.g.: ACM Transactions on Intelligent Interactive Systems, Human-Computer Interaction, Artificial Intelligence Journal, IEEE Transactions on Affective Computing. ( $\approx$ 15 papers reviewed per year)	
Program committee member and reviewer for major international conferences in machine learning, health informatics, artificial intelligence, affective computing and human-computer interaction ( $\approx$ 75 papers reviewed per year)	
Program Chair, 10th Intl. Conf. on Pervasive Computing Technologies for Healthcare, Cancun,	<b>2016</b>
Co-Chair, Workshop on <i>Machine Learning for Assistive Technology</i> , Neural Information Processing Systems Conference, Whistler, BC,	<b>2010</b>
Senior Program Committee member, ACM Intl. Joint Conf. on Pervasive and Ubiquitous Computing,	<b>2013</b>
Senior Program Committee member, Alzheimer's Association International Conference (AAIC)	<b>2012</b>
Senior Program Committee member, International Conference on Pervasive Computing,	<b>2012</b>
Program Chair, British Machine Vision Conference (BMVC), Dundee, UK,	<b>2011</b>
Co-Chair, Medical Image Understanding and Analysis Conference (MIUA), Dundee, UK,	<b>2008</b>
Organising Committee, AAAI Fall Symposium on AI in Eldercare, Washington, USA,	<b>2008</b>
Edited Volumes:	
<ul style="list-style-type: none"> <li>• Enrique Sucar, Eduardo Morales and Jesse Hoey (eds). <i>Decision Theory Models for Applications in Artificial Intelligence: Concepts and Solutions</i>. IGI Global,</li> </ul>	<b>2012</b>
<ul style="list-style-type: none"> <li>• Liming Chen, Chris Nugent, Jesse Hoey and Jit Biswas (eds). <i>Activity Recognition in Pervasive Intelligent Environments Book Series: Atlantis Ambient and Pervasive Intelligence</i>.</li> </ul>	<b>2011</b>

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## Selected Recent Publications

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### Books

- Jennifer N. Boger, Victoria Young, Jesse Hoey, Tizneem Jiancaro, and Alex Mihailidis. Zero Effort Technologies: Considerations, Challenges, and Use in Health, Wellness, and Rehabilitation (2nd edition). Morgan Claypool, Synthesis Lectures on Assistive, Rehabilitative, and Health-Preserving Technologies, August 2018
- Alex Mihailidis, Jennifer N. Boger, Jesse Hoey and Tizneem Jiancaro. Zero Effort Technologies: Considerations, Challenges, and Use in Health, Wellness, and Rehabilitation. Morgan Claypool, Synthesis Lectures on Assistive, Rehabilitative, and Health-Preserving Technologies, August 2011

### Volumes Edited

- Jesse Hoey, Stephen McKenna, and Emanuele Trucco, editors. Proc. of the 22<sup>nd</sup> British Machine Vision Conference (BMVC), 2011. Published by the British Machine Vision Association.
- Enrique Sucar, Eduardo Morales and Jesse Hoey (eds). Decision Theory Models for Applications in Artificial Intelligence: Concepts and Solutions. IGI Global, 2012.
- Liming Chen, Chris Nugent, Jesse Hoey and Jit Biswas (eds). Activity Recognition in Pervasive Intelligent Environments Book Series: Atlantis Ambient and Pervasive Intelligence. 2011.
- Stephen McKenna and Jesse Hoey, editors. Annals of the British Machine Vision Association Special Issue on MIUA 2008. Vol 2009, Issues 1-8. A collection of the best papers from MIUA 2008.
- Stephen McKenna and Jesse Hoey, editors. Proceedings of the Twelfth Annual Conference on Medical Image Understanding and Analysis (MIUA) 2008. Published by the British Machine Vision Association (BMVA). ISBN 1901725359.

### Book Chapters

- Moojan Ghafurian, John Munoz, Jennifer N. Boger, Jesse Hoey and Kerstin Dautenhahn. Socially Interactive Agents for Supporting Aging. *Handbook on Socially Interactive Agents*, 2, 23, 2022
- Linda E. Francis, Richard E. Adams, Alexandra König and Jesse Hoey Identity and the Self in Elderly Adults with Alzheimers disease. In Richard Serpe and Jan Stets (eds.) *Identities in Everyday Life*, Cambridge University Press, 2019 .
- Alex Mihailidis, Jennifer N. Boger, Stephen Czarnuch, Tizneem Nagdee, and Jesse Hoey (2012). Ambient Assisted Living Technology to Support Older Adults with Dementia with Activities of Daily Living: Key Concepts and the State of the Art. In Juan Carlos Augusto, Michael Huch, Achilles Kameas, Julie Maitland, Paul McCullagh, Jean Roberts, Andrew Sixsmith, Reiner Wichert (Eds.), *Handbook of Ambient Assisted Living - Technology for Healthcare, Rehabilitation and Well-being*. Amsterdam, The Netherlands: IOS Press. ISBN: 978-1-60750-836-6.
- Jesse Hoey, Pascal Poupart, Craig Boutilier, and Alex Mihailidis. POMDP models for Assistive Technology. In Enrique Sucar, Eduardo Morales and Jesse Hoey (eds). Decision Theory Models for Applications in Artificial Intelligence: Concepts and Solutions. IGI Global, 2012.
- Alan F. Newell, Alex Carmichael, Peter Gregor, Norman Alm, Annalu Waller, Vicki L. Hanson, Graham Pullin, and Jesse Hoey. Information Technology for Communication and Cognitive Support. In *Human-Computer Interaction Handbook, 3rd Edition*, Taylor & Francis, 2012
- James J. Little Jesse Hoey, and Pantelis Elinas. Visual Capabilities in an Interactive Autonomous Robot. In H.I. Christensen and H.-H. Nagel (Eds.): *Cognitive Vision Systems*, LNCS 3948, pages 295-312, Springer 2006.

### Invited Contributions

- Stephen McKenna, Jesse Hoey and Emanuele Trucco Objects, Actions, Places. Guest Editorial, *International Journal of Computer Vision*, 106, 3, February, 2014.

- James Tung, Heather Snyder, Jesse Hoey, Alex Mihailidis, Maria Carrillo and Jesus Favela Everyday Patient-Care Technologies for Alzheimer's Disease. *Pervasive Computing*, 12, 4, Oct-Dec, 2013.

### Articles in Refereed Journals

- Jill A. Dosso, Ela Bandari, Aarti Malhotra, Gabriella K Guerra, Jesse Hoey, Francois Michaud, Tony J Prescott and Julie M Robillard. User perspectives on emotionally aligned social robots for older adults and persons living with dementia. *Journal of Rehabilitation and Assistive Technologies Engineering*, 2022
- Jesse Hoey and Tobias Schröder. Disruption of Social Orders in Societal Transitions as Affective Control of Uncertainty. *American Behavioral Scientist.*, Feb 2022.
- Joseph M. Quinn and Robert E. Freeland and Jesse Hoey and Kimberly B. Rogers and Lynn Smith-Lovin. How Cultural Meanings of Occupations in the U.S. Changed During the Covid-19 Pandemic. *American Behavioral Scientist.*, February, 2022.
- Moojan Ghafurian, Linda Francis, Zhuofu Tao, Mary Step, and Jesse Hoey. VIPCare: Understanding the Support Needed to Create Affective Interactions between New Caregivers and Residents with Dementia. *Journal of Rehabilitation and Assistive Technologies Engineering*, 9, 2022.
- Jesse Hoey. Freedom and Equality and Uncertainty in Groups. *Entropy* vol 23 (1384), 2021.
- Moojan Ghafurian, Jesse Hoey and Kerstin Dautenhahn. Social Robots for the Care of Persons with Dementia: A Systematic Review. *ACM Transactions on Human-Robot Interaction*. Volume 10, Issue 4, December 2021 Article No.: 41, pp 1–31,
- Moojan Ghafurian, Neil Budnarain, and Jesse Hoey. Improving Humanness of Virtual Agents and Users' Cooperation through Emotions. *IEEE Transactions on Affective Computing*. in press 2021.
- Neil J. MacKinnon and Jesse Hoey. Operationalizing the Relation between Affect and Cognition with The Somatic Transform. *Emotion Review*. vol 13(3):12 July, 2021.
- Jesse Hoey, Neil J. MacKinnon and Tobias Schröder. Denotative and Connotative Management of Uncertainty: A Dual Process Model. *Judgment and Decision Making*, 16 (2), March 2021.
- Linda E. Francis, Kathryn J. Lively, Alexandra König and Jesse Hoey The Affective Self: Perseverance of Self-Sentiments in Late-Life Dementia. *Social Psychology Quarterly*, 2020.
- Rahul N Iyer, S. Alex Yun, Meiyappan Nagappan and Jesse Hoey. Effects of Personality Traits on Pull Request Acceptance. *IEEE Transactions on Software Engineering*, 2019.
- Arlene Astell, Nicole Bouranis, Jesse Hoey, Alison Lindauer, Alex Mihailidis, Chris D. Nugent and Julie M. Robillard. Technology and Dementia: The Future is Now. *Dementia and Geriatric Cognitive Disorders*, 47, 3, pp.131-139, 2019.n
- Jesse Hoey, Tobias Schroeder, Jonathan H. Morgan, Kimberly B. Rogers, Deepak Rishi and Meiyappan Nagappan Artificial Intelligence and Social Simulation: Studying Group Dynamics on a Massive Scale. *Small Group Research*, 49 (6), 647-683, December, 2018.
- Stefan Teipel, Alexandra Konig, Jesse Hoey, Jeffrey Kaye, Frank Kruger, Julie M Robillard, Thomas Kirste and Claudio Babiloni Use of nonintrusive sensor-based information and communication technology for real-world evidence for clinical trials in dementia. *Alzheimer's and Dementia*, 2018.
- Julie M Robillard, Ian Cleland, Jesse Hoey and Chris D. Nugent Ethical adoption: A new imperative in the development of technology for dementia. *Alzheimer's and Dementia*, 2018.
- Julie M Robillard and Jesse Hoey Emotion and Motivation in Cognitive Assistive Technologies for Dementia. *IEEE Computer*, 51, 3, March, 2018.
- Robert Freeland and Jesse Hoey The Structure of Deference: Modeling Occupational Status Using Affect Control Theory. *American Sociological Review*, 83, 2, April, 2018. **Winner of American Sociological Association Section on Social Psychology "Outstanding Recent Contribution in Social Psychology Paper Award" (2019)**

- Alexandra König, Linda E Francis, Jyoti Joshi, Julie M. Robillard and Jesse Hoey. Qualitative study of affective identities in dementia patients for the design of cognitive assistive technologies. *Journal of Rehabilitation and Assistive Technologies Engineering*, 2017.
- Shehroz Khan, Michelle E. Karg, Dana Kulic and Jesse Hoey Detecting Falls with X-Factor Hidden Markov Models. *Applied Soft Computing*, 2017.
- Shehroz Khan and Jesse Hoey Review of fall detection techniques: A data availability perspective. *Medical Engineering and Physics*, 39, 2017.
- Tobias Schröder, Jesse Hoey and Kimberly B. Rogers. Modeling dynamic identities and uncertainty in social interactions: Bayesian affect control theory. *American Sociological Review* 81(4): p828-855, 2016. **Winner of (1) American Sociological Association Section on Social Psychology “Outstanding Recent Contribution in Social Psychology Paper Award” (2016) and (2) American Sociological Association Section on Mathematical Sociology “Outstanding Article Award” (2016)**
- Stefan Teipel, Claudio Babiloni, Jesse Hoey, Jeffrey Kaye, Thomas Kirste, and Oliver K. Burmeister Information and communication technology solutions for outdoor navigation in dementia. *Alzheimer's and Dementia*, 12(6) June 2016.
- Jesse Hoey, Tobias Schröder and Areej Alhothali. Affect control processes: Intelligent affective interaction using a partially observable Markov decision process. *Artificial Intelligence*, 230, 2016.
- Marek Grześ, Pascal Poupart, Xiao Yang, and Jesse Hoey. Energy Efficient Execution of POMDP Policies. *IEEE Transactions on Cybernetics*, vol.45, no.11, pp.2484-2497, Nov 2015.
- George Zhu, Dan Lizotte and Jesse Hoey. Scalable Approximate Policies for Markov Decision Process Models of Hospital Elective Admissions. *Artificial Intelligence in Medicine*, 61, 1, May 2014.
- Christian Peters, Thomas Hermann, Sven Wachsmuth and Jesse Hoey. Automatic task assistance for people with cognitive disabilities in brushing teeth - a user study with the TEBRA system. *IEEE Transactions on Accessible Computing*, 5 (4), March, 2014.
- Michelle E. Karg, Gentiane Venture, Jesse Hoey and Dana Kulić. Human Movement Analysis as a Measure for Fatigue: A Hidden Markov-Based Approach. *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, 22, 3, May, 2014.
- Michelle E. Karg, Ali-Akbar Samadani, Rob Gorbet, Kolja Kuhnlenz , Jesse Hoey and Dana Kulić. Body Movements for Affective Expression: A Survey of Automatic Recognition and Generation. *IEEE Transactions on Affective Computing*, 4 (4), Oct-Dec 2013.
- Marek Grześ, Jesse Hoey, Shehroz Khan, Alex Mihailidis, Stephen Czarnuch, Dan Jackson, Andrew Monk. Relational Approach to Knowledge Engineering for POMDP-based Assistance Systems as a Translation of a Psychological Model. *International Journal of Approximate Reasoning*, Vol. 55 (1 - Part 1), pp.36-58, January 2014.
- Valerie Leuty, Jennifer N. Boger, Laurel Young, Jesse Hoey and Alex Mihailidis Engaging Older Adults with Dementia in Creative Occupations Using Artificially Intelligent Assistive Technology. *Assistive Technology*, 25 (2), pp. 72-79, 2012
- Liming Chen, Jesse Hoey, Chris D. Nugent, Diane Cook and Zhiwen Yu Sensor-Based Activity Recognition. *IEEE Transactions on Systems, Man, and Cybernetics - Part C: Applications and Reviews*, 42, 6, 2012
- Jesse Hoey, Craig Boutilier, Pascal Poupart, Patrick Olivier, Andrew Monk, and Alex Mihailidis. People, Sensors, Decisions: Customizable and Adaptive Technologies for Assistance in Healthcare. *ACM Transactions on Interactive Intelligent Systems Special issue on Highlights of the Decade*, 2 (4), Decemer 2012.
- Patricia Kan, Rajibul Huq, Jesse Hoey, Robby Goetschalckx and Alex Mihailidis The development of an adaptive upper-limb stroke rehabilitation robotic system. *Journal of NeuroEngineering and Rehabilitation*, 8, 33, 2011
- Jesse Hoey, Thomas Plötz, Dan Jackson, Andrew Monk, Cuong Pham, Patrick Olivier. Rapid specification and automated generation of prompting systems to assist people with dementia. *Pervasive and Mobile Computing*, 7, 3, June 2011.

- Jennifer N. Boger, Jesse Hoey, Kate Fenton, Tammy Craig and Alex Mihailidis. Using actors to develop technologies for older adults with dementia: A pilot study. *Gerontechnology*, 9 (4), 2010
- Alex Mihailidis, Scott Blunsden, Jennifer N. Boger, Brandi Richards, Krista Zutis, Laurel Young and Jesse Hoey Towards the Development of a Technology for Art Therapy and Dementia: Definition of Needs and Design Constraints. *The Arts in Psychotherapy*, 37 (4), 2010.
- Jesse Hoey, Pascal Poupart, Axel von Bertoldi, Tammy Craig, Craig Boutilier, and Alex Mihailidis. Automated Handwashing Assistance for Persons with Dementia Using Video and a Partially Observable Markov Decision Process. *Computer Vision and Image Understanding (CVIU)*, 114 (5), May 2010.
- Alex Mihailidis, Jennifer N. Boger, Tammy Craig, and Jesse Hoey. The COACH prompting system to assist older adults with dementia through handwashing: An efficacy study. *BMC Geriatrics*, 8 (28), 2008.
- Jasper Snoek, Jesse Hoey, Liam Stewart, and Richard Zemel. Automated Detection of Unusual Events on Stairs. *Image and Vision Computing (IMAVIS)* 27 (1-2), Jan. 2009.
- Alex Mihailidis, Jen Boger, Marcelle Candido, and Jesse Hoey. The use of an intelligent prompting system for people with dementia. *ACM Interactions*, 14 (4), pp.34-37, ACM Press, July+August 2007.
- Jesse Hoey and James J. Little. Value-Directed Human Behavior Analysis with Partially Observable Markov Decision Processes. *IEEE Transactions on Pattern Analysis and Machine Intelligence (PAMI)*, 29 (7), pp.1118-1132, 2007.
- Pooja Viswanathan, Jennifer Boger, Jesse Hoey, Pantelis Elinas and Alex Mihailidis. The Future of Wheelchairs: Intelligent Collision Avoidance and Navigation Assistance, *Geriatrics and Aging*, 10(4):253-6, 2007.
- Alex Mihailidis, Pantelis Elinas, Jen Boger, and Jesse Hoey. An Intelligent Powered Wheelchair to Enable Mobility of Cognitively Impaired Older Adults: an Anticollision System. *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, 15 (1) (2007), pp.136-143.
- Jen Boger, Jesse Hoey, Pascal Poupart, Craig Boutilier, Geoff Fernie, and Alex Mihailidis. A planning system based on Markov decision processes to guide people with dementia through activities of daily living. *IEEE Transactions on Information Technology in Biomedicine*, 10 (2), 323-333, 2006.

### Recent Peer-Reviewed Conference Articles

- Quentin Roy, Moojan Ghafurian and Jesse Hoey. Users, Tasks, and Conversational Agents: A Personality Study. In Proc. 9th International Conference on Human-Agent Interaction online (Nagoya, Japan), 2021
- Jerry Huang, Joshua Jung, Neil Budnarain, Benn McGregor, and Jesse Hoey. Trust-ya: design of a multiplayer game for the study of small group processes. *IEEE Conference on Games (IEEE COG)*, 2021.
- Joshua Jung and Jesse Hoey. Distance-Based Mapping for General Game Playing. *IEEE Conference on Games (IEEE COG)*, 2021.
- Moojan Ghafurian, Jesse Hoey, Daniel Tchorni, Annika Ang, Mallorie Tam and Julie M. Robillard. Emotional Alignment Between Older Adults and Online Personalities: Implications for Assistive Technologies. Proc. International Conference on Pervasive Computing Technologies for Healthcare, Atlanta, GA, 2020.
- Wenkai Li, Veronica Jiang, Steven Y. Feng, Julia Sprague, Wei Zhou and Jesse Hoey. ALOHA: Artificial Learning of Human Attributes for Dialogue Agents. Proc. AAAI Conference on Artificial Intelligence, New York, 2020
- Steven Y. Feng and Aaron W. Li and Jesse Hoey. Keep Calm and Switch On! Preserving Sentiment and Fluency in Semantic Text Exchange. Proceedings of Empirical Methods in Natural Language Processing (EMNLP) 2019, Hong Kong, China.

- Moojan Ghafurian, Neil Budnarain and Jesse Hoey Role of Emotions in Perception of Humanness of Virtual Agents. Proc. International Conference on Autonomous Agents and Multiagent Systems, Montreal, 2019.
- Nabiha Asghar, Pascal Poupart, Jesse Hoey, Xin Jiang and Lili Mou Affective Neural Response Generation. European Conference on Information Retrieval, Grenoble, France, March, 2018.
- Wasif Khan and Jesse Hoey How Different Identities Affect Cooperation. Proc. of the Humaine Association Conference on Affective Computing and Intelligent Interaction, San Antonio, TX, 2017.
- Dan Wang and Jesse Hoey Hierarchical Task Recognition and Planning in Smart Homes with Partial Observability. Proc. 11th International Conference on Ubiquitous Computing and Ambient Intelligence, Philadelphia, PA, 2017.
- Zhengkun Shang, Jyoti Joshi and Jesse Hoey Continuous Facial Expression Recognition for Affective Interaction with Virtual Avatar. IEEE International Conference on Image Processing, Beijing, China, 2017.
- Joshua D.A. Jung, Jesse Hoey, Jonathan H. Morgan, Tobias Schröder and Ingo Wolf. Grounding Social Interaction with Affective Intelligence. *Proceedings of the Canadian Conference on AI*, Victoria, BC, 2016.
- Aarti Malhotra, Jesse Hoey, Alexandra König and Sarel van Vuuren. A study of elderly people's emotional understanding of prompts given by Virtual Humans. *Proc. International Conference on Pervasive Computing Technologies for Healthcare*, Cancun, Mexico, 2016.
- Shehroz Khan and Jesse Hoey. dtFall - Decision-Theoretic Framework to Report Unseen Falls. *Proc. International Conference on Pervasive Computing Technologies for Healthcare*, Cancun, Mexico, 2016.
- Alexandra König, Linda E. Francis, Aarti Malhotra and Jesse Hoey Defining affective Identities in elderly Nursing Home residents for the design of an emotionally intelligent cognitive assistant. Proc. International Conference on Pervasive Computing Technologies for Healthcare, Cancun, Mexico, 2016
- Alexandra König, Aarti Malhotra, Jesse Hoey and Linda E. Francis Designing personalized prompts for a virtual assistant to support elderly care home residents. Proc. International Conference on Pervasive Computing Technologies for Healthcare, Cancun, Mexico, 2016
- Areej Alhothali and Jesse Hoey. Good News or Bad News: Using Affect Control Theory to Analyze Reader's Reaction Towards News Articles. In *Proc. of the 2015 Conference of the North American Chapter of the Association for Computational Linguistics - Human Language Technologies (NAACL HLT)*, Denver, CO, June 2015.
- Nabiha Asghar and Jesse. Hoey Intelligent Affect: Rational Decision Making for Socially Aligned Agents. In *Proc. of Uncertainty in Artificial Intelligence*, Amsterdam, July 2015.
- Jesse Hoey and Tobias Schröder. Bayesian Affect Control Theory of Self. In *Proc. of AAAI Conference on Artificial Intelligence*, Austin, TX, Jan 2015.
- Luyuan Lin, Stephen Czarnuch, Aarti Malhotra, Lifei Yu, Tobias Schröder, and Jesse Hoey. Affectively Aligned Cognitive Assistance using Bayesian Affect Control Theory. In Proc. IWAAL, Belfast, UK, Dec. 2014.
- Marek Grzes, Pascal Poupart and Jesse Hoey Isomorph-free Branch and Bound Search for Finite State Controllers. In *Proceedings of International Joint Conference on Artificial Intelligence*, Beijing, China, 2013.
- Marek Grzes, Pascal Poupart and Jesse Hoey Controller Compilation and Compression for Resource Constrained Applications. In *Proc. 3rd International Conference on Algorithmic Decision Theory*, LNAI 8176, Brussels, Belgium, 2013.
- Jesse Hoey, Tobias Schröder and Areej Alhothali Bayesian Affect Control Theory. In *Proc. of the Humaine Association Conference on Affective Computing and Intelligent Interaction*, Geneva, Switzerland, 2013.
- Marek Grzes and Jesse Hoey On the Convergence of Techniques that Improve Value Iteration. IN *Proceedings of International Joint Conference on Neural Networks (IJCNN)*. Dallas, USA, 2013.



- Michelle E. Karg, Wolfgang Seiberl, Jesse Hoey and Dana Kulic Human Movement Analysis: Extension of the F-Statistic to Time Series using HMM. In *Proc. International Conference on Systems, Man, and Cybernetics*, Manchester, 2013.

### **Workshops and Posters (Selected Recent, minimal peer review)**

- Jesse Hoey, Gabrielle Chan, Mathieu Doucet, Christopher Risi and Freya Zhang The Use of Non-epistemic Values to Account for Bias in Automated Decision Making. NeurIPS ML Safety Workshop, 2022
- Shehroz Khan, Jessica Campbell, Jacob Buchan, Andrea Bianchi, Jesse Hoey and Charlene H. Chu Community-Dwelling Older Adults' Perceptions of Smart Home Surveillance: An Integrative Review. Innovation in Aging (Proceedings of the Gerontological Society of America GSA Annual Scientific Meeting), 6, 1, Indianapolis, IN, November, 2022
- Aarti Malhotra and Jesse Hoey Emotions in Socio-cultural Interactive AI Agents. Proc.of the Humaine Association Conference on Affective Computing and Intelligent Interaction Func-E workshop, 2021
- Gertjan Hofstede, Christopher Frantz, Jesse Hoey, Geeske Scholz and Tobias Schröder Artificial Sociality Manifesto. Review of Artificial Societies and Social Simulation, 2021
- Kyle Tilbury and Jesse Hoey. Multi-Agent Reinforcement Learning and Human Social Factors in Climate Change Mitigation. AAAI Spring Symposium on Challenges and Opportunities for Multi-Agent Reinforcement Learning (COMARL), Stanford, CA, 2020
- Jesse Hoey, Zahra Sheihkbahee and Neil J. MacKinnon Deliberative and Affective Reasoning: a Bayesian Dual-Process Model. Proc.of the Humaine Association Conference on Affective Computing and Intelligent Interaction: Workshops, Cambridge, England, 2019.
- Tobias Schröder and Nikolas Zöller and Jesse Hoey. Modeling the Culture of Online Collaborative Groups with Affect Control Theory" Social Simulation Conference, Mainz, Germany, September, 2019.
- Luke Stark and Jesse Hoey. The Ethics of Emotion in AI Systems. In Selected Papers of the #AoIR2019: The 20th Annual Conference of the Association of Internet Researchers, Brisbane, Australia, October, 2019.
- Neda Paryab, Alexander Sachs, Andrew Li, Meiyappan Nagappan and Jesse Hoey. Relating Values and Social Network Structure. International Conference on Computational Social Science (IC2S2), Amsterdam, July, 2019.
- Jesse Hoey, Tobias Schroeder, Jonathan H. Morgan, Kimberly B. Rogers and Meiyappan Nagappan Affective Dynamics and Control in Group Processes. Proceedings of ICMI workshop on Group Interaction Frontiers in Technology, Denver, CO, 2018.
- Mina Nouredanesh, Wenkai Li, Alan Godfrey, Jesse Hoey and James Tung Chasing feet in the wild: A proposed egocentric motion-aware gait assessment tool. Proceedings of Sixth International Workshop on Assistive Computer Vision and Robotics, Munich, Germany, 2018
- Moojan Ghafurian and Jesse Hoey Improving Engagement Through Emotional Alignment. HCIXDementia Workshop at CHI, Montreal, 2018
- Deepak Rishi, Meiyappan Nagappan, Tobias Schroeder, Kimberly Rogers and Jesse Hoey. Emotion and Interaction Processes in a Collaborative Online Network. International Conference on Computational Social Science, Chicago, USA, July 2018
- Kimberly B. Rogers, Mei Nagappan, Tobias Schroeder and Jesse Hoey. Theoretical and Empirical Modeling of Identity and Sentiments in Collaborative Groups. Refereed abstract, XIX ISA World Congress of Sociology, July, 2018, Toronto, Canada.
- Joshua D.A. Jung and Jesse Hoey Computational Affective Model of Human Action in a Social Dilemma. International Conference on Computational Social Science, Cologne, Germany, 2017
- David Choi and Robert Freeland Occupational Social Status Modeling with Affect Control Theory. International Conference on Computational Social Science, Cologne, Germany, 2017

- Abhinav Dhall, Roland Goecke, Shreya Ghosh, Jyoti Joshi, Jesse Hoey and Tom Gedeon. From Individual to Group-Level Emotion Recognition: EmotiW 5.0 *Proc. International Conference on Multimodal Interaction (EmotiW Workshop)*, Glasgow, Scotland, November, 2017
- Julie M. Robillard, Aaron W. Li, Shilpa Jacob, Dan Wang, Xin Zou, and Jesse Hoey. Co-Creating Emotionally Aligned Smart Homes Using Social Psychological Modeling. *Proc. 4th international Workshop on Sensor-based Activity Recognition and Interaction (iWOAR)*, Rostock, Germany, September, 2017.
- Jyoti Joshi, Alexandra Konig, Zhengkun Shang, Julie M Robillard, Linda E. Francis and Jesse Hoey. Affectively Aligned Assistive Technology for Persons with Dementia. *Society for Affective Science : Affective Computing Pre-Conference*, Boston, MA, 2017.
- Julie M Robillard, Areej Alhothali, Sunjay Varma and Jesse Hoey Intelligent and Affectively Aligned Evaluation of Online Health Information for Older Adults. *AAAI Workshop on Health Intelligence*, San Francisco, CA, 2017.
- Abhinav Dhall and Jesse Hoey. First Impressions-Predicting User Personality from Twitter Profile Images. In *Proc. 7th International Workshop on Human Behavior Understanding*, Amsterdam, NL, 2016
- Abhinav Dhall, Roland Goecke, Jyoti Joshi, Jesse Hoey and Tom Gedeon. EmotiW 2016: Video and Group-Level Emotion Recognition Challenges. *Proc. International Conference on Multimodal Interaction (EmotiW Workshop)*, Tokyo, Japan, November, 2016
- Sarah Mennicken, Amy Hwang, Rayoung Yang, Jesse Hoey, Alex Mihailidis and Elaine M. Huang Smart for Life: Designing Smart Home Technologies that Evolve with Users. *Proceedings of CHI*, Seoul, South Korea, 2015

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## Research Grants

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### Principal Investigator/Co-Investigator (Current and Recently Completed)

- Waterloo Interdisciplinary Trailblazer Award **05/2022-14/2024**  
PI: *NEATO: Narrative Engagement for Adoption of Technology by Older Adults*  
amount: \$80,000
- European Commission Horizon Europe Framework Programme (HORIZON) **07/2022-06-2026**  
Collaborator, *Peripheral Biomarker Based Combinatorial Early Diagnostics for Dementia*  
PI: Stefan Teipel, University of Rostock, Germany  
amount \$2,823,000 EUR total grant (\$0 at Waterloo)
- National Sciences and Engineering Council of Canada (NSERC) *Discovery Grant* **05/2022-04/2027**  
Principal Investigator: *SOUCl: Socially Sustainable Artificial Intelligence*  
amount: \$29,000/year (\$145000 total) CAD
- Waterloo AI Institute AI for Social Good Research Grant **01/2022-12/2026**  
PI: *Employment that Cares: Leveraging AI to enhance job matches for family caregivers and potential employers.*  
amount: \$140,000
- Social Sciences and Humanities Research Council (SSHRC) Insight Grant **05/2021-04/2023**  
Co-I, *Examining the paradox of smart homes under the contemporary lens of surveillance theory*  
PI: Shehroz Khan, TRI/UofT.  
amount: \$86,614 (held at Toronto)
- Networks of Centres of Excellence (NCE) **04/2020 - 03/2023**  
Network Investigator. *DISRUPT: Designing Innovative Social Robots through end-User ParTicipation*  
PIs: Julie Robillard (UBC), Jesse Hoey and Francois Michaud (Sherbrooke)  
amount: \$ 549,654 CAD.
- Huawei Technologies Canada Inc. **03/2018-06/2019**  
Principal Investigator: *EMUSE: Emotionally Motivated User Experience*  
amount: \$127,187 CAD

- Networks of Centres of Excellence (NCE) **04/2018 - 03/2020**  
Network Investigator. *EMOTEC: Emotion in Technology for Caring*  
PIs: Jesse Hoey, Julie Robillard (UBC)  
amount: \$ 256,100 CAD.
- American Alzheimer's Association *Everyday Technologies for Alzheimer's Care* **06/2018-05/2021**  
co-Investigator: *A Virtual Interaction Training Guide as a Quality of Life Intervention*  
Principal Investigator: Linda Francis, Cleveland State University  
amount: \$ 149915 USD (Waterloo: \$ 21,240 USD)
- Trans-Atlantic Platform (NSERC and SSHRC) *Digging into Data Challenge* **03/2017-02/2020**  
Principal Investigator and Overall Project Lead: *THEMIS.COG: Theoretical and Empirical Modeling of Identity and Sentiments in Collaborative Groups*  
Co-Investigators: Mei Nagappan (Waterloo), Kimberly B. Rogers (Dartmouth College, USA), Tobias Schröder, Potsdam Univ. of Applied Sciences, Germany  
amount: \$ 199,504 CAD (total grant amount across all partners ≈ \$ 800,000 CND)
- National Sciences and Engineering Council of Canada (NSERC) *Discovery Grant* **05/2016-04/2021**  
Principal Investigator: *ATSA-ESI: Assistive Technology Supporting Aging with Emotional and Social Intelligence*  
amount: \$43,000/year (\$215000 total) CAD
- Networks of Centres of Excellence (NCE) **04/2015 - 03/2019**  
Co-Investigator. *Aging gracefully across environments using technology to support wellness, engagement, and long life (AGE-WELL).*  
Nominated PI: Mihailidis, Alex. PI: Sixsmith, Andrew.  
Co-Investigators: Jesse Hoey and 48 others.  
amount: \$36,605,194 CAD.
- American Alzheimer's Association *Everyday Technologies for Alzheimer's Care* **01/2015-05/2019**  
co-Investigator: *Affective and Cognitive Technologies for Assistance in the Home ACT@HOME*  
amount: \$199,600 USD

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## Teaching Experience

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**Guest lecturer, Fachhochschule Potsdam (Potsdam University of Applied Sciences) April-June 2015.**  
*Intiflex* course "Huch, das System zeigt Emotionen! Ein Forschungsprojekt zum Thema Ambient Assisted Living"

**Instructor, School of Computer Science, University of Waterloo 2011-**

- 2022 (Fall term): COGSCI600 (Introduction to Cognitive Science)
- 2022 (Spring term): CS486/686 (Introduction to Artificial Intelligence, 2 sections)
- 2021 (Fall term): CS886 (Affective Computing)
- 2020 (Winter term): CS486/686 (Introduction to Artificial Intelligence, 2 sections)
- 2019 (Winter term): CS486/686 (Introduction to Artificial Intelligence, 2 sections)
- 2018 (Fall term): COGSCI600 (Introduction to Cognitive Science)
- 2018 (Winter term): CS486/686 (Introduction to Artificial Intelligence, 2 sections)
- 2017 (Winter term): CS886 (Affective Computing)
- 2016 (Winter term): CS886 (Affective Computing)
- 2015 (Fall term): CS486 (Introduction to Artificial Intelligence, 2 sections)
- 2014 (Winter term): CS886 (Affective Computing)
- 2013 (Spring term): CS486 (Introduction to Artificial Intelligence, 2 sections)

- 2013 (Winter term): CS486 (Introduction to Artificial Intelligence)
- 2013 (Winter term): CS793 (Health Informatics II)
- 2012 (Fall tem): CS135 (Designing Functional Programs)
- 2012 (Winter term): CS793 (Health Informatics II)
- 2012 (Winter term): CS116 (Introduction to Computer Science 2)
- 2011 (Winter term): CS793 (Health Informatics II)
- 2011 (Winter term): CS486 (Introduction to Artificial Intelligence)

**Instructor, School of Computing, University of Dundee**

**2006-2009**

- 2009: AC1002 (Information Technology I)
- 2008: AC51022 (Logical and Symbolic Artificial Intelligence)
- 2008: AC51024 (Signals and Images)
- 2008: AC2202 (Information Technology II).
- 2008: AC1002 (Information Technology I)
- 2007: AC51022 (Logical and Symbolic Artificial Intelligence)
- 2007: AC51024 (Signals and Images)
- 2006: AC51022 (Logical and Symbolic Artificial Intelligence)
- 2006: AC51024 (Signals and Images)

**Instructor, Department of Computer Science, UBC**

**2001, 2002**

- 2002: CS210 Software Construction (C++)
- 2001: CS210 Software Construction (C++)

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**Training and Supervision**

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**Research Personnel Trained (past 5 years)**

- Zahra Sheikhbahae, School of Computer Science, University of Waterloo  
Postdoctoral Research Assistant: *THEMIS project* **11/2018-present**
- Moojan Ghafurian, School of Computer Science, University of Waterloo  
Postdoctoral Research Assistant: *American Alzheimer's Assoc. Project* **02/2018-09/2020**
- Quentin Roy, School of Computer Science, University of Waterloo  
Postdoctoral Research Assistant: *Huawei. Project* **03/2018-01/2020**
- Jyoti Joshi, School of Computer Science, University of Waterloo  
Postdoctoral Research Assistant: *American Alzheimer's Assoc. Project* **01/2017-12/2017**
- Abhinav Dhall, School of Computer Science, University of Waterloo  
Postdoctoral Research Assistant: *American Alzheimer's Assoc. Project* **01/2017-12/2017**

**Graduate Students Supervised (primary or co-supervisor, past 5 years)**

- Phd Students
  - Kyle Tilbury, School of Computer Science, University of Waterloo  
PhD student **01/2019-**
  - Aarti Malhotra, School of Computer Science, University of Waterloo  
PhD student **09/2018-**
  - Josh Jung, School of Computer Science, University of Waterloo  
PhD student **09/2016-**

- Areej Alhothali, School of Computer Science, University of Waterloo  
PhD student 05/2012-09/2017
- Shehroz Khan, School of Computer Science, University of Waterloo  
PhD student 09/2010-03/2016
- Master's students (showing 13 of 20)
  - Christopher Risi, School of Computer Science, University of Waterloo  
Master's student 05/2022-
  - Renee Leung, School of Computer Science, University of Waterloo  
Master's student 09/2021-
  - Blake Vanberlo, School of Computer Science, University of Waterloo  
Master's student 09/2020-
  - Ethan Ward, School of Computer Science, University of Waterloo  
Master's student 01/2020-12/2021
  - Alex Yun, School of Computer Science, University of Waterloo  
Master's student 09/2018-08/2020
  - Nalin de Zoysa, School of Computer Science, University of Waterloo  
Master's student 09/2018-04/2020
  - Neil Budnarain, School of Computer Science, University of Waterloo  
Master's student 09/2018-09/2020
  - David Choi, School of Computer Science, University of Waterloo  
Master's student 09/2016-09/2020
  - Rahul Iyer, School of Computer Science, University of Waterloo  
Master's student 09/2017-08/2019
  - Alexander Sachs, School of Computer Science, University of Waterloo  
Master's student 09/2016-08/2019
  - Yuwei Jiao, School of Computer Science, University of Waterloo  
Master's student 09/2016-11/2018
  - Deepak Rishi, School of Computer Science, University of Waterloo  
Master's student 09/2015-12/2017
  - Zhengkun Shang, School of Computer Science, University of Waterloo  
Master's student 09/2015-08/2017
  - Dan Wang, School of Computer Science, University of Waterloo  
Master's student 09/2015-08/2017
  - Josh Jung, School of Computer Science, University of Waterloo  
Master's student 09/2014-08/2016
- **Undergraduate Research Students Supervised (primary supervisor)**
- **NSERC USRA**
  - Zhou, Raymond 2021/05/08
  - McGregor, Benn 2021/04/25
  - Tao, Zhuofu 2019/04/23
  - Feng, Steven 2018/12/20
  - Tchorni, Daniel 2018/04/30
  - Ananthkrishnan, Nivasini 2018/04/27

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## Professional Activities

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- Editor-in-Chief, IEEE Transactions on Affective Computing. 2023-
- Associate Editor, IEEE Transactions on Affective Computing. 2019-2022

Senior Program Committee member, International Conference on Multimodal Interaction, **2022**

Advisory Board Member, RADAR-AD ACTA Consortium Activities of daily living and underlying cognitive status as revealed by information and communication technology operating at home in seniors with preclinical or prodromal Alzheimer's disease **2017-**

Scientific Advisor, Syngli Inc., Waterloo, CA **2020-**

Scientific Advisor, CodeGem Inc., Waterloo, CA **2021-**

Scientific Advisor, Kroop.ai, Melbourne, AU **2021-**

Scientific Advisor, Tulay.ca, Waterloo, CA **2022-**

Immediate Past Chair, Technology Professional Interest Area, Alzheimer's Association International Society to Advance Alzheimer's Research and Treatment (ISTAART), **2017-2019**

Program Chair, 10th EAI International Conference on Pervasive Computing Technologies for Healthcare, Cancun, **2016**

Chair, Technology Professional Interest Area, Alzheimer's Association International Society to Advance Alzheimer's Research and Treatment (ISTAART), **2014-2017**

Vice Chair, Technology Professional Interest Area, Alzheimer's Association International Society to Advance Alzheimer's Research and Treatment (ISTAART), **2013-2014**

Programs Chair, Technology Professional Interest Area, Alzheimer's Association International Society to Advance Alzheimer's Research and Treatment (ISTAART), **2011-2013**

Senior Program Committee member, ACM International Joint Conference on Pervasive and Ubiquitous Computing, **2013**

Senior Program Committee member, Alzheimer's Association International Conference (AAIC) **2012**

Senior Program Committee member, International Conference on Pervasive Computing, **2012**

Co-Chair, Workshop on *Machine Learning for Assistive Technology*, Neural Information Processing Systems Conference, Whistler, BC, **2010**

Program Chair, British Machine Vision Conference (BMVC), Dundee, UK, **2011**

Area Chair, International Joint Conferences on Artificial Intelligence (IJCAI), **2019-2023**

Senior Program Committee member/Area Chair, Association for Advancement of AI (AAAI) Conference, **2011,2013,2015,2018-2023**

Co-Chair, Medical Image Understanding and Analysis Conference (MIUA), Dundee, UK, **2008**

Organising Committee, AAAI Fall Symposium on AI in Eldercare, Washington, USA, **2008**

Grant Reviewer: American Alzheimer's Association, NSERC, CIHR, NSF, Chief Scientist Office (Scotland).

Reviewer for major computer science journals.

Program committee member and reviewer for major international conferences in machine learning, artificial intelligence, affective computing and human-computer interaction

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## Recent Invited Talks

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**Keynote Talk.** ICT4AWE International Conference on Information and Communication Technologies for Aging Well and e-Health, 22 April 2022 *“Emotional Identity in Assistive Technology for Aging”*

**Keynote Talk.** AI Superstream: Using Machine Learning to Understand Behavior around Climate Change. O'Reilly Media. 769 attendees. Feb 23, 2022

**Invited Talk.** Round Four Digging into Data Challenge Conference. NSF, Arlington, VA, Jan. 2020.

**Keynote talk.** BBdiag Workshop, Rostock, Germany. June 17, 2019.

**Invited talk.** The Wes Graham Symposium, Recognizing Excellence Summit. University of Waterloo. June 13, 2019.

**Invited talk.** The Nature of Experiment Conference, University of Waterloo. April 8th, 2019.

**Invited talk.** at Microsoft Research, Montreal, December 17, 2019. talk video: <https://youtu.be/g1IeqfDays8>

**Invited Talk** at the Vector Institute Machine Learning seminar, Oct 26th, 2018. talk video: <https://www.youtube.com/watch?v=2g6jCZdo0uE&t> and interview: <https://www.youtube.com/watch?v=m55VrRrMzUA>

**Keynote Speech** at the 4th international Workshop on Sensor-based Activity Recognition and Interaction (iWOAR), Rostock, Germany, September 21, 2017 *“Smarter Smart Homes with Social and Emotional Intelligence”*.

**Invited Talk** at the *“Leveraging Advances in Social Network Thinking for National Security”* workshop, a component of the National Academies of Sciences, Medicine and Engineering *“Decadal Survey”* in the social and behavioural sciences, Washington, DC, October 11, 2017.

**Keynote Speech** at the Dartmouth ACT Conference on Modeling Social Interactions: New Directions in Affect Control Theory, Dartmouth College, Hanover, NH, USA, June 22, 2017.

**Invited Talk** Google Waterloo, April 5th, 2017 *“Affective Computing in Socio-Technical Systems”*.

NIH/Smart Environment Research Center (SERC) **Distinguished Speaker** on Health-Assistive Smart Environments, Washington State University, Pullman, WA, Oct. 20th, 2015. *“Socio-Emotional Alignment for Cognitive Assistive Technologies”*.

**Keynote speech** at the 9th International Conference on Pervasive Computing Technologies for Healthcare Workshop on Adaptive Treatments and Therapies (WATTS), Istanbul, Turkey, May 20, 2015 *“Affective Reasoning and Cognitive Assistive Technologies”*.

**Keynote speech** at the 8th International Conference on Ubiquitous Computing & Ambient Intelligence (UCAmI 2014) and the 6th International Work-conference on Ambient Assisted Living (IWAAL 2014), Belfast *“General-purpose assistance in health and education”*.

Research Seminar, T.U. Delft, Netherlands, Nov. 10th, 2014 *“Bayesian affect control theory: a POMDP model of human affective interaction”*.

Research Seminar, INRIA, Sophia-Antipolis, France, Sept 5th, 2014 *“General-Purpose Cognitive Assistive Technologies”*.

Research Seminar, Duke University, Dept. of Sociology, Durham, NC, May 29, 2014, *“Affect Control, Affective Computing, and the dawn of the new AI”*.

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## Citizenship

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Canadian

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## Languages

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Completely fluent in written and spoken English and French.

February, 2023