Jennifer N. Boger PhD, PEng

CURRICULUM VITAE as of January 18, 2024

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EDUCATION

DEGREES

2014	PhD., Life and Health Sciences, University of Ulster, Jordanstown, United Kingdom. Supervisors: Dr. S. Martin and Dr. G. Kernohan
2004	MASc., Biomedical Engineering, Institute of Biomaterials and Biomedical Engineering, University of Toronto, Toronto, Ontario, Canada. Supervisor: Dr. G. Fernie
2002	BSc., Biological Engineering, School of Engineering, University of Guelph, Guelph, Ontario, Canada.

QUALIFICATIONS, CERTIFICATIONS AND LICENSES

Professional Engineer, Professional Engineers Ontario, Ontario, Canada (Licence #100119230)

Tech Stewardship Practice Program, Tech Stewardship Network

EMPLOYMENT

2021 - present	**CSO**, ESG.AI Technologies, Vancouver, BC, Canada.
2021 - present	**Adjunct Professor**, School of Health and Exercise Sciences, University of British Columbia (Okanagan), Kelowna, BC, Canada
2021 - present	**Adjunct Assistant Professor,** Department of Systems Design Engineering, Faculty of Engineering, University of Waterloo, Waterloo, ON, Canada
2021 - present	**Research Scientist**, Research Institute for Aging, Waterloo, ON, Canada
2016 - 2020	**Assistant Professor**, Department of Systems Design Engineering, Faculty of Engineering, University of Waterloo, Waterloo, ON, Canada
2016 - 2020	**Schlegel Chair in Technology for Independent Living**, Research Institute for Aging, Waterloo, ON, Canada
2016 - 2016	**Postdoctoral Fellow**, Department of Occupational Science and Occupational Therapy, Faculty of Medicine, University of Toronto, Toronto, ON, Canada
2004 - 2016	**Research Manager**, Intelligent Assistive Technology and Systems Lab (IATSL), Department of Occupational Science and Occupational Therapy, Faculty of Medicine, University of Toronto, Toronto, ON, Canada
2015 - 2016	**Scientific Associate**, Toronto Rehabilitation Institute, Toronto, ON, Canada
2011 - 2016	**Manager**, AI & Robotics Research team, Toronto Rehabilitation Institute, Toronto, ON, Canada
2004 - 2015	**Research Associate**, Toronto Rehabilitation Institute, Toronto, ON, Canada
2001	**Engineering Intern**, HATCH, Brisbane, Australia
1999 - 2000	**Research Assistant**, Bone Biology Research Lab, Samuel Lunenfeld Research Institute, Mount Sinai Hospital, Toronto, ON, Canada

CROSS-APPOINTMENTS AND AFFILIATIONS

2021 - present	**Researcher (affiliated)**, Designing for People Research Network, University of British Columbia
2017 - present	**Assistant Professor (cross-appointed)**, School of Public Health and Health Systems, University of Waterloo, Waterloo, ON, Canada
2017 - present	**Scientist (affiliated)**, AI & Robotics group, Toronto Rehabilitation Institute, University Health Network (UHN), Toronto, ON, Canada
2016 - present	**Investigator and member,** AGE-WELL National Centre of Excellence, Canada

SCHOLARLY AND PROFESSIONAL ACTIVITIES

ACADEMIC TEACHING

2019 (Jan-Apr)   **Course instructor**, *Biomedical Engineering Ethics (BME381)*, University of Waterloo.

2019 (Jan-Apr)   **Course instructor**, Fundamentals of assistive technology and rehabilitation engineering (SYDE 750-001), University of Waterloo.

2018 (May-Aug)   **Course instructor**, Ambient technologies for supporting health, wellbeing, and quality of life (SYDE 740-003), University of Waterloo.

2018 (Jan-Apr)   **Course instructor**, *Biomedical Engineering Ethics (BME381)*, University of Waterloo.

2018 (Jan-Apr)   **Course developer/instructor**, Fundamentals of assistive technology and rehabilitation engineering (SYDE 750-003), University of Waterloo.

This co-created graduate level course introduced students to key concepts in assistive technology and rehabilitation engineering and was the first of its kind at the University of Waterloo.

2017 (Sep-Dec)   **Course instructor**, Ambient technologies for supporting health, wellbeing, and quality of life (SYDE 740-003), University of Waterloo.

2017 (Jan-Apr)   **Course instructor**, *Biomedical Engineering Ethics (BME381)*, University of Waterloo.

2016   **Course developer**, *Biomedical Engineering Ethics (BME381)*, University of Waterloo. Undergraduate level course.

Created the first offering of *Biomedical Engineering Ethics*, which is a core course for the Biomedical Engineering program and unique to the University of Waterloo. This highly interactive and interdisciplinary course blended philosophy with engineering to challenge students to explore and engage with ethical considerations related to Biomedical Engineering.

2015 - 2016   **Course co-coordinator**, Applied Skills and Technology: Human Factors and Design in Occupational Therapy (OCT1100H), University of Toronto. Core graduate level course.

MEMBERSHIP IN ACADEMIC / PROFESSIONAL SOCIETIES

2019 - present   **Member**, IEEE

2017 - present   **Member**, Association for Computing Machinery (ACM)

2008 - present   **Member**, Rehabilitation Engineering and Assistive Technology Society of North America (RESNA)

2008 - present   **Member**, Association of Professional Engineers Ontario

2010 - 2013   **Member**, Ontario Society of Professional Engineers

OTHER MEMBERSHIPS

2018 - present   **Member,** Games Institute

2017 - present   **Member**, Waterloo Artificial Intelligence Institute (Waterloo.ai)

2016 - present   **Member**, Centre for Bioengineering and Biotechnology

2016 - present   **Member**, Network for Aging Research

2014 - present   **Member**, Aging2.0 | Toronto Chapter

2021 - 2023   **Mentor**, *The Zero Experience* Innovative Leaders Program

2010 - 2019   **Member**, Emerging Health Leaders

COMMITTEES

Present Committees

International Conference on Data Mining (ICDM)

2017 - present   **Member**, Program Committee of the Data Mining for Aging, Rehabilitation and Independent Assisted Living (ARIAL) Workshop

Rehabilitation Engineering and Assistive Technology Society of North America (RESNA)

2021 - present   **Member**, Governance Affairs Committee

2013 - present   **Member**, Standards Committee on Cognitive Technologies

2019 - present   **Member**, Board of Directors

2018 - present   **Member**, Conference Organisation Committee

Technology, Mind & Society Conference

2021 - present   **Member**, Program Committee

Standards Council of Canada (SCC)

2018 - present   **Member**, Canadian Mirror Committee to the International ISO Technical Committee on Ageing Societies (MC/ISO/TC 314)

University of Waterloo

2018 - present   **Co-Chair,** Council of Responsible Innovation and Technology

2018 - present   **Member,** Advisory Committee, Network for Aging Research (NAR)

2017 - present   **Member**, Human Research Ethics Committee

2017 - present	**Member**, Operations Committee, Centre for Bioengineering and Biotechnology (CBB)
2017 - present	**Member**, Steering Committee, BIOMEDInnov (Innovation in Education and Entrepreneurship in Biomedical Engineering)

Past Committees

Festival of International Conferences on Caregiving, Disability, Aging & Technology (FICCDAT)

2007	**Member**, Planning Committee

International Conference on Intelligent Environments

2017	**Member**, Programme Committee
2016	**Member**, Programme Committee
2015	**Member**, Programme Committee

International Conference on Technology and Aging (ICTA)

2011	**Member**, Planning Committee
2007	**Member**, Planning Committee

Persuasive Technology 2018

2018	**Co-Chair**, Doctoral Consortium

Rehabilitation Engineering and Assistive Technology Society of North America (RESNA)

2017 - 2020	**Member**, Membership Marketing and Communication Committee
2013 - 2020	**Chair,** Student Scientific Paper Competition
2013 - 2019	**Member**, Meetings Committee
2015 - 2016	**Member**, Student Engagement Committee
2010 - 2016	**Member**, Research Committee
2013 - 2016	**Member**, Awards Committee
2012 - 2015	**Chair**, Website Committee
2012 - 2014	**Member,** Board of Directors
2009 - 2011	**Chair**, Sensory and Cognition Special Interest Group

RehabTech Asia 2013

2013	**Member**, International Advisory Committee

Toronto Rehabilitation Institute / University Health Network

2012 - 2016	**Member**, Research Ethics Board

EDITORIAL ACTIVITIES

Journals

2018 June - present	**Member, Editorial Board.** Journal of Rehabilitation and Assistive Technologies Engineering.
2018 Apr - present	**Member, Editorial Board**. Disability and Rehabilitation: Assistive Technology.
2018 Feb	Article Editor (invited), *SAGE Open*
2015 - present	**Member, Review Board**. International Journal of Mobile Human Computer Interaction (IJMHCI).

REVIEW ACTIVITIES

Granting / funding initiatives

AGE-WELL NCE (scientific member, project review committee; reviewer, SIP and Catalyst grant programs; reviewer, graduate/postdoc awards program)

Alzheimer's Association (reviewer, research granting program)

Alzheimer Society (reviewer, research granting program)

Centre for Bioengineering and Biotechnology (seed fund grant program)

Israel Science Foundation (external reviewer, individual research grant program)

Ministry of Health, Singapore (external reviewer, health services research grant)

Mitacs (reviewer, Accelerate internship granting program)

NSERC (reviewer, Discovery Grant program)

Università degli studi di Milano-Bicocca (external reviewer, postdoctoral research award)

Journal and conference submissions

Advancement of Artificial Intelligence - AAAI (paper reviewer)

Aging Health (paper reviewer)

Alzheimer's Association (paper reviewer)

Alzheimer's Association International Conference (abstract reviewer)

American Journal of Alzheimer's Disease (paper reviewer)

ARIAL@IJCAI 2018 (paper reviewer)

Assistive Technology (paper reviewer)

BMC Medical Informatics and Decision Making (paper reviewer)

Canadian Journal on Aging (paper reviewer)

CHI 2015, 2018, 2019, 2020 (paper reviewer)

Digital Health (paper reviewer)

Disability and Rehabilitation (paper reviewer)

Disability and Rehabilitation: Assistive Technology (paper reviewer)

Gerontechnology (paper reviewer)

IEEE Journal of Biomedical and Health Informatics (paper reviewer)

IEEE Engineering in Medicine & Biology Society (EMBC) (paper reviewer)

IEEE Transactions on Information Technology in BioMedicine (paper reviewer)

IEEE Transactions on Mechatronics (paper reviewer)

International Conference on Data Mining 2017 (ICDM'17) (paper reviewer)

International Conference on Intelligent Environments 2015, 2016 (paper reviewer)

International Conference on Technology and Aging – ICTA (workshop and paper reviewer)

International Journal of Human-Computer Studies (paper reviewer)

International Journal of Mobile Human Computer Interaction (paper reviewer)

International Journal of Qualitative Studies in Health & Well-being (paper reviewer)

Journal of Medical Internet Research (paper reviewer)

Journal of NeuroEngineering and Rehabilitation (paper reviewer)

Mobile Networks and Applications: Special issue on Pervasive Healthcare (paper reviewer)

Neuropsychological Rehabilitation (paper reviewer)

OTJR: Occupation, Participation and Health (paper reviewer)

Pervasive Computing Technologies for Healthcare (paper reviewer)

Persuasive Technology 2018 (doctoral consortium paper reviewer)

Conference on Pervasive Technologies Related to Assistive Environments - PETRA (paper reviewer)

Rehabilitation Engineering and Assistive Technology Society of North America - RESNA (instructional course, workshop, poster, and paper reviewer)

Science and Engineering Ethics (paper reviewer)

Systematic Reviews (paper reviewer)

Systems (paper reviewer)

SCHOLARSHIPS / AWARDS

August 2016
CIHR Postdoctoral Fellowship Award ($120,000 CAD), *Canadian Institutes of Health Research (CIHR)*
Awarded to complete research titled "A cognitive computing tool for family members to identify products that support their community-based dementia caregiving needs"

2014
Certificate of Appreciation for efforts and contributions as a member of the BOD, *Rehabilitation Engineering and Assistive Technology Society of North America (RESNA)*

2012 - 2013
Dobbin Scholarship ($7000 CAD), *Ireland Canada University Foundation*
Awarded to complete research titled "Collaborative international interdisciplinary development of intelligent assistive technologies for supporting well-being in the home"

2011
Rookie of the Year Award, Rehabilitation Engineering and Assistive Technology Society of North America (RESNA)

2011
Certificate of Appreciation for two years as SIG Chair, *Rehabilitation Engineering and Assistive Technology Society of North America (RESNA)*

2011
Certificate of Appreciation for efforts and contributions to the Website Redesign Committee, *Rehabilitation Engineering and Assistive Technology Society of North America (RESNA)*

2010
Certificate of Appreciation for efforts and contributions to the SIG Reorganisation Committee, *Rehabilitation Engineering and Assistive Technology Society of North America (RESNA)*

RESEARCH FUNDING

COMPETITIVE FUNDNG

2023 Sept – 2024 Sept
Co-Investigator & funding recipient. "Dementia International expert Group on Interactive Technology". JPND Working Group (CAD portion funded by CIHR). Lead coordinator: Brankaert, R. 78,000 CAD.

2023 Jan – 2024 Sept
Co-Investigator. "Intuitive cueing system that supports independence and adapts to individual user's changing needs over time". Longitude Prize on Dementia. PIs: Brankaert, R., Astell, A. 80,000 GBP (approx. 135,000 CAD).

2023 Apr - 2025 Mar
Collaborator. "Co-create virtual reality with patients, families, staff, decision-makers, and industry to achieve inclusivity and sustainability". New Frontiers in Research Fund – Exploration (NFRFE). PI: Hung, L. 200,000 CAD.

2022 Sept – 2027 Aug
Co-Applicant. "Critical by Design: Fostering Responsible Innovation with Critical Design Methods". SSHRC Insight Grant. PI: O'Gorman, M. 290,586 CAD.

2022 Mar – 2024 Mar	**Co-Principal Investigator.** "Virtual Reality: A relevant, safe, trusted and co-created platform with older adults". New Frontiers in Research Fund – Exploration (NFRFE). Co-PI: Jakobi, J. 249,973 CAD.
2022 Jan – 2026 Dec	**Principal Investigator**. "Empowering Caregivers: Leveraging AI to optimise the alignment of the needs of caregiver employees and their employers". waterloo.ai/ Scotiabank AI Social Good. Co-Investigator: Hoey, J. Co-applicants: Fast, J. and Kondo, K. 200,000 CAD.
2022 Jan – 2027 Dec	**Co-Investigator.** "Developing and Implementing Governance and Algorithms for the PATH (Program to Accelerate Technologies for Homecare) Platform". MITACS. PI: Morita, P. 933,333 CAD.
2020 Dec – 2021 Nov	**Investigator**. "Ethical Tech Innovation: Uniting Educational Initiatives and Professional Practice". SSHRC Knowledge Synthesis Grant. PI: Love, H. 30,000 CAD.
2020 Sept – 2020 Dec	**Principal investigator.** "CARE-RATE: An AI-based dynamic online information filtering system". NSERC Idea to Innovation (I2IPJ). 15,000 CAD.
2020 June – 2021 May	**Principal investigator**. Artificial Intelligence for Autonomous Human Monitoring and Activity Recognition for Safety and Health Improvement. Microsoft Canada / Waterloo.ai - AI for Social Good. Co-Investigators: Morita, P., Wong, A. and Shaker, G. 25,000 CAD.
2020 May – 2021 Apr	**Principal investigator.** "Codesigning supports to enhance the wellbeing of persons living with dementia and care partners during COVID-19 and beyond". Network for Aging Research (NAR). Co-PI: McAiney, C. 15,658 CAD.
2020 May – 2021 Apr	**Investigator.** "Understanding and supporting the social connections and digital connectivity of older Canadians during and after the COVID-19 pandemic." Network for Aging Research (NAR). PIs: Trong, C. and Lopez, K. 8,869 CAD.
2020 Jan – 2021 Dec	**Principal investigator.** "Ethical by Design: A Bottom-Up Approach to Fostering a "Tech for Good" Ethos in the Innovation Ecology". UW Trailblazer. Co-PI: O'Gorman, M. 88,500 CAD.
2020 Jan – 2021 Dec	**Collaborator.** "Designing Adaptive Virtual Reality Exergames for People living with Dementia". UW Trailblazer. Co-PIs: Barnett-Cowan, M and Cao, S. 107,000 CAD.
2020 Jan – 2020 Dec	**Co-investigator.** "Cog@Work: Building a supportive and sustainable work ecosystem for workers with dementia & mild cognitive impairment". SSHRC Connection Grant. PI: Josephine McMurray. 16,501 CAD.
2019 Apr – 2023 Mar	**Principal investigator.** "CogWorks: Co-Creating Sustainable Workspaces for Aging Workforces". AGE-WELL 2.0 CRP. Co-PIs: Astell, A. and McMurray, J. (30,000 CAD first year seed fund; years 2020-2023 estimated at 200,000 CAD).
2019 Apr – 2023 Mar	**Collaborator.** PATH: Program to Accelerate Technologies for Homecare. AGE-WELL 2.0 CRP. PI: Geoff Fernie. (30,000 CAD first year seed fund; years 2020-2023 estimated at 200,000 CAD).

2019 Apr – 2023 Mar	**Collaborator**. Enhancing Employability of Older Workers and Family Carers. AGE-WELL 2.0 CRP. PI: Janet Fast. (30,000 CAD first year seed fund; years 2020-2023 estimated at 200,000 CAD).
2019 Jan – 2021 Dec	**Principal investigator.** Ethical by Design: A manifesto to support ethical technology development and use. UW/SSHRC Explore Grant. Collaborators: Tait, M., Doucet, M., Bond, R. and Mulvenna, M. 6,995 CAD.
2019 Jan - 2020 Aug	**Collaborator**. "Bed rest in older adults accelerates "aging-like" changes". Understanding the Health Impact of Inactivity (Operating grant), CIHR. PI: Hughson, R. Collaborators: Amelard, R., Au, J., Beltrame, T., Boscart, V., Costa, A., Duncan, R., Giangregorio, L., Greaves, D., Heckman, G., Ho, J., House, J., Keller, H., Kuepfer, J., Lee, L., Middleton, L., Milligan, J., Wood, K. and Yu, A. 200,000 CAD.
2018 Aug - 2019 July	**Principal investigator.** "Virtual Reality Exergames to Improve Access to Strength and Range of Motion Exercise among People Living with Dementia". Network for Aging Research (NAR). Co-PI: Laura Middleton; Collaborators: Shi Cao, Lora Giangregorio, Michael Barnett-Cowan. 20,000 CAD.
2018 Aug - 2023 July	**Collaborator**, "Biomedical Technology Training Program". NSERC Collaborative Research and Training Experience Program (CREATE). 1,650,000 CAD.
2018 May - 2019 Apr	**Principal investigator.** "The impact of fatigue on EEG-based brain-computer interface (BCI) applications for post-stroke rehabilitation". Centre for Bioengineering and Biotechnology (CBB), Seed Funding Research Grant. Collaborators: Ning Jiang, Shojaeddin Chenouri, and Debbie Hebert. 20,000 CAD.
2018 Apr – 2024 Mar	**Principal Investigator.** "Zero-effort ambient vitals monitoring". NSERC Discovery Grant. 177,500 CAD.
2018 Apr – 2024 Mar	**Co-investigator.** "Dementia or mild cognitive impairment: @ work in progress". Joint Programming Initiative "More Years Better Lives". PIs: Louise Nygård, Anna Mäki-Petäjä-Leinonen, and Arlene Astell. 1,175,890 CAD.
2017 Dec – 2018 Nov	**Co-investigator.** "SHADE - Scalable Heuristics for Assistive Design and Elaboration, Grant, Operating." AGE-WELL NCE Strategic Investment Program (SIP). Workshop grant. PI: Hélène Pigot; Co-investigators: Arlene Astell, Nathalie Bonnardel, Sylvain Giroux. 30,000 CAD.
2017 July – 2019 June	**Principal Investigator.** NSERC Research Incentive Fund. University of Waterloo. 30,000 CAD.
2017 May – 2018 Apr	**Principal investigator.** "Designing assistive technology that cares: Dissemination of knowledge generated by a multidisciplinary workshop to explore the holistic needs of family caregivers and care recipients". CIHR. Planning & Dissemination Grants – ICS. Co-investigators: Janet Fast, Louise Demers, Hélène Pigot, Bill Miller, Ron Beleno. 20,000 CAD.

2017 Apr – 2018 Mar	**Principal investigator.** "Designing assistive technology that cares: Multidisciplinary workshop to explore the holistic needs of family caregivers and care recipients". AGE-WELL NCE Strategic Investment Program (SIP). Workshop grant. Co-investigators: Janet Fast, Louise Demers, Hélène Pigot, Bill Miller, Ron Beleno, Josie d'Avernas. 15,000 CAD.
2015 Apr – 2020 Apr	**Co-principal investigator.** "CARE RATE-an online assistive technology rating system for Caregivers (WP2.3)". AGE-WELL NCE Operating grant. PIs: Frank Rudzciz, Jennifer Boger. Investigator: Jan Polgar. 475,855 CAD.
2012 Sep - 2015 Aug	**Collaborator.** "Toward developing an assistive technology framework for older adults with dementia: A user-centred design approach". Alzheimer Society of Canada. Alzheimer Society Research Program. 120,000 CAD.
2007 Jul - 2011 Jan	**Collaborator.** "Development of an automated system to facilitate creative expression". American Alzheimer Association. ETAC Program. PIs: J. Hoey, A. Mihailidis. Collaborators: J. Boger, L. Young. 196,150 USD.
2007 Jul - 2009 Jun	**Collaborator.** "The efficacy of an intelligent prompting system to develop self-care activities in children with autism". CIHR (IHDCYH)/Hospital for Sick Children. New Investigator Program. PI: A. Mihailidis. Co-investigators: W. Roberts, H. Polatajko, T. Chau. Collaborator: J. Boger. 129,470 CAD.
2012 Sep - 2015 Aug	**Collaborator.** "Toward developing an assistive technology framework for older adults with dementia: A user-centred design approach". Alzheimer Society of Canada. Alzheimer Society Research Program. 120,000 CAD.
2009 Jan - 2009 Dec	**Co-investigator.** "Automated emergency detection and response system". Ontario Research Commercialization Program. TTT Program. PI: A. Mihailidis; Co-investigators: J. Boger, D. Giesbrecht. 15,000 CAD.

NON-COMPETITIVE FUNDING

2017 Apr – 2017 July	**Principal investigator.** Unrestricted educational grant to support the "Designing technology that cares" workshop. SCA/TENA (Industry grant). 17,000 CAD.
2016 Sept - 2021 Aug	**Principal Investigator**. New Faculty Start-up Funds. University of Waterloo. 90,000 CAD.
2016 Sept - 2019 Aug	**Research Chair.** Schlegel Research Chair in Technology for Independent Living. 75,000 CAD.

PUBLICATIONS

BOOKS EDITED

1. Mihailidis, A., **Boger, J.**, Kautz, H. and Normie, L. (2008). Technology and Aging: Selected Papers from the 2007 International Conference on Technology and Aging. IOS Press: Amsterdam, The Netherlands. ISBN: 9781586038151.

MONOGRAPHS

1. **Boger, J.**, Young, V., Hoey, J. Jiancaro, T., and Mihailidis, A. (2018). Zero-Effort Technologies: Considerations, Challenges and Use in Health, Wellness, and Rehabilitation (2nd ed). In R. M. Baecker, (Ed.), *Synthesis Lectures on Assistive, Rehabilitative, and Health-Preserving Technologies*. San Rafael, CA: Morgan & Claypool Publishers.

2. Mihailidis, A., Boger, J., Hoey, J. and Jiancaro, T. (2011). Zero Effort Technologies: Considerations, Challenges and Use in Health, Wellness, and Rehabilitation. In R. M. Baecker, (Ed.), *Synthesis Lectures on Assistive, Rehabilitative, and Health-Preserving Technologies*. San Rafael, CA: Morgan & Claypool Publishers. ISBN: 9781608455195. DOI: 10.2200/S00380ED1V01Y201108ARH002

BOOK CHAPTERS

1. **Boger, J.**, Gentry, T., Martin, S. and Kelley, J. (2023). Understanding the End-User. In A. Mihailidis and R. O. Smith (Eds.), *Rehabilitation Engineering: Principles and Practice*. Boca Raton, USA: CRC Press.

2. Ghafurian, M., Munoz, J., **Boger, J.**, Hoey, J. and Dautenhahn, K. (2022). Socially Interactive Agents for Supporting Aging. In B. Lugrin, C. Pelachaud and D. Taum (Eds.), *Handbook on Socially Interactive Agents: 20 years of Research on Embodied Conversational Agents, Intelligent Virtual Agents, and Social Robotics Volume 2: Interactivity, Platforms, Application*. New York, USA: Association for Computing Machinery.

3. Muñoz, J., Montoyab, M. and **Boger, J.** (2021). From exergames to immersive virtual reality systems: Serious games for supporting older adults. In M.-A. Choukou and S. Syed-Abdul (Eds.), *Smart Home Technologies and Services for Geriatric Rehabilitation.* London, United Kingdom: Elsevier.

4. **Boger, J.**, Mulvenna, M., Moorhead, A., Krul, J., Bond, R. and Jutai, J. (2019). Ethical issues in technology for dementia. In A. Astell, S. Smith and P. Joddrell (Eds.), *Using Technology in Dementia Care: A Guide to Technology Solutions for Everyday Living*. London, United Kingdom: Jessica Kingsley Publishers.

5. Chang, S. J. I., **Boger, J.**, Qiu, J. and Mihailidis, A. (2017). Pervasive computing and ambient physiological monitoring devices. In B. Bouchard (Ed.), *Smart Technologies in Healthcare*. Boca Raton, FL: CRC Press.

6. Mihailidis, A., Wang, R. and **Boger, J.** (2017). Gerontechnology. In H. Fillit, K. Rockwood and J. Young (Eds.), *Brocklehurst's Textbook of Geriatric Medicine and Gerontology (8th edition)*. Philadelphia, PA: Elsevier.

7. **Boger, J.** and Mihailidis, A. (2015). Assistive Technology for Psychomotor Functioning and Sequencing Complex Movements. In B. O'Neill and A. Gillespie (Eds.), *Assistive Technology for Cognition*. London, UK: Psychology Press.

8. Mihailidis, A., **Boger, J.**, Czarnuch, S., Nagdee, T. and Hoey, J. (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 J.C. Augusto et al. (Eds.), *Handbook of Ambient Assisted Living: Technology for Healthcare, Rehabilitation and Well-being*. Amsterdam, The Netherlands: IOS Press.

9. Adlam, T., Carey-Smith, B., Evans, N., Orpwood, R., **Boger, J.** and Mihailidis, A. (2009). Implementing Monitoring and Technological Interventions in Smart Homes for People with Dementia: Case Studies. In B. Gottfried and H. Aghajan (Eds.), *Behaviour Monitoring and Interpretation - BMI: Smart Environments*. Amsterdam, The Netherlands: IOS Press, ISBN: 978-1-60750-048-3.

REPORTS, DESGIN GUIDES, AND INVITED ARTICLES

1. Kawano, L., Marple, R., Beleno, R., Wilson, M., Krul, J., Dunn-Ridgeway, H., Sears, T., Caston, A., Reinstein, J. and **Boger, J.** (2022). Designing to Include Dementia & Personhood: A guide for designers and developers who are creating inclusive products for people living with dementia. Research Institute for Aging.

2. Love, H., Lajoie, J. and **Boger, J**. (2021). Ethical Tech Innovation: Uniting Educational Initiatives and Professional Practice. Knowledge Synthesis Report for the Social Sciences and Humanities Research Council & Government of Canada's Future Skills.

3. **Boger, J.** (2013). "Intelligent" LTC Environments: Coming Soon To A Facility Near You! *Long Term Care Magazine*, Summer 2013, 15-16.

4. Mihailidis, A., **Boger, J.**, Lockton, V. and Chibba, M. (2010). Sensors and In-Home Collection of Health Data: A Privacy by Design Approach. Report prepared in collaboration with the Information and Privacy Commissioner, Ontario, Canada.

5. Mihailidis, A. and **Boger, J.** (2009). How engineers are helping seniors with dementia stay at home. *Journal of Policy Engagement, 1*(4), 2-8. (Invited article).

REFEREED JOURNAL CONTRIBUTIONS

1. Astell, A., Kokorelias, K., Marashi, S., Nedlund, A-C., Mäki-Petäjä-Leinonen, A., Issakainen, M., Nygård, L. and **Boger, J.** (in review). Technology for Supporting People with Dementia or Mild Cognitive Impairment in the Workplace: A Scoping Review. *New Technology, Work and Employment (NTWE)*.

2. Basharat, A., Mehrabi, S., Muñoz, J., Middleton, L., Cao, S., **Boger, J.** and Barnett-Cowan, M. (2023). Virtual reality as a tool to explore multisensory processing before and after engagement in physical activity. *Frontiers in Aging Neuroscience, 15,* 1207651.

3. Lotto, M., Hanjahanja-Phiri, T., Padalko, H., Oetomo, A., Butt, Z., **Boger, J.**, Millar, J., Cruvinel, T. and Morita, P. (2023). Ethical principles for infodemiology and infoveillance studies concerning infodemic management on social media [Perspective]. *Frontiers in Public Health, 11*, 1130079.

4. Sakamoto, M., Guo, Y., Wong, K., Mann, J., Berndt, A., **Boger, J.**, Currie, L., Raber, C., Egeberg, E., Burke, C., Sood, G., Lim, A., Yao, S., Phinney, A. and Hung, L. (2023). Co-design of a digital app "WhatMatters" to support person-centred care: A critical reflection. *International Journal of Geriatric Psychiatry*, *38*(10), e6014.

5. Muñoz, J., Ali, F., Basharat, A., Mehrabi, S., Barnett-Cowan, M., Cao, S., Middleton, L. and **Boger, J.** (2023). Development of classifiers to determine factors associated with older adult's cognitive functions and game user experience in VR using head kinematics. *IEEE Transactions on Games, early access,* 1-9.

6. Ysseldyk, R., Morton, T., Haslam, C., Haslam, A., **Boger, J.**, Giau, E., MacDonald, E., Matharu, A. and McCoy, M. (2023). You've Got E-Mail: A Pilot Study Examining the Feasibility and Impact of a Group-Based Technology-Training Intervention Among Older Adults Living in Residential Care. *Canadian Journal on Aging / La Revue Canadienne Du Vieillissement, 1-12, online*.

7. Nygård, L., Nedlund, A-C., Mäki Petäjä Leinonen, A., Astell, A., Boger, J., Issakainen, M., Engvall, A-L., Heuchemer, B., Rosenberg, L. and Ryd, C. (2023). What happens when people develop dementia whilst working? An exploratory multiple case study. *International Journal of Qualitative Studies in Health & Well-being, 18*(1), online.

8. Pfisterer, K., Amelard, R., **Boger, J.**, Keller, H., Chung, A. and Wong, A. (2022). Enhancing Food Intake Tracking in Long-term Care With Automated Food Imaging and Nutrient Intake Tracking (AFINI-T) Technology: Validation and Feasibility Assessment. *JMIR Aging, 5*(4), e37590.

9. Abedi, H., Ansariyan, A., Morita, P., Wong, A., Boger, J., & Shaker, G. (2023). AI-Powered Non-Contact In-Home Gait Monitoring and Activity Recognition System Based on mm-Wave FMCW Radar and Cloud Computing. *IEEE Internet of Things Journal*, early access.

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Workshop organisation

1. Chu, C.H., Sixsmith, A., Bryanton, O., Sixsmith, J. and **Boger, J.** (2023). AgeTech and the Ethical imperative (Symposium). GSA 2023 Annual Scientific Meeting. Nov 8-12 2023. Tampa, FL.

2. **Boger, J.**, Chu, C., Sixsmith, A. and White, B. (2023). Working towards culture change and ethical design thinking in the AgeTech sector. AGE-WELL, Oct 24-26, Toronto, ON.

3. **Boger, J.**, Chu, C.H., Fang, M., Rubeis, G., Sixsmith, A. and Sixsmith, J. (2022). "Less ageist and more responsible": Igniting culture change in the design, development, and use of ethical AgeTech. AGE-WELL, Oct 18-20, Regina, SK.

4. **Boger, J.**, Smith, E. and Beleno, R. (2022). Engaging in Interdisciplinary Assistive Technology Research and Development for Non-Researchers, Researchers, and Everyone in Between. RESNA, July 12-14, online.

5. **Boger, J.** (2019). Leveraging 'Ethical by Design' Principles to Support Human-AI Best Practices. Workshop presented at AI for Good Global Summit, UN, May 28-31, Geneva, Switzerland.

6. **Boger, J.** (2018). Ethical by design. Workshop presented at Fluxible, Sept 21, Waterloo, ON.

7. **Boger, J.** and Astell, A. (2018). DATCares: Developing AT with informal care partners. Workshop presented at Rehabilitation Engineering and Assistive Technology Society of North America (RESNA), July 15-18, Arlington, VA.

8. Lazar, A., Toombs, A., Morrissey, K., Kenning, G., **Boger, J.** and Brankaert, R. (2018). HCIxDementia Workshop: Engaging People Living with Dementia. CHI 2018, April 21-26, Montreal, ON.

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10. Chang, I. and **Boger, J.** (2017). Zero-effort ambient vitals monitoring. Workshop presented at Rehabilitation Engineering and Assistive Technology Society of North America (RESNA), June 28-30, New Orleans, LA.

11. **Boger, J.**, Pigot, H., Miller, B., Fast, J., Demers, L., Plante, M., Rosa-Fortin, M-M, Lockner, D., and Beleno, R. (2017). Designing assistive technology that cares: Dissemination of knowledge generated by a multidisciplinary workshop to explore the holistic needs of family caregivers and care recipients. June 7-9, Waterloo, ON.
    Lead planning and execution of three-day long workshop with 40 participants from multiple disciplines and sectors from across Canada.

12. Morrissey, K., Lazar, A., **Boger, J.** and Toombs, A. (2017). HCIxDementia: The Role of Technology and Design in Dementia. Workshop presented at CHI 2017, May 6-11, Denver, CO.

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Symposia

1. **Boger, J.** (2019). For us, with us, and by us: Engaging carers in collaborative technology development. Canadian Association on Gerontology (CAG 2019), Oct 25-27, Moncton, NB.

2. **Boger, J.**, Atoyebi, O. and Leslie, M. (2018; Convener). Caregiver-centred design of gerontechnologies for supporting unpaid care in the community. 11th World Conference of the International Society for Gerontechnology (ISG2018), May 7-11, St. Petersburg, FL.

3. **Boger, J.** and Eales, J. (2017). Designing technology that cares: Elements of technology that support carer's needs and the care recipient-carer relationship. Canadian Association on Gerontology (CAG 2017), Oct 19-21, Winnipeg, MB.

4. Fast, J., Strickfaden, M., Dalle, R., **Boger, J.** and Kim, C. (2017). Assistive technologies for carers: Pathways to innovation. 7th International Carers Conference, Oct 4-6, Adelaide, Australia.

5. **Boger, J.** (2017, invited). A village within a city: Technology's role in creating community hubs to support aging. WEiRED Symposium and Workshop, June 14 & 15, Waterloo, ON.

Conference papers, oral presentations, and posters

1. **Boger, J.** (2023). Leveraging an 'Ethical by Design' Approach to Create more Inherently Responsible Technology to Support Aging. GSA 2023 Annual Scientific Meeting. Nov 8-12, Tampa, FL.

2. Abedi, H., Ansariyan, A., Morita, P., **Boger, J.**, Wong, A. and Shaker, G. (2022). In-Home Activity Monitoring Using Radars, 8th Annual Conference on Vision and Intelligent Systems (CVIS 2022), Dec 6-7, Waterloo, ON.

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4. **Boger, J.** (2022). Culture Change, Human-centred Design, and Ethical by Design as Transactional Cornerstone Concepts in the Development of Technology for Supporting Aging. 15th International Conference on PErvasive Technologies Related to Assistive Environments (PETRA), Jun 29–Jul 1, Corfu, Greece.

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8. Abedi, H., Morita, P., **Boger, J.**, Wong, A. and Shaker, G. (2021). In-Package Integrated Dielectric Lens Paired with a MIMO mm-Wave Radar for Corridor Gait Monitoring. 2021 IEEE International Symposium on Antennas and Propagation, Dec 4-10, Singapore.

9. McMurray, J., Kokorelias, K., Levy, AM., James, K., Reis, L., **Boger, J.** and Astell, A. (2021). Employers' Response to Workers With Progressive Cognitive Impairment: A Systematic Literature Review. GSA 2021, Nov 10-14, Phoenix, AZ.

10. McMurray, J., Levy, AM., Reis, L., Kokorelias, K., **Boger, J.** and Astell, A. (2021). Employers' Response to Workers With Progressive Cognitive Impairment: A Review of Policy in Canada. GSA 2021, Nov 10-14, Phoenix, AZ.

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22. Lopez, K., Tong, C., Whate, A. and **Boger, J.** (2021). "It's a whole new, way of, doing things": Digitality and leisure as resistance in a time of physical distance. Poster presented at the NAR Conference on Aging, COVID-19 and the Adoption of Health Technology, Mar 24-25, online.

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24. Neti, S., Kirakalaprathapan, A., Lee, J. and **J. Boger**. (2020). SmartDrive: A self-assessment app to steer the conversation about safe driving for older adults. ISG Gerontechnology, Oct 7-9, online.

25. Marashi, S., **Boger, J.**, Shastri, K., Dove, E. and Astell, A. (2020). MCI@Work: Developing a customizable digital tool to support people living with MCI and early-onset dementia with task-management in the workplace. ISG Gerontechnology, Oct 7-9, online.

26. Neti, S., Lee, J., Bach, V. and **Boger, J.** (2020). Am I Safe to Drive? A Digital Tool for Supporting Self-Assessment of Driving Ability. Rehabilitation Engineering and Assistive Technology Society of North America (RESNA), Sept 23-24, online. **Winner - Best student paper award.**

27. Marashi, S., Astell, A., Mäki-Petäjä-Leinonen, A., Nedlund, A-C, Nygård, L. and **Boger, J.** (2020). Identifying Features and Functions of a Work-management App for Supporting People with Early Onset Dementia/ Mild Cognitive Impairment. Rehabilitation Engineering and Assistive Technology Society of North America (RESNA), Sept 23-24, online.

28. Aravamuthan, A., Muñoz , J., Fischer, K., Chandra, S., **Boger, J.** and Dautenhahn, K. (2020). Exploring the role of social robots in intergenerational gameplay. Rehabilitation Engineering and Assistive Technology Society of North America (RESNA), Sept 23-24, online.

29. Khoshroo, P, Muñoz, J., **Boger, J.** and McPhee, J. (2020). Games for Robot-assisted Upper-limb Post-stroke Rehabilitation: A Participatory Co-Design with Rehabilitation Therapists. Rehabilitation Engineering and Assistive Technology Society of North America (RESNA), Sept 23-24, online.

30. Li, Y., Muñoz, J., Mehrabi, S., Middleton, L., Cao, S. and **Boger, J.** (2020). Multidisciplinary Iterative Design of Exergames (MIDE): A Framework for Supporting the Design, Development, and Evaluation of Exergames for Health. International Conference on Human-Computer Interaction (HCII2020), July 19-24, Copenhagen, Denmark.

31. Neti, S., Lee, J. and **Boger, J.** (2020). Exploring different feedback styles of performance in a self-assessment application for older adult drivers. Persuasive Technology, April 20-23, online.

32. Hodge, J., Foley, S., Brankaert, R., Kenning, G., Lazar, A., **Boger, J.** and Morrissey, K. (2020). Relational, Flexible, Everyday: Learning from Ethics in Dementia Research. CHI 2020, Apr 25-30, Honolulu, HI.

33. Muñoz, J., Cao, S. and **Boger, J**. (2019). Kinematically Adaptive Exergames: Personalizing Exercise Therapy Through Closed-Loop Systems. AIVR 2019, Dec 9-11 San Diego, CA.

34. Bond, R., Mulvenna, M., Wan, H., Finlay, D., Wong, A., Koene, A., Brisk, R. **Boger, J.** and Adel, T. (2019). Human Centered Artificial Intelligence: Weaving UX into Algorithmic Decision Making. **Keynote paper**. RoCHI 2019, Oct 17-18, Bucharest, Romania.

35. Malik, A., Pilon, L. and **Boger, J.** (2019). Development of a Smart Seat Cushion for Heart Rate Monitoring Using Ballistocardiography. 17th IEEE International Conference on Embedded and Ubiquitous Computing, Aug 1-3, New York, NY.

36. Shastri, K., **Boger, J.**, Flora, P., Astell, A., Nedlund, A., Karjalainen, K., Mäki-Petäjä-Leinonen, A. and Nygård, L. (2019). A CTA-DCD Model to Determine Design Requirements for Technology to Support People with Mild Cognitive Impairment / Dementia at Work. CogSci2019, 24-29 July, Montreal, QC.

37. Chang, I. S., Armanfard, N., Javaid, A. Q., **Boger, J.** and Mihailidis, A. (2019). Unobtrusive Detection of Changes in Systolic Blood Pressure Using RJ-interval of Healthy Adults with Potential Application in Orthostatic Hypotension and Supine Hypertension. IEEE Engineering in Medicine and Biology Society (EMBC), July 23-27, Berlin, Germany.

38. Malik, A. and **Boger, J.** (2019). Detection of Ballistocardiogram-based Heartrate for Different Activities Captured Using a Prototype Portable Seat Cushion. Rehabilitation Engineering and Assistive Technology Society of North America (RESNA), June 24-28, Toronto, ON. **Winner - Best student paper award.**

39. Wei, J. and **Boger, J.** (2019). Exploring the Role of Wrist Temperature in Sleep Monitoring: Findings from Case Studies. Rehabilitation Engineering and Assistive Technology Society of North America (RESNA), June 24-28, Toronto, ON. **Runner up - Best student paper award.**

40. Muñoz, J., Li, Y., Middleton, L., Cao, S. and **Boger, J.** (2019). Interactive exergames to promote physical activity in people living with dementia. Rehabilitation Engineering and Assistive Technology Society of North America (RESNA), June 24-28, Toronto, ON.

41. Shastri, K., Marashi, S., **Boger, J.**, Flora, P., Astell, A., Nedlund, A., Karjalainen, K., Mäki-Petäjä-Leinonen, A. and Nygård, L. (2019). Determining needs for technology for people with MCI/dementia at work: a human factors approach. Rehabilitation Engineering and Assistive Technology Society of North America (RESNA), June 24-28, Toronto, ON.

42. Bond, R., Koene, A., Dix, A., **Boger, J.**, Mulvenna, M., Galushka, M., Waterhouse Bradley, B., Browne, F., Wang, H. and Wong, A. (2019). Democratisation of Usable Machine Learning in Computer Vision. CVPR, June 16-21, Long Beach, CA.

43. Pfisterer, K., **Boger, J.** and Wong, A. (2019). Food for thought: Ethical considerations of user trust in computer vision. CVPR, June 16-21, Long Beach, CA.

44. Wei, J. and **Boger, J.** (2019). You Are How You Sleep: Personalized Sleep Monitoring Based on Wrist Temperature and Accelerometer Data. Paper presented at the PervasiveHealth, May 20-23, Trento, Italy.

45. Morita, P., Rocha, A., Shaker, G., Lee, D. Wei, J., Fong, B., Thatte, A., Karimi, A., Xu, L., Ma, A., Wong, A., and **Boger, J.** (2019). Comparison of Gait Speed Estimation of Multiple Sensor-based Technologies. 2019 International Symposium on Human Factors and Ergonomics in Health Care, Mar 25-27, Chicago, USA.

46. Lee, T., **Boger, J.**, Mulvenna, M. and Bond, R. (2018). Teaching Ethical Design in the Era of Autonomous and Intelligent Systems, VIII World Engineering Education Forum and X Global Engineering Deans Council (WEEF-GEDC 2018), Nov 12-16, Albuquerque, NM.

47. **Boger, J.**, Eales, J., Lockner, D. and Auty, M. (2018). From lived experiences to actionable knowledge: Examples of knowledge products inspired by the Designing Assistive Technology that Cares workshop. Canadian Association on Gerontology (CAG). Oct 18-10, Vancouver, BC.

48. Eisapour, M., Cao, S. and **Boger, J.** (2018). Game Design for Users with Constraint: Exergame for Older Adults with Cognitive Impairment, ACM Symposium on User Interface Software and Technology (UIST), Oct 14–17, Berlin, Germany.

49. Nygård, L., Mäki Petäjä Leinonen, A., Astell, A., Nedlund, A., **Boger, J.**, Heimonen, S., Rosenberg, L., Ylhäinen, M., Karjalainen, K., Kottorp, A., Ryd, C., and Issakainen, M. (2018). Dementia or mild cognitive impairment: @ work in progress. 28th Alzheimer Europe Conference, Oct 29-31, Barcelona, Spain.

50. Wei, J., Zhang, J. and **Boger, J.** (2018). What Wrist Temperature Tells Us When We Sleep Late: A New Perspective of Sleep Health. UIC 2018: The 15th IEEE International Conference on Ubiquitous Intelligence and Computing, Oct 8-12, Guangzhou, China.

51. Eisapour, M., **Boger, J.**, Domenicucci, L. and Cao, S. (2018). Virtual Reality Exergames for People Living with Dementia Based on Exercise Therapy Best Practices, Human Factors and Ergonomics Society Annual Meeting, Oct 1-5, Philadelphia, PA. **Winner - Best student paper award.**

52. Boroomand, A., Wei, J., **Boger, J.**, Shaker, G., Wong, A. and Morita, P. (2018). Autonomous Tracking of Older Adults' Normal and Slow Walking Speeds Using 24GHz Radar. 2nd Workshop on AI for Aging, Rehabilitation and Independent Assisted Living (ARIAL) at International Joint Conference on Artificial Intelligence (IJCAI), July 13-19, Stockholm, Sweden.

53. Demers, L., Fast, J., Mortenson, W.B., Routhier, F., Auger, C., Ahmed, S., **Boger, J.**, Rudzicz, F., Plante, M., Eales, J., Pysklywec, A (2018). Developing innovative interdisciplinary technological solutions for caregivers of older adults within Canada's technology and aging network, 12th ISPRM World Congress, July 8-12, Paris, France.

54. Wambua, M., Raimondo, S., **Boger, J.**, Polgar, J., Chinaei, H. and Rudzicz, F. (2018). Interactive search through iterative refinement, Second International Workshop on Conversational Approaches to Information Retrieval (CAIR18), at ACM SIGIR Conference on Research and Development in Information Retrieval, July 8-12, Ann Arbor, MI.

55. Hussein, T., **Boger, J.**, and Rudzicz, F. (2018). The Impact of Design on Feelings of Trust of Online Information for Family Caregivers of People with Dementia. British Computer Society 32nd Human Computer Interaction Conference (BHCI-2018). 2-6 July, Belfast, UK.

56. Chen, M., Fu, D., **Boger, J.** and Jiang, N. (2018). Aging Effects on the Performance of a Brain-computer Interface. Paper at the 2018 ACCES23-CMBEC41 Joint Conference, May 8-11, Charlottetown, PEI.

57. Chauhan, P., **Boger, J.**, Hussein, T., Moon, S., Rudzicz, F. and Polgar, J. (2018). Creating the CARE-RATE interface through multi-modal participatory design with caregivers of people with dementia. Presentation at the 11th World Conference of the International Society for Gerontechnology (ISG2018), May 7-11, St. Petersburg, FL.

58. Eisapour, M., Cao, S., Domenicucci, L. and **Boger, J.** (2018). Participatory Design of a Virtual Reality Exercise for People with Mild Cognitive Impairment. Paper/case study presented at ACM CHI Conference on Human Factors in Computing Systems (CHI 2018), Apr 21-26, Montreal, QC.

59. Eisapour, M., **Boger, J.**, Domenicucci, L. and Cao, S. (2018). Persuasive VR Design for Motivating Exercise for People Living with Dementia. Poster presented at Persuasive Technology 2018, April 16-19, Waterloo, ON.

60. Lau, B., Haider, S., Boroomand, A., Shaker, G., **Boger, J.**, Wong, A. and Morita, P. (2018). Gait speed tracking system using UWB radar. Paper and poster presentation at 12th European Conference on Antennas and Propagation (EUCAP), Apr 9-13, London, United Kingdom. **IEEE student competition finalist.**

61. Boroomand, M., Shaker, G., Morita, P., Wong, A. and **Boger, J.** (2018). Autonomous gait speed estimation using 24GHz FMCW radar technology. Poster presentation at IEEE International Conference on Biomedical and Health Informatics, Mar 4-7, Las Vegas, NV.

62. Denomme, L., Bruyn-Martin, L., Dash, D. and **Boger, J.** (2017). Caring is more than providing care: Lessons Learned from the "Designing Assistive Technology that Cares (DAT Cares) Workshop. Oral presentation at This is Long Term Care, November 27-29, Toronto, ON.

63. **Boger, J.**, Eisapour, M., Domenicucci, L. and Cao, S. (2017; invited). Design of Virtual Reality Exergame to Promote Upper-Body Movement for Older Adults with Dementia. Paper presented at the 11th Conference on Rehabilitation Engineering and Assistive Technology Society of Korea (RESKO), Nov 9-11, Goyang, South Korea.

64. **Boger, J.**, Miller, B. and Beleno, R. (2017). Designing technology that cares: Outcomes from the DATcares workshop. AGE-WELL, Oct 17-19, Winnipeg, MB.

65. Mulvenna, M., **Boger, J.** and Bond, R. (2017). Ethical by Design - A Manifesto. 35th European Conference on Cognitive Ergonomics (ECCE 2017), Sep 20-22, Umeå, Sweden.

66. Pearce, S., **Boger, J.**, Mrachacz-Kersting, N., Farina, D. and Jiang, N. (2017). Evaluating the Effectiveness of different External Cues on Non-Invasive Brain-Computer Interfaces. IEEE Engineering in Medicine and Biology Society (EMBC'17), July 11-15, Jeju Island, Korea.

67. **Boger, J.**, Rudzicz, F., Chinaei, H., Jónasdóttir, S. K., Wambua, M. and Polgar, J. (2017). CARE-RATE: Initial development of an artificially intelligent online tool for connecting caregivers to relevant support. Rehabilitation Engineering and Assistive Technology Society of North America (RESNA), June 28-30, New Orleans, LA.

68. Doering, R., Polgar, J., Rudzicz, F. and **Boger, J.** (2017). Designing CARE-RATE: An Online Assistive Tool for Dementia Caregivers. Paper presented at the HCIxDementia: The Role of Technology and Design in Dementia workshop, CHI 2017, May 6-11, Denver, CO.

69. **Boger, J.**, Polgar, J., Rudzicz, F. and Jónasdóttir, S. (2016). CARE-RATE: An artificially intelligent online resource for caregivers of persons with dementia. Canadian Association on Gerontology (CAG2016), Oct 20-22, Montreal, ON.

70. Chinaei, H., **Boger, J.**, Jónasdóttir, S., Polgar, J. and Rudzicz, F. (2016). Designing and Building CARE-RATE: A Cognitive Computing System for Caregivers. AGE-WELL, Oct 18-20, Montreal, ON.

71. Polgar, J., Rudzicz, F., and **Boger, J.** (2016). CARE-RATE: An online resource system for caregivers of persons with dementia. International Society for Gerontechnology (ISG), Sept 28-30, Nice, France.

72. Wang, R., Viswanathan, P., Czarnuch, S., **Boger, J.**, Nejat, G. and Mihailidis, A. (2013). Developing advanced assistive technologies for older adults with dementia: Lessons learned. Poster presented at Rehabilitation Engineering and Assistive Technology Society of North America (RESNA), June 22-24, Bellevue, WA.

73. **Boger, J.**, Wang, R. and Taati, B. (2012). Interdisciplinary Development of Intelligent Rehabilitation Technologies. Oral presentation at the International Conference on NeuroRehabilitation, Nov. 14-16, Toledo, Spain.

74. Taati, B., **Boger, J.**, Snoek, J. and Mihailidis, A. (2012). Assessment of product use by older adults with dementia: Automated Video Analysis. Presentation given at the Alzheimer's Association International Conference (AAIC), July 14-19, Vancouver, BC.

75. **Boger, J.**, Taati, B. and Mihailidis, A. (2012). Assessing the Usability of Water Taps by Older Adults with Dementia. Poster presented at the Alzheimer's Association International Conference (AAIC), July 14-19, Vancouver, BC.

76. **Boger, J.**, Taati, B. and Mihailidis, A. (2012). Assessment of product use by older adults with dementia: Defining and analysing usability. Poster presented at the Alzheimer's Association International Conference (AAIC), July 14-19, Vancouver, BC.

77. Quraishi, M., Turcotte, N., Dunal, L. and **Boger, J.** (2011). An assessment tool to identify assistive technologies used to support community-dwelling older adults with dementia. Poster presented at the Festival of International Conferences on Caregiving, Disability, Aging, and Technology, June 5-11, Toronto, ON.

78. Czarnuch, S., **Boger, J.** and Mihailidis, A. (2011). COACH@Home: An ambient assistive living technology for people with dementia. Presentation to the Festival of International Conferences on Caregiving, Disability, Aging, and Technology (FICCDAT), June 5-11, Toronto, ON.

79. Flagg, A., **Boger, J.** and Mihailidis, A. (2011). An intelligent toothbrush: Machines for Smart Brushing. Poster presented to the Festival of International Conferences on Caregiving, Disability, Aging, and Technology (FICCDAT), June 5-11, Toronto, ON.

80. Lu, E., Wang, R., **Boger, J.**, Hebert, D. and Mihailidis, A. (2011). Development of a rehabilitation robot: National differences in therapist practice. Presentation given to the Festival of International Conferences on Caregiving, Disability, Aging, and Technology (FICCDAT), June 5-11, Toronto, ON.

81. Bimbrahw, J., **Boger, J.**, Monroy, V. and Mihailidis, A. (2010). The Development of an Automated Prompting System to Help Teach Children with Autism Spectrum Disorder Self-Care Activities. Poster presented at the 2010 Geneva Centre for Autism International Symposium, Nov 3-5, Toronto, ON.

82. **Boger, J.**, Turcotte, N., Quraishi, M. and Dunal, L. (2010) Assistive Technologies Used to Support Occupations by Community-dwelling Older Adults with Dementia and Informal Caregivers. Poster presented to the International Society for Gerontechnology conference, May 27-30, Vancouver, BC.

83. Hoey, J., Richards, B., Blunsden, S., Burns, J., Bartindale, T., Jackson, D., Olivier, P., **Boger, J.** and Mihailidis, A. (2009). ePAD: Engaging Platform for Art Development. Paper presented at the International Joint Conference on Artificial Intelligence (IJCAI) 2009 workshop on Intelligent Systems for Assisted Cognition, July 11-17, Pasadena, CA, USA.

84. Blunsden, S., Richards, B., Bartindale, T, Jackson, D., Olivier, P., **Boger, J.**, Mihailidis, A. and Hoey, J. (2009). Design and prototype of a device to engage cognitively disabled older adults in visual artwork. Proceedings of the ACM 2nd International Conference on Pervasive Technologies Related to Assistive Environments (PETRA), June 9-13, Corfu, Greece.

85. Kalales, D., Ribaille, C., **Boger, J.**, Monroy, V. and Mihailidis, A. (2008). Prompting strategies used to develop handwashing skills in children with autism spectrum disorder (ASD). Poster presented at the Geneva Centre for Autism International Symposium, Oct 22-24, Toronto, ON.

86. Mihailidis, A., **Boger, J.**, Fenton, K., Craig, T. and Li, Z. (2008). The impact of familiarity on the usability of everyday products for older adults with Alzheimer's disease. Poster presented at the 11th International Conference on Alzheimer's Disease and Related Disorders (ICAD), July 26-31, Chicago, IL.

87. von Bertoldi, A., Hoey, J., Fenton, K., **Boger, J.** and Mihailidis, A. (2007). Autonomous guidance through handwashing using a partially observable Markov decision process model. Paper presented at the 2nd International Conference on Technology and Aging (ICTA), June 16-19, Toronto, ON.

88. Viswanathan, P., **Boger, J.**, Hoey, J. and Mihailidis, A. (2007). A comparison of stereovision and infrared as sensors for an anticollision powered wheelchair for older adults with cognitive impairments. Paper presented at the 2nd International Conference on Technology and Aging (ICTA), June 16-19, Toronto, ON.

89. Hoey, J., von Bertoldi, A., Fenton, K., **Boger, J.** and Mihailidis, A. (2007). Autonomous guidance of handwashing for people with dementia using a partially observable Markov decision process. Paper presented at the 2nd International Conference on Technology and Aging (ICTA), June 16-19, Toronto, ON.

90. **Boger, J.**, Beach, C., Snoek, J., Mitz, A. and Mihailidis, A. (2007). Identifying the risk of falling: An artificially intelligent tool to support a deployable falls prevention program for older adults. Poster presented at the 2nd International Conference on Technology and Aging (ICTA), June 16-19, Toronto, ON.

91. Kan, P., Boutilier, C., Hebert, D., Hoey, J., Mihailidis, A. and **Boger, J.** (2007). The preliminary development of a POMDP controller for upper-limb stroke rehabilitation. Poster presented at the 2nd International Conference on Technology and Aging (ICTA), June 16-19, Toronto, ON.

92. Li, Z., **Boger, J.** and Mihailidis, A. (2007). The usability of water faucets for older adults with and without dementia: How important is familiarity? Poster presented at the 2nd International Conference on Technology and Aging (ICTA), June 16-19, Toronto, ON.

93. Li, Y., Pavri, S., **Boger, J.**, Mihailidis, A. and Fernie, G. (2007). Pedestrian behaviours at signalized crosswalk – the effect of temperature and time of day. Poster presented at the 2nd International Conference on Technology and Aging (ICTA), June 16-19, Toronto, ON.

94. Viswanathan, P., **Boger, J.**, Hoey, J., Elinas, P., Little, J., Mackworth, A. and Mihailidis, A. (2007). An intelligent powered wheelchair to enable mobility in older adults with cognitively impairments. Robotics for Society, Cognitive Science Conference, Vancouver, BC.

95. Wilson, R., **Boger, J.**, Mihailidis, A. and Rochon, E. (2006). Determining successful communication strategies during interactions between Alzheimer patients and formal caregivers. Poster presented at Celebrating Innovations in Health Care Expo, April 19-20, Toronto, ON.

96. **Boger, J.**, Poupart, P., Hoey, J., Boutilier, C., Fernie, G. and Mihailidis, A. (2005). A decision-theoretic approach to task assistance for persons with dementia. Paper presented at the Nineteenth International Joint Conference on Artificial Intelligence (IJCAI), Edinburgh, Scotland, 1293-1299.

97. **Boger, J.**, Poupart, P., Mihailidis, A. and Fernie, G. (2003). Using a POMDP controller to guide persons with dementia through activities of daily living. Poster presented at 5th International Conference on Ubiquitous Computing (UbiComp), Oct 12-15, Seattle, WA, pp. 219-220.

98. Mihailidis, A., Carmichael, B., **Boger, J.** and Fernie, G. (2003). An intelligent environment to support aging-in-place, safety, and independence of older adults with dementia. Paper presented at the Fifth International Conference on Ubiquitous Computing (UbiComp), Oct 12-15, Seattle, WA.

INVITED PRESENTATIONS / LECTURES

1. **Panel member.** (Nov 2023). Biotechnology and aging. BioTech. Toronto, ON.

2. **Guest lecture**. (Nov 2023). ESG and Technology. *Corporate Responsibility in Construction (CEMT 5800)*. University of Colorado at Denver, Denver, CO.

3. **Guest lecture.** (Sept 2023). Approaches to AT development. *The Future of Assistive Technology: Theory and Practice (RHSC 506)*. UBC, Vancouver, BC.

4. **Webinar**. (Jan 2023). Designing to Include Dementia and Personhood, AGE-WELL, Jan 25, online.

5. **Presenter.** (Oct 2022). Get hands on: Designing to Include Dementia and Personhood. AGE-WELL, Oct 18-20, Regina, SK.

6. **Presenter**. (Oct 2022). Creating Solutions With & For the People Who Use Them (User-centered Empathic Design). AGE-WELL, Oct 18-20, Regina, SK.

7. **Panel member.** (Dec 2021). Using AI To Establish Sustainably Trustworthy And Responsible Research And Innovation. IEEE Symposium Series on Computational Intelligence (IEEE SSCI 2021), online.

8. **Guest lecture.** (Nov 2021). "I am more than my vital signs!" Technology to support dementia. *Dementia Care (HLTH 427/627)*. University of Waterloo, Waterloo, ON.

9. **Presenter.** (Nov 2021). Developing Ethical Engineers with Empathy. CEEA IDDEA 2021 Mini-Conference, Online.

10. **Guest lecture**. (Apr 2021). Technologies that work with you: Leveraging human-centred design to create zero-effort technologies. *Interior Design Studio VI - Healthcare (DSGN73160)*. Conestoga College, Waterloo, ON.

11. **Guest lecture**. (Mar 2021). Responsible by Design: What is an engineer's role in developing responsible technology? Undergraduate level course. *Biomedical Engineering Ethics (BME381)*. University of Waterloo, Waterloo, ON.

12. **Guest lecture**. (Mar 2021). You are how you sleep: Using wearables to monitor sleep for different ages and cognition. Undergraduate level course. *Biomedical Engineering Ethics (BME381)*. University of Waterloo, Waterloo, ON.

13. **Guest lecture.** (Mar 2021). You are how you sleep: Using wearables to monitor sleep for different age and cognition. Graduate level course. *Wearable devices (ENGR 423)*. University of British Columbia - Okanagan, Kelowna, BC.

14. **Presenter.** (Mar 2021) From ideation to implementation: A case study in translating advances in research into industry-friendly outcomes. AGE-WELL policy rounds, Toronto, ON.

15. **Keynote.** (Oct 2020). "I am more than my vital signs!" - Leveraging technology to support meaningful aging. ISG 12th World Conference of Gerontechnology. Online.

16. **Panel member.** (Sept 2020). More Than Tech: How Ethics, Law and Policy Play a Major Role in Technology Development. IEEE TechEthics (featured video for October).

17. **Panel member.** (June 2020). Rebooting with Research: Our virtual future. Gateway for Enterprises to Discover Innovation (GEDI), University of Waterloo, Waterloo, ON.

18. **Presenter.** (Jan 2020). Ethical issues in biomedical engineering. BioMedInnov Summer School, University of Waterloo / University, Université de Technologie de Compiègne, Compiègne, France.

19. **Presenter.** (Dec 2019). Zero-effort technologies: Technologies that work with you. EnTech lecture series, University of Waterloo, Waterloo, ON.

20. **Panel member.** (Nov 2019). Unplugging – How to successfully disconnect when you're away from work. FAUW, University of Waterloo, Waterloo, ON.

21. **Guest lecture.** (Oct 2019). Ethical by Design. Graduate level course. *Social Robotics - Foundations, Technology and Applications of Human-Centered Robotics (SYDE 750 / ECE 750)*. University of Waterloo, Waterloo, ON.

22. **Guest lecture.** (Oct 2019). Here to help: Inclusive technologies. Undergraduate level course. *Engineering and Peace (PACS 315)*. University of Waterloo, Waterloo, ON.

23. **Panel member.** (Sept 2019). What's in Store for the Senior Living Sector. ORCAcon, Collingwood, ON.

24. **Keynote.** (Sept 2019). Into the Future: Trends in Technology to Support Ageing. The Hill at Whitemarsh, Philadelphia, PA.

25. **Presenter/mentor.** (July 2019). Ethical by Design. AGE-WELL EPIC Summer Institute, Montebello, QC.

26. **Presenter/mentor.** (July 2019). Creating Solutions With & For the People Who Use Them. AGE-WELL EPIC Summer Institute, Montebello, QC.

27. **Presenter/mentor.** (July 2019). Check it out: Critiquing the Process. AGE-WELL EPIC Summer Institute, Montebello, QC.

28. **Panel member.** (June 2019). Changing the narrative on global ageing: From crisis to opportunity. BIO 2019, Philadelphia, PA.

29. **Presenter and panel member.** (June 2019). Artificial Intelligence for Revolutionizing Mental Health Problems & Rehabilitation in Older Adults. Rehab Week, Toronto, ON.

30. **Mentor.** (June 2019). NSERC-CREATE Training in Biomedical Technology Research and Innovation Hackathon, Waterloo, ON.

31. **Panel member.** (May 2019). Best Practices for Human-AI Interaction. UN AI for Good summit, Geneva, Switzerland.

32. **Guest lecture**. (May 2019). Ethical issues in design and development. New Model in Technology & Engineering (NMiTE), Hereford, UK.

33. **Guest lecture.** (Mar 2019). Fostering Intergenerational Connectivity. Undergraduate/Graduate level course. *Multidisciplinary Perspectives on Aging* (*HLTH/GERON 400; HLTH 620)*, University of Waterloo, Waterloo, ON.

34. **Presenter and invited attendee.** (Apr 2019). Workshop on "Artificial intelligence and health sciences" University of Bordeaux/University of Waterloo, Bordeaux, France.

35. **Webinar.** (Feb 2019). Technologies that work with you: Leveraging human-centred design to create zero-effort technologies. AGE-WELL, online**.**

36. **Panel member.** (Feb 2019). Innovation Panel. Beyond Digital Transformation, Sudbury, ON.

37. **Panel member.** (Nov 2018). Artificial Intelligence: Not just for robots anymore. Science North, Sudbury, ON.

38. **Panel member.** (Oct 2018). What makes for a great research career? Schulich Leader Scholarship Gala, Waterloo, ON.

39. **Presenter and Panel member**. (Oct 2018). Ethical by Design. Waterloo.ai Annual Partners Symposium, Waterloo, ON.

40. **Guest lecture.** (June 2018). Technologies that work for you: Leveraging human-centred design to create zero-effort technologies. *Studio 6 – Healthcare (DSGN 73160)*, Conestoga College, Waterloo, ON.

41. **Presenter**. (June 2018). Ethical issues in biomedical engineering. BioMedInnov Summer School, University of Waterloo / Paris-Sorbonne University, Paris, France.

42. **Scientific Talk.** (Apr 2018). "CARE-RATE: Finding resources that support carers of people living with dementia". TechThatCares (online conference).

43. **Scientific Talk.** (Mar 2018). "Technologies that work for you: Leveraging human-centred design to create zero-effort technologies". TRI research rounds, Toronto, ON.

44. **Guest lecture.** (Mar 2018). Fostering Intergenerational Connectivity. Undergraduate/Graduate level course *Multidisciplinary Perspectives on Aging* (*HLTH/GERON 400; HLTH 620)*, University of Waterloo, Waterloo, ON.

45. **Mentor**. (Jan 2018). Girls in STEAM, Region of Waterloo, Waterloo, ON.

46. **Scientific Talk.** (Nov 2017). Intelligent Technologies for Supporting Health, Wellbeing, and Quality of Life for Aging. Inha University, Incheon, South Korea.

47. **Presenter/mentor**. (Jul 2017). From ideas to implementation: Exploring the design process. AGE-WELL EPIC Summer Institute, Shediac, NB.

48. **Presenter/mentor**. (Jul 2017). Creating solutions with and for the people who use them. AGE-WELL EPIC Summer Institute, Shediac, NB.

49. **Keynote/plenary session.** (Jun 2017). "The Future of Assistive Technology is in Supporting Functional Limitations Caused by Aging (Debate)". Rehabilitation Engineering and Assistive Technology Society of North America (RESNA), June 28-30, New Orleans, LA.

50. **Guest lecture.** (Mar 2017). Fostering Intergenerational Connectivity. Undergraduate/Graduate level course *Multidisciplinary Perspectives on Aging* (*HLTH/GERON 400; HLTH 620)*, University of Waterloo, Waterloo, ON.

51. **Keynote speaker.** (Dec 2016). Intelligent technologies for supporting aging and wellbeing. 17th Annual Human Factors Engineering Inter-University Workshop, Waterloo, ON.

52. **Guest lecture.** (2016). Design for Aging: An Introduction. Undergraduate level course *Introduction to Design (SYDE161/BME161)*, University of Waterloo, Waterloo, ON.

53. **Panel member.** (2015). Women in science. University Health Network, Toronto, ON.

54. **Session keynote.** (2015). Intelligent assistive technologies for supporting people who have dementia. Students Against Alzheimer's at the University of Toronto (SAAUT) annual conference, University of Toronto, Toronto, ON.

55. **Guest lecture.** (2015). Technologies for people with cognitive impairments. Graduate level course *Aging in a Technological World (GERO830)*, Simon Fraser University, Vancouver, BC.

56. **Guest lecture.** (2015). Artificially intelligent technologies for supporting older adults who have dementia. Graduate level course *Cognitive Rehabilitation: Theory and Practice (PSY5221HS)*, University of Toronto, Toronto, ON.

57. **Guest lecture.** (2015). Research in Intelligent Ambient Technologies for Older Adults. Graduate level course *Clinical Engineering Instrumentation II (BME1439)*, University of Toronto, Toronto, ON.

58. **Presenter.** (2015). Unobtrusive monitoring of the physiology and activity of seniors with HF. *Cardiac and Circulatory Physiology Rounds*, Mt. Sinai Hospital, Toronto, ON.

59. **Guest lecture.** (2014). Intelligent technologies for supporting wellbeing. Graduate level course *Technology, Design, and OT (OCT1100)*, University of Toronto, Toronto, ON.

60. **Panel member and mentor.** (2014). #DementiaHack: Hacking to help people with dementia and their caregivers. British Consulate-General Toronto and HackerNest, Toronto, ON.

61. **Guest lecture.** (2014). Creating Intelligent Assistive Technology: A Transdisciplinary Effort. Graduate level course *Clinical Engineering Instrumentation II (BME1439)*, University of Toronto, Toronto, ON.

62. **Guest lecture.** (2013). Research in Rehabilitation and Compensatory Technologies for Older Adults. Graduate level course *Clinical Engineering Instrumentation II (BME1439)*, University of Toronto, Toronto, ON.

63. **Speaker.** (2013). Intelligent Technologies for Supporting Aging-in-place. CARP association meeting, Toronto, ON.

64. **Plenary speaker.** (2012). Intelligent technologies for supporting healthcare in the home. 12th annual eHealth Summit, Muskoka, ON.

65. **Plenary speaker.** (2012). Intelligent technologies for the home. Home & Vehicle Modification Summit, Toronto, ON.

66. **Guest lecture.** (2012). Research in Rehabilitation and Compensatory Technologies for Older Adults. Graduate level course *Clinical Engineering Instrumentation II (BME1439)*, University of Toronto, Toronto, ON.

67. **Speaker.** (2011). Enabling Independence: Supporting Aging with Choice with Intelligent Zero-effort Technologies. On Lok conference on Living with a Chronic Disease, San Francisco, CA.

68. **Speaker.** (2011). Interventions to improve safety for people with Alzheimer's and their caregivers. International Conference on Alzheimer's Disease. Toronto, ON.

69. **Guest lecture.** (2011). Research in Rehabilitation and Compensatory Technologies for Older Adults. Graduate level course *Clinical Engineering Instrumentation II (BME1439)*, University of Toronto, Toronto, ON.

70. **Guest lecture.** (2011). Supporting People with Dementia's Independence. Undergraduate/graduate level course *Human Behavioural Biology (HMB420)*, University of Toronto, Toronto, ON.

71. **Speaker.** (2010). The Development of Intelligent Systems to Support Aging in Place. American Speech-Language-Hearing Association (ASHA), Philadelphia, PA. Co-speaker: A. Mihailidis.

72. **Presenter.** (2010). Considerations for Developing Intelligent Assistive Technologies for Older Adults with Dementia: Lessons Learned Through Real-world Applications. NIPS, Whistler, BC.

73. **Guest lecture.** (2010). Supporting People with Dementia's Independence. Undergraduate/graduate level course *Human Behavioural Biology (HMB420)*, University of Toronto, Toronto, ON.

74. **Plenary speaker and panel member.** (2009) Using Technology to Support Wellness and Aging-in-place; "Can Technology Help Us to Age in Place?" (panel topic), Atlantic Seniors Housing Needs Conference (ASHRA), Halifax, NS.

75. **Plenary speaker.** (2009). The development of artificially intelligent technology to support wellness and aging-in-Place. SPARC & KT-EQUAL workshop, Reading, Reading, United Kingdom.

76. **Guest lecture.** (2009). The Development of Intelligent Systems to Support Wellness and Aging-in-Place. Undergraduate/graduate level course *Human Behavioural Biology (HMB420)*, University of Toronto, Toronto, ON.

77. **Speaker.** (2007). Intelligent Assistive Technology: Using Artificial Intelligence to Support Wellness and Aging-in-Place. Issues in Aging Conference, Detroit, MI.

78. **Speaker.** (2005). Technology for wellness and its application in supporting aging-in-place. 5th Annual KLARU Conference, Toronto, ON.

DISSERTATIONS

Boger, J. (2014). Transdisciplinary development of intelligent assistive technologies to support wellbeing. Ph.D. thesis, University of Ulster, Belfast, United Kingdom.

Boger, J. (2004). Design of a Markov decision process system to guide people with moderate-to-severe dementia through the activity of handwashing. M.A.Sc. thesis, University of Toronto, Toronto, Canada.

MEDIA APPEARANCES

2021 June	"Brain implants could let us see another person's 'deepest secrets' — but should we?" CBC, June 18, 2021.
2021 June	"Ethical questions around neural implant technology". The Current with Matt Galloway, CBC, Radio, June 11, 2021.
2020 May	"Toward More Accessible Work Environments". Society of Women Engineers (online).
2020 Apr	"Powering up: Ways older adults can engage with new technologies". Torstar (online).
2020 Jan	"Designing Solutions for Dementia". Engineering Dimensions, Jan/Feb 2020, 40-46.
2020 Jan	"Jennifer Boger explains how assistive technology is improving people's lives". CGTN.
2018 Feb	"Using VR to help seniors exercise". 6 PM news, CTV Kitchener.
2015 Mar	"AI and Robotics: Toward meeting the rising needs of dementia and caregiving". Radio Regent. Radio interview.
2015 Mar	"Dementia patients may one day get assistance from robot helpers". CBC News. Print article.
2012 Feb	"Jen the Engineer". The Space, TVO Kids. TV segment.
2005 Nov	"Wheelchair Anti-Collision System". Canada AM, CTV. TV segment.

RESEARCH SUPERVISION

POSTDOCTORAL FELLOWS

2019 Apr – 2023 Apr	**Co-supervisor.** Postdoctoral fellow, John Muñoz, University of Waterloo. Serious games and interactive systems for supporting health and wellbeing. ▪ Recipient of AGE-WELL Postdoctoral Award in Technology and Aging (July 2019).
2017 May - 2018 May	**Co-supervisor.** Postdoctoral fellow, Ameneh Boroomand, University of Waterloo. Wireless markerless activity and falls tracking for supporting health and wellbeing in older adults.

PHD THESIS SUPERVISION

2022 Jan – present	**(Primary) Co-supervisor**. PhD. Christopher Risi, Computer Science, University of Waterloo. *Leveraging AI to optimise the alignment of the needs of caregiver employees and their employers*.
2021 Apr - present	**Co-supervisor**. PhD. Alexi Orchard, Department of English Language and Literature, University of Waterloo. *Collaborative Interventions in STEM and the Humanities: Designing an Interdisciplinary Ethics Pedagogy*.
2019 Jan - 2023 Jun	**Co-supervisor**. PhD. Hajar Abedifirouzjaei, SYDE, University of Waterloo. *Autonomous identification and analysis of human motion using millimeter FMCW radar*.
2018 Sept - present	**(Primary) Co-supervisor**. PhD. Sheida Marashi, SYDE, University of Waterloo. *Interface customisation for people with mild cognitive impairment / early onset dementia for supporting workplace task management*.

> ▪ Recipient of AGE-WELL Graduate Award in Technology and Aging (July 2019).

MASTERS THESIS SUPERVISION

2021 Sept - 2023 Sept	**Co-supervisor**. MASc. Yasaman Eskandari, School of Pharmacy, University of Waterloo. *Decisions, decisions: choose-your-own-adventure geriatric case simulations to improve clinical reasoning in Pharmacy education*.
2019 Jan - 2020 Dec	**Co-supervisor**. MASc. Aishwarya Aravamuthan, SYDE, University of Waterloo. *Social robotics for supporting intergenerational interactions through game play*.
2019 Jan - 2020 Dec	**Co-supervisor**. MASc. Parya Khoshroo, SYDE, University of Waterloo. *Development of a stroke rehabilitation robot for supporting pusher syndrome*.
2019 Jan - 2020 Dec	**Primary (sole) supervisor**. MASc. Yirou Li, SYDE, University of Waterloo. *Development of outcome measures for virtual reality games for exercise for older adults living with dementia*.
2018 Sept - 2020 Aug	**Primary (sole) supervisor**. MASc. Surya Neti, SYDE, University of Waterloo. *Digital tool for supporting older adults' self-identification of driving ability*.
2018 May - 2020 Aug	**Primary (sole) supervisor**. MASc. Amir Mehdi Shamsi, SYDE, University of Waterloo. *Optimisation of website user interface for family caregivers*.
2018 May – 2019 Aug	**Primary (sole) supervisor**. MASc. Karan Shastri, SYDE, University of Waterloo. *MCI@work: A digital tool for supporting people diagnosed with early onset dementia in the workplace*.
2018 May – 2019 Jan	**Co-supervisor.** MASc, Jacob Manuel, SYDE, University of Waterloo. *Effects of fatigue on EEG and BCI for post-stroke rehabilitation*.

2017 Sept – 2019 Aug	**Primary (sole) supervisor**. MASc. Jing Wei, SYDE, University of Waterloo. *Using wrist temperature for sleep detection for older adults and older adults living with dementia.*
2017 Sept – 2019 Aug	**Primary (sole) supervisor**. MASc. Ahmed Malik, SYDE, University of Waterloo. *Portable zero-effort ambient detection of vital signs.*
2017 Jan - 2019 Aug	**Co-supervisor.** MASc, Sarah Pearce, University of Waterloo. *A Comparison of Movement-related Cortical Potentials and their Application in Brain-computer Interfaces for Autism Spectrum Disorder.*
2017 Sept - 2018 Aug	**Co-supervisor.** MASc, Mei Lin Chen, SYDE, University of Waterloo. *Age-related Changes in EEG Response: Impacts on Brain-computer Interface.*
2017 Sept - 2018 Aug	**Co-supervisor.** MASc. Mahzar Eisapour, University of Waterloo. *The use of virtual reality to augment music therapy for older adults living with dementia.*
	▪ Recipient of Focus on Accessibility Award, Toronto Rehabilitation Institute.
2017 Jan - 2017 Sept	**Primary (sole) supervisor**. MASc. Riley Doering, University of Waterloo. *User-driven development of the interface of a cloud-based platform to connect caregivers with resources for supporting dementia care.*

UNDERGRADUATE THESIS SUPERVISION

2021 Sept - 2022 Apr	*A User Centered Approach to Improve the Usability and Functionality of an AI Driven Virtual Cardiac Rehabilitation application.* (HLTH 432A). Clarisse Misola.
2020 Sept – 2021 Apr	*U-Turn: Activity monitor for at-home management of pressure injuries* (BME461/462). Moujan Saderi, YanYan Tran, and James A. Tummon Simmons.
2019 Sept – 2020 Apr	*MeetMe: Personalized care for people with dementia and transient care partners* (BME461/462). Mackenzie Wilson, Mikaela MacMahon and Tynan Sears.
2018 Sept - 2019 Apr	*Platform to Promote Social Engagement in Older Adults at Risk of Social Isolation* (SYDE461/462). Eric Woolven, Jason Manson-Hing, Rachel Lo, Tzu-Wen (Wayne) Wu and Emily Shepherd.
2017 Sept - 2018 Apr	*Automatic Brake-Locking Wheelchair System for Wheelchairs* (SYDE 461/462). Tristan Amini, Jonathan Devries, Mousa Khan and Aaron Wiersma.
2016 Sept - 2017 Apr	Reciprocal Volunteerism Network: A cloud-based platform for fostering intergenerational connectivity (SYDE 461/462). Arieze Kanji, Danyal Montazeralghaem, Kathika Uthayakumar, Kajaruban Kulasingham and Sam Barnard.
2017 Jan -	Comparison of tools for assessing the development of pressure sores in older adults:

2017 Apr	A scoping review (HLTH 472).
	Basil Ahmad and Matthew Sefati.
2017 Jan - 2017 Apr	Sit-to-Stand Assist: Additional stability for older adults using a cane when transitioning between upright and sitting positions (SYDE 362).
	Fionna Fenlon, Hannah Van Opstal, Thanuree Pathiranawasam, and Kieran Ratcliffe.

VISITING RESEARCHERS

2018 Sept	**Host.** Dr. Yvonne Lu, Associate Professor, School of Nursing, Indiana University.
2017 Jan – 2018 Jun	**Supervisor.** Asghari (Amir) Seyed, Undergraduate exchange internship (Sorbonne, France). *Effects of fatigue on EEG for older adults.*

OTHER ROLES

2019 May – present	**Primary (sole) supervisor.** Graduate research assistant, Julia Goyal (PhD), AHS, University of Waterloo. *Ethical by Design.*
2019 May – present	**Primary (sole) supervisor.** Graduate research assistant, Julia Goyal (MASc), SYDE, University of Waterloo. *Ethical by Design.*
2020 Jan – 2020 May	**Primary (sole) supervisor.** Undergraduate research assistant, Christina Jean, BME, University of Waterloo. *Parallel interface development for post-stroke rehab robot.*
2020 Jan – 2020 May	**Primary (sole) supervisor.** Undergraduate research assistant, Malik Salvosa, SYDE, University of Waterloo. *Automation of acquisition and manipulation of VR exergame data.*
2020 Jan – 2020 May	**Primary (sole) supervisor.** Undergraduate research assistant, Cooper Ang, SYDE, University of Waterloo. *Development of CARE-RATE backend.*
2020 Jan – 2020 May	**Primary (sole) supervisor.** Undergraduate research assistant, Jeffrey Ng, SYDE, University of Waterloo. *Development of CARE-RATE backend.*
2018 Jan – 2018 April	**Primary (sole) supervisor.** Undergraduate research assistant, Anjali Thatte, BME, University of Waterloo. *Establishing groundtruth for wireless detection of walking speed.*
2018 Jan – 2018 April	**Primary (sole) supervisor.** Undergraduate research assistant, Terence Li, SYDE, University of Waterloo. *CARE-RATE interface development.*
2018 Jan – 2018 April	**Primary (sole) supervisor.** Undergraduate research assistant, Zi Zhang, SYDE, University of Waterloo. *CARE-RATE interface development.*
2017 Oct – 2018 Dec	**Primary (sole) supervisor.** Graduate research assistant, Harmanpreet Chauhan (PhD), Psychology, Wilfrid Laurier University. *Validation of CARE-RATE interface.*
2017 Oct – 2018 Aug	**Primary (sole) supervisor.** Graduate research assistant, Thana Hussein, SYDE, University of Waterloo. *CARE-RATE interface: The incorporation of trust in design.*

2017 May – 2017 Dec	**Co-supervisor.** Undergraduate research assistant, Emily Giau, KIN, University of Waterloo & Carleton University. *Online social networking to reduce loneliness and enhance well-being among older adults.*
2017 Sept – 2017 Dec	**Primary (sole) supervisor.** Undergraduate research assistant, Nicholas Sia, SYDE, University of Waterloo. *Interface design for Pressiona pressure management system.*
2017 June – 2017 Aug	**Primary (sole) supervisor.** Undergraduate research assistant, Nolan Dey, SYDE, University of Waterloo. *Custom-built video communication for multiple sclerosis.*
2017 June – 2017 Aug	**Primary (sole) supervisor.** Undergraduate research assistant, Anrui (Andrew) Chen, SYDE, University of Waterloo. *Custom-built video communication for multiple sclerosis.*
2017 Jan – 2017 Apr	**Primary supervisor.** Undergraduate research assistant, Sae Young (Sally) Moon, SYDE, University of Waterloo. *Investigation of factors to inform development of technologies to support intergenerational connectivity.*
2017 Jan – 2017 Apr	**Primary supervisor**. Logan Reis, Co-op Research Assistant, University of Waterloo. *Scoping review on technologies to support intergenerational connectivity.*

THESIS COMMITTEE MEMBER

2020 Apr – present	**PhD thesis committee member.** Ellie Sanoubari. Systems Design Engineering.
2020 Jan – present	**PhD thesis committee member.** Paul Wolfe. Systems Design Engineering. *Investigating the Temporal Behaviour of Neuroplasticity Induced via Brain State-Dependent Stimulation.*
2018 Apr – present	**PhD thesis committee member.** Kirti Sahu. School of Public Health and Health Systems. *Public Health Surveillance Using IoT Technology.*
2018 Apr – 2022 Dec	**PhD thesis committee member.** Leila Homaeian. Systems Design Engineering. *Investigating the Impact of Data Transfer User Interfaces on Communication Grounding in Cross-Device Collaborative Environments.*
2018 Feb – 2021 July	**PhD thesis committee member.** Cayley MacArthur. Systems Design Engineering, University of Waterloo. *The Role of Gender in the Design Process of Games & Mixed Reality Technology.*
2017 June – Nov 2021	**PhD thesis committee member.** Kaylen Pfisterer. Systems Design Engineering, University of Waterloo. *Computational Biophotonic Imaging for Nutrient Sensing and Quantification.*

THESIS EXAMINER

2023 Nov	**PhD (thesis),** Samira Rasouli, Systems Design Engineering, University of Waterloo. *Exploring the Use of Social Robots in Promoting University Students' Mental Well-being.*

2022 Dec	**PhD (thesis),** Keshini Madara Marasinghe, Public Health Sciences, University of Waterloo. *The impact of assistive devices on community-dwelling older adults and their informal caregivers.*
2021 July	**PhD (thesis),** Cayley MacArthur, Systems Design Engineering, University of Waterloo. *Making Spaces: Mapping Opportunities for Improved Equity in Makerspaces and Virtual Reality.*
2021 July	**MASc (thesis),** Sami Alperen Akgun, Systems Design Engineering, University of Waterloo. *Integrating Affective Expressions into Robot-Assisted Search and Rescue to Improve Human-Robot Communication.*
2019 Mar	**PhD (comprehensive)**, Mitchell Rushton. Mechanical Engineering, University of Waterloo. *Post-Stroke Neuromotor Rehabilitation Using a Reconfigurable Cable-Driven Parallel Robot.*
2018 Dec	**PhD (thesis, external examiner).** Jianguo Hao, Département d'informatique et de mathématique, Université du Québec à Chicoutimi. Supervisor: Sébastien Gaboury. *Activity Recognition by Graphical Models Based on Formal Concept Analysis in Sensor-Based Smart Environments.*
2018 Sept	**MASc (thesis)**, Thana Hussein, Systems Design Engineering, University of Waterloo. Exploring the Requisites and Design Requirements for Adding 'Reason for Use' Information to Prescription Labels.
2018 Aug	**PhD (comprehensive)**, Ramtin Lotfabadi. Systems Design Engineering, University of Waterloo. Examining the effectiveness of tactical breathing and biofeedback via mobile applications and wearable technologies on marksmanship performance as part.
2017 Aug	**MASc (thesis)**, Kaela Shea, Mechatronics Engineering, University of Waterloo. EEG as a Fall Prevention Tool for the Geriatric Population (EEG as a tool for assessing balannce).
2017 Apr	**MASc (thesis).** Damla Kerestecioglu, Systems Design Engineering, University of Waterloo. Building Bridges Between Pharmacists and Physicians: An Exploratory Investigation via Field, Usability Studies & Control Task Analysis to Enhance Pharmacy Management System Requirements.
2016 Dec	**PhD (thesis).** Tom Beltrame, Kinesiology, University of Waterloo. Prediction of oxygen uptake and its dynamics by wearable sensors during activities of daily living.

PATENTS

9 Jan 2020 (pending). System, method and computer program product for query clarification, Patent, Pending, US2020012673, United States. Frank Rudzicz, Jennifer Boger, Janice Polgar, Hamidreza Chinaei, Muuo Wambua.

22 May 2009. Automated emergency detection and response, Patent, Granted, US8063764 B1, United States. Alex Mihailidis, David Giesbrecht, Jesse Hoey, Tracy Lee, Vicky Young, Melinda Hamill, Jennifer Boger, John Paul Lobos, Babak Taati.

COMMUNITY AND VOLUNTEER ACTIVITIES

2015 – 2016   **Chair**, Parental Advisory Committee, Mindwerx Education Centre

2010 - 2017   Science Representative, Let's Talk Science

2006 - 2010   **Tutor**, Pathways to Education