STACEY DAWN SCOTT, B.Sc., Ph.D.

Associate Professor, School of Computer Science
Director, Collaborative Systems Laboratory
University of Guelph
Guelph, ON, Canada

stacey.scott@uoguelph.ca
Citizenship: Canadian
Gender: Female

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1 PERSONAL DATA

1.1 ACADEMIC EXPERIENCE

University of Guelph, Guelph, ON

Associate Professor with Tenure, School of Computer Science 2016-

Director, Collaborative Systems Laboratory (Emerging Technology Research Lab) 2016-

University of Waterloo, Waterloo, ON

Adjunct Professor, Cheriton School of Computer Science 2018-

Adjunct Professor, Department of Systems Design Engineering 2016-

Associate Professor with Tenure, Department of Systems Design Engineering 2015-2016

Assistant Professor, Department of Systems Design Engineering 2007-2015

Cross Appointment, Department of English Language and Literature, Faculty of Arts 2011-2016

Director, Collaborative System Laboratory (Emerging Technology Research Lab) 2007-

Member, The Games Institute (Cross-Faculty Research Institute) 2011-

Associate Director, The Games Institute (Cross-Faculty Research Institute) 2011-2015

1.2 LEAVES

Sabbatical Leave (6 months) 2015

Parental Leave (6 months) 2012

Medical Leave (8 months) 2010-2011

1.3 EDUCATION

Massachusetts Institute of Technology (MIT), Cambridge, MA, USA 2005-2007
Postdoctoral Associate, Dept. of Aeronautics and Astronautics (School of Engineering)

University of Calgary, Calgary, AB 2002-2005
Ph.D. in Computer Science
Dissertation: *Territoriality in Collaborative Tabletop Workspaces*
****John Kendall Award for Best Doctoral Thesis, Faculty of Science****

Simon Fraser University, Burnaby, BC 1998-2002
Pursued Ph.D. degree in Computer Science (transferred to UCalgary, Sept. 2002)

Dalhousie University, Halifax, NS 1992-1996
Joint B.Sc. with Honours Co-op in Mathematics and Computer Science

1.4 PROFESSIONAL EXPERIENCE

Public Health Canada, Guelph, ON

Research Consultant: Information visualization consultation, and student supervision, on the project "Visualizing Factors Contributing to Antimicrobial Resistance", through the University of Waterloo, funded by Public Health Canada. 2017

Menya Solutions, Sherbrooke, QC

Research Consultant: Collaborative technology and interface design and analysis consultation on the project "Naval Battle Management C2 Decision and Collaboration Support", funded by Defence Research and Development Canada (DRDC)-Valcartier. 2014-2015

Electronic Arts, Kitchener, ON

Research Consultant: Experimental design consultation, and student supervision, on the project "Experimental Design and User Study of EA Gaming Concepts", through the University of Waterloo, funded by Electronic Arts Canada. 2014

Centre en Imagerie Numérique et Médias Interactifs (CIMMI), Québec, QC

Research Consultant: Collaborative technology design and analysis consultation on the project "Automatic User Identification for Surface Computing using Microsoft Kinect Sensors", funded by Defence Research and Development Canada (DRDC)-Atlantic. 2011-2012

Defence Research and Development Canada (DRDC)-Atlantic, Halifax, NS

Research Consultant: Information visualization and software design consultation, and student supervision, on the project "Investigation of a Prototype Naval Planning Tool for Tabletop Research", through the University of Waterloo, funded by DRDC-Atlantic. 2009

CMC Electronics, Kanata, ON

Research Consultant: Human factors study design and analysis consultation on the project "Virtual Social Networking", through the University of Waterloo, funded by Defence Research and Development Canada (DRDC)-Atlantic. 2009-2011

Research Consultant: Human factors study design and analysis consultation on the project "Collaborative Workspace Requirements for Tactical Picture Compilation on a Naval Task Group", through the University of Waterloo, funded by Defence Research and Development Canada (DRDC)-Atlantic. 2008

Research Consultant: Collaborative technology design and analysis consultation on the project "Experimental Platform for Distributed Teams", through the University of Waterloo, funded by Defence Research and Development Canada (DRDC)-Toronto. 2007-2008

Mitsubishi Electric Research Laboratories, Cambridge, MA, USA 2001-2001

Research Intern: Conducted formal user study of human-in-the-loop optimization system involving vehicle route scheduling on a digital tabletop display.

PRIOR Data Sciences Ltd., Halifax, NS 1997-1998

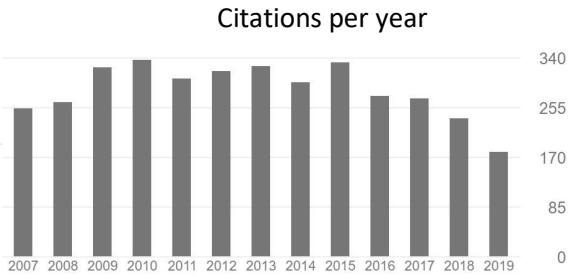
Software Engineer

Worked with a team of software engineers to develop components of the operator (user) interface for the Communications Management System of Canadian Army's Iris Tactical Command, Control and Communications System.

2 RESEARCH AND SCHOLARSHIP

2.1 PUBLICATION IMPACT SUMMARY

	All	Since 2015
Citations	4339	1331
h-index	30	19
i10-index	59	40



*Source: Google Scholar, March 1, 2020

2.2 PUBLICATIONS

Unless otherwise noted, author order reflects the relative extent of each author's contribution. In all cases, I contributed directly to the writing and editing of publications, and ongoing research supervision, of student/staff authored papers. Competitive, rigorously peer-reviewed **conferences** are the primary venue for disseminating research in human-computer interaction, especially conferences archived in the ACM digital library. Thus, I target conferences such as the ACM Conference on Human Factors in Computing Systems (CHI; considered the premier publishing venue for the field of human-computer interaction with highly competitive acceptances rates of 20-25% for full papers in recent years), the ACM Conference on Computer-Support Cooperative Work (CSCW, also highly competitive and the primary venue for the subfield of computer-supported collaboration), and the ACM Conference on Interactive Surfaces and Spaces (ISS; formerly ACM ITS and IEEE Tabletop; also highly competitive and the primary venue for the subfield of interactive surfaces). I also target the Annual Meeting of the Human Factors and Ergonomic Society (HFES), the top academic conference in the broader area of human factors.

All student and PDF co-authors are underlined. For all publications prior to 2018, the Google Scholar citation count (GC) as of March 1, 2020 is listed in the margin. For journals, the Journal Impact Factor (JIF) is listed. For full-length, fully-refereed conference publications, the acceptance rate (AR), if known, is listed, and whether it appears in the ACM or IEEE Digital Libraries (ACM DL or IEEE DL).

2.2.1 Refereed Journal Papers

1. **Scott, S.D.**, Besacier, G., Goyal, N., Cento, F. (2017). Investigating Cross-Device Transfer in Table-Centric Multi-Surface Environments. *Concurrency and Computation: Practice and Experience (Wiley),* March 2017, e4084, 13 pgs. — JIF: 1.13 5YIF: 1.04 GC: n/a
2. Sasangohar, F., **Scott, S.D.**, Cummings, M.L. (2014). Supervisory-level Interruption Recovery in Time-critical Control Tasks. *Applied Ergonomics: Human Factors in Technology and Society* (Elsevier), July 2014, 45 (4), 1148-1156. — JIF: 2.02 5YIF: 2.14 GC: 14
3. Wallace, J.R., **Scott, S.D.**, Lai, E., Jajalla, D. (2011). Investigating the Role of a Large, Shared Display in Multi-Display Environments. *J. Computer Supported Cooperative Work (CSCW)*, 20(6), 529-561. — JIF: 0.82 5YIF: 0.90 GC: 40
4. Tang, C., Carpendale, S., **Scott, S.D.** (2010). InfoFlow Framework for Information Flow during Nursing Shift Change. *Int'l J. Human-Computer Interaction (IJHCI)*, 26(5), 477-505. — JIF: 0.85 5YIF: 1.29 GC: 11
5. Wallace, J.R., Scott, S.D., Stutz, T., Enns, T. & Inkpen, K.M. (2009). Investigating Teamwork and Taskwork in Single and Multi-Display Groupware Systems. Personal and Ubiquitous Computing, 13(8), 569-581. — JIF: 1.52 5YIF: 1.58 GC: 89

Refereed Journal Papers (cont'd)

6. Drury, J. & **Scott, S.D.** (2008). Awareness in Unmanned Aerial Vehicle Operations. *International Journal of Command and Control*, 2(1), 1-28. JIF: 1.65 5YIF:1.67 GC: 36
7. **Scott, S.D.** & Carpendale, S. (eds.) (2006). Guest Editors' Introduction: Interacting with Digital Tabletops. *IEEE Computer Graphics & Applications*, 26(5), 24-27. JIF: 0.91 5YIF: 1.25 GC: 66
8. **Scott, S.D.**, Carpendale, S., Habelski, S. (2005). Storage Bins: Mobile Storage for Collaborative Tabletop Displays. *IEEE Computer Graphics & Applications*, 25(4), 58-65. (Earlier longer version available as Research Report 2004-767-32, Department of Computer Science, University of Calgary.) JIF: 0.91 5YIF: 1.25 GC: 101
9. Kruger, R., Carpendale, M.S.T., **Scott, S.D.**, Greenberg, S. (2004). Roles of Orientation in Tabletop Collaboration: Comprehension, Coordination and Communication. *Journal of Computer Supported Collaborative Work*, 13(5-6), 501-537. JIF: 0.82 5YIF: 0.90 GC: 168
10. **Scott, S.D.**, Mandryk, R.L., Inkpen, K.L. (2003). Understanding Children's Collaborative Interactions in Shared Environments. *Journal of Computer-Aided Learning*, 19 (2), 220-228. JIF: 1.63 5YIF: 1.76 GC: 228

2.2.2 Book Chapters

11. Chang, Y.-L. B., **Scott, S.D.**, & Hancock, M. (2016). Usage of interactive event timelines in collaborative digital tabletops involving automation. C. Anslow, P. Campos & J. Jorge, (Eds.), *Collaboration meets interactive surfaces (CMIS) - theory and practice*. Springer. GC: 6
12. Carpendale, S. and **Scott, S.D.** (2016). Humanizing the Digital Interface (Theme 1 Introduction). In F.O. Maurer (eds.). *SURFNET: Designing Digital Surface Applications*, NSERC SurfNet, University of Calgary, Calgary, AB, 19-25. GC: n/a
13. **Scott, S.D.,** Besacier, G., McClelland, P., Tournet, J., Goyal, N., Cento, F. (2016). Cross-Device Content Transfer in Table-Centric Multi-Surface Environments. In F.O. Maurer (eds.). *SURFNET: Designing Digital Surface Applications*, NSERC SurfNet, University of Calgary, Calgary, AB, 53-79. GC: n/a
14. Bortolaso, C., Graham, T.C.N., **Scott, S.D.**, Oskamp, M. Brown, D., Porter, L. (2016). OrMiS: Use of a Digital Surface for Simulation-Based Training. In F.O. Maurer (eds.). *SURFNET: Designing Digital Surface Applications*, NSERC SurfNet, University of Calgary, Calgary, AB, 313-331. GC: n/a
15. **Scott, S.D.** & Carpendale, S. (2010). Theory of Tabletop Territoriality. In C. Müller-Tomfelde (ed.) *Tabletops: Horizontal Interactive Displays*, Springer (HCI Series), 375-406. GC: 55

2.2.3 Invited Conference Papers and Seminars

16. **Scott, S.D.** (2008). Assisting Collaborative Decision Making in Complex Environments. *Proceedings of the International Conference on Applied Human Factors and Ergonomics (CD Proceedings)*, July 14-17, 2008, Las Vegas, NV. GC: 1
17. **Scott, S.D.** (2006). Real-Time Decision Support in the Face of Uncertainty, Invited seminar at IDGA 4th Annual Sensor-To-Shooter Conference, September 25-27, 2006, Washington, DC.

2.2.4 Conference Papers (Full length, Fully refereed)

18. Makinde, A., Islam, M.M., **Scott, S.D.** (2019). Opportunities for ACI in PLF: Applying Animal-and User-Centred Design to Precision Livestock Farming *Proceedings of ACI 2019: Sixth International Conference on Animal-Computer Interaction*, Nov 12-14, 2019, Haifa, Israel. Article No. 13, 6pgs. — AR: n/a GC: n/a ACM DL

19. Pafla, M., Wong, C., Gillis, D., Pfeil, U., **Scott, S.D.** (2019). *Proceedings of the 45th Graphics Interface Conference*, May 28-31, 2019, Kingston, ON. Article No. 21, 9 pgs. — AR: 52% GC: n/a ACM DL

20. Varona-Marin, D., Oberholzer, J.A., Tse, E., **Scott, S.D.** (2018). Post-meeting Curation of Whiteboard Content Captured with Mobile Devices. *Proceedings of ISS 2018: ACM International Conference on Interactive Surfaces and Spaces*, Nov 25-28, 2018, Tokyo, Japan, 43-52. — AR: 27% GC: 1 ACM DL

    **** BEST PAPER HONORABLE MENTION, awarded to <5% of submissions. ****

21. Ghare, M., Pafla, M., Wong, C., Wallace, J.R., **Scott, S.D.** (2018). Increasing Passersby Engagement with Public Large Interactive Displays: A Study of Proxemics and Conation. *Proceedings of ISS 2018: ACM International Conference on Interactive Surfaces and Spaces*, Nov 25-28, 2018, Tokyo, Japan, 19-32. — AR: 27% GC: 3 ACM DL

22. Homaeian, L., Goyal, N., Wallace, J.R., **Scott, S.D.** (2018). Group vs Individual: Impact of TOUCH and TILT Cross-Device Interactions on Mixed-Focus Collaboration. *Proceedings of CHI 2018: ACM Conference on Human Factors in Computing Systems*, April 21-26, 2018, Montreal, QC, Paper No. 73, 13 pgs. — AR: 25% GC: 13 ACM DL

23. Susindar, S., Sasangohar, F., **Scott, S.D.**, Cummings, M. (2017) Investigating the Location of an Interruption Recovery Tool for Supervisory-Level Command and Control Missions. *Proceedings of HFES 2017: Annual Meeting of the Human Factors and Ergonomics Society*, October 9-13, 2017, Austin, TX, 699-703. — AR: GC: n/a

24. Harris, J., Hancock, M., **Scott, S.D.** (2016). Leveraging Asymmetries in Multiplayer Games: Investigating Design Elements of Interdependent Play. *Proceedings of CHI Play 2016: ACM Annual Symposium on Computer-Human Interaction in Play*, October 16-19, 2016, Austin, TX, 350-361. — AR: 29% GC: 17 ACM DL

25. Cheung, V. & **Scott, S.D.** (2015). Studying Attraction Power in Proxemics-Based Visual Concepts for Large Public Interactive Displays. *Proceedings of ITS 2015: ACM Conference on Interactive Tabletops and Surfaces,* November 16-18, 2015, Madeira, Portugal, 93-102. — AR: 24% GC: 9 ACM DL

26. Chang, Y.-L.B., Fong, C., Tse, E., Hancock, M., **Scott, S.D.** (2015). "Callout Bubble Saved My Life": Workspace Awareness Support in BYOD Classrooms. *Proceedings of ITS 2015: ACM Conference on Interactive Tabletops and Surfaces,* November 16-18, 2015, Madeira, Portugal, 73-82. — AR: 24% GC: 1 ACM DL

27. Cheung, V. & **Scott, S.D.** (2015). A Laboratory-based Study Methodology to Investigate Attraction Power of Large Public Interactive Displays. *Proceedings of UBICOMP 2015: ACM Conference on Ubiquitous and Pervasive Computing*, September 7-11, 2015, Osaka, Japan, 1239-1250. — AR: 40% GC: 2 IEEE DL

    **** BEST PAPER HONORABLE MENTION, awarded to <5% of submissions. ****

28. **Scott, S.D.**, Besacier, G., Tournet, J., Goyal, N., Haller, M. (2014). Surface Ghosts: Promoting Awareness of Transferred Objects during Pick-and-Drop Transfer in Multi-Surface Environments. *Proceedings of ITS 2014: ACM Conference on Interactive Tabletops and Surfaces*, November 16-19, 2014, Dresden, Germany, 99-108. — AR: 28% GC: 7 ACM DL

29. Chang, Y.-L.B., **Scott, S.D.**, Hancock, M. (2014). Supporting Situation Awareness in Collaborative Tabletop Systems with Automation. *Proceedings of ITS 2014: ACM Conference on Interactive Tabletops and Surfaces*, November 16-19, 2014, Dresden, Germany, 185-194. — AR: 28% GC: 9 ACM DL

30. Langer, R., Hancock, M., **Scott, S.D.** (2014). Suspenseful Design: Engaging Emotionally with Complex Applications through Compelling Narratives. *Proceedings of GEM 2014: IEEE Conference on Games, Entertainment and Media*, October 22-24, 2014, Toronto, ON, 1-8. — AR: n/a GC: 8 IEEE DL

Conference Papers (Full length, Fully refereed) (cont'd)

31. **Scott, S.D.**, Besacier, G., McClelland, P.J. (2014). Cross-Device Transfer in a Collaborative Multi-Surface Environment without User Identification. *Proceedings of CTS 2014: International Conference on Collaboration Technologies and Systems*, May 19-16, Minneapolis, MN, USA, 219-226. AR: 40% GC: 12 IEEE DL

    **** Awarded OUTSTANDING PAPER RUNNER UP ****

32. Lindlbauer, D., Haller, M., Hancock, M.S., **Scott, S.D.**, Stuerzlinger, W. (2013). Perceptual Grouping: Selection Assistance for Digital Sketching. *Proceedings of ITS 2013: ACM Conf. on Interactive Tabletops and Surfaces*, October 6-9, 2013, St. Andrews, Scotland, 51-60. AR: 29% GC: 21 ACM DL

33. Sasangohar, F., **Scott, S.D.,** Donmez, B. (2013). Interruption Recovery in Time-critical Supervisory Control: A Literature Review. *Proceedings of HFES 2013: Annual Meeting of the Human Factors and Ergonomics Society*, Sept 30-Oct 4, 2013, San Diego, CA, 1745-1749. AR: GC: 8

34. Wallace, J.R., **Scott, S.D.**, MacGregor, C. (2013). Prioritization, Comparisons, and Tableaux: Collaborative Sensemaking on Digital Tables and Handheld Tablets. *Proceedings of CHI 2013: ACM Conference on Human Factors in Computing Systems*, April 27-May 2, 2013, Paris, France, 3345-3354. AR: 20% GC: 69 ACM DL

35. Ion, A., Chang, Y.-L., Haller, M., Hancock, M., **Scott, S.D.** (2013). Canyon: Providing Location Awareness of Multiple Moving Objects in a Detail View on Large Displays. *Proceedings of CHI 2013: ACM Conference on Human Factors in Computing Systems*, April 27-May 2, 2013, Paris, France, 3149-3158. AR: 20% GC: 27 ACM DL

    **** BEST PAPER HONORABLE MENTION, awarded to <5% of 2000 submissions. ****

36. Seto, A.M., **Scott, S.D.**, Hancock, M. (2012). Investigating Menu Discoverability on a Digital Tabletop in a Public Setting. *Proceedings of ITS 2012: ACM Conference on Interactive Tabletops and Surfaces*, November 11-14, 2012, Boston, MA, 71-80. AR: 29% GC: 15 ACM DL

37. Seifried, T., Haller, M., Rendl, C., **Scott, S.D.** (2012). Regional Undo/Redo Techniques for Large Interactive Surfaces. *Proceedings of CHI 2012: ACM Conference on Human Factors in Computing Systems*, May 5-10, 2012, Austin, TX, 2855-2864. AR: 23% GC: 24 ACM DL

38. Cheung, V., Chang, Y.-L., **Scott, S.D.** (2012). Communication Channels and Awareness Cues in Collocated Collaborative Time-Critical Gaming. *Proceedings of CSCW 2012: ACM Conference on Computer-Supported Cooperative Work*, February 11-15, 2012, Seattle, WA, 569-578. AR: 39% GC: 17 ACM D

39. McClelland, P., Whitmell, S., **Scott, S.D.** (2011). Investigating Communication and Social Practices in Real-Time Strategy Games: Are In-Game Tools Sufficient to Support the Overall Gaming Experience? *Proceedings of Graphics Interface 2011*. May 25-27, 2011, St. John's, NF, 215-222. AR: 32% GC: 8 ACM DL

40. Hunter, S., Maes, P., **Scott, S.D.**, Kaufman, H. (2011). MemTable: An Integrated System for Capture and Recall of Shared Histories in Group Workspaces. *Proceedings of CHI 2011: ACM Conf. Human Factors in Computing Systems*. May 7-12, 2011, Vancouver, 3305-3314. AR: 26% GC: 41 ACM DL

41. Haller, M., Leitner, J., Seifried, T., Brandl, P., Richter, C., Gokcezade, A., **Scott, S.D.**, Wallace, J.R., Hunter, S. (2010). The NiCE Discussion Room: Integrating Paper and Digital Media to Support Co-Located Group Meetings. *Proceedings of CHI 2010: ACM Conference on Human Factors in Computing Systems*, April 10-15, 2010, Atlanta, GA, 609-618. AR: 22% GC: 135 ACM DL

42. Seifried, T., Haller, M., **Scott, S.D.**, Perteneder, F., Rendl, C., Sakamoto, D., Inami, M. (2009). CRISTAL: A Collaborative Home Media and Device Controller Based on a Multi-touch Display. *Proceedings of ITS 2009 (formerly IEEE Tabletop): ACM International Conference on Interactive Tabletops and Surfaces*, November 23-25, 2009, Banff, AB, 37-44. AR: 33% GC: 82 ACM DL

43. Histon, J.M. & **Scott, S.D.** (2009). Expert Panels as a Means of Engaging Students in the Applications of Human Factors. *Proceedings of HFES 2009: 53rd Annual Meeting of the Human Factors and Ergonomic Society*, October 19-23, 2009, San Antonio, TX, 474-478. AR: n/a GC: 4

Conference Papers (Full length, Fully refereed) (cont'd)

44. Sasangohar, F., MacKenzie, I.S., **Scott, S.D.** (2009). Evaluation of Mouse and Touch Input for a Tabletop Display Using Fitts' Reciprocal Tapping Task. *Proceedings of HFES 2009: 53rd Annual Meeting of the Human Factors and Ergonomic Society*, October 19-23, 2009, San Antonio, TX, 839-843. AR: n/a GC: 63

45. Burns, C., Torenvliet, G., Chalmers, B., **Scott, S.D.** (2009). Work Domain Analysis for Establishing Collaborative Work Requirements. *Proceedings of HFES 2009: 53rd Annual Meeting of the Human Factors and Ergonomic Society*, October 19-23, 2009, San Antonio, TX, 314-318. AR: n/a GC: 20

46. Wallace, J.R. & **Scott, S.D.** (2008). Contextual Design Considerations for Co-located, Collaborative Tables. *Proceedings of Tabletop 2008: IEEE International Workshop on Tabletop and Interactive Surfaces*, October 1-3, 2008, Amsterdam, The Netherlands, 57-64. AR: 27% GC: 38 IEEE DL

47. **Scott, S.D.**, Mercier, S., Cummings, M.L., Wang, E. (2006). Assisting Interruption Recovery in Supervisory Control of Multiple UAVs. *Proceedings of HFES 2006: 50th Annual Meeting of the Human Factors and Ergonomic Society*, October 16-20, 2006, San Francisco, CA, 699-703. AR: n/a GC: 51

48. Nehme, C.E., **Scott, S.D.**, Cummings, M.L., Furusho, C.Y. (2006). Generating Requirements for Futuristic Heterogeneous Unmanned Systems. *Proceedings of HFES 2006: 50th Annual Meeting of the Human Factors and Ergonomic Society*, October 16-20, 2006, San Francisco, CA, 235-239. AR: n/a GC: 59

49. Hinrichs, U., Carpendale, S., **Scott, S.D.** (2006). Evaluating the Effects of Fluid Interface Components on Tabletop Collaboration. *Proceedings of AVI 2006: Conference on Advanced Visual Interfaces*, May 23-26, 2006, Venetia, Italy, 27-34. AR: 25% GC: 48 ACM DL

50. Hinrichs, U., Carpendale, S., **Scott, S.D.**, Pattison, E. (2005). Interface Currents: Supporting Fluent Collaboration on Tabletop Displays. *Proceedings of the Symposium on Smart Graphics, Lecture Notes in Computer Science*, Aug, 22-24, 2005, Frauenwoerth Cloister, Germany, 185-197. AR: n/a GC: 54

51. Kruger, R., Carpendale, M.S.T., **Scott, S.D.**, Tang, A. (2005). Fluid Integration of Rotation and Translation. *Proceedings of CHI 2005: ACM Conference on Human Factors in Computing Systems, CHI Letters*, 7(1), April 2-7, 2005, Portland, OR, 601-610. (Earlier version available as Research Report 2004-747-12, Department of Computer Science, University of Calgary.) . AR: 25% GC: 213 ACM DL

52. **Scott, S.D.**, Carpendale, M.S.T., Inkpen, K.M. (2004). Territoriality in Collaborative Tabletop Workspaces. *Proceedings of CSCW 2004: ACM Conference on Computer-Supported Cooperative Work, CHI Letters,* 6(3), November 6-10, 2004, Chicago, IL, 294-303. (Earlier version available as Research Report 2004-743-08, Department of Computer Science, University of Calgary.) . AR: 29% GC: 675 ACM DL

53. Tse, E., Histon, J., **Scott, S.D.**, Greenberg, S. (2004). Avoiding Interference: How People Use Spatial Separation and Partitioning in SDG Workspaces. *Proceedings of CSCW 2004: ACM Conference on Computer-Supported Cooperative Work*, Nov 6-10, 2004, Chicago, IL, 252-261. (Earlier version: Research Report 2003-729-32, Department of Computer Science, University of Calgary.) AR: 29% GC: 101 ACM DL

54. Kruger, R., Carpendale, M.S.T., **Scott, S.D.**, Greenberg, S. (2003). How People Use Orientation on Tables: Comprehension, Coordination and Communication. *Proceedings of GROUP 2003: ACM Group 2003 Conference*, November 9-12, 2003, Sanibel Island, FL, 369-378. AR: 35% GC: 218 ACM DL

55. **Scott, S.D.**, Grant, K.D., Mandryk, R.L. (2003). System Guidelines for Co-located, Collaborative Work on a Tabletop Display. *Proceedings of ECSCW 2003: European Conference Computer-Supported Cooperative Work*, September 14-18, 2003, Helsinki, Finland, 159-178. AR: 18% GC: 593

56. **Scott, S.D.**, Lesh, N., Klau, G.W. (2002). Investigating Human-Computer Optimization. *Proceedings of CSCW 2002: ACM Conference on Human Factors in Computing Systems, CHI Letters,* 4(1), April 20-25, 2002, Minneapolis, MN, 155-162. AR: 15% GC: 87 ACM DL

57. **Scott, S.D.**, Mandryk, R.L, Inkpen, K.M. (2002). Understanding Children's Interactions in Synchronous Shared Environments. *Proceedings of CSCL 2002: Conference on Computer Supported Collaborative Learning*, January 7-11, 2002, Boulder, CO, 333-341. AR: 19% GC: 46

Conference Papers (Full length, Fully refereed) (cont'd)

58. **Scott, S.D.**, Shoemaker, G., Inkpen, K.M. (2000). Towards seamless support of natural collaborative interactions. *Proceedings of Graphics Interface 2000*, May 15-17, 2000, Montréal, PQ, 103-110. AR: 28% GC: 52

59. Inkpen, K.M., Ho-Ching, W., Kuederle, O., **Scott, S.D.**, Shoemaker, G. (1999). "This is fun! We're all best friends and we're all playing.": Supporting children's synchronous collaboration. In CSCL 1999: *Conference on Computer Supported Collaborative Learning,* December 12-15, 1999, Stanford, CA, 252-259. AR: 50% GC: 154

2.2.5 Conference Papers (Short papers, Fully refereed)

60. Islam M.M., **Scott, S.D.** (2019). Investigating the Usability and Impact of Notifications Generated from Automated Monitoring Systems in Modern Dairy Farms. *Poster at 45th Graphics Interface Conference 2019*, May 28-31, 2019, Kingston, ON.

61. Makinde A., **Scott, S.D.** (2019). Investigating Perceptions, Motivations, and Challenges in the Adoption of Precision Livestock Farming in the Beef Industry. *Poster at 45th Graphics Interface Conference 2019*, May 28-31, 2019, Kingston, ON.

62. Homaeian, L., Goyal, N., Wallace, J.R., **Scott, S.D.** (2017). Investigating Communication Grounding in Cross-Surface Interaction. *Proceedings of ISS 2017: ACM Conference on Interactive Surfaces and Spaces*, October 17-20, 2017, 348-353.

63. Cheung, V., **Scott, S.D.** (2016). Proxemics-Based Visual Concepts to Attract and Engage Public Display Users: Adaptive Content Motion and Adaptive User Shadow. *Proceedings of ISS 2016: ACM Conference on Interactive Surfaces and Spaces*, Niagara Falls, ON, 473-476.

64. Harris, J., Hancock, M., **Scott, S.D.** (2015). "Beam Me 'Round, Scotty!": Studying Asymmetry and Interdependence in a Prototype Cooperative Game (Game Design Competition). *Proceedings of CHI Play 2015: ACM Annual Symposium on Computer-Human Interaction in Play,* October 5-7, 2015, London, UK.

    **** STUDENT GAME DESIGN COMPETITION AWARD ****

    **** STUDENT GAME DESIGN COMPETITION – PEOPLE'S CHOICE AWARD ****

65. Kuzminykh, A., **Scott, S.D.**, Wallace, J., Lank, E. (2015). How to Measure Social Presence: The Role of Speech Patterns. *Poster at Graphics Interface 2015*, June 3-5, 2015, Halifax, NS.

    **** BEST POSTER AWARD ****

66. Cheung, V., Watson, D., Vermeulen, J., Hancock, M., **Scott, S.D.** (2014). Overcoming Interaction Barriers in Large Public Displays Using Personal Devices. *Proc. of ITS 2014: ACM Conference on Interactive Tabletops and Surfaces*, November 16-19, 2014, Dresden, Germany, 375-380.

67. Harris, J., Hancock, M., **Scott, S.D.** (2014). "Beam Me 'Round, Scotty!": Exploring the Effect of Interdependence in Asymmetric Cooperative Games. *Proc. of CHI Play 2014: ACM Symposium on Computer-Human Interaction in Play*, October 19-22, 2014, Toronto, ON, 417-418.

68. Besacier, G., Tournet, J., Goyal, N., Cento, F., **Scott, S.D.** (2014). Object and Arm Shadows: Visual Feedback for Cross Device Transfer. *Extended Abstracts of CHI 2014: ACM Conference on Human Factors in Computing,* April 26-May 1, 2014, Toronto, ON, 463-466.

69. Chang, Y.-L.B., **Scott, S.D.**, Hancock, M., (2014). Improving Situation Awareness with an Interactive Event Timeline in Collaborative Tabletop Interfaces. *5th Annual GRAND Conference (Graphics, Animation and New Media)*, May 14-16, 2014, Ottawa, ON, 185-194.

70. Chang, Y.-L.B., Mengual, M., Parfett, B., Graham, T.N., Hancock, M., **Scott, S.D.** (2013). Improving Awareness of Automated Actions using an Interactive Event Timeline. *Proceedings of ITS 2013: ACM Conference on Interactive Tabletops and Surfaces*, October 6-9, 2013, St. Andrews, Scotland, 353-356.

71. Cheung, V., **Scott, S.D.** (2013). Investigating Attraction and Engagement of Animation on Large Interactive Walls in Public Settings. *Extended Abstracts of ITS 2013: ACM Conference on Interactive Tabletops and Surfaces*, October 6-9, 2013, St. Andrews, Scotland, 381-384.

Conference Papers (Short papers, Fully refereed) (cont'd)

72. Tournet, J., Besacier, G., Goyal, N., McClelland, P.J., **Scott, S.D.** (2013). Comparing Visual Feedback Techniques for Object Transfer between Private and Shared Surfaces. *Proceedings of ITS 2013: ACM Conference on Interactive Tabletops and Surfaces*, October 6-9, 2013, St. Andrews, Scotland, 377-380.
73. Cheung, V., **Scott, S.D.**, Heydekorn, J., Dachselt, R. (2012). Revisiting Hovering: Interaction Guides For Interactive Surfaces. *Proceedings of ITS 2012: ACM Conference on Interactive Tabletops and Surfaces*, November 11-14, 2012, Boston, MA, 355-358.
74. **Scott, S.D.**, McClelland, P., Besacier, G. (2012). Bridging Private and Shared Interaction Surfaces in Co-located Group Settings. *Proceedings of ITS 2012: ACM Conference on Interactive Tabletops and Surfaces*, November 11-14, 2012, Boston, MA, 403-406.
75. Wallace, J.R., Pape, J., Chang, Y.-L.B., McClelland, P.J., Graham, T.N., **Scott, S.D.**, Hancock, M. (2012). Exploring Automation in Digital Tabletop Board Games. *Extended Abstracts of CSCW 2012: ACM Conf. on Comp. Supported Cooperative Work*, Feb. 11-15, 2012, Seattle, 231-234.
76. Cheaib, N., Cheung, V., Cerar, K., **Scott, S.D.** (2011). A Multi-Agency Collaboration and Coordination Hub. *Poster at Graphics Interface 2011*. May 25-27, 2011, St. John's, NF.
77. Cheung, V., Cheaib, N., **Scott, S.D.** (2011). Interactive Surface Technology for a Mobile Command Centre. *Extended Abstracts of CHI2011: ACM International Conference on Human Factors in Computing Systems*. May 7-12, 2011, Vancouver, BC, 1771-1776.
78. McClelland, P.J., Whitmell, S.J., Tangao, K., **Scott, S.D.** (200pro9). ASPECTS: A Support Tool for Collaborative Strategic Planning and Asset Allocation Tasks. *Conference Supplement of ITS 2009 (formerly IEEE Tabletop): ACM International Conference of Interactive Tabletops and Surfaces*, November 23-25, 2009, Banff, AB.
79. H.Gashti, S., Chen, L., **Scott, S.D.** (2009). Investigating the Impact of Table Size on Collaborative Problem-Solving. *Conference Supplement of ITS 2009 (formerly IEEE Tabletop): ACM International Conference of Interactive Tabletops and Surfaces*, November 23-25, 2009, Banff, AB.
80. Seifried, T., Rendl, C., Perteneder, F., Leitner, J., Haller, M., Sakamoto, D., Inami, M., **Scott, S.D.** (2009). CRISTAL, Control of Remotely Interfaced Systems using Touch-based Actions in Living Spaces (E-Tech Demonstration). *Conference Supplement of SIGGRAPH 2009: ACM International Conference and Exhibition on Computer Graphics and Interactive Technologies*, August 4-6, 2009, New Orleans, LA.

    ****AWARDED BEST EMERGING TECHNOLOGY DEMO ****

81. Isenberg, T., Nix, S., Schwarz, M., Miede, A., **Scott, S.D.**, Carpendale, S. (2008) Mobile Spatial Tools for Fluid Interaction. *Conference Supplement of Tabletop 2008: IEEE International Workshop on Tabletop and Interactive Surfaces*.
82. H.Gashti, S., McKay, P., Sasangohar, F., Wallace, J.R., **Scott, S.D.** (2008). Recovery Central: Interruption Recovery in Distributed Meetings. *Conference Supplement of GI 2008: Graphics Interface Conference (CD Proceedings)*, May 28-30, 2008, Windsor, ON.
83. Wallace, J.R., Enns, T., Stutz, T., **Scott, S.D.** (2008). Exploring Teamwork and Taskwork in Multi-Display Groupware. *Conference Supplement of GI 2008: Graphics Interface Conference (CD Proceedings)*, May 28-30, 2008, Windsor, ON.
84. Ashdown, M. & **Scott, S.D.** (2007). Designing Tabletop Interfaces for Asymmetric Distributed Collaboration. *Conference Supplement of Tabletop 2007: IEEE International Workshop on Tabletop and Interactive Surfaces (CD Proceedings),* October 10-12 2007, Newport, RI.

2.2.6 Conference Papers (Full length, Refereed abstracts)

85. MacGregor, C.G., **Scott, S.D.**, Borland, M.J. (2017). Using Accountability Logs to Assess Individual Student Contributions to Capstone Projects: What happens when one student on a team fails? *Proceedings of CEEA 2017: Canadian Engineering Association Annual Conference*, June 4-7, 2017, Toronto, ON, Canada.
86. Carpendale, S., Isenberg, T., **Scott, S.D.**, Hinrichs, U., Miede, A., Kruger, R., Habelski, S., Inkpen, K.M. (2006). Collaborative Interaction on Large Tabletop Displays. *Adjunct Proceedings of CSCW 2006: ACM Conference on Computer-Supported Cooperative Work (CD Proceedings)*, November 4-8, Banff, AB, 57-58.
87. Hinrichs, U., Carpendale, S., **Scott, S.D.** (2005). Interface Currents: Supporting Fluent Face-to-Face Collaboration (Sketch Presentation). *Proceedings of SIGGRAPH'05: ACM Conference on Computer Graphics and Interactive Techniques (CD Proceedings)*, July 31-August 4, 2005, Los Angeles, CA.
88. **Scott, S.D.** (2003). Territory-Based Interaction Techniques for Tabletop Collaboration (Doctorial Colloquium Presentation and Poster). In *Conference Supplement of UIST 2003: ACM Symposium on User Interface Software and Technology*, November 2-5, 2003, Vancouver, BC, 17-20.
89. Mandryk, R.L., **Scott, S.D.**, Inkpen, K.L. (2002). Display Factors Influencing Co-located Collaboration (Poster). In *Extended Abstracts of CSCW 2002*: *ACM Conference on Computer-Supported Cooperative Work*, November 16-20, 2002, New Orleans, LA, 137-138.
90. Bortolaso, C., Graham, T.C.N., **Scott, S.D.**, Oskamp, M., Brown, D., Porter, L. (2014). From Personal Computers to Collaborative Digital Tabletops to Support Simulation Based-Training. *Proceedings of ICCRTS 2014: 19th Annual International Command and Control Research and Technology Symposium*, June 16-19, Alexandria, VA.
91. Alqahtani, M., Histon, J.M., Scott, S.D. (2013) Designing an Interruption Management Experiment: Evaluating the Working Awareness Interruption Tool (Wait) For Air Traffic Controllers. Proceedings of CASI 2013: Canadian Aeronautics and Space Institute 60th Aeronautics Conference and Annual General Meeting, April 30-May 2, 2013, Toronto, ON.
92. Ouellet, J.-N., Harvey, E.R., Echevarria, J., Franck, G., Scott, S.D. (2012). Computer vision application using the Kinect sensor for the identification and tracking of users interacting with a surface computing platform. Proceedings of the 2012 Applied Vision and Robotics Workshop, May 8-9, 2012, Montreal, QC, May 8-9, 2012, 74-86.
93. McKay, P., Scott, S.D., Histon, J., Torenvliet, G. (2011). A Video Prototyping Methodology for Evaluating Novel Interface Concepts in Cockpit Displays. Proceedings of ISAP2011: 16th International Symposium on Aviation Psychology, May 2-5, 2011, Dayton, OH.
94. Glussich, D., Histon, J.M., Scott, S.D. (2011). Application of Communication Grounding Framework to Assess Effectiveness of Human-Automation Interface Design: A TCAS Case Study. Proceedings of ISAP2011: Int'l Symposium on Aviation Psychology, May 2-5, 2011, Dayton, OH.
95. Scott, S.D., Allavena, A., Cerar, K., Franck, G., Hazen, M., Shuter, T., Colliver, C. (2010). Investigating Tabletop Interfaces to Support Collaborative Decision-Making in Maritime Operations. Proceedings of ICCRTS 2010: 15th Annual International Command and Control Research Technology Symposium, June 22-24, 2010, Santa Monica, CA.
96. McKay, P., Scott, S.D., Histon, J.M., Torenvliet, G.L. (2009). Investigating Interaction Conflicts in Collaborative Cockpit Displays. Proceedings of AIAA Infotech@Aerospace 2009 Conference and Exhibit, April 6-9, 2009, Seattle, WA.
97. **Scott, S.D.**, Sasangohar, F., Cummings, M.L. (2009). Investigating Supervisory-level Activity Awareness Displays for Command and Control Operations. *Proceedings of HSIS 2009: ASNE Human Systems Integration Symposium*, March 17-19, 2009, Annapolis, MD.
98. **Scott, S.D.**, Wan, J., Sasangohar, F., Cummings, M.L. (2008). Mitigating Supervisory-level Interruptions in Mission Control Operations. *Proceedings of the International Conference on Applied Human Factors and Ergonomics*, July 14-17, 2008, Las Vegas, NV.

Conference Papers (Full length, Refereed abstracts) (cont'd)

99. **Scott, S.D.**, Wan, J., Rico, A., Furusho, C., Cummings, M.L. (2007). Aiding Team Supervision in Command and Control Operations with Large-Screen Displays. *Proceedings of HSIS 2007: ASNE Human Systems Integration Symposium*, March 19-21, 2007, Annapolis, MD.

100. **Scott, S.D.**, Cummings, M.L., Graeber, D.A., Nelson, W.T., Bolia, R.S. (2006). Collaboration Technology in Military Team Operations: Lessons Learned from the Corporate Domain. *Proceedings of CCRTS 2006: Command and Control Research and Technology Symposium*, June 20-22, 2006, San Diego, CA.

101. Inkpen, K.M., Hawkey, K., Kellar, M., Mandryk, R.L., Parker, J.K., Reilly, D., **Scott, S.D.**, Whalen, T. (2005). Exploring Display Factors that Influence Co-Located Collaboration: Angle, Size, Number, and User Arrangement. *Proceedings of HCI International 2005*, July 22-27, 2005, Las Vegas, NV.

2.2.7 Conference Workshop / Consortium Meeting papers

102. **Scott, S.D.** (2018). Interfaces for Farm Animals and their Caretakers in Outdoor (and Harsh Indoor) Computing Contexts. In *CHI 2018: ACM Conference on Human Factors in Computing Systems: Workshop on HCI Outdoors,* April 2018, Montreal, QC.

103. Chang, Y.-L.B., **Scott, S.D.**, Hancock, M., (2014). Improving Situation Awareness with an Interactive Event Timeline in Collaborative Tabletop Interfaces. *5th Annual GRAND Conference (Graphics, Animation and New Media)*, May 2014, Ottawa, ON.

104. Chang, Y.-L.,B., Hancock, M., **Scott, S.D.**, Pape, J., Graham, T.C.N. (2012). Improving the Social Gaming Experience by Comparing Physical and Digital Tabletop Board Games. In *Games and Fun: Workshop on Conceptualising, Operationalising and Measuring the Player Experience in Videogames*, September 2012, Toulouse, France.

105. Wallace, J.R., **Scott, S.D.** (2008). Towards context design requirements for multi-display environments. In *CSCW 2008: ACM Conference on Computer-Supported Cooperative Work: Workshop on Authentic Collaboration with Multiple Displays*, November, 2008, San Diego, CA.

106. **Scott, S.D.** (2004). Repurposing Social Science Theories to Design and Evaluate Co-located Collaboration Technologies. In *CSCW 2004: ACM Conference on Computer-Supported Cooperative Work: Workshop on Methodologies for Evaluating Collaboration in Co-located Environments*, November 2004, Chicago, IL.

107. **Scott, S.D.** (2002). Exploring Tabletop Collaboration. In *UBICOMP 2002: Conference on Ubiquitous Computing: Workshop on Collaboration with Interactive Walls and Tables*, September 2002, Göteborg, Sweden.

108. Inkpen, K.M., Mandryk, R.L., **Scott, S.D.** (2000). The EDGE of Face-to-Face Collaborative Technology. In *CSCW 2000: ACM Conf. on Computer-Supported Cooperative Work: Workshop on Shared Environments to Support Face-to-Face Collaboration*, December 2000, Philadelphia.

2.2.8 Conference Workshop Organization

109. Wallace, J.R., Houben, S., Anslow, C., Lucero, A., Rogers, Y., **Scott, S.D.** (2017). The Disappearing Tabletop: Social and Technical Challenges for Cross-Surface Collaboration. *Workshop at ISS 2017: ACM Conf. on Interactive Surfaces & Spaces*, October 2017, Brighton, UK.

110. Fischer, J., Porcheron, M., Lucero, A., Quigley, A., **Scott, S.**, Ciolfi, L., Rooksby, J., Memarovic, N. (2016). Collocated Interaction: New Challenges in 'Same Time, Same Place' Research, *Workshop at CSCW 2016: ACM Conference on Computer-Supported Cooperative Work and Social Computing*, February/March 2016, San Francisco, CA.

Conference Workshop Organization (cont'd)

111. **Scott, S.D.** Wallace, J., Hancock, M, Nacenta, M., Graham, N. (2015). Supporting "Local Remote" Collaboration: Applying and Adapting Remote Group Awareness Techniques to Co-located Settings, *Workshop at CSCW 2015: ACM Conference on Computer-Supported Cooperative Work and Social Computing*, March 2015, Vancouver, BC.
112. **Scott, S.D.**, Muller, M., Moran, T., Bardram, J., Nardi, B., Wu, M. (2006). Awareness in Activity-Centric Groupware Design, *Workshop at CSCW 2006: ACM Conference on Computer-Supported Cooperative Work*, November 2006, Banff, AB.
113. Inkpen, K.M., Mandryk, R.L., Morris DiMicco, J., **Scott, S.D.** (2004). Methodologies for Evaluating Collaboration Behavior in Co-Located Environments, *Workshop at CSCW 2004: ACM Conference on Computer-Supported Cooperative Work*, November 2004, Chicago, IL,USA.**Scott, S.D.**, Grant, K., Carpendale, S., Inkpen, K., Mandryk, R., Winograd, T. (2002). Co-located Tabletop Collaboration: Technologies and Directions. *Workshop at CSCW 2002: ACM Conf. on Computer-Supported Cooperative Work*, November 2002, New Orleans, LA.
114. Tandler, P., Magerkurth, C., Carpendale, S., Inkpen, K., **Scott, S.D.** (2002). Collaboration with Interactive Walls and Tables. *Workshop at UBICOMP 2002: Conference on Ubiquitous Computing*, September/October 2002, Göteborg, Sweden.
115. Inkpen, K., Mandryk, R., **Scott, S.D.**, Greenberg, S., Zanella, A. (2000). Shared Environments to Support Face-to-Face Collaboration. *Workshop at CSCW 2000: ACM Conference on Computer-Supported Cooperative Work*, December 2000, Philadelphia, PA.

2.2.9 Technical Reports

116. Bassey, A., **Scott, S.D.** (2019). Using Smart Fabrics to Automate Bio-Monitoring Show-Jumping Horses for Training Improvements. Report CSL2019-01, School of Computer Science, University of Guelph, Guelph, Canada.
117. Marsh, K., & **Scott, S.D.** (2018). Identifying opportunities for emerging technologies to monitor cattle health and welfare in outdoor farm habitats. Report CSL2018-02, Collaborative Systems Lab, University of Guelph, Guelph, Canada
118. Abu Adas, D., & **Scott, S.D.** (2018). Technical Report Analyzing Various Tracking Techniques. Report CSL2018-01, Collaborative Systems Lab, University of Guelph, Guelph, Canada.
119. Bakelaar, J., & **Scott, S.D.** (2017). Opportunities to Develop Smart Farming Technologies to Address Animal Welfare Concerns: Review of the Technology Literature (Report CSL2017-02). Collaborative Systems Lab, University of Guelph, Guelph, ON.
120. Camacho, A., & **Scott, S.D.** (2017). Opportunities to Develop Smart Farming Technologies to Address Animal Welfare Concerns: Review of the Animal Welfare Literature (Report CSL2017-01). Collaborative Systems Lab, University of Guelph, Guelph, ON.
121. **Scott, S.D.**, Besacier, G., McClelland, P., Tournet, J., Goyal, N. and Cento, F. (2015). Cross-Device Content Transfer in Table-Centric Multi-Surface Environments. Technical Report CSL2015-01, Collaborative Systems Lab, University of Waterloo, Waterloo, ON.
122. **Scott, S.D.**, Allavena, A., Cerar, K., McClelland, P., Cheung, V., Jajalla, D. (2010). A Multi-User Tabletop Interface to Support Collaborative Decision-Making involving Dynamic Geospatial Data. Report CSL2010-02, Collaborative Systems Lab, University of Waterloo, Waterloo, ON.
123. **Scott, S.D.** & Allevena, A. (2010). Investigation of a Prototype Naval Planning Tool for Tabletop Computing Research: Final Report, Report CR 2010-055, DRDC-Atlantic, Halifax, NS.

Technical Reports (cont'd)

124. **Scott, S.D.** & Cummings, M.L. (2007). An Experimental Platform for Investigating Decision and Collaboration Technologies in Time Sensitive Mission Control Operations. Report HAL2007-04, Humans & Automation Lab, MIT, Cambridge, MA.
125. Isenberg, T., Nix, S., Schwarz, M., Miede, A., **Scott, S.D.**, Carpendale, S. (2007). Mobile Spatial Tools for Fluid Interaction. Report 2007-872-24. Dept. of Computer Science, University of Calgary, Calgary, AB.
126. Wan, J., **Scott, S.D.**, Cummings, M.L. (2007). Assisting Interruption Recovery in Mission Control Operations. Report HAL2007-03, Humans & Automation Lab, MIT, Cambridge, MA.Almirao, F.M., da Silva, F.B., **Scott, S.D.**, and Cummings, M.L. (2007). Designing Decision and Collaboration Support Technology for Operators in Multi-UAV Operations Teams. Report HAL2007-02, Humans & Automation Lab, MIT, Cambridge, MA.
127. **Scott, S.D.** & Cummings, M.L. (2006). Cognitive Task Analysis for the LCS Operator. Report HAL2006-01, Humans & Automation Lab, MIT, Cambridge, MA.
128. **Scott, S.D.**, Carpendale, M.S.T., Inkpen, K.M. (2004). Exploring Casual Tabletop Interactions. Report 2004-742-07, Dept. of Computer Science, University of Calgary.

2.2.10 Invited Presentations & Keynotes

1. ***Invited Speaker:*** **Opportunities for User-Centred Design Approaches to Improve the Design of "Smart" Farm Technologies,** Invited Speaker at the 54th Graphics Interface Conference, Kingston, ON, May 28-31, 2019 *Note, I had to cancel my talk due to a death in the family.*
2. ***Keynote Talk: (Gender) Inclusivity in the School of Computer Science (at Guelph),*** Inclusivity in STEM Workshop, Guelph Women in Computer Science Club event, Guelph, ON, March 2019.
3. ***Panel Speaker*****: Future Directions for Interactive Surfaces and Spaces,**
   ISS 2017: ACM Conference on Interactive Surfaces and Spaces, Brighton, UK, October 2017.
4. ***Panel Speaker*****: Large Scale Successes: Winning Strategies for Big Classes,**
   Teaching & Learning Innovations Conference - Enhancing Teaching and Learning: The Evolution of the Lecture, University of Guelph, Guelph, ON, May 2017.
5. **Collaborative Systems Lab: From Supporting People to Supporting Animals (and their Handlers) in "Smart" Spaces,**
   NSERC CREATE CLUE Seminar, Carleton University, Ottawa, ON, August 2017.
6. **Collaborative Systems Lab: Human-Computer Interaction, Interaction Design, and Visual Analytics for Enhanced Collaboration,**
   Inbox Marketing, Guelph, ON, April 2017.
7. **Supporting Collaborative and Social Interactions with Large, Interactive Surfaces,**
   Google-Guelph Research Exchange, Google, Kitchener, ON, February 2017.
8. **Theories and Applications of Social Science for Interactive Surface Computers,**
   Computer Science Seminar, Technical University of Munich, Garching, Germany, October 2016.
9. **Supporting Collaborative and Social Interactions with Large, Interactive Surfaces,**
   Computer Science Seminar, University of Guelph, Guelph, ON, April 2016.
10. **Using Tabletop Games to Examine Surface Computing Interface Design Challenges,** Computer Science Seminar, University of Sherbrooke, Sherbrooke, QC, May 2015.
11. **Using Tabletop Games to Examine Surface Computing Interface Design Challenges,** Computer Science Seminar, Queen's University, Kingston, ON, May 2015
12. **Using Games to Examine (Tabletop) Surface Computing Interface Design Challenges,** Computer Science Seminar, University of Calgary, Calgary, AB, March 2015

Invited Presentations & Keynotes (cont'd)

13. ***Keynote Talk:*** **Theories and Applications of Social Science for Interactive Surfaces,** Workshop on Collaboration Meets Interaction Surfaces (CMIS), held with ACM Conference on Interactive Tabletops and Surfaces, November 16, 2014, Dresden, Germany, November 2014
14. **Human-Computer Interaction and User Interface Concepts for Naval Battle Management and Command and Control,** Defence Research & Development Canada (DRDC), Valcartier, QC, August 2014.
15. **Visualizing and Modeling Arctic Sea Ice,** GRAND-MEOPAR Ocean Visualization Workshop, University of British Columbia, Vancouver, BC, August 2014.
16. **HEAP: Hydrocarbon Energy Analytics Project,** GRAND-Sustainability Project Meeting, University of Toronto, Toronto, ON, July 2014.
17. **Let's Play: Exploring Interface Design Challenges of Digital Tabletop using Games,** Computer Science Seminar, Carleton University, Ottawa, ON, January 2014.
18. **Let's Play: Exploring Interaction Design Challenges of Digital Tabletop using Games,** Computer Science Seminar, University of New Brunswick, Fredericton, NB, December 2013.
19. **User-Aware Devices: How Do We Gracefully Manage Imperfect Automation?** ***Dagstuhl Seminar*** on Proxemics in HCI, Schloss Dagstuhl, Wadern Germany, November 2013.
20. **Tabletop Gaming as a Context for Exploring Design Challenges in Digital Tabletops,** Computer Science Seminar, University of Saskatchewan, Saskatoon, SK, January 2013.
21. **Bridging the Gap Between Personal and Shared Surface Computing Devices,** Handheld Technology Forum (HHTF), Research in Motion (RIM), Waterloo, ON, November 2011.
22. ***Keynote Talk:*** **Exploring the Potential of Surface Computing in Complex Task Environments,** Industry Day, NSERC SurfNet Annual Workshop, University of Calgary, Calgary, AB, July 2011.
23. **Collaborative Tabletop Interfaces to Support Complex Task Environments,** Computer Science Colloquium, University of Central Florida, Orlando, FL, March 2011.
24. **Surface Computing Interfaces to Support Collaborative Decision-Making in Complex Task Environments,** User Interface Colloquium, University of Magdeburg, Germany, October 2010.
25. **Collaborative Systems Laboratory Research Overview,** UbiSoft, Québec, QC, September 2010.
26. **Investigation of a Prototype Naval Planning Tool for Tabletop Computing Research,** DRDC Future Technology Watch Showcase, CANSEC 2010, Ottawa, ON, June 2010.
27. **Next Generation Digital Tabletop Interfaces: Moving Beyond Photosharing,** User Experience (UX) Group of Waterloo Region, Waterloo, ON, March 2010.
28. ***"Inspiration Agent" Keynote Talk:*** **Digital Tabletop Gaming,** GeoEduc3D Workshop (GEOIDE NCE), Laval University, Québec, QC, February, 2010.
29. **Next Generation Digital Tabletop Interfaces: Moving Beyond Photosharing,** CapCHI: Special Interest Group – Computer Human Interaction, Ottawa, ON, December 2009.
30. **Collaborative Large-Screen Display Systems in Complex, Dynamic Task Environments,** Raytheon Canada, Waterloo, ON, July 2009.
31. **Collaborative Large-Screen Display Systems in Complex, Dynamic Task Environments,** Upper Austria University of Applied Sciences, Hagenberg, Austria, October 2008.
32. **Supporting Collaborative Work Practices in Digital Tabletop System Design,** Department of Computer Science, University of Calgary, Calgary, AB, May 2008.
33. **Collaborative Large-Screen Display Systems for Mission Control Operations,** Defence Research and Development Canada (DRDC) - Toronto, Toronto, ON, April 2008.
34. **Leveraging Established Work Practices in Digital Tabletop System Design,**
HCI Research Seminar, University of Illinois at Urbana-Champaign, Urbana, IL, September 2007.

Invited Presentations & Keynotes (cont'd)

35. **Leveraging Established Work Practices in Digital Tabletop System Design,** Multimedia and Collaboration Research Group, The MITRE Corp., Bedford, MA, May 2007.
36. **Leveraging Established Task and Social Practices in Ubiquitous Technology Design,** HCI Seminar, MIT Computer Science & Artificial Intelligence Lab, Cambridge, MA, April 2007.
37. **Decision and Collaboration Support for Time-Critical Unmanned Vehicle Operations** (w/ M. Cummings), Department of Computer Science, University of Calgary, Calgary, AB, March 2007.
38. **Improving Collaboration in Unmanned Aerial Vehicle Operations,** CDL Systems, Calgary, AB, March 2007.
39. **Activity Awareness in Unmanned Aerial Vehicle Operations,** IBM T.J. Watson Lab, Collaborative User Experience Group, Cambridge, MA, March 2007.
40. **Collaborative Time-Sensitive Targeting,** Institute of Simulation and Training, University of Central Florida, Orlando, FL, February 2006.
41. **Supporting Collaboration in Time-Sensitive Operations,** Charles River Analytics, Cambridge, MA, December 2005.
42. **Supporting Human Decision-Making in Time-Critical Environments,** CMC Electronics, Ottawa, ON, July 2005.
43. **Supporting Human Decision-Making in Time-Critical Environments,** Defence Research & Development Canada (DRDC), Toronto, ON, July 2005.
44. **Supporting Human Decision-Making in Time-Critical Environments,** Mathematics & Computing Technology Lab, Boeing Phantom Works, Bellevue, WA, June 2005.
45. **Supporting Human Decision-Making in Time-Critical Environments,** Department of Psychology, Wright State University, Dayton, OH, May 2005.
46. **Collaborative Time-Sensitive Operations** (w/ M. Cummings), Air Force Research Lab, Wright Patterson Air Force Base, Dayton, OH, May 2005.
47. **Territoriality in Collaborative Tabletop Workspaces,** IBM T.J. Watson Lab, Collaborative User Experience group, Cambridge, MA, August 2004.
48. **Territoriality in Collaborative Tabletop Workspaces,** MIT Computer Science Artificial Intelligence Lab, Cambridge, MA, August 2004.

2.2.11 Supervised/Co-Supervised Student Theses

1. Ghare, M. (2017). *Investigating the Impact of Proximity and Visual Conation Modes on Enhancing Engagement with Public Large Interactive Displays*, M.A.Sc. Thesis, Systems Design Engineering, University of Waterloo, Ontario, Canada.
2. Chang, Y.-L. Betty (2016). *Supporting Situation Awareness and Workspace Awareness in Co-located Collaborative Systems Involving Dynamic Data*. Ph.D. Dissertation, Systems Design Engineering, University of Waterloo, Waterloo, Ontario, Canada.
3. Cheung, V. (2016). *Increasing Passersby Engagement with Public Large Interactive Surfaces*. Ph.D. Dissertation, Systems Design Engineering, University of Waterloo, Waterloo, Ontario, Canada.
4. Varona-Marin, D. (2016). *The Lifecycle of a Whiteboard Photo: Post-meeting Usage of Whiteboard Content Captured with Mobile Devices.* M.A.Sc. Thesis, Systems Design Engineering, University of Waterloo, Waterloo, Ontario, Canada.
5. Goyal, Nippun (2016). *Investigating Data Exploration Techniques Involving Map Based Geotagged Data in a Collaborative Sensemaking Environment.* M.A.Sc. Thesis, Systems Design Engineering, University of Waterloo, Waterloo, Ontario, Canada.

Supervised/Co-Supervised Theses (cont'd)

6. McClelland, Phillip J. (2013). *Bridging Private and Shared Interaction Surfaces in Collocated Groupware*. M.A.Sc. Thesis, Systems Design Engineering, University of Waterloo, Waterloo, Ontario, Canada.
7. Hajizadehgashti (Gashti), Sepinood (2012). *Investigating the impact of table size on external cognition in collaborative problem-solving tabletop activities*. M.A.Sc. Thesis, Systems Design Engineering, University of Waterloo, Waterloo, Ontario, Canada.
8. Wallace, James R. (2012). *The Impact of Shared and Personal Devices on Collaborative Process and Performance*. Ph.D. Dissertation, Systems Design Engineering, University of Waterloo, Waterloo, Ontario, Canada.
9. Seto, A. Mindy (2012). *Designing Discoverable Digital Tabletop Menus for Public Settings*. M.A.Sc. Thesis, Systems Design Engineering, University of Waterloo, Waterloo, Ontario, Canada.
10. Cerar, Katherine (2011). *Examining the Impact of Increasing Location-Based Information Fidelity on Command Center Decision-Making*. M.A.Sc. Thesis, Systems Design Engineering, University of Waterloo, Waterloo, Ontario, Canada.
11. Sasangohar, Farzan (2009). *Improving Interruption Recovery in Human-Supervisory Control (HSC)*. M.A.Sc. Thesis, Systems Design Engineering, University of Waterloo, Waterloo, Ontario, Canada.
12. McKay, Paul (2009). *Design of Collaborative Systems for Modern Cockpits*. M.A.Sc. Thesis, Systems Design Engineering, University of Waterloo, Waterloo, Ontario, Canada.
13. Wan, Jordan (2007). *Interruption recovery tool for team supervision in time sensitive command and control environments*. M.Eng. Thesis, Electric Engineering & Computer Science, Massachusetts Institute of Technology, Cambridge, MA, USA.

2.3 RESEARCH AWARDS & FUNDING

2.3.1 Academic Awards and Honours

Awardee	Award Title & Agency	Amount	Years Held
S.D. Scott	University Faculty Award, *NSERC*	$200,000	2007-2012
S.D. Scott	Postdoctoral Fellowship (PDF), *NSERC*	$40,000/yr	2007-2008 (declined)
S.D. Scott	John Kendall Award for Best Doctoral Thesis *Faculty of Science, University of Calgary*	n/a	2005

2.3.2 Research Grants and Contracts

PI & Collaborators	Title & Agency	Amount	Years Held
S.D. Scott (lead), D. Tulpan, M. Gong	Outdoor Cattle Health and Welfare: Automatic Behavioural Classification in Free-Range Contexts *CFI-JELF / ORF-SIF*	$210,792	Applied for
M. Hancock (lead), S.D. Scott	IMMERSe – Identifying Questions for Game-Based Learning through Deep Learning *MITAS Accelerate (3 internships) with Axonify (Waterloo, ON)*	$45,000	2019-2020
S.D. Scott (lead), A. Hamilton-Wright, R. Chaturvedi	Investigating inclusive curriculum and student support services in computer science *UofG's Physical Sciences and Engineering Education Research Institute (PSEER) Grant*	$10,000	2018-2019
S.D. Scott	Improving the Effectiveness of Co-located Collaboration Technologies *NSERC Discovery Grant*	$210,000	2017-2022
S.D. Scott	Improving the Effectiveness of Co-located Collaboration Technologies *NSERC Discovery Grant Accelerator Supplement*	$120,000	2017-2020
J. Wallace, S.D. Scott	Visualizing Factors Contributing to Antimicrobial Resistance *Public Health Canada Contract*	$9,186	2017
S.D. Scott	Start-up Grant *University of Guelph*	$60,000	2016
J. Wallace, S.D. Scott, P. Stolee	Interactive Data Exploration and Analysis (IDEA) System *CFI Leader's Opportunity Fund/ORF-SIF*	$70,000	2017-2018
R.Mandryk (lead), S.D. Scott and 9 others	SWaGUR: Saskatchewan-Waterloo Games User Research *NSERC Collaborative Research and Training Experience (CREATE)*	$1,650,000	2016-2022
S.D. Scott (lead), C. Burns, N. Randall	IMMERSe- To and from the whiteboard: Supporting whiteboard transitions in a design workflow MITAS Accelerate (2 internships) with SMART Technologies (Calgary, AB)	$30,000	2015-2016

Research Grants and Contracts (cont'd)

PI & Collaborators	Title & Agency	Amount	Years Held
F. Maurer (lead), S.D. Scott	Hydrocarbon Energy Analytics Project (HEAP) *GRAND NCE Project*	$24,000	2014-2015
S.D. Scott (lead), M. Hancock, N. Randall	IMMERSe – Supporting Awareness and Encouraging Collaboration in Bring-Your-Own-Device Classroom Environments *MITAS Accelerate (2 internships) with SMART Technologies (Calgary, AB)*	$30,000	2014-2015
S.D. Scott	Designing Multi-Surface User Interfaces for Naval Planning and Decision Support Tools *NSERC Engage with Menya Solutions (Sherbrooke, QC)*	$25,000	2014-2015
S.D. Scott (lead), M. Hancock	Experimental Design and User Study of EA Gaming Concepts *Electronic Arts Research Contract*	$34,615	2014
S.D. Scott (lead), with 5 others.	Leif: A Multicultural Exploration into Research and Education for Surface Computing *HRSDC: Canada-EU Transatlantic Exchange Partnership (TEP) Grant*	$200,000 (EU partners funded separately)	2010-2013
N. Randall, S.D. Scott, C. DiMarco	WatGAME: Waterloo Games Analysis and Monitoring Environment *CFI Leader's Opportunity Fund & Ontario Research Fund (ORF-SIF)*	$200,000	2013-2014
S.D. Scott	Individual and Collaborative Benefits of Interactive Large-Screen Displays *NSERC Discovery Grant*	$110,000	2012-2017
N. Randall (lead), S.D. Scott and 11 others	IMMERSe: The Interactive & Multi-Modal Experience Research Syndicate *SSHRC Partnership Grant*	$2,549,960	2012-2018
F. Maurer (lead), S.D. Scott, and 11 others	NSERC digital surface software application network (SurfNet) *NSERC Strategic Networks Grant*	$5,000,000	2010-2015
S.D. Scott	Exploring Industrial Opportunities for Digital Tabletop Gaming *NSERC Interaction Grant*	$4,500	2010
D. McKay (PI, CMC Electronics), J. Histon, S.D. Scott	Virtual Social Networking DRDC Research Contract	$313,332	2009-2011
S.D. Scott	Investigation of a Prototype Naval Planning Tool for Tabletop Research DRDC Research Contract	$19,775	2009
S.D. Scott	Experimental Platform for Developing Interactive Surface Computers to Support Complex, Time-critical Teamwork NSERC RTI (Equipment) Grant	$65,236	2009

Research Grants and Contracts (cont'd)

PI & Collaborators	Title & Agency	Amount	Years Held
D. McKay (PI, CMC Electronics), S.D. Scott	Developing an experimental platform for experiments on distributed teams *DRDC Research Contract*	$90,000	2007-2008
S.D. Scott	Advanced interface technologies for interactive multi-user displays *NSERC Discovery Grant*	$110,000	2007-2012
S.D. Scott	Start-up Grant *University of Waterloo*	$75,000	2007

2.3.3 External Graduate Student Support

Student	Award / Scholarship & Agency	Amount	Years Held
A. Makinde	OGS-International Masters Ontario Graduate Scholarship	$15,000	2019-2020
A. Makinde	Food From Thought Research Assistantship "Food from Thought" Canada's First Research Excellence Fund	$17,500	2018-2019
L. Homaeian	NSERC PGS-D NSERC	$63,000	2017-2020
J. Harris	NSERC PGS-D NSERC	$63,000	2014-2016
Y.-L.B.Chang	NSERC PGS-D NSERC	$63,000	2012-2014
M. Mengual	LEIF Canada-EU Exchange Award *European Education, A/V, and Cultural Executive Agency*	€5000 (~$6600 Cdn)	2013
J. Tournet	LEIF Canada-EU Exchange Award *European Education, A/V, and Cultural Executive Agency*	€5000 (~$6600 Cdn)	2012-2013
D. Lindlbauer	LEIF Canada-EU Exchange Award *European Education, A/V, and Cultural Executive Agency*	€5000 (~$6600 Cdn)	2012
A. Ion	LEIF Canada-EU Exchange Award *European Education, A/V, and Cultural Executive Agency*	€5000 (~$6600 Cdn)	2012
M. Alqahtani	King Abdullah Scholarship Program *Saudi Arabian Cultural Bureau*	$25,060*	2012*
	(*delegate supervisor during this period)		
J.R. Wallace	NSERC CGS-D *NSERC*	$105,000	2009-2012
A.M. Seto	NSERC IPS *NSERC / Infusion Development*	$42,000	2009-2011

2.3.4 In-Kind Industrial Support

PI & Collaborators	In-Kind Description & Donating Company	Value	Support Received
N. Randall, S.D. Scott, C. DiMarco	Evolution Video Game Dev Engine software license *Digital Extremes*	$50,000	2013
S.D. Scott	Blackberry smartphones and tablets *Research in Motion (RIM)*	$6,000	2010-2011
S.D. Scott (lead), with other SurfNet researchers	Annual software licenses and training for InterMaphics software, *Gallium Visual Systems*	$75,000/yr	2010-2015
S.D. Scott	SMART Table ST 230i, *SMART Technologies ULC*	$7,000	2010
S.D. Scott, J. Histon, C. Burns	Annual software licenses and training for InterMaphics geospatial software library, senior management consultation, *Gallium Visual Systems*	$25,000 (training & licenses)	2009
S.D. Scott	Christie DS-305 digital projector, *Christie Digital Systems*	$12,069	2008

3 TEACHING ACTIVITIES

3.1 COURSES TAUGHT

Course Information	Terms taught	No. Students
CIS 3260: SOFTWARE DESIGN III (UNDERGRADUATE, REQUIRED COURSE)		
University of Guelph, School of Computer Science *Intermediate software design course. Core concepts include software project management, configuration management, communication and teamwork, software design tools. Students complete team-based software assignments.*	Fall 2017 Fall 2018 Fall 2019	82 76 50
CIS 3760: SOFTWARE ENGINEERING (UNDERGRADUATE, REQUIRED COURSE)		
University of Guelph, School of Computer Science *Intermediate software engineering methods course. Core concepts include software design and modeling using UML, objected-oriented software design and development, teamwork, and agile development. Students complete a major team-based software design project.*	Winter 2017 Winter 2018 Winter 2019 Winter 2020	116 114 67† 48†
†*Course was split into two sections across different terms to accommodate students in different program streams.*		
CIS 4300: HUMAN-COMPUTER INTERACTION (UNDERGRADUATE, REQUIRED & ELECTIVE COURSE)		
University of Guelph, School of Computer Science *Introduction to human-computer interaction course. Required for some degree majors and elective for others. Core concepts include data collection methods for requirements (e.g. interviews, focus groups), design conception and evaluation, prototyping, and user studies and field studies. Students complete a major team-based, technology evaluation project.*	Fall 2019	80
CIS 6650: TOPICS IN COMPUTER SCIENCE: HUMAN-COMPUTER INTERACTION (GRAD COURSE)		
University of Guelph, School of Computer Science *Graduate level course on human-computer interaction (HCI) designed to introduce graduate students in technical programs to the principles and methods used in HCI research. Course also surveys recent literature from top international HCI venues. Students complete a major individual project that includes a literature review and technology evaluation.*	Winter 2019	5
CIS 6660: TOPICS IN COMPUTER SCIENCE: PRECISION LIVESTOCK TECHNOLOGY (GRAD COURSE)		
University of Guelph, School of Computer Science *Advanced reading course on precision livestock farming (PLF) technologies. Course focuses on technologies that monitor, assess, and respond to animal health and welfare concerns in farming. Course surveys trends in PLF technologies and explores new design opportunities. Students complete a major literature review of a relevant, unique PLF topic area.*	Summer 2019	2

COURSES TAUGHT (CONT'D)

Course Information	Terms taught	No. Students
SYDE 121: DIGITAL COMPUTATION (UNDERGRADUATE, REQUIRED COURSE)		
University of Waterloo, Systems Design Engineering *Introduction to programming course. Main topics include computer systems, problem solving, structured programming, arrays, matrices and pointers, algorithm design, data structures, and introduction to object-oriented programming. C++ is used for in-class examples and weekly programming assignments.*	Fall 2012 Fall 2013 Fall 2014 Fall 2015	94 108 85 90
SYDE 202: SYSTEMS DESIGN ENGINEERING SEMINAR (UNDERGRADUATE, CORE SEMINAR COURSE, NON-CREDIT COURSE)		
University of Waterloo, Systems Design Engineering *2nd Year seminar. Curriculum varies by instructor and class interests.*	Fall 2011 Fall 2012	90 86
I focused on giving seminars and bringing in guest speakers relevant to the students' current career and academic progress, including: • *International exchange coordinators* • *Coordinators of popular Engineering Options (similar to "minor concentrations" in other fields)* • *Research talks by faculty members* • *Staff from Engineering Counseling Services to discuss stress and time management skills* • *Guest speakers from Engineers Without Borders and industry*		
SYDE 322: SOFTWARE DESIGN (UNDERGRADUATE, TECHNICAL ELECTIVE)		
University of Waterloo, Systems Design Engineering *Software engineering methods course. Core concepts include software design and modeling using UML, change management, team coordination, objected-oriented software design and development, software lifecycles, agile development, and cloud configuration management. Students complete a team-based course project.*	Winter 2013 Winter 2014	24 19
SYDE 348: USER-CENTRED DESIGN METHODS (UNDERGRADUATE, TECHNICAL ELECTIVE)		
University of Waterloo, Systems Design Engineering *Human-computer interaction methods course, focused on iterative, user-centred design process. Core concepts include requirements methods (e.g. interviews, focus groups), design conception and evaluation, prototyping, and user and field studies. Students complete a team-based, course project.*	Winter 2008 Winter 2009 Winter 2010 Winter 2013 Winter 2014†	27 28 45 50 41
†*Co-taught with C. MacGregor. I organized and co-evaluated course projects & advised on curriculum changes.*		
SYDE 461/462: SYDE DESIGN WORKSHOP 2&3 (UNDERGRADUATE, REQUIRED CORE COURSES)		
University of Waterloo, Systems Design Engineering *4th year capstone design course. Students complete a substantial open-ended design project which involves teamwork and project management, and demonstrates application of skills and knowledge gained throughout their undergraduate program. The project spans two terms.*	Fall 2014 (461) † Fall 2015 (461) Winter 2016 (462)	61 69 69
†*Co-taught with C. MacGregor. I was main project coordinator and lab instructor. I coordinated and ran the panel examinations.*		

COURSES TAUGHT (CONT'D)

Course Information	Terms taught	No. Students
SYDE 643: COLLABORATIVE SYSTEMS DESIGN (GRADUATE COURSE) (FORMERLY 740-9: TOPICS IN HUMAN SYSTEMS: COLLABORATIVE SYSTEMS DESIGN)		
University of Waterloo, Systems Design Engineering *Advanced human-computer interaction course on the design of collaborative computing systems. Core concepts include collaboration theories and requirements, quantitative and qualitative research and data analysis methods, crowd-based research, and collaboration technology examples. Students complete a major team-based project.*	Winter 2008 Fall 2009* Fall 2010 Fall 2011 Winter 2014	4 8 9 10 5
SYDE 740-14: TOPICS IN HUMAN SYSTEMS: SURFACE COMPUTING SYSTEMS (GRAD COURSE)		
University of Waterloo, Systems Design Engineering *Advanced human-computer interaction reading course on large-format surface computing systems. Course surveys literature across psychology, sociology, architecture, industrial design, computer science and engineering to demonstrate the breadth of design considerations for large-scale interactive surfaces. Students complete a major project.*	Spring 2013 Spring 2017	2 1
DM530-08: INTERACTIVE ENVIRONMENTS: COLLABORATIVE SYSTEMS DESIGN (GRAD COURSE)		
Upper Austria University of Applied Sciences (Hagenberg, Austria), Media Technology and Design/Digital Media *Week-long condensed course based on SYDE 643 curriculum, as a module in a Masters-level course on Interactive Environments offered by Prof. Michael Haller.*	Fall 2008	30
16.499: COMPUTER SUPPORTED COOPERATIVE WORK (GRADUATE COURSE)		
Massachusetts Institute of Technology (MIT), Aeronautics and Astronautics *Advanced human factors topics course on the design of collaborative computing systems. Course emphasized the study of collaboration from an interdisciplinary perspective and the derivation of system design criteria. Students completed a major project.*	Fall 2005* Winter 2007*	4 6

**Co-taught with M. Cummings. I was the main course instructor and curriculum designer.*

3.2 INVITED GUEST LECTURES & INVITED TALKS (INTERNAL UNIVERSITY EVENTS)

DATE AND LECTURE/TALK DESCRIPTION	
Nov 2018	***CIS 4300*** *– Human-Computer Interaction, "Collaborative Systems Lab Research Overview"*
Oct 2018	***Academic Career Development Course, CEPS: Faculty Interviews***, Panelist
Mar 2016	***Centre for Teaching Excellence: Documenting Your Teaching for Tenure***, Panelist
Feb 2016	***Women in Engineering Parental Leave Panel***, Panelist
Apr 2014	***Women in Engineering Developing a Research Group/Grad Supervision Panel***, Panelist
Mar 2014	***Women in Engineering Parental Leave Panel***, Panelist
Mar 2014	***WaterlUX (Waterloo User Experience) Club***, "Let's Play: Exploring Interface Design Challenges of Digital Tabletops using Games"
Mar 2014	***COGSCI 600*** – Cognitive Science Seminar, "Leveraging Established Work Practices in Digital Tabletop System Design"
Mar 2013	***Women in Engineering Maternity Leave Panel***, Panelist
Nov 2012	***WS 205*** – Gender, Culture, and Technology, "Women in Engineering"
Sep 2011	***SYDE 543*** – Cognitive Ergonomics (w/ P. McClelland), "Vigilance"
Nov 2010	***WS 205*** – Gender, Culture, and Technology (w/ L. Farlow), "Women in Engineering"
Oct 2010	***VIP (Vision and Information Processing) Research Seminar***, "Surface Computing Systems"
Jul 2010	***UW Engineering Alumni Event Keynote*** (Harry Potter Exhibition, Ontario Science Centre), "Surface Computing Systems"
Jul 2010	***COGSCI 600*** – Cognitive Science Seminar, "Leveraging Established Work Practices in Digital Tabletop System Design"
Jul 2010	***SYDE 162*** – Introduction to Human Systems Engineering, "Digital Tabletop Systems"
Jun 2010	***Women in Engineering Academic Bootcamp***, "Negotation"
Jan 2010	***Boundless Research Group (Management Sciences)***, "Leveraging Established Work Practices in Digital Tabletop System Design"
Jul 2009	***SYDE 162*** – Introduction to Human Systems Engineering, "Digital Tabletop Systems"
Feb 2009	***ESQ (Engineering Science Quest) Tech Girl Workshop***, "Designing Easy and Fun to Use Interactive Computer Technology"
Mar 2008	***CS 490*** – Information Management Systems, "Collaboration Support Systems in Modern Military Operations"
Jul 2008	***SYDE 142*** – Introduction to Human Systems Engineering, "Digital Tabletop Systems"
Nov 2007	***SYDE 202*** – Systems Design Engineering 2B Seminar, "Digital Tabletop Systems"
Jul 2007	***SYDE 142*** – Introduction to Human Systems Engineering, "Digital Tabletop Systems"

3.3 MENTORSHIP AND STUDENT INTERACTIONS

I am deeply passionate about fostering interest in emerging technologies and in next-generation computer interfaces that improve our collaborative and social activities. Thus, I spend considerable time and energy on recruiting and developing young research talent. Since arriving at Guelph in 2016, and at Waterloo before that, I have carefully and deliberately established an environment and culture that provides a comprehensive, interdisciplinary learning environment for students and research staff who work with me. I subscribe deeply to the "mentorship" approach to student supervision and student interactions. I typically meet weekly one-on-one with each of my graduate students, together with their co-supervisors in some cases, and weekly or bi-weekly with research and design project groups I am supervising, depending on the stage of the projects. I also partner junior students (undergraduate research assistants (URAs), co-op students, and new Master's students) under the day-to-day supervision of senior graduate students or postdoctoral fellows to ensure they receive ongoing research mentorship, and to provide supervisory experience to my senior students and staff. Another key aspect of the research environment I have established is the strategic collaborations *on campus*, *across Canada*, and *internationally* I have developed to help expose my students and staff to a broad range of complementary skills and knowledge to broaden their research capabilities. This broad range of skills and knowledge is essential to the effective design and study of complex collaborative computer systems.

3.3.1 SUMMARY OF STUDENT / POSTDOCTORAL ASSOCIATE SUPERVISION

SUPERVISION SUMMARY

Degree or Project-type	In-Progress	Completed	Totals
Undergraduate Research Assistants (part-time)	0	27	**27**
Undergraduate Research Assistants (interns/co-op)	2	39	**41**
Undergraduate Capstone / Indep. Project Students	0	52	**52**
Master's (theses)	2	13	**15**
Ph.D. (theses)	1	5	**6**
Research Assistants	0	10	**10**
Postdoctoral fellows	0	3	**3**
Totals	**5**	**149**	**154**

EXTERNAL THESIS EXAMINER SUMMARY

Year	Degree Type	University	Country
2019	PhD	Monash University	Australia
2016	PhD	Queensland University of Technology	Australia
2016	PhD	Technische Universität München (Technical University of Munich)	Germany
2013	PhD	University of Sydney	Australia
2013	PhD	University of Saskatchewan	Canada
2011	PhD	University of Central Florida	USA
2009	Master's	Massachusetts Institute of Technology	USA
2008	PhD	Queen's University	Canada

3.3.2 DETAILS OF STUDENT / POSTDOCTORAL ASSOCIATE SUPERVISION (UOFG: UNIVERSITY OF GUELPH, UW: UNIVERSITY OF WATERLOO)

POSTDOCTORAL ASSOCIATE SUPERVISION

2018 Jan Adriaan Oberholzer, *Postdoctoral Associate, UofG*
Project: **Interactive Surfaces to Support Co-located Collaboration**

2011-2013 Guillaume Besacier, *Postdoctoral Associate, UW*
Project: **Development of Digital Tabletop Gaming Systems**

2010-2011 Nader Cheaib, *Postdoctoral Associate, UW*
Project: **Development of a Multi-Agency Collaboration and Coordination Hub**

GRADUATE THESIS SUPERVISION: PHD THESES

2016- Leila Homaeian, *PhD, UW Systems Design Engineering* (Co-sup. w/ J. Wallace)
PhD Thesis: **Supporting Collaborative Processes in Multi-Surface Environments**
*** NSERC PGS-D awardee**

2018-2019* Fanny Susilo, *PhD, UofG Computer Science* (Co-sup. w/ T. Devries)
PhD Thesis: **Investigating the Usability of Automatic Milking Robots for Cows and Farms**
*withdrew for personal reasons

2013-2016 John Harris, *PhD, UW Computer Science* (Co-sup. w/ M. Hancock)
PhD Thesis: **Asymmetric Collaborative Gaming**
*** NSERC PGS-D awardee**

2010-2016 Yu-Ling (Betty) Chang*, *PhD, UW Systems Design Engineering* (Co-sup. w/ M. Hancock)
PhD Thesis: **Supporting situation and workspace awareness in co-located collaborative systems involving dynamic data**
*** NSERC PGS-D awardee & MITACS Accelerate intern**

2010-2016 Victor Cheung, *PhD, UW Systems Design Engineering* (Co-sup. w/ E. Lank)
PhD Thesis: **Drawing attention towards and engaging interaction with public large interactive surfaces**

2007-2012 James (Jim) Wallace, *PhD, UW Systems Design Engineering* (Co-sup. w/ C. MacGregor)
PhD Thesis: **The impact of shared and personal devices on collaborative process and performance**
*** NSERC CGS awardee**

GRADUATE THESIS SUPERVISION: MASTER'S THESES

2018- Marvin Pafla*, MASc, UW Systems Design Engineering* (Co-sup. w/ M. Hancock)
MASc Thesis: **Artificial Intelligence in Computer Games**
*** MITACS Accelerate intern**

2018- Muhammad Muhaiminul Islam*, MSc, UofG Computer Science*
MSc Thesis: **Development of Novel Precision Livestock Farming Technologies**

2018-2020 Ayoola Makinde*, MSc, UofG Computer Science*
MSc Thesis: **Development of Novel Precision Livestock Farming Technologies**
*** OGS Graduate Scholarship awardee**
*** Food from Thought Research Assistantship awardee**

2015-2017 Mojgan Ghare*, MASc, UW Systems Design Engineering*
MASc Thesis: **Exploring Proxemics Interactions in Public Large Interactive Surfaces**

GRADUATE THESIS SUPERVISION: MASTER'S THESES (CONT'D)

2014-2016 Danniel Verona-Marin*, MASc, UW Systems Design Engineering*
MASc Thesis: **To-and-From the (Interactive) Whiteboard**
*** MITACS Accelerate intern**

2014-2015 Anastasia Kuzminykh, *MASc, UW Systems Design Engineering* (Co-sup. w/ E. Lank)
MASc Thesis: **Investigating the impact of private and shared spaces on cognition**

2013-2016 Nippun Goyal, *MASc, UW Systems Design Engineering*
MASc Thesis: **Facilitating collaborative data exploration in multi-surface environments**

2010-2013 Phillip McClelland, *MASc, UW Systems Design Engineering*
MASc Thesis: **Bridging private and shared interaction surfaces in collocated groupware**

2012-2013 Meshael Alqahtani*, *MASc, UW Systems Design Engineering*
MASc Thesis: **Improving the Management of Controllers' Interruptions through the Working Awareness Interruption Tool: WAIT**
*Delegate supervisor during this period

2009-2012 Amanda (Mindy) Seto*****, *MASc, UW Systems Design Engineering*
MASc Thesis: **Designing discoverable digital tabletop menus for public settings**
*** NSERC IPS awardee**

2008-2012 Sepinood Hajizadehgashti (Gashti), *MASc, UW Systems Design Engineering*
MASc Thesis: **Investigating the impact of table size on external cognition in collaborative problem-solving tabletop activities**

2009-2011 Katherine Cerar, *MASc, UW Systems Design Engineering*
MASc Thesis: **Examining the impact of increasing location-based information fidelity on command center decision-making**

2007-2009 Farzan Sasangohar*****, *MASc, UW Systems Design Engineering*
MASc Thesis: **Improving interruption recovery in human-supervisory control**
*** OGS Graduate Scholarship awardee**

2007-2009 Paul McKay*****, *MASc, UW Systems Design Engineering*
MASc Thesis: **Design of collaborative systems for modern cockpits**
*** NSERC IPS awardee**

2006-2007 Jordan Wan, *MEng, Electric Engineering & Computer Science, Massachusetts Institute of Technology*
MEng Thesis: **Interruption recovery tool for team supervision in time sensitive command and control environments**

GRADUATE RESEARCH ASSISTANTS / RESEARCH STAFF / VISITING STUDENTS / COOPS

Fall 2019-Winter 2020 Melissa Williams, *Research Assistant, Animal Biosciences Ph.D. Student*
Project: **Participant recruitment and conducting interviews of beef farmers to explore perceptions of and experiences with precision livestock technologies**

Fall 2019-Winter 2020 Emily Conlin, *Research Assistant, Animal Biosciences Master's Student*
Project: **Participant recruitment and conducting interviews of beef farmers to explore perceptions of and experiences with precision livestock technologies**

Winter 2019-Fall 2019 Nathan Chan, *Research Assistant*
Project: **Software development support on a multi-surface experimental platform**

Fall 2018-Spring 2019 Bhavya Dhawan, *Research Assistant*
Project**:** **Investigating inclusive curriculum and student support services in computer science**

GRADUATE RESEARCH ASSISTANTS / VISITING STUDENTS / COOPS (CONT'D)

Spring 2015 — Bo Peng, *Research Assistant*
Project**: Investigating Software Plagiarism Tools and Techniques**

Fall 2013-Spring 2014 — Leila Homaeian, *Research Assistant*
Projects**: Impact of Automation on Cooperative Strategic Game Play; Experimental Design and User Study of EA Gaming Concepts**

Winter 2013-Winter 2014 — Rebecca Langer, *Research Assistant* (Co-sup w/ M. Hancock)
Project**: Utilizing Suspense and Narrative in Interface Design**

Spring 2012 — Alexandra Ion*, *Intern, from Upper Austria University of Applied Science, Austria*
Project**: Off-view visualization techniques for large geospatial situation displays**
*** LEIF Canada-EU Academic Exchange Program awardee**

Spring 2012 — David Lindlbauer*, *Intern, from Upper Austria University of Applied Science, Austria*
Project**: Automatic perceptual-based grouping of sketch items on an interactive wall**
*** LEIF Canada-EU Academic Exchange Program awardee**

Winter 2009 — Lin Chen, *Coop Research Assistant, UW Management Science MASc (Coop)*
Project: **Investigating the impact of table size on collaboration**

UNDERGRADUATE RESEARCH ASSISTANTS / COOPS (FULL-TIME)

Spring 2020 — Eli-Henry Dykhne, *Coop Research Assistant, UofG Computer Science*
Project: **Investigating Automated Vision-Based Techniques for Monitoring Livestock in Outdoor Habitats**

Spring 2020 — Mary Bergin, *Coop Research Assistant, UofG Computer Science*
Project: **Developing Digital Online Recruitment and Outreach Strategies for Computer Science**

Spring 2019 — Anemmeabasi Bassey, *Coop Research Assistant, UofG Computer Science*
Project: **Using Smart Fabrics to Monitor Health and Performance in High-Performance Show Jumping Horses**

Spring 2018 — Kassidy Marsh, *Coop Research Assistant, UofG Computer Science*
Project: **Investigating Technological Solutions to Outdoor Cattle Monitoring**
*** NSERC USRA awardee**

Winter/Spring 2017 & 2018 — Marvin Pafla, *Coop Research Assistant, UofG Computer Science*
Project: **Improving Interaction with Public Interactive Displays**

Spring 2017 — Anetia Camacho, *Coop Research Assistant, UofG Animal Sciences*
Project: **Investigating Technological Solutions to Animal Welfare Challenges**

Spring 2017 — Jonas Bakelaar, *Coop Research Assistant, UofG Computer Science*
Project: **Investigating Smart Farming Technologies**

Winter 2016 — Quinton Millard, *Coop Research Assistant, UW Systems Design Engineering*
Project: **Improving the TILT multi-surface selection control mechanism**

Spring 2015 — Caroline Wong, *Coop Research Assistant, UW Psychology*
Project: **Qualitative analysis of collaborative multi-surface command and control**
*** NSERC USRA awardee**

Spring 2015 — Raphael Cheng, *Coop Research Assistant, UW Computer Engineering*
Project: **Prototyping a collaborative tabletop sea ice visual analysis environment**

Spring 2015 — Demi Olagoke, *Coop Research Assistant, UW Software Engineering*
Project: **Prototyping a collaborative tabletop sea ice visual analysis environment**

UNDERGRADUATE RESEARCH ASSISTANTS / COOPS (FULL-TIME) (CONT'D)

Fall 2014- Winter 2015	Marcus Osobase, *Coop Research Assistant, UW Software Engineering* Project: **Prototyping a collaborative tabletop sea ice visual analysis environment**
Fall 2014	Qi Feng (Edmund) Liu, *Coop Research Assistant, UW Software Engineering* Project: **Prototyping a collaborative tabletop sea ice visual analysis environment** *** NSERC USRA awardee**
Fall 2014	Jay Chilibecki, *Coop Research Assistant, UW Software Engineering* (Co-supervised with M. Hancock) Project: **Asymmetric Gaming with Microsoft's Illumishare Platform**
Spring 2014	Shrey Khosla, *Coop Research Assistant, UW Software Engineering* Project: **Developing proximity-based interaction with a large public display**
Winter 2014	Yang Chen, *Coop Research Assistant, UW Systems Design Engineering* Project: **Improving SurfBoard: a software toolkit for digital tabletop gaming**
Winter 2014	Frank Cento, *Coop Research Assistant, UW Systems Design Engineering* Project: **Investigating cross-device transfer between tabletops and tablets**
Spring 2013	Mylène Mengual*, *Intern, from TELECOM-Bretagne, France* Project**: Design of historical event timelines for digital tabletop board games** *** LEIF Canada-EU Academic Exchange Program awardee**
Fall 2012 - Spring 2013	Julie Tournet, *Intern, from TELECOM-Bretagne, France* Project**: Design of cross-device transfer techniques for digital tabletop card games** *** LEIF Canada-EU Academic Exchange Program awardee**
Spring 2013	Brian Parfett, *Coop Research Assistant, UW Computer Science* Project: **Developing software toolkit for digital tabletop board gaming**
Winter 2013	Faizan Haque, *Coop Research Assistant, UW Systems Design Engineering* Project: **Designing touch-plus-pen digital tabletop computer system**
Winter 2013	Han Xin (William) Zhang, *Coop Research Assistant, UW Computer Science / Actuarial* Project: **Designing software toolkit for digital tabletop board gaming**
Winter 2010	Carla Midence, *Coop Research Assistant, UW Systems Design Engineering* Project: **Collaborative Systems Laboratory website redesign**
Fall 2009 - Winter 2010	Antoine Allavena, *Intern, from TELECOM-Bretagne, France* Project**: Investigation of a prototype tabletop naval planning interface**
Fall 2008 - Spring 2009	Khaled Tangao, *Research Intern, from TELECOM-Bretagne, France* Project: **Framework for developing geo-spatial tabletop applications**
Spring 2009	Phillip McClelland, *Coop Research Assistant, UW Systems Design Engineering* Project: **Development of the ASPECTS tabletop naval geospatial planning tool**
Spring 2009	Simon Whitmell, *Coop Research Assistant, UW Systems Design Engineering* Project: **Development of the ASPECTS tabletop naval geospatial planning tool**
Winter 2009	Eugene Lai, *Coop Research Assistant, UW Psychology* Project: **Investigating the role of large displays in multi-display environments**
Fall 2008	Majd Al-shihabi, *Coop Research Assistant, UW Systems Design Engineering* Project: **Feasibility assessment of tabletop software frameworks**
Spring 2008	Taryn Stutz, *Coop Research Assistant, UW Psychology* Project: **Examining effects of display configuration on collaboration**
Winter 2008	Patricia Enns, *Coop Research Assistant, UW Systems Design Engineering* Project: **Examining effects of display configuration on collaboration**

UNDERGRADUATE RESEARCH ASSISTANTS / COOPS (FULL-TIME) (CONT'D)

Fall 2006 Fernanda Borques da Silva, *Intern, Instituto Tecnologico de Aeronautica, Brazil*
Project: **Design methodology for unmanned aerial vehicle (UAV) team coordination**
Massachusetts Institute of Technology, Cambridge, MA, USA

Spring 2006 Jordan Wan, *Undergraduate Research Opportunity Program*
Project: **Developing team interfaces for autonomous UAV team operations**
Massachusetts Institute of Technology, Cambridge, MA, USA

Spring 2006 Scott Fisher, *Undergraduate Research Opportunity Program*
Project: **Developing team interfaces for autonomous UAV team operations**
Massachusetts Institute of Technology, Cambridge, MA, USA

Spring 2006 Carina Furusho, *Intern, from Instituto Tecnologico de Aeronautica, Brazil*
Project: **Designing teaming interfaces for autonomous UAV Team Operations**
Massachusetts Institute of Technology, Cambridge, MA, USA

Spring 2006 Alma Rico, *Intern, from Instituto Tecnologico de Aeronautica, Brazil*
Project: **Designing teaming interfaces for autonomous UAV Team Operations**
Massachusetts Institute of Technology, Cambridge, MA, USA

Winter 2006 Fernanda Almirao, *Intern, from Instituto Tecnologico de Aeronautica, Brazil*
Project: **Designing collaborative decision support for operators in multi-UAV teams**
Massachusetts Institute of Technology, Cambridge, MA, USA

Spring 2005 Anunaya Pandey, *Undergraduate Research Opportunity Program*
Project: **Supporting collaboration in command and control (C2) environments**
Massachusetts Institute of Technology, Cambridge, MA, USA

Fall 2004 - Winter 2005 Uta Hinrichs, *Undergraduate Research Assistant* (Co-sup. with S. Carpendale)
Project: **Evaluating the effects of fluid interface components on tabletop collaboration**
University of Calgary (visiting from University of Magdeburg, Magdeburg, Germany)

Spring 2004 Stefan Habelski, *Undergraduate Research Assistant*
Project: **Territory-based interaction techniques for supporting tabletop collaboration**
University of Calgary (visiting from University of Magdeburg, Magdeburg, Germany)

UNDERGRADUATE RESEARCH ASSISTANTS (PART-TIME)

Spring 2018 Winter 2019 Ian Kemp, *UW Management Engineering*
Project: **Technical support on a multi-surface experimental platform**

Winter 2018 Dema Abu Adas, *Coop Research Assistant, UofG Computer Science*
Project: **Investigating Vision-Based Precision Livestock Farming Solutions**

Spring 2016 Ethan Liang, *UW Systems Design Engineering*
Project: **Software Modifications for a Public Large Interactive Surface system**

Winter 2016 Adena Lin, *UW Psychology*
Project: **Improving the TILT multi-surface selection control mechanism**

Winter 2016 Philos Tsai, *UW Systems Design Engineering*
Project: **Improving the TILT multi-surface selection control mechanism**

Fall 2014- Spring 2015 Brigjet Lee, *UW Psychology*
Project**: Qualitative analysis of collaborative tabletop game play**

Spring 2014 Kevin Michael, *UW Systems Design Engineering*
Project**: Design of tabletop multi-touch interfaces**

UNDERGRADUATE RESEARCH ASSISTANTS (PART-TIME) (CONT'D)

Fall 2013- Winter 2014	Joanne Leong, *UW Systems Design Engineering* Project**: Design of animated interface components for multi-touch interfaces**
Spring 2013	Kevin Lau, *UW Systems Design Engineering* Project**: Design of animated interface components for multi-touch interfaces**
Spring 2013	Elizabeth Yang, *UW Systems Design Engineering* Project**: Design of animated interface components for multi-touch interfaces**
Winter 2013	Christopher Ngan, *UW Systems Design Engineering* Project**: Design of animated interface components for multi-touch interfaces**
Fall 2012- Winter 2013	Jessica Ooi, *UW Systems Design Engineering* Project**: Design of multi-touch interaction technique for layout applications**
Fall 2012	Parthipan Thayanithy, *UW Mechatronics Engineering* Project**: Redesign of laser light plane digital tabletop system**
Fall 2011	Marta Borowska, *UW English Language and Literature* Project**: Multimedia design for LEIF Canada-EU academic exchange program**
Fall 2011- Winter 2012	Rabia Aslam, *UW Systems Design Engineering* Project**: Developing card-based tabletop game interactions**
Fall 2011	Michael Adler, *UW Systems Design Engineering* Project**: Developing tabletop app for showcasing research projects**
Fall 2011	Sara Greenberg, *UW Systems Design Engineering* Project**: Extending the tabletop widgets toolkit**
Fall 2010	Justin Lin, *UW Software Engineering* Project**: Development of digital tabletop system menu user interfaces**
Fall 2010	Siu (Vincent) Wen, *UW Computer Science* Project**: Feasibility study of digital mapping interface technologies**
Fall 2010	Calvin Chan, *UW Systems Design Engineering* Project**: Design of user interface concepts for surface-based mapping interfaces**
Spring 2009	Nassir Tajdin, *UW Systems Design Engineering* Project**: Interface design for extending the CRISTAL tabletop system**
Spring 2009	Steven Ramkumar, *UW Electrical and Computing Engineering* Project**: Interface design for extending the CRISTAL tabletop system**
Winter 2009	Sang-Hun Lee, *UW Software Engineering* Project**: Developing personal workspace extension for tabletop interface currents**
Winter 2009	Gary Abbott, *UW Systems Design Engineering* Project**: Designing interface menus for modifying tabletop interface currents**
Winter 2009	Arthur Chow, *UW Systems Design Engineering* Project**: Designing scenarios for collaborative naval planning operations**
Fall 2008	Deon Jajalla, *UW Systems Design Engineering* Project**: Investigating large displays in collaborative multi-display environments**
Jan 2008 & Fall 2008	Jeff Glaister, *UW Systems Design Engineering* Project**: (1) Designing adaptive interface currents for personal use on tabletop displays, and (2) Designing RSS feed interfaces for tabletop interfaces**

UNDERGRADUATE CAPSTONE / INDEPENDENT PROJECT SUPERVISION

Winter 2020	Dhruvi Shah, *UofG Computer Science* Connor Geddes, *UofG Computer Science* Project**: Interactive Kiosk for the School of Computer Science**
Winter 2019	Michael Truong, *UofG Computer Science* Kushal Pandya, *UofG Computer Science* Project**: PaintAR: Using Augmented Reality for Interior Design**
Fall 2018 & Winter 2019	Kassidy Marsh, *UofG Computer Science* Project**: (1) Identifying opportunities for emerging tech to monitor cattle health & welfare; (2) Using accelerometers to detect lying behaviour of dairy cattle in free-stall barns**
Spring 2018	Naj Khatami, *UofG Computer Science* Project**: Waterloo Collegiate Institute Course Listings: A New Android Application**
Winter 2018	Betty Zhao, *UofG Engineering Systems and Computing* Project**: Emerging Tech for Monitoring Animal Welfare in Animal Farming**
Fall 2013 - Winter 2014	Anthony Chuang, *UW Mechatronics Engineering* Bhavik Vyas, *UW Mechatronics Engineering* Jin Sung Kang, *UW Mechatronics Engineering* Qiming Yang, *UW Mechatronics Engineering* Rahul Udasi, *UW Mechatronics Engineering* Project**: Collabr: Interactive Collaborative Table**
Fall 2012 - Winter 2013	Jessica Ooi, *UW Systems Design Engineering* Anthony Go, *UW Systems Design Engineering* Jane Miranda, *UW Systems Design Engineering* Leslie Ng, *UW Systems Design Engineering* Project**: How to Train Your Dragon: The Interactive Experience**
Fall 2012 - Winter 2013	Khojasteh Dumasia, *UW Systems Design Engineering* Mishaal Mohammed Mohiuddin, *UW Systems Design Engineering* Vibhu Arulsothynathan, *UW Systems Design Engineering* Project**: Enhancing the Retail Experience**
Fall 2012 - Winter 2013	Louie Mansour, *UW Systems Design Engineering* Laurence Pike, *UW Systems Design Engineering* Dorion de Gobeo, *UW Systems Design Engineering* Nolan Finkelstein, *UW Systems Design Engineering* Project**: Design of a Digital Pen**
Fall 2011	Brad Morris, *UW Mechatronics Engineering* Rahil Jivani, *UW Mechatronics Engineering* Michael Baglole, *UW Mechatronics Engineering* Project**: Design of a Mechanized Board Game**
Fall 2010	Alexandra Joyce, *UW Systems Design Engineering* Katrina Koo, *UW Systems Design Engineering* Project: **Design of Online Financial System for Volunteer-based Organizations**
Fall 2010	Mohsen Hadianfard, *UW Software Engineering* Project: **Design of Mobile GPS Services Application**
Fall 2009- Winter 2010	Paul Shin, UW Software Engineering Project: **Implementation of a Transit Tracker for Android-powered Mobile Devices**

UNDERGRADUATE CAPSTONE / INDEPENDENT PROJECT SUPERVISION (CONT'D)

Fall 2009- Winter 2010	Phillip McClelland, *UW Systems Design Engineering* Simon Whitmell, *UW Systems Design Engineering* Project: **Digital Conversion of Pax Romana Wargame for a Tabletop Computer**
Fall 2009- Winter 2010	Arthur Chow, *UW Systems Design Engineering* Gartheepan Rasaratnam, *UW Systems Design Engineering* T. Vincent Chang, *UW Systems Design Engineering* Project: **Tabletop Interface for Furniture Planning and Inventory Discovery**
Fall 2009- Winter 2010	Jenny Lu, *UW Systems Design Engineering* Gobind Johar, *UW Systems Design Engineering* Bill Tong, *UW Systems Design Engineering* Project: **A Remote Tutoring System to Improve Educational Access in Developing Nations**
Fall 2009- Winter 2010	Lisa Du, *UW Electrical and Computer Engineering* Marek Komor, *UW Electrical and Computer Engineering* Dave Kincade, *UW Electrical and Computer Engineering* Han Xu, *UW Electrical and Computer Engineering* Project: **Development of a large multi-touch tabletop system**
Fall 2008 - Winter 2009	Wayne Giang, *UW Systems Design Engineering* Sunny Liang, *UW Systems Design Engineering* Amita Rampal, *UW Systems Design Engineering* Project: **Naval command collaboration**
Fall 2008 - Winter 2009	Melina McLarty, *UW Systems Design Engineering* Katie Cerar, *UW Systems Design Engineering* Project: **System to facilitate collaborative television watching**
Fall 2008 - Winter 2009	Amanda Schulze, *UW Systems Design Engineering* Amanda (Mindy) Seto, *UW Systems Design Engineering* Project: **Synergized interactive magazine reading**
Winter 2008	Melina McLarty, *UW Systems Design Engineering* Katie Cerar, *UW Systems Design Engineering* Wayne Giang, *UW Systems Design Engineering* Amanda Schulze, *UW Systems Design Engineering* Project: **Improved theme park line up experience**
Fall 2007 - Winter 2008	Akhil Chugh, *UW Systems Design Engineering* Harpreet Aujla, *UW Systems Design Engineering* David Horne, *UW Systems Design Engineering* Project: **Sports social networking website**
Fall 2007 - Winter 2008	Graeme Roche, *UW Systems Design Engineering* Phil Newman, *UW Systems Design Engineering* Chris Pellett, *UW Systems Design Engineering* Project: **Facebook improvements**

EXTERNAL THESIS EXAMINER / READER

Jan 2019 Jie (Lewis) Liu, Ph.D. Student, Faculty of Information Technology, Monash University, Melbourne, Australia
PhD Thesis: **Effective User Interfaces for Human-in-the-loop Optimisation**

Oct 2016 Andreas Dippon, Ph.D. Student, Department of Informatics, Technische Universität München (Technical University of Munich), Garching, Germany
PhD Thesis: **Natural Interaction in Multi-Device Environments**

Aug 2016 Ting (Brendan) Chen, *Ph.D. Student*, Faculty of Robotics and Autonomous Systems, Queensland University of Technology, Australia
PhD Thesis: **Management of Multiple Heterogeneous Unmanned Aerial Vehicles Through Capability Transparency**

Dec 2013 Roberto Martinez-Maldonado, *Ph.D. Student*, School of Information Technologies, The University of Sydney, Australia
PhD Thesis: **Analysing, Visualising and Supporting Collaborative Learning using Interactive Tabletops**

Dec 2013 Roberto Martinez-Maldonado, *Ph.D. Student*, School of Information Technologies, The University of Sydney, Australia
PhD Thesis: **Analysing, Visualising and Supporting Collaborative Learning using Interactive Tabletops**

Jan 2013 Aaron Genest, *Ph.D. Student*, Department of Computer Science, University of Saskatchewan, Saskatoon, SK
PhD Thesis: **Representing Deixis in Surface-Based Geocollaborations**

Mar 2011 Paul Varcholik, *Ph.D. Student*, Department of Modeling & Simulation, College of Engineering & Computer Science, University of Central Florida, Orlando, FL, USA
PhD Thesis: **Multi-Touch for General-Purpose Computing**

Sep 2009 Seth Hunter, *Master's Student*, MIT Media Lab, Massachusetts Institute of Technology
Master's Thesis: **MemTable, Contextual Memory in Group Workspaces**

Aug 2008 David Smith, *Ph.D. Student*, Department of Computer Science, Queen's University
PhD Thesis: **Raptor: Sketching Video Games With a Tabletop Computer**

4 PROFESSIONAL DEVELOPMENT ACTIVITIES

4.1 PROFESSIONAL MEMBERSHIPS

2018-	ACM Emerging Interest Group (EIG) on Smart Connected Communities
2013-2017	Professional Engineers of Ontario
2000-	Academic Computing Machinery (ACM) and ACM SIGCHI (Special Interest Group on Computer Human Interaction)

4.2 INFORMAL PROFESSIONAL DEVELOPMENT ACTIVITIES

I regularly participate in informal discussions about research, teaching, and graduate student mentorship with colleagues to continually evolve and improve my leadership skills. I regularly discuss:

- designing and fairly assessing team-based technical / software design projects,
- effective ways to deliver and assess human factors engineering and HCI course topics
- supervising human factors/HCI graduate students and managing research staff
- engaging and interacting with junior students and managing large classes
- promoting inclusivity in the classroom and in the research context

As part of my growing interesting in equity, diversity, and inclusion (EDI) in the university environment, I participate in an informal **"Instructional Inclusivity" Community of Practice** cross-campus group at UofG that includes faculty, lecturers, library staff, and graduate students interested in creating an inclusive classroom experience.

4.3 FORMAL PROFESSIONAL DEVELOPMENT ACTIVITIES

Mar 2020	*CampusPress Website Development Training,* 2 hours, UofG
Feb 2020	*HeForShe Gender Equity Workshop,* 1 hour, UofG
May 2019	*Faculty Writing Retreat,* 1 week, UofG
Mar 2019	*PSEER Seminar: Barriers to Learning,* 1 hour, UofG
Feb 2019	*PSEER Seminar: Inclusivity in Computer Science,* 1 hour, UofG
Dec 2018	*PSEER Seminar: Gender Pronouns,* 1 hour, UofG
Oct 2018	*PSEER Seminar: Closing the Gender Gap in Engineering – Is it Possible?* 1 hour, UofG
May 2018	*Faculty Writing Retreat,* 1 week, UofG
May 2018	*Teaching and Learning Innovations Conference: Diversity and Inclusive Approaches Keynote Talk by Kyra Garson "Internationalization, Inclusion, and Intercultural Understanding? What are Students Learning?"* 1 hour, UofG
Jan 2018	*Faculty Search Committee Training: Avoiding Implicit Bias in Hiring,* 1.5 hrs, UofG
Jan 2018	*PSEER Seminar: Early Semester Testing in Mathematics and the Student Perspective,* 1 hour UofG
Nov 2017	*PSEER Seminar: Shifting Responsibilities: Using Peer Assessment in Engineering Design to Provide Effective Support & Meaningful Feedback in Large Classes,* 1 hour, UofG
Nov 2015	*Engineering Teaching Group: Using Student Models to Teach Mechanics*, 1 hour, UW
Oct 2015	*Engineering Teaching Group: Authentic Assessment to Foster Motivation, 1 hour, UW*
Sept 2015	*Workshop on Designing for Understanding, 1/2 day, Fluxible Conference, Kitchener*
June 2015	*Workshop on Renewing the HCI Curriculum in Canada, 1 day, Halifax, NS*

FORMAL PROFESSIONAL DEVELOPMENT ACTIVITIES (CONT'D)

June 2015 *CTE Lunch and Learn Session on Piazza Online Q&A form for teaching*, 1 hour, UW

Nov 2013 *Engineering Teaching Group: Engaging Large Classes*, 2 hours, UW

Oct 2013 *Engineering Teaching Group: Minimizing Impact of Stereotype Threats*, 2 hours, UW

Feb 2013 *Engineering Teaching Group: Teaching Styles,* 2 hours, UW

Sept 2012 *CTE Workshop: LEARN Dropboxes and Rubrics,* 1.5 hours, UW

Sept 2012 *CTE Workshop: LEARN Quizzes,* 2.5 hours, UW

Aug 2012 *CTE Workshop: Getting Started with LEARN,* 2 hours, UW

Jan 2012 *CTE Workshop: Getting Started with LEARN,* 2 hours, UW

May 2009 *New Instructor Workshop: Engineering a Successful Teaching Experience*, 3 days, U of T

Dec 2008 *CTE Workshop: Course Design*, half-day, UW

Dec 2008 *CTE UW-ACE Instructor User Group Session*, 1 hour, UW

June 2008 *CTE Workshop: Using UW-ACE to help students prepare for class,* 2 hours, UW

June 2006 *Everyday Leadership*, 1 day, HR Training & Prof. Dev., MIT, Cambridge, MA

May 2006 *Transitioning to Management*, 2 days, HR Training & Prof. Dev., MIT, Cambridge, MA

Mar 2006 *Assertive Communication*, 1 day, HR Training & Prof. Dev., MIT, Cambridge, MA

Sept 2005 *Active Listening*, 2 days, HR Training & Prof. Dev., MIT, Cambridge, MA

5 SERVICE

5.1 UNIVERSITY SERVICE AT THE UNIVERSITY OF GUELPH

SCHOOL of COMPUTER SCIENCE (SoCS)

- SoCS Strategic Planning Committee (Member: 2016-2017, Chair: 2018-present)
- SoCS Graduate Curriculum Committee (2016-present)
- SoCS Representative on the PSEER (Physical Sciences and Engineering Education Research Institute) Steering Committee (2017-present)
- SoCS Internal NSERC Discovery Grant Reviewer (2017-2019)
- SoCS Artificial Intelligence Faculty Search Committee (2019-2020)
- SoCS Tenure & Promotion (and Merit) Committee (2017-2019)
- SoCS Director's Search Committee (2018-2019)
- SoCS Software Engineering Curriculum Committee (2017-2018)
- SoCS Graduate Admissions Committee (2016-2018)
- SoCS Faculty Writing Circle Lead Organizer (2016-2018)

UNIVERSITY

- Academic Inclusion Committee (2018-present)

5.2 UNIVERSITY SERVICE AT THE UNIVERSITY OF WATERLOO

DEPARTMENT

- Departmental Advancement (Fundraising) Committee
- Departmental Graduate Studies Committee
- Departmental NSERC/OGS Scholarships Committee
- Department Advisory Committee on Appointments (Hiring) Committee
- Departmental Representative for Faculty Computing Committee
- Departmental Chair Nominating Committee
- Departmental Representative for numerous outreach and recruiting events, including March Break Open House, Ontario University Fair, Explorations
- Served on numerous PhD comprehensive exams, PhD Defence committees, reader on multiple Master's theses (within department and across Faculty)

FACULTY

- Engineering Faculty Advocate, HeForShe 10x10x10 IMPACT Initiative
- Co-Chair, Faculty of Engineering Women in Engineering Committee
- Chair for multiple PhD Comprehensive Exams
- Faculty Mentor at various Women in Engineering outreach events, including Parental leave panels, Graduate supervision panels, Conference co-organizer

5.3 PROFESSIONAL SERVICE

Conference Steering Cmte:

- ACM Conference on Interactive Surfaces and Spaces (ISS; formerly ACM Conference on Interactive Tabletops and Surfaces (ITS)), 2015-present

Grant Reviewer:

- NSERC Discovery Grant submission, 2012, 2017, 2018, 2019
- NSERC Industrial Research Chair External Site Reviewer, 2018
- NSERC Strategic Projects submission, 2008, 2015
- Ontario MRI ORF-RE Grant submission 2017
- CFI-JELF Grant submission, 2016
- MITACS Accelerate Grant submission, 2013
- Dutch National Science Foundation submission, 2009
- DRDC Technology Investment Fund submission, 2008
- US National Science Foundation (NSF), CSCW submissions, 2008
- NSF Grant Selection Committee Member, CSCW Program, 2007

PROFESSIONAL SERVICE (CONT'D)

Guest Journal Editor:
- IEEE Computer Graphics & Applications, Vol. 26, No. 5 (Sept/Oct 2006)

Book & Book Chapter Reviewer:
- *Reviewer,* Proposed book (with subsequent revisions) on Surface Computing, Morgan Kaufmann Publishers, 2009
- *Reviewer*, 3 proposed chapters for book on Digital Tabletops, Springer, 2009

Journal Referee:
- ACM Transactions on Computer Human Interaction (ToCHI) (ACM)
- International Journal on Human-Computer Studies (Elsevier)
- Human-Computer Interaction (Taylor & Francis)
- Computer Supported Cooperative Work (Springer)
- Personal and Ubiquitous Computing (Springer)
- Software: Practice & Experience (Wiley)
- IEEE Transactions on Systems, Man, and Cybernetics – Part B (Cybernetics)

Technical Program Co-Chair:
- ACM Conference on Interactive Surfaces and Spaces (ISS), formerly ACM Conference on Interactive Tabletops and Surfaces and IEEE International Workshop on Tabletops and Interactive Surfaces (Tabletop) in:
  - 2007 (Newport, RI)
  - 2009 (Banff, AB)
  - 2018 (Tokyo, Japan)
  - 2019 (Daejeon, South Korea)

Notes / Posters Co-Chair:
- (Notes Co-Chair) ACM Group 2009 Conference, Sanibel Island, FL
- (Posters Co-Chair) ACM Group 2007 Conference, Sanibel Island, FL

Proceedings Co-Chair:
- ACM Conference on Computer-Supported Cooperative Work 2012, Seattle, WA

Program Cmte Member
- ACM Conf. on Interactive Surfaces and Spaces 2016, 2017
- ACM Conf. on Interactive Tabletops and Surfaces 2013, 2014, 2015
- ACM Conf. on Computer Supported Cooperative Work 2017, Portland, OR
- ACM Group 2016 Conference, Sanibel Island, FL
- ACM Conf. on Human Factors in Computing Systems (CHI) 2011, Vancouver
- Euro. Conf. on Computer-Supported Cooperative Work 2009, Vienna, Austria

Conference Referee:

Annual reviewer, human-computer interaction & collaborative systems conferences:
- ACM Conference on Human Factors in Computing Systems (CHI)
- ACM Symposium on User Interface Software and Technologies (UIST)
- ACM Conference on Computer-Supported Cooperative Work (CSCW)
- ACM Conference on Interactive Surfaces and Spaces (ISS (formerly ITS))

Occasional reviewer, HCI & collaborative systems conferences:
- ACM Joint Conference on Pervasive and Ubiquitous Computing (UbiComp), *formerly ACM International Conference on Ubiquitous Computing*
- International Conference on Human-Computer Interaction with Mobile Devices and Services (MobileHCI)
- ACM Symposium on Engineering Interactive Computing Systems (EICS)

PROFESSIONAL SERVICE (CONT'D)

Workshop / Conference Organizer (in addition to Published Workshops listed in §2.2.8):

- SSHRC IMMERSe Partnership Workshop, Toronto, ON, May 2013
  (1-day event, internal research talks and strategic planning discussions)
- NSERC SurfNet Strategic Network Annual Workshop, Waterloo, ON, Sept 2012
  (2-day event, internal research talks & tutorials, and industry open house with live technology demos)
- MIT Humans and Technology Symposium, Cambridge, MA, Jan 2006
  (5-day event, invited research talks from experts in the field)
- Dalhousie Computer Science In-House Conference, Halifax, NS, Sept 2002
  (2-day event, graduate student research talks)