Dr. Andrea Bunt

CONTACT INFORMATION

Department of Computer Science
University of Manitoba
Winnipeg, Manitoba, Canada

Phone: 204.474.8688
E-mail: bunt@cs.umanitoba.ca
WWW: www.cs.umanitoba.ca/˜bunt

PROFESSIONAL EXPERIENCE

Associate Head (Graduate)　　　　　　　　　　　　May 2022 – current
Department of Computer Science, University of Manitoba

Professor　　　　　　　　　　　　　　　　　　April 2020 – current
Department of Computer Science, University of Manitoba
- research areas: human-computer interaction, software learnability, interface personalization, online communities, intelligent user interfaces, computing in rural and remote environments, technologies for families

Associate Professor　　　　　　　　　　　April 2015 – March 2020
Department of Computer Science, University of Manitoba
- research areas: human-computer interaction, software learnability, interface personalization, online communities, intelligent user interfaces, computing in rural and remote environments, technologies for families

Visiting Researcher　　　　　　　　　　　July 2019 – March 2020
Grenoble Informatics Laboratory, Université de Grenoble Alpes

Assistant Professor　　　　　　　　　　　July 2009 – March 2015
Department of Computer Science, University of Manitoba
- research areas: human-computer interaction, interface personalization, intelligent user interfaces

Postdoctoral Fellow　　　　　　　　　　August 2007 – June 2009
David R. Cheriton School of Computer Science, University of Waterloo
- supervisor: Dr. Edward Lank
- research areas: tools for mathematical problem solving, community-based interface personalization, kinematics of interface operations, bi-manual interactions

EDUCATION

Doctor of Philosophy, Computer Science　　　　　　　　June 2007
University of British Columbia, Vancouver, BC
- thesis: Mixed-initiative support for customizing Graphical User Interfaces
- supervisors: Dr. Cristina Conati and Dr. Joanna McGrenere

Master of Science, Computer Science　　　　　　September 2001
University of British Columbia, Vancouver, BC
- thesis: On creating a student model to assess effective exploratory behaviour in open learning environments
- supervisor: Dr. Cristina Conati

Bachelor of Science (Honours), Computing and Information Sciences　　April 1999
Queen's University, Kingston, ON
- undergraduate thesis: Collaborative design review
- supervisor: Dr. Nick Graham

HONOURS AND AWARDS	Best HCI Student Paper Award, Graphics Interface Conference (GI 2022)
	Best Paper Award, Foundation of Digital Games (FDG 2021)
	Best Paper Award, ACM Conference on Human Factors in Computing Systems (CHI 2020)
	2018 CS-Can | Info-Can Young Researcher Award
	NSERC Accelerator Supplement, $120,000, 2015-2018
	Best HCI Poster Award, Graphic Interface Conference (GI 2018)
	Best HCI Student Paper Award, Graphics Interface Conference (GI 2017)
	Best Paper Award, ACM Conference on Human Factors in Computing Systems (CHI 2012)
	Ontario Ministry of Research and Innovation Post-Doctoral Fellowship, $100,000, 2007-2009
	Best Paper Award, ACM Conference on Intelligent User Interfaces (IUI 2007)

TEACHING

COMP 7920: Human-AI Interaction   2022, 2023
Department of Computer Science, University of Manitoba
- Graduate-level course examining emerging research at the intersection of HCI and AI.

COMP 7920: Advanced Human-Computer Interaction   2015, 2017, 2018
Department of Computer Science, University of Manitoba
- Graduate-level course examining emerging research areas in the field of Human-Computer Interaction.

COMP 7920: Intelligent Interactive Systems   2010, 2013
Department of Computer Science, University of Manitoba
- Graduate-level course examining how systems can tailor their appearance and behaviour to individual users.

COMP 4560: Industrial Project   2014, 2015, 2016
Department of Computer Science, University of Manitoba
- Undergraduate students work on a term-long applied project, usually in small teams.

COMP 4520: Undergraduate Honours Project   2014, 2015, 2016
Department of Computer Science, University of Manitoba
- Undergraduate students work on a term-long research project under the guidance of a faculty advisor.

COMP 4020: Human-Computer Interaction II   2014, 2015, 2016, 2017, 2021, 2022
Department of Computer Science, University of Manitoba
- Advanced HCI course focusing on current trends and research in interactive technologies

COMP 3020: Human-Computer Interaction I 2009, 2010, 2011, 2016, 2017, 2018, 2020
Department of Computer Science, University of Manitoba
- Introductory HCI course focusing on human factors and usability, user-centered design, prototyping, and usability evaluation

CS 349: User Interfaces   2008
School of Computer Science, University of Waterloo
  • Introductory HCI course focusing on how to build a user interface.

COMP 1020: Introductory Computer Science II   2011, 2018, 2019, 2021
Department of Computer Science, University of Manitoba
  • Second introductory course on programming and program design

COMP 1010: Introductory Computer Science I   2010, 2011, 2013, 2014, 2015
Department of Computer Science, University of Manitoba
  • First introductory course on programming

PUBLICATIONS   **Journal Papers**

Dubois, P., Maftouni, M. and **Bunt, A.** (2022) Towards more gender-inclusive Q&As: Investigating perceptions of additional community presence information. *Proc. ACM Hum.-Comput. Interact, 6, CSCW2*, Article 466 (November 2022), 23 pages.

Dubois, P.M., Maftouni, M., Chilana, P.K., McGrenere, J. and **Bunt, A.** (2020) Gender Differences in Graphic Design QAs: How Community and Site Characteristics Contribute to Gender Gaps in Answering Questions. *Proc. ACM Hum.-Comput. Interact. 4, CSCW2*, Article 113 (October 2020), 26 pages.

Seo, S.H., Griffin, K., Young, J.E., **Bunt, A.**, Prentice, S., Loureiro-Rodrguez, V. (2018) Investigating people's rapport building and hindering behaviors when working with a collaborative robot. *International Journal of Social Robotics*, 10(11), pp.147–161.

Scarr, J., Gutwin, C., Cockburn, A. and **Bunt, A.** (2015) StencilMaps: Subset interfaces that aid novices and help build expertise, *Behaviour & Information Technology*, 34(11), pp.1092–1106.

Bunt, A., Terry, M. and Lank, E. (2013) Challenges and opportunities for mathematics software in expert problem solving. *Human-Computer Interaction Journal*, 28(3), pp. 222–264.

Tanvir, E., **Bunt, A.**, Cockburn, A., and Irani, P. (2011) Improving cascading menu selections with adaptive activation areas. *International Journal of Human-Computer Studies*, 69(11), pp. 769–785.

Bunt, A., Conati, C., and McGrenere, J. (2009) Mixed-initiative interface personalization as a case study in usable AI. *Artificial Intelligence, Special Issue on Usable AI*, 30(4), pp. 58–64, 2009.

Bunt, A. and Conati, C. (2003) Probabilistic student modelling to improve exploratory behaviour. *International Journal on User Modeling and User-Adapted Interaction.* 13(3), pp.269–309.

Price, C, McCalla, G. and **Bunt, A.** (1999) L2Tutor: A mixed-initiative dialogue system for improving fluency. *Computer Assisted Language Learning.* 12(2), pp. 83–112.

Refereed Conference Papers

Chowdhury, A. and **Bunt, A.** (2023) Co-designing with early adolescents: Understanding perceptions of and design considerations for tech-based mediation strategies that promote technology disengagement *Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI 2023)*, to appear, 21 pages.

Chowdhury, A. and **Bunt, A.** (2022) Tutorials for children by children: Design and evaluation of a childrens tutorial authoring tool for digital art. *Proceedings of the Graphics Interface Conference (GI '22)*, Proceedings of the 48th Graphics Interface Conference, 13 pages. **[Winner of the "Best HCI Student Paper" Award]**

Maftouni, M., Dubois, P. and **Bunt, A.** (2022) Thank you for being nice: Investigating perspectives towards social feedback on Stack Overflow. *Proceedings of the Graphics Interface Conference (GI '22)*, 10 pages.

Giannisakis, E., Alvina, J., **Bunt, A.**, Chilana, P. , and McGrenere, J. (2022) Promoting feature awareness by leveraging collaborators usage habits in collaborative editors. *Proceedings of the Graphics Interface Conference (GI '22)*, 13 pages.

de Leon Pereira, R., Tan, A. , **Bunt, A.** and Tremblay-Savard, O. (2021) Increasing player engagement, retention and performance through the inclusion of educational content in a citizen science game. *Proceedings of FDG 2021, Foundation of Digital Games*, 12 pages **[Winner of a "Best Paper" Award"]**.

Anik, M.A.I and **Bunt A.** (2021) Data-Centric Explanations: Explaining Training Data of Machine Learning Systems to Promote Transparency, *Proceedings of CHI 2021, the ACM Conference on Human Factors in Computing Systems*, Article No.75, pages 113.

Sabab, S.A., Khan, A., Chilana, P., McGrenere, J., and **Bunt, A.** (2020) An Automated Approach to Assessing an Application Tutorials Difficulty, *Proceedings of the 2020 IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC 2020)*, pages 1-10.

Kiani, K., **Bunt, A.**, Chilana, P., Grossman, T., and Fitzmaurice, G. I Would Just Ask Someone: Learning Feature-Rich Design Software in the Modern Workplace, *Proceedings of the 2020 IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC 2020)*, pages 1-10.

S. Alvina, J., **Bunt, A.**, Chilana, P., Malacria, S. and McGrenere, J. (2020) Where is that Feature? Designing for cross-device software learnability, Proceedings of DIS 2020, the ACM Conference on Designing Interactive Systems, pages 1103 - 1115.

Ashtari, N., **Bunt, A.**, McGrenere, J., Nebeling, M. and Chilana, P. (2020) Creating augmented and Virtual Reality applications: Current practices, challenges, and opportunities. *Proceedings of CHI 2020, the ACM Conference on Human Factors in Computing Systems*, pages 1-13. **[Winner of a "Best Paper" Award]**

Mahmud, S., Alvina, J., Chilana, P., **Bunt, A.**, and McGrenere, J. (2020) Learning through exploration: How children, adults, and older adults interact with a new feature-rich application. *Proceedings of CHI 2020, the ACM Conference on Human Factors in Computing Systems*, pages 1-14.

Kiani, K., Cui, G., **Bunt, A.**, McGrenere, J., and Chilana, P.(2019) Beyond One-Size-Fits-All: Understanding the diversity and challenges in how software newcomers discover and make use of external help resources, *Proceedings of CHI 2019, the ACM Conference on Human Factors in Computing Systems*, 340, 13 pages.

Dziubak, V., Lafreniere, B., Grossman, T, **Bunt, A.**, and Fitzmaurice, G. (2018) Maestro: Designing a system for real-time orchestration of 3D modeling workshops, *Proceedings of UIST 2018, the ACM Symposium on User Interface Software and Technology*, pp. 287- 298.

Sanoubari, E., Geiskkovitch, D.Y., Garcha, D.S., Sabab, S.A., Hong, K., Young, J.E., **Bunt, A.**, and Irani, P. (2018) Subliminal priming in human-agent interaction: Can agents use single-frame visuals in video feeds to shape user perceptions?, *Proceedings of HAI 2018, the ACM Conference on Human-Agent Interaction*, pp. 205 - 213.

Dziubak, V., and **Bunt, A.** (2018) Prism: Enhancing graphic designers' visual research with interactive search trails. *Proceedings of DIS 2018, the ACM Conference on Designing Interactive Systems*, pp. 1283-1294.

Alallah, F., Neshati, A., Sakamoto, Y., Hasan, K., Lank, E., **Bunt, A.**, and Irani, P. (2018) Performer vs. observer: Whose comfort level should we consider when examining the social acceptability of input modalities for head-worn displays? *Proceedings of VRST 2018, the ACM Symposium on Virtual Reality Software and Technology*, 10:1-10:9.

Alallah, F., Neshati, A., Sheibani, N., Sakamoto, Y., **Bunt, A.**, Irani, P. and Hasan, K. (2018) Crowdsourcing vs laboratory-style social acceptability studies? Examining the social acceptability of spatial user interactions for Head-Worn Displays. *Proceedings of CHI 2018, the ACM Conference on Human Factors in Computing Systems*, 310, 6 pages.

Dubois, P., Dziubak, V. and **Bunt, A.** (2017) Tell me more! Soliciting reader contributions to software tutorials. *Proceedings of Graphics Interface 2017*, pp. 16 - 23. **[Winner of the "Best Student Paper" Award]**.

Amini, F., Hasan, K., **Bunt, A.** and Irani, P. (2017) Data representations for in-situ exploration of health and fitness data. *Proceedings of Pervasive Health 2017*, pp. 163 - 172.

Haraty, M., McGrenere, M, and **Bunt, A.** (2017) Online customization sharing ecosystems: Components, roles, and motivations. *Proceedings of CSCW 2017, the ACM Conference on Computer Supported Cooperative Work and Social Media*, pp. 2359-2371.

Dziubak, V., Dubois, P., **Bunt, A.** and Terry, M. (2016) Switter: Supporting exploration of software learning materials on social media. *Proceedings of DIS 2016, the ACM Conference on Designing Interactive Systems*, pp. 1209-1220.

Wiebe, M., Geiskovitvch, D.Y., **Bunt, A.**, Young, J.E., and Glenwright, M. (2016) Icons for kids: Can young kids understand graphical representations of App store categories? *Proceedings of Graphics Interface 2016*, pp. 163 - 166.

Wiebe, M., Geiskovitvch, D.Y., **Bunt, A.** (2016) Exploring user attitudes towards different approaches to command recommendation in feature-rich software. *Proceedings of IUI 2016, the ACM Conference on Intelligent User Interfaces*, pp. 42 - 47.

Seo, S.H., Gu, J., Jeong, S. Griffin, K. Young, J.E., **Bunt, A.**, and Prentice, S. (2015) Women and men collaborating with robots on assembly lines: designing a novel evaluation scenario for collocated human-robot teamwork. *Proceedings of HAI 2015, International Conference on Human-Agent Interaction*, pp. 3-9.

Morrison-Smith, S., Boucher, C., **Bunt, A.** and Ruiz, J. (2015). Elucidating the role and use of bioinformatics software in life science research. *Proceedings of British HCI, International BCS Human Computer Interaction Conference*, pp. 230-238.

Melvin, R., **Bunt, A.**, Odour, E. and Neustaedter, C. (2015) The effect of signal expense and dependability on family communication in rural and northern Canada. *Proceedings of CHI 2015, the ACM Conference on Human Factors in Computing Systems*, pp. 717-726.

Khan, A., Dzuibak, V. and Bunt, A. (2015) Exploring personalized command recommendations based on information found in Web documentation. *Proceedings of IUI 2012, the ACM Conference on Intelligent User Interfaces*, pp. 225-235.

Lafreniere, B, **Bunt, A.** and Terry, M. (2014) Task-centric interfaces for feature-rich software. *Proceedings of OzCHI 2014*, pp. 48-58.

Lount, M. and **Bunt, A.** (2014) Characterizing web-based tutorials: Exploring quality, community, and showcasing strategies. *Proceedings of SIGDOC 2014, the ACM Conference on the Design of Communication*, Article 6, 10 pages.

Chowdhury, M.N.N and **Bunt, A.** (2014) IntelWiki: Recommending resources to help users contribute to Wikipedia. Proceedings of UMAP 2014, the 22nd Conference on User Modelling, Adaptation and Personalization, pp. 393–404.

Bunt, A., Dubois, P., Lafreniere, B., Terry, M. and Cormack, D. (2014) TaggedComments: Promoting and integrating user comments in online application tutorials. *Proceedings of CHI 2014, the ACM Conference on Human Factors in Computing Systems*, pp. 4037–4046.

Hashish, Y., **Bunt, A.** and Young, J.E. (2014) Involving children in content control: A collaborative and education-oriented content filtering approach. *Proceedings of CHI 2014, the ACM Conference on Human Factors in Computing Systems*, pp. 1797–1806.

Scarr, J., Gutwin, C. Cockburn, A. **Bunt, A.** and Cechanowicz, J. (2014) The usability of CommandMaps in realistic tasks. *Proceedings of CHI 2014, the ACM Conference on Human Factors in Computing Systems*, pp. 2241–2250.

Lafreniere, B., **Bunt, A.**, Lount, M. and Terry, M. (2013) Understanding the roles and uses of web tutorials. *Proceedings of ICSWM 2013, the AAAI International Conference on Weblogs and Social Media*, Boston, MA, pp. 303– 310.

Singh, A., Seo, S.H., Hashish, Y., Nakane, M., Young, J.E. and **Bunt, A.** (2013) An interface for remote robotic manipulator control that reduces task load and fatigue. *Proceedings of RO-MAN 2013, the IEEE international Conference on Robot and Human Interactive Communication*, pp. 738–743.

Scarr, J., Cockburn, A. Gutwin, C. and **Bunt, A.** (2012) Improving command selection with CommandMaps, *Proceedings of CHI 2012, the ACM Conference on Human Factors in Computing Systems*, pp. 257–266. **[Winner of a "Best Paper" Award]**

Hasan, K. Yang, X., **Bunt, A.** and Irani, P. (2012) A-coord input: Coordinating auxiliary input streams for augmenting contextual pen-based interactions, *Proceedings of CHI 2012, the ACM Conference on Human Factors in Computing Systems*, pp. 805–814.

Melvin, R. and **Bunt, A.** (2012) Designed for work, but not from here: Rural and remote perspectives on networked technology, *Proceedings of DIS 2012, the ACM Conference on Designing Interactive Systems*, pp. 176–185.

Bunt, A. , Lount, M., and Lauzon, C. (2012) Are explanations always important? A study of deployed, low-cost intelligent interactive systems, *Proceedings of IUI 2012, the ACM Conference on Intelligent User Interfaces*, pp. 169–178.

Lafreniere, B., **Bunt, A.**, Whissell, J., Clarke, C., and Terry, M. (2010) Characterizing large-scale use of a direct manipulation application in the wild. *Proceedings of Graphics Interface*, pp. 11–17.

Bunt, A., Terry, M. and Lank, E. (2009) Friend or foe? Examining CAS use in mathematics research. *Proceedings of CHI 2009, the ACM Conference on Human Factors in Computing Systems*, pp. 229–238.

Ruiz, J., Tausky, D., **Bunt, A.**, Lank, E. and Mann, R. (2008) Analyzing the kinematics of bivariate pointing. *Proceedings of Graphics Interface 2008*, pp. 251–258.

Ruiz, J., **Bunt, A.** and Lank, E. (2008) A model of non-preferred hand mode switching. *Proceedings of Graphics Interface 2008*, pp. 49–56.

Bunt, A., Conati, C. and McGrenere, J. (2007) Supporting interface customization using a mixed-initiative approach. *Proceedings of IUI 2007, ACM International Conference on Intelligent User Interfaces*, pp. 92–101. **[Winner of the "Best Paper" Award]**

Gluck, J., **Bunt, A.**, and McGrenere, J. (2007) Matching attentional draw with utility in interruption. *Proceedings of CHI 2007, the ACM Conference on Human Factors in Computing Systems*, pp. 41–50.

Bunt, A., McGrenere, J. and Conati, C. (2007) Understanding the utility of rationale in a mixed-initiative system for GUI customization. *Proceedings of UM 2007, International Conference on User Modeling*, pp. 147–156.

Bunt, A., Conati, C. and Muldner, K. (2004) Scaffolding self-explanation to improve learning in exploratory learning environments. *Proceedings of ITS 2004, International Conference on Intelligent Tutoring Systems*, pp. 652–667.

Bunt, A., Conati, C. and McGrenere, J. (2004) What role can adaptive support play in an adaptable system? *Proceedings of IUI 2004, ACM International Conference on Intelligent User Interfaces*, pp. 117–124.

Bunt, A. and Conati, C. (2002) Assessing effective exploration in open learning environments using Bayesian Networks. *Proceedings of ITS 2002, International Conference on Intelligent Tutoring Systems*, pp. 698–707.

Bunt, A., Conati, C., Huggett, M. and Muldner, K. (2001) On improving the effectiveness of open learning environments through tailored support for exploration. *Proceedings of AIED 2001, 10th International Conference on Artificial Intelligence in Education*, pp. 365–376.

Book Chapters

McGrenere, J., **Bunt, A.**, Findlater, L. and Moffatt, K. (2010) Generalization in human-computer interaction. In M. Banich and D. Caccamise (Eds.), Generalization of Knowledge: Multidisciplinary Perspectives. Psychology Press, pp. 277–295.

Bunt, A., Carenini, G. and Conati, C. (2007) Adaptive content presentation for the Web. In P. Brusilovsky, A. Kobsa and W. Nejdl (eds): The Adaptive Web: Methods and Strategies of Web Personalization. Springer, pp. 409–432.

Refereed Workshop Papers and Posters

Anik, M.A.I and **Bunt, A.** (2021) Investigating explanations that target training data. *Proceedings of the ACM IUI workshop on Transparency and Explanations in Smart Systems (TExSS 2021)*, 7 pages.

Dubois, P., and **Bunt, A.** (2018) Software Learning Strategies and Perceptions of Rural Individuals. *In Workshop on Rural Computing: Beyond Access & Infrastructure, CSCW 2018*, 4 pages.

Dubois, P., Rea, D.J., Hoang, K., Chua, M., King, D., King, C., Young, J.E., and **Bunt, A.**. (2018) Conveyor: A Dual-Task Paradigm for Studying VR Dialogue Interfaces. *Adjunct Proceedings of Graphics Interface 2018*, poster. **[Winner of "Best HCI Poster" Award]**.

Geiskovitch, D., **Bunt, A**. and Young, J.E. (2018) Mental Health in Online Communities: How University Students Use Online Communities to Talk About Mental Illness. *Adjunct Proceedings of Graphics Interface 2018*, poster.

Dziubak, V. and **Bunt, A.** (2017) Designing for curiosity-driven software learning. *In Workshop on Designing for Curiosity, CHI 2017*, 2 pages.

Potter, J., Driedger, S.M., **Bunt, A.**, Mahmud, S., Maier, R. and Dziubak, V. (2017) Vaccine Answers: The Development of an Online Tool to Reduce Parental Vaccine Hesitancy. *Family Medicine Forum (FMF) 2017*, 2 pages.

Dziubak, V. and **Bunt, A.** (2016) Living on the edge: supporting continuous knowledge seeking among professional digital artists. *In Workshop on Digital Craftsmanship: HCI Takes on Technology as an Expressive Medium, DIS 2016*, 1500 words.

Bahoo, Y., **Bunt, A.**, Durocher, S. and Mehrpour, S. (2015) Drawing graphs using body gestures. *Proceedings of Graph Drawing 2015*, pp. 561-562.

Seo, S.H., Young, J.E. and **Bunt, A.** (2013) Exploring the role of affect recognition in web-capable applications. *Adjunct Proceedings of Graphics Interface 2013*, poster.

Lafreniere, B., Krynicki, F., Terry, M., **Bunt, A.** and Lount, M. (2011) AdaptableGIMP: Designing a socially-adaptable interface, *Proceedings of UIST 2011*, pp. 89–90.

Melvin, R. and **Bunt, A.** (2011) Effects of reduced connectivity in rural and remote communities. *Workshop on Everyday Practice and Sustainable HCI: Understanding and Learning from Cultures of (Un)Sustainability, CHI 2011*, 5 pages.

Bunt, A., Terry, M. and Lank, E. (2010) The Use of Computational Tools within Mathematical Work Practices. *Workshop on Bridging the Gap: Moving from Contextual Analysis to Design, CHI 2010*, 4 pages.

Bunt, A., Lank, E. and Terry, M. (2009) Understanding the role of computers in mathematical problem solving. *Mathematical User Interfaces Workshop, 8th Mathematical Knowledge Management Conference.*

Bunt, A. and Terry, M. (2009) Opportunities for user involvement within interface personalization. *Proceedings of the IJCAI 2009 Workshop on Intelligence and Interaction*, 5 pages.

Labahn, G., Lank, E., Marzouk, M., **Bunt, A.**, MacLean, S. and Tausky, D. (2008) MathBrush: A case study for pen-based interactive mathematics. *Proceedings of SBMI 2008, Eurographics Workshop on Sketch-Based Interfaces and Modeling.* 8 pages.

Bunt, A., Conati, C. and McGrenere, M. (2008) Insights from the design and evaluation of a mixed-initiative personalization facility. *Workshop on Usable AI, CHI 2008*, 4 pages.

Bunt, A. (2005) User modelling to support user customization. *Proceedings of UM 2005, International Conference on User Modeling (Doctoral Consortium)*, 499–592.

Conati, C. and **Bunt, A.** (2004) Student modeling for open learning adaptive hypermedia. *Proceedings of the First International Workshop on Authoring of Adaptive and Adaptable Educational Hypermedia*, in conjunction with WBE 2004, International Conference on Web-Based Education.

Bunt, A. and Conati, C. (2001) Modeling exploratory behaviour. *Proceedings of UM 2001, International Conference on User Modeling*, pp. 219–221.

Other Contributions

Guillou, H. and **Bunt, A.** (2014) Tutorial activity levels: exploring representations and impacts on the tutorial experience. *Annual Graphics, Animation and New Media (GRAND) NCE Conference*, poster.

Dubois, P. **Bunt, A.**, Lount, M., Lafreniere, B., and Terry, M. (2013) Improving tutorial selection and use through enhanced commenting facilities. *Annual Graphics, Animation and New Media (GRAND) NCE Conference*, poster.

Melvin, R. and bf Bunt, A. (2012) Networked technology in rural and remote locations: The good, the bad and the future. *Annual Graphics, Animation and New Media (GRAND) NCE Conference*, poster.

Lafreniere, B., **Bunt, A.**, Lount, M. Krynicki, F. and Terry, M. (2012) AdaptableGIMP: Designing a socially adaptable interface.*Annual Graphics, Animation and New Media (GRAND) NCE Conference*, poster.

Lount, M., **Bunt, A.**, Lafreniere, B., Krynicki, F. and Terry, M. (2011) AdaptableGIMP: A Socially Adaptable Interface, *Annual Graphics, Animation and New Media (GRAND) NCE Conference*, poster.

Lafreniere, B., **Bunt, A.**, and Terry, M (2010) GIMP Task Bazaar - Building a Customization Culture into GIMP. *Annual Graphics, Animation and New Media (GRAND) NCE Conference*, poster.

Lount, M., **Bunt, A.**, Lafreniere, B., Terry, M. (2010) Intelligent Support for Community Task-Based Personalization. *Annual Graphics, Animation and New Media (GRAND) NCE Conference*, poster.

GRANTS AWARDED

Bunt, A. (Principal Investigator), Technologies to Support Online Knowledge Sharing and Retrieval for Feature-Rich Software Applications, 2020-2025, National Sciences and Engineering Research Council of Canada (NSERC), Discovery Grant, $205,000.

McGrenere, J. (Principal Investigator), **Bunt, A.,** and Chilana, P. (Co-Investigators). Making it Personal: Tools and Techniques for Fostering Effective User Interaction with Feature-Rich Software, 2017-2020, National Sciences and Engineering Research Council of Canada (NSERC), Strategic Project Grant with Autodesk Research and Microsoft Vancouver, $489,650 [33% to each investigator].

Bunt, A. (Principal Investigator), Design and Evaluation of Computing Technologies to Promote Learning of Feature-Rich Software, 2015-2020, National Sciences and Engineering Research Council of Canada (NSERC), Discovery Grant, $145,000.

Chilana, P. (Principal Investigator), **Bunt, A. (Co-Investigator)** and Autodesk Research (Industry Partner), Fostering Learning and Professional Development for Users of Feature-Rich Design Software, 2019, MITACS, Accelerate Program, $15,000.

Young, J. (Principal Investigator), **Bunt, A.** and Funk, L. (Co-Investigators). Technology in Care-Homes: Engaging Stakeholders to Inform Technological Design, 2018-2019, Faculty of Science Collaborative Grants, University of Manitoba, $9,957.00.

Bunt, A. (Principal Investigator), From Motion-based to Standard Gameplay Controllers: Developing Mappings that Maintain Player Immersion, 2017, National Sciences and Engineering Research Council of Canada (NSERC), Engage Grant with ZenFri, $25,000.

Dube, E. (Principal Investigator) and 22 Co-Investigators, **Bunt, A.** + 109 Collaborators, Canadian Immunization Research Network, 2017-2021, Canadian Institutes of Health Research, $2,200,000 / yr.

Bunt, A. (Principal Investigator), Design and Evaluation of Computing Technologies to Promote Learning of Feature-Rich Software, 2015-2018, National Sciences and Engineering Research Council of Canada (NSERC), Accelerator Supplement, $120,000.

Bunt, A. (Principal Investigator), Researching and Developing Initiatives to Increase the Enrollment of Females in Computer Science, 2016-2017, Faculty Development Initiatives Fund Application and Faculty of Science, University of Manitoba, $10,000.

Potter, J. (Principal Investigator), Mahmud, S., Driedger, S.M., **Bunt, A.** (Co-Investigators) The Development of an Interactive Online Vaccination Information Resource for Parents to Reduce Vaccine Hesitancy. Manitoba Medical Service Foundation (MMSF), Operating Grant, 2016-2017, $24,000.

Wolford, A. (Principal Investigator). Muller, A.P.D., MacDonald, D.B, Young, J.E., Dewar, J., Starzyk, K, Sinclair, S. **Bunt, A.,** (Collaborator) Alba, A., Bak, G., Busby, K. and Fontaine, T. Embodying Empathy: Fostering Historical Knowledge and Caring through a Virtual Indian Residential School. 2014 - 2017, Social Sciences and Humanities Research Council of Canada (SSHRC), Partnership Development Grants, $195,657.

Bunt. A (Principal Investigator), Exploring Scalability in Interfaces that Support Student Contributions within Online Learning Systems. National Sciences and Engineering Research Council of Canada (NSERC), Engage Plus Grant, 2015-2016, $25,000.

Bunt, A. (Principal Investigator), Quality Control Techniques for Crowdsourced Online Help, 2015 - 2016, University of Manitoba, University Research Grants Program (URGP), $7,500.

Bunt, A. (Principal Investigator), Integrating Community Contributions within Online Learning Systems, 2014-2015, National Sciences and Engineering Research Council of Canada (NSERC), Engage Grant, $25,000.

Young, J.E. (Principal Investigator). **Bunt, A.**, Prentice, S. (Co-Investigators) Exploring Gender Effects on Assembly-Line Human-Robot Teams, 2015, Faculty of Science Interdisciplinary New Directions Research Collaboration Initiation Grants, University of Manitoba, $9,501.00

Bunt, A. (Principal Investigator) Facilitating User Involvement in Intelligent Interactive Systems. 2010 - 2015, National Sciences and Engineering Research Council of Canada (NSERC), Discovery Grant, $120,000.

Bunt, A. (Collaborating Networking Investigator) Personalization in Real-World Contexts. 2010 - 2014, Graphics, Animation and New Media (GRAND) Network Centre of Excellence, $115,523 (Individual Allocation).

Bunt, A. (Principal Investigator) Personalization in Real-World Contexts, 2011-2014, Manitoba Centres of Excellence Fund (MCEF), $12,163.

Bunt, A. (Principal Investigator) Intelligent Support for Task-Based Interface Personalization, 2011, University of Manitoba, University Research Grants Program (URGP), $6,800.

Bunt, A. (Principal Investigator) Faculty of Science Start-Up Award, 2009 - 2013, University of Manitoba, $48,000.

INVITED PRESENTATIONS   Supporting Feature-Rich Software Learning: Investigating Expertise, Age and Gender, University of British Columbia, Vancouver, British Columbia, October, 2022

HCI Research with Different User Groups, International Week, IUT2 (Institute Universitaire de Technologie 2), Université de Grenoble-Alpes, January, 2020.

Feature-Rich Software Learnability: Considering User Diversity. Université de Grenoble-Alpes, Grenoble, France, October, 2019.

Feature-Rich Software Learnability: Understanding and Accommodating Diverse Users, Rising Star Keynote Address, CS-Can Student Symposium, Montreal, QC, June, 2019.

Supporting Software Learnability via Online Resources and Communities. Invited Speaker Series, Graphics Interface 2016, Victoria, British Columbia, June, 2016.

Supporting Software Learnability via Online Resources and Communities. Seminar Series, Department of Computer Science, University of Manitoba, Winnipeg, Manitoba, April, 2016.

TaggedComments: Promoting and Integrating User Comments in Online Application Tutorials. Interaction Lab, University of Saskatchewan, May, 2014.

Designing for Personalized Interactions. GRAND Digital Wave Workshop, Winnipeg, Manitoba, April, 2014.

Designing for Personalized Interactions. Seminar Series, Department of Computer Science, University of Manitoba, Winnipeg, Manitoba, March, 2014.

Understanding and Improving User Experience with Complex Software. Department of Computer Science, University of British Columbia, Vancouver, BC, November, 2013.

Understanding and Improving User Experience with Complex Software. Manitoba Teachers' Society Special Area Groups of Educators (SAGE) Conference, Winnipeg, Manitoba, October, 2013.

Characterizing and Enhancing Web-Based Tutorials. Autodesk Research, Toronto, ON, August, 2013

Exploring Task-Based Interfaces for Feature-Rich Software. Brain and Cognitive Group Seminar Series, Department of Psychology, University of Manitoba, Winnipeg, Manitoba, March, 2013.

Personalized Interfaces in Real-World Contexts. GRAND Digital Wave Workshop, University of Manitoba, Winnipeg, Manitoba, November, 2012.

Managing Software Complexity through Interface Personalization. School of Engineering, Arizona State University, January 2011.

Friend or Foe? Examining CAS Use in Mathematics Research. Seminar Series, Department of Computer Science, University of Manitoba, February, 2009.

Interface Personalization using a Mixed-Initiative Approach. Department of Computer Science, University of Manitoba, May, 2008.

Providing Users With Explanations in a Mixed-Initiative System for GUI Customization. AI Seminar Series, School of Computer Science, University of Waterloo, October, 2007.

Interface Personalization Using a Mixed-Initiative Approach. University College of London Interaction Centre (UCLIC), June, 2007.

Interface Personalization using a Mixed-Initiative Approach, Department of Mathematics and Computer Science, University of Lethbridge, April, 2007.

Supporting Interface Customization using a Mixed-Initiative Approach. Computer Science Department, University of Calgary, January, 2007.

Interaction Paradigms to Suit a Wider Range of Individuals. Computer Science Department, University of Saskatchewan, March, 2006.

PROFESSIONAL SERVICE

Grant Selection Committees
I have served on the following grant selection committees:
- Chair of the 2017 NSERC Research Tools and Instruments (RTI) Selection Committee for the Computer, Mathematical and Statistical Sciences
- Member of the 2016, 2018 NSERC Research Tools and Instruments (RTI) Selection Committee for the Computer, Mathematical and Statistical Sciences

Conference Organization
I have served in the following organizational roles:
- Co-Chair Graphics Interface 2014
- Co-Organizer CHI 2009 Special Interest Group (SIG) Meeting on Usable Artificial Intelligence

Program Committees
I have served on the program committee for the following conferences and workshops:
- CHI 2013, 2015, 2016, 2017, 2019, 2021, 2022 ACM Conference on Human Factors in Computing Systems
- UIST 2016, 2021 ACM Symposium on User Interface Software and Technology
- IUI 2009, 2010, 2011, 2013, 2014, 2015, 2016, 2017, 2018 ACM Conference on Intelligent User Interfaces
- HAI 2014, International Conference on Human-Agent Interaction
- GI 2010, 2011, 2016, 2021, 2022, 2023 Graphics Interface
- ISEE 2009, 2010 Workshop on Intelligent Support in Exploratory Environments

Editorial and Professional Boards
I have served on the following editorial and professional boards
- Member of the Editorial Board for Digital Impacts (2019 - current)
- Member of the CS-Can Research Advisory Committee (2018 - current)
- Board of Distinguished Reviewers for the ACM Transactions on Intelligent Interactive Systems (2018 - current)
- Member of the Editorial Board for the Springer Series on Human-Computer Interaction (2017 - current)
- Member of the Steering Committee for the New Media Manitoba 2017 Census

University of Manitoba Committees
I have served on the following committees within the University of Manitoba:
- Science representative at Senate (2021 - current)

- Faculty of Graduate Studies' Programs and Guidelines Committee (2021 - current)
- Research Ethics Board (2012 - 2018, 2021-2022)
- Faculty of Science Search Committee for Indigenous Scholars (2020-2021)
- Joint Computer Science / Mathematics Tenure and Promotion Committee (2020)
- Headship Search Committee for Mathematics (2018)

Departmental Committees

I have served on the following committees within the Department of Computer Science at the University of Manitoba:
- Graduate Studies Committee, chair (2022 - current)
- Awards Committee (2014 - 2015). Chair (2015 - 2019). Co-Chair (2022 - current)
- Guaranteed Funding Working Group, chair (2022)
- Faculty Search Committee (2011 - 2016, 2019, 2021, 2022)
- Curriculum Modernization Working Group (2021 - 2022)
- Graduate Studies Committee (2020 - 2021)
- Computer Science Head Search Committee (2019)
- Library Liaison (2009 - 2015)
- Undergraduate Curriculum Committee member (2009-2012)
- Search Committee Member for Tier I Canada Research Chair in Visual Analytics (2009 - 2010)
- Ad-Hoc Website Committee (2011)

Reviewing

I have acted as a reviewer for the following conferences, journals and books:
- CHI 2005, 2007, 2008, 2009, 2010, 2011, 2012, 2014, 2018, 2019, 2021, 2023 ACM Conference on Human Factors in Computing Systems
- UIST 2005, 2010, 2011, 2013, 2014, 2018, 2021, 2022 ACM Symposium on User Interface Software and Technology
- ACM Transactions on Computer Human Interaction (2010, 2013, 2014, 2022)
- GI 2007, 2015, 2018, 2019, 2021, 2022, 2023 Graphics Interface
- Digital Frontiers (2022)
- DIS 2018, ACM Conference on Designing Interactive Systems
- ACM Transactions on Intelligent Interactive Systems (2013, 2014, 2015, 2018, 2019, 2020)
- HAI 2015, 2016 International Conference on Human-Agent Interaction
- HRI 2016, International Conference on Human-Robot Interaction
- CHI Play 2014, ACM Annual Symposium on Computer-Human Interaction in Play
- MobileHCI 2014, International Conference on Human-Computer Interaction with Mobile Devices and Services
- Communications of the ACM (2014)
- Journal of Human Computer Interaction (2013)
- International Journal on Human-Computer Studies (2013, 2018)
- IUI 2005, 2008, 2012 ACM Conference on Intelligent User Interfaces
- ACM Interactive Tabletops and Surfaces 2010, 2011, 2015
- InfoVis 2011, 2015 IEEE Information Visualization Conference
- International Journal of User Modeling and User-Adapted Interaction (2003, 2005, 2009, 2010, 2011)
- Journal of Digital Information (2010)
- Journal of Advances in HCI (2010)
- UM 2005, 2007, International Conference on User Modeling
- AIED 2007, International Conference on Artificial Intelligence in Education
- IJCAI 2005, International Joint Conference on Artificial Intelligence

- ITS 2004, International Conference on Intelligent Tutoring Systems

STUDENT SUPERVISION   I have acted as a supervisor for the following students and postdoctoral fellows:

- Emmanouil (Manos) Giannisakis (2019 - 2021; co-supervised with Dr. Joanna McGrenere)
- Jisoo Lee, Postdoctoral Fellow (2017 - 2018)
- Ariful Anik, Ph.D. (2020 - current)
- Ananta Chowdhury, Ph.D. (2020 - current)
- Patrick Dubois, Ph.D. (2017 - 2022)
- Volodymyr Dzuibak, Ph.D. (2014 - 2019)
- Afsane Baghestani, M.Sc. (2021 - current, co-supervised with Dr. Celine Latulipe)
- Pouya Aghahoseini, M.Sc. (2021 - current)
- Mahya Maftouni, M.Sc. (2019 - 2022)
- Ariful Anik, M.Sc. (2018 - 2020)
- Ananta Chowdhury, M.Sc. (2018 - 2020)
- Tung Do Sun, M.Sc. Universite de Grenoble (2020, co-supervised with Dr. Laurence Nigay)
- Shahed Sabat, M.Sc. (2017 - 2019)
- Patrick Dubois, M.Sc. (2015 - 2017)
- Samuil Alam Anik, M.Sc. (2013 - 2015)
- Adnan Khan, M.Sc. (2013 - 2015)
- Mohammad Chowdhury, M.Sc. (2012 - 2014)
- Yasmeen Hashish, M.Sc. (2012 - 2014; co-supervised with Dr. James Young)
- Roberta Melvin, M.Sc. (2010 - 2014)
- Matthew Lount, M.Sc. (2010 - 2013)
- Denise Geiskkovitch, M.Sc. research assistant (2014 - 2015; co-supervised with Dr. James Young)
- David Cormack, M.Sc. research assistant (2013-2014)
- Millan David, undergraduate research assistant (2022)
- Alec Finney, undergraduate research assistant (2021)
- Mary (Ari) Arienne Nabong, undergraduate research assistant (2020)
- Yuyi Ding, undergraduate research assistant (2019)
- Tina Hernando, undergraduate honours project (2018)
- Meghan Chua, undergraduate project student (2017)
- Raquel Thiessen, undergraduate research assistant (2017)
- Shenyung Wang, undergraduate research assistant (2017)
- Kevin Hoang, undergraduate research assistant (2017)
- Hayley Guillou, undergraduate research assistant (2017)
- Mikayla Preete, undergraduate research assistant (2016 - 2017)
- Mackenzie Plowman, undergraduate research assistant (2016 - 2017)
- Suneet Dhaliwal, undergraduate research assistant (2016)
- Troy Stubbs, undergraduate research assistant (2015)
- Michelle Wiebe,undergraduate research assistant (2014 - 2015)
- Halley Guillou, undergraduate honours project (2015)
- Casey Forsythe, undergraduate honours project (2015)
- Patrick Dubois, undergraduate honours project (2014)
- Brian Yeo, undergraduate research assistant (2014)
- Hayley Guillou, undergraduate research assistant (2014)
- Kyle Derrett, undergraduate research assistant (2013)
- Patrick Dubois, undergraduate research assistant (2013)
- Stela Seo, undergraduate research assistant (2012; co-supervised with Dr. James Young).
- Catherine Lauzon, undergraduate research assistant (2011)

- Riley Draward, undergraduate research assistant, (2011).

I have served on the following advisory committees:
- Rogerio de Leon Pereira, Ph.D., Computer Science (current)
- Chelsea Braun, Ph.D., Physics (current)
- Narges Ashtari, Ph.D, Computer Science, Simon Fraser University (current)
- Anita Eze, PhD, Biosystems Engineering (current)
- Lauren Himbeault, M.Sc, Computer Science (current)
- Zach Havens, M.Sc., Computer Science (current)
- Humayra Rafi, M.Sc., Computer Science (current)
- James Berzuk, M.Sc., Computer Science (current)
- Soheil Changizi, M.Sc., Computer Science (current)
- Matthew Cook,Ph.D., Psychology (2022)
- Nabila Chowdhury, M.Sc., Computer Science (2022)
- Rahatul Amin Ananto, M.Sc., Computer Science (2022)
- Denise Geiskovitch, Ph.D., Interdisciplinary Studies (2021)
- Fereshteh Amini, Ph.D., Computer Science (2020)
- Azzam Qari, Ph.D., Mechanical Engineering (2020)
- Jessie Starks, M.Sc., Computer Science, University of Calgary (2020)
- Kimia Kiani, M.Sc., Computer Science, SFU (2019)
- Aadesh Rakhra, Ph.D., Biosystems Engineering (2018)
- Elaheh Sanoubari, M.Sc., Computer Science (2018)
- Anjum Ibna Matin, M.Sc., Computer Science (2018)
- Matthew Cook, MA, Psychology (2018)
- Chrissy Chuba, Ph.D., Psychology (2017)
- Ray Lavoie, Ph.D., Asper School of Business (2017)
- Ivan Panfilov, M.Sc., Biosystems Engineering (2017)
- Daniel Rea, M.Sc., Computer Science (2015)
- Yan Wang, M.Sc., Computer Science (2014)
- Ashish Sing, M.Sc., Computer Science (2014)
- Maryam Ayat, M.Sc., Computer Science (2013)
- Khalad Hasan, M.Sc., Computer Science (2012)
- Erum Tanvir, M.Sc., Computer Science (2009)
- Julia Cleland, Undergraduate design thesis, School of Art (2010)