CURRICULUM VITAE

Sheelagh Carpendale

Full Professor

Canada Research Chair: Tier 1: Information Visualization
Director: Innovations in Visualization (InnoVis)
Co-Director: Interactive Experiences Lab (ixLab)

Office: TASC1 9233
Lab: ixLab TASC1 9200
School of Computing Science
Simon Fraser University
8888 University Drive
Burnaby, British Columbia
Canada V5A 1S6

Phone: +1 778 782 5415
Email: sheelagh@sfu.ca
Web: https:// www.cs.sfu.ca/~sheelagh/

TABLE OF CONTENTS

Executive Summary

Brief Biography (in 3ʳᵈ person)

Sheelagh Carpendale is a Professor at Simon Fraser University (SFU). She directs her InnoVis (Innovations in Visualization) Research Group and the newly formed ixLab (Interactive Experiences Lab). She has recently been awarded a Tier 1 Canada Research Chair in Information Visualization at Simon Fraser University. Her NSERC/SMART Industrial Research Chair in Interactive Technologies has recently completed (2020). She has been awarded the IEEE VGTC Visualization Career Award (https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=8570932) and has been inducted into both the IEEE Visualization Academy (highest and most prestigious honor in the field of visualization) and the ACM CHI Academy, which is an honorary group of individuals who are the principal leaders of the field having led the research and/or innovation in human-computer interaction (https://sigchi.org/awards/sigchi-award-recipients/2018-sigchi-awards/)

Formerly, she was a Professor at University of Calgary, were she previously held a Tier 1 Canada Research Chair in Information Visualization and the NSERC/AITF/SMART Industrial Research Chair in Interactive Technologies. In 2013, she was awarded the ASTech Award for Innovation in Information and Communications Technology (http://www.astech.ca/archives/indexofpastwinners/carpendale-dr-sheelagh) and the Canadian Human Computer Communications Society (CHCCS) Achievement Award (http://graphicsinterface.org/awards/chccs-scdhm-achievement/sheelagh-carpendale/), which is presented periodically to a Canadian researcher who has made a substantial contribution to the fields of computer graphics, visualization, or human-computer interaction. In 2012 she was awarded the NSERC Steacie Fellowship, which is given to the six top scientists nationally across all science and engineering research areas and within 12 years of their PhD (http://www.nserc-crsng.gc.ca/Prizes-Prix/Steacie-Steacie/Profiles-Profils/Carpendale-Carpendale_eng.asp). She was featured in Canada's Science, Technology and Innovation Council State of the Nation 2012 report (http://www.stic-csti.ca/eic/site/stic-csti.nsf/eng/h_00058.html?Open&pv=1; http://www.stic-csti.ca/eic/site/stic-csti.nsf/eng/00066.html#demand). She is also the recipient of a British Academy of Film and Television Arts Award (BAFTA) for Interactive Learning for Antarctic Waves in collaboration with BRAUNARTS, the British Antarctic Survey and the London Philharmonic (a BAFTA is the British equivalent to Canada's GENIE Award or in USA to an Emmy (television) or an Oscar (film)). She is the recipient of several major awards including the British Academy of Film and Television Arts Award (BAFTA) for Off-line Learning as well as academic and industrial grants from Natural Sciences and Engineering Research Council, Intel Inc., Canada Foundation for Innovation, and Forest Renewal British Columbia.

She directs the Innovations in Visualization (InnoVis) research group (http://sheelaghcarpendale.ca/) and, at the University of Calgary, founded the interdisciplinary graduate program, Computational Media Design (http://www.ucalgary.ca/cmd/). Her research on information visualization, large interactive displays, and new media draws on her dual background in Computer Science (BSc. and Ph.D. Simon Fraser University) and Visual Arts (Sheridan College School of Design, and Emily Carr College of Art). She left high school with science scholarships but instead initially opted for fine arts, attending Sheridan College, School of Design and Emily Carr, Institute of Art and Design. For ten years she worked professionally in the arts. During this time she was part of establishing the Harbourfront Arts Centre at York Quay, in Toronto. She reconnected with her interests in math and science, completing a BSc and a PhD in computing science.

Her research expertise focuses on information visualization, interaction design, and qualitative empirical work and includes such projects as: visualizing ecological dynamics, using visualization to integrate scientific results and sounds from Antarctica to create a tool to inspire musical composition, visualizing uncertainty, visualizing social activities, and multi-touch and tabletop interaction. She has found the combined visual arts and computer science background invaluable in her research.

Research Overview

My research goal is to design, develop and evaluate interactive technologies so that they support the everyday-world practices of how people view, represent, manage, and interact with information. Central to this is my interest in information visualization with its potential to make information more accessible and comprehensible. In fact, the demand for effective information tools is increasing in response to the expanding deluge of information. Modern society demands that people manage, communicate and interact with digital information at an ever-increasing pace. While information is a crucial part of people's everyday lives, many people find today's technologies awkward, stressful to use, and overly intrusive in their lives. The problem is not with the information itself, but rather with its volume and the unwieldy ways now provided to present, exchange, view and interact with digital content. My primary motivation is to promote information comprehension by creating appropriate tools that can help people negotiate the everyday transformation of vast amounts of information into knowledge. In my research, I consider the fundamental nature of information and how people can effectively interact with it through technology, and how these technologies manifest themselves in ways that harmonize with the everyday practices and routines of people.

Research interests: Data Visualization, Information Visualisation, Personal Visualization, Interaction Design, Data Physicalization, Open Data Visualization, Large Display Interaction, Human Computer Interaction, Computer-Supported Cooperative Work, Cross-Disciplinary Arts/Science Research

Education

- PhD Computer Science, 1999, Simon Fraser University
- BSc Computer Science, 1992, Simon Fraser University
- Emily Carr, College of Art, 1981
- Sheridan College, School of Design, 1975

Employment and Appointments

- Full Professor, School of Computing Science, Simon Fraser University
- NSERC/SMART Industrial Research Chair: Interactive Technologies

Publications

2 books, over 200 fully refereed publications in internationally recognized top venues; plus over 150 refereed workshop papers, posters and videos, refereed or invited book chapters, edited collections and proceedings; and over 20 exhibits and installations.

Supervision and Teaching

I teach visualization in the School of Computing Science at Simon Fraser University and currently in my research group, I have a Research Associate, 4 PhD students, and 2 Masters students. I also teach external workshops and courses.

Previously I taught undergraduate and graduate courses in the Department of Computer Science, University of Calgary, where I twice received the University of Calgary Excellence in Supervision Award. I supervised 14 Postdoctoral Fellows, 22 PhD, 16 Masters, as well as research associates and designers to successful conclusions. I regularly supervise additional students as research exchange students, summer undergraduate researchers and research employees in various capacities. I also regularly participate as a member and/or an examiner on PhD supervisory committees, thesis defences, candidacy examinations and PhD transfer committees.

Recent Major Grants

I have just been awarded NSERC Tier 1 Canada Research Chair ($1,400,000), currently hold an NSERC Discovery Grant worth $370,000 and am co-investigator on the Canadian Consortium for Arctic Data Interoperability (CFI total is $5,281,812, my part $293,138). I recently completed the NSERC/SMART/AITF Industrial Research Chair worth $2,700,000 over its lifetime, and an approximately $1,900,000 Canada Energy Regulator (CER) Grant, and previously, at University of Calgary, held an NSERC Tier 1 Canada Research Chair worth $1,400,000. I was a theme leader in $5,000,000 / 5 year SURFNET NSERC Strategic Network Grant. I was a Network Investigator and Project Leader in GRAND, National Centre of Excellence ($23,000,000 / 5 year) and a member of $5,500,000/5 year NSERC NECTAR Research Networks Grant. I also previously held 2 terms as a Canada Research Chair Tier 2. My research has been supported by various industries such as SMART Technologies, Microsoft, and Intel.

Major Service Roles

- Member: IEEE VIS Awards Committee (2019 – current);
- Chair: IEEE Information Visualization Steering Committee (2018 – current);
- Member: IEEE Visualization Executive Committee (VEC) (2018 – current);
- Member: CHCCS (Canadian Human-Computer Communication Society) Awards Committee (2018 – current);
- Member: IEEE Information Visualization Steering Committee (2014 – current);
- Chair: ACM ISS Steering Committee (2016–19);
- Member: ACM ISS Steering Committee (2009 – 2019);
- Program Chair: IEEE PacificVis 2013;
- Director for Computational Media Design: piloted, designed, proposed and shepherded this new interdisciplinary graduate program (Masters and PhD) through the approvals processes (2008-2013).
- Conference Chair: IEEE Information Visualization (2010);
- Program Chair: ACM ITS 2009;
- Papers Chair: IEEE Information Visualization 2009;
- Papers Chair: IEEE Information Visualization 2008;
- General Chair: Computational Aesthetics 2007

Education

Ph.D. (Computer Science) 1999

Simon Fraser University
School of Computing Science, Faculty of Applied Science
- Topic: Information Visualisation
- Dissertation: A Framework for Elastic Presentation Space
- Supervisors: F. D. Fracchia, T. Shermer, A. Liestman
- March, 1999

B.Sc. (Computer Science) 1992

Simon Fraser University
School of Computing Science, Faculty of Applied Science
- June, 1992

Art School

Emily Carr, College of Art, Vancouver, BC
- June 1981

Design School

Sheridan College, School of Design, Mississauga, ON
- June 1975

AWARDS

MAJOR AWARDS

2019 Inducted into the IEEE Visualization Academy. (Induction into the Vis Academy is the highest and most prestigious honor in the field of visualization.)

2018 IEEE VGTC Visualization Career Award. (The IEEE VGTC Career Award recognizes and honors individuals who have made a significant contribution to the community through their research. In particular this was awarded for my work in interactive data exploration, in visualization in novel contexts such as wall and tabletop display, in rigorous qualitative evaluation methods, in bringing aesthetic considerations to the research community, and for her contributions in a wide range of application domains, including medicine, digital humanities, geography, the environment, personal data, and emergency management) https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=8570932)

2018 Inducted into the CHI Academy. (The CHI Academy is an honorary group of individuals who have made substantial contributions to the field of human-computer interaction. These are the principal leaders of the field, whose efforts have shaped the disciplines and/or industry, and led the research and/or innovation in human-computer interaction.) https://sigchi.org/awards/sigchi-award-recipients/2018-sigchi-awards/

2017 Scholarship Award of Excellence in the Established Career category, Faculty of Science, University of Calgary

2016 University of Calgary Peak Scholar, Dr. Carpendale's research focuses on designing, developing and evaluating interactive visualizations and technologies so that they support the everyday practices of how people view, represent, manage, and interact with information. Her primary motivation is to promote information comprehension by creating appropriate tools that can help people negotiate the everyday transformation of vast amounts of information into knowledge.

2015: Distinguished Visitor: Scottish Informatics and Computer Science Alliance (SICSA). In spring of 2015 I was invited as a Scottish Informatics and Computer Science Alliance (SICSA) as a Distinguished Visitor, where I spent 3 weeks visiting, giving talks and organizing and running a workshop, at University of St. Andrews, University of Dundee, Napier University and Duncan of Jordanstone College of Art and Design (DJCAD).

2015 Faculty of Science, Established Career Research Excellence Award. 2015, University of Calgary

2015 Canada Research Chair, Tier I: Information Visualization: (2015). University of Calgary, Faculty of Science, Department of Computer Science. Canada wide awards for excellence in research. https://www.ucalgary.ca/utoday/issue/2015-04-10/eight-canada-research-chairs-announced

2014 NSERC/AITF/SMART Industrial Research Chair in Interactive Technologies: (2014)

2014 Faculty of Graduate Studies, My Supervisor Skills, GREAT Supervisor Award. Sept. 2014, University of Calgary

2014 INRIA DIGITEO Distinguished Visiting Scientist: Campus Paris Saclay: 2014 Oct.-Dec.

ASTech Award Winner: 2013 Innovation in Information and Communications Technology Sponsored by TELUS, Winner
  http://www.astech.ca/awardee/2013-ict-carpendale-dr-sheelagh

Canadian Human Computer Communications Society (CHCCS) Achievement Award: (2013)
  The CHCCS/SCDHM Achievement Award is presented periodically to a Canadian researcher who has made a substantial contribution to the fields of computer graphics, visualization, or human-computer interaction.
  http://www.cs.ubc.ca/~ksbooth/gi/archive/achvmnt2013.html

NSERC, E.W.R. STEACIE Memorial Fellowship Award: (2012). This fellowship is awarded nationally to up to six most outstanding and highly promising scientists and engineers in Canada, within 12 years of their PhD. (http://www.nserc-crsng.gc.ca/Prizes-Prix/Steacie-Steacie/Profiles-Profils/Carpendale-Carpendale_eng.asp)

Featured in Canada's State of the Nation Report: (2012). (http://www.stic-csti.ca/eic/site/stic-csti.nsf/eng/h_00058.html?Open&pv=1; http://www.stic-csti.ca/eic/site/stic-csti.nsf/eng/00066.html#demand **)**

NSERC, Discovery Accelerator Award: (2012) The Accelerator is awarded to a select few of the NSERC Discovery Grant applicants**.**

ASTech Award Honoree: (2011) for 'significant contribution through the discovery, application and/or implementation of technology products or processes.'

IEEE Recognition of Service Award: (2011). For service as Conference and Papers Co-Chair for IEEE Information Visualization.

Excellence in Supervision Award: (2009). This is a university wide award where one is nominated by their students, University of Calgary.

Canada Research Chair, Tier II: Information Visualization: (2009). University of Calgary, Faculty of Science, Department of Computer Science. Canada wide awards for excellence in research.

ACM Recognition of Service Award: (2009). ACM Conference Interactive Tabletops and Surfaces.

NSERC/iCORE/SMART Industrial Research Chair in Interactive Technologies: (2007)

Faculty of Science, Research Excellence Award: (2006) University of Calgary.

Canada Research Chair, Tier II: Information Visualization: (2004). University of Calgary, Faculty of Science, Department of Computer Science and Faculty of Communications and Culture.

NSERC UFA, University Faculty Award: (2003)

BAFTA (British Academy of Film & Television Arts Interactive Awards): (2002)
  Category: Interactive Learning. Project: Antarctic Waves: developed with BRAUNARTS, the British Antarctic Survey and the London Philharmonic. Position: Computer Visualisation Consultant. (a BAFTA is the British equivalent to Canada's GENIE Award or in USA to an Emmy (television) or an Oscar (film))

NSERC UFA, University Faculty Award: (2000)**.**

Best PhD Award: (1999). School of Computer Science, Simon Fraser University.

NSERC, Postgraduate Scholarship B: (1994 – 1996). Canadian scholarship, top 2% of graduate students nationally.

NSERC, Postgraduate Scholarship A: (1992 – 1994). Canadian scholarship, top 2% of graduate students nationally.

PUBLICATION AWARDS

2020 ACM CSCW Lasting Impact Award: Stacey D. Scott, Sheelagh Carpendale, and Kori M. Inkpen. Territoriality in collaborative tabletop workspaces. In *Proceedings of the 2004 ACM Conference on Computer Supported Cooperative Work*, pp. 294-303. 2004. (This award goes to a paper that is at least 10 years old and has had an impact on CSCW as a field. Nominations are taken from the community, and the decision is made by a committee of senior CSCW scholars. This year's committee consisted of Cecilia Aragon, Amy Bruckman, Karrie Karahalios, Michael Muller, Bonnie Nardi, Paul Resnick, and Naomi Yamashita).

2020 Best Paper, Honorable Mention: Bon Adriel Aseniero, Charles Perin, Wesley Willett, Anthony Tang, and Sheelagh Carpendale. "Activity River: Visualizing Planned and Logged Personal Activities for Reflection." In *Advanced Visual Interfaces (AVI)* (2020).

2020 Transactions on Visualization and Computer Graphics (TVCG) Journal Selection Paper Award: Fateme Rajabiyazdi, Charles Perin, Lora Oehlberg, and Sheelagh Carpendale. "Exploring the Design of Patient-Generated Data Visualizations." In Graphics Interface (GI). Canadian Information Processing Society, 2020.

2019 Best Paper Award: Jagoda Walny, Christian Frisson, Mieka West, Doris Kosminsky, Søren Knudsen, Sheelagh Carpendale, Wesley Willett. Data Changes Everything: Challenges and Opportunities in Data Visualization Design Handoff. *IEEE Transactions on Visualization and Computer Graphics (InfoVis track of IEEE VIS)*, IEEE Computer Society Press.

2019 Best Poster Design Award: Weina Jin, Sheelagh Carpendale, Ghassan Hamareh, Diane Gromala. (2019). Bridging AI Developers and End Users: an End-User-Centred Explainable AI Taxonomy and Visual Vocabularies. *Poster: VAST track, IEEE VIS*.

2018 ACM ISS Ten Year Impact Award: Mark Hancock, Thomas Ten Cate, Sheelagh Carpendale. Sticky tools: full 6DOF force-based interaction for multi-touch tables. In *Proceedings of the ACM International Conference on Interactive Tabletops and Surfaces,* pp. 133-140. ACM, 2009.

2018 Best Poster, Honorable Mention: Kendra Wannamaker, Lora Oehlberg, Sheelagh Carpendale, Wesley Willett. (2018) Data Embroidery. In *Posters Compendium IEEE VIS, InfoVis*, 2018.

2016 Best Poster, Honorable Mention: Bon Adriel Aseniero, Charles Perin, Marjan Eggermont, Sheelagh Carpendale (2016) Fireflies: Biomimicry-Inspired InfoVis for Exploring Public Opinion about an Infectious Disease *In Posters Compendium InfoVis*, 2016.

2015 Best Paper, Honorable Mention: Jagoda Walny, Samuel Huron, Sheelagh Carpendale. (2015). An Exploratory Study of Data Sketching for Visual Representation. Computer Graphics Forum. 34(3):231-240

2015 Best Paper: Bongshin Lee, Greg Smith, Nathalie Henry Riche, Amy Karlson, Sheelagh Carpendale. (2015). SketchInsight: Natural Data Exploration on Interactive Whiteboards Leveraging Pen and Touch Interaction. Proceedings of the IEEE Conference Pacific Visualization. pages 199-206.

2014 Best Paper, Honorable Mention: Samuel Huron, Sheelagh Carpendale, Alice Thudt, Anthony Tang, Michael Mauerer. (2014). Constructive Visualization. In Proceedings of the ACM Conference on Designing Interactive Systems. pp 433-442, ACM Press.

2014 Best Poster, Honorable Mention: Jagoda Walny and Sheelagh Carpendale. Data Sketches: An Exploratory Study. In Posters Compendium InfoVis, 2014

2013 Best Short Paper: Alice Thudt, Dominikus Baur, Sheelagh Carpendale. (2013). Visits: A Spatiotemporal Visualization of Location Histories. In Proceedings of European Conference on Visualization, EuroVis'13. June 2013.

2013 UIST Best Demo, Honourable Mention: John Brosz, Miguel Nacenta, Ricky Pusch, Sheelagh Carpendale, Christophe Hurter. 2013. Transmogrification: UIST Demo. ACM Symposium on User interface software and technology (UIST)

2012 Invited to submit an extended version to the Journal TRACEY: Jagoda Walny, Sheelagh Carpendale. (2012) Towards Supporting Interactive Sketch-Based Visualizations. (2012) Thinking through Drawing 2012: Drawing in STEAM (Science, Technology, Engineering, Arts & Maths) Symposium, sponsored by International Drawing and Cognition Research, Wimbledon, UK. (12 pages)

2011 Best Paper: Jonathan Haber, Sean Lynch, Sheelagh Carpendale. (2011) ColourVis: exploring colour usage in paintings over time. In Proceedings of the International Symposium on Computational Aesthetics in Graphics, Visualization, and Imaging, pp 105-112, ACM Press.

2011 Best Paper: Marian Dörk, Sheelagh Carpendale, Carey Williamson. (2011). EdgeMaps: Visualizing Explicit and Implicit Relations. In *Proceedings of VDA 2011: Conference on Visualization and Data Analysis*. IS&T/SPIE, 2011.

2008 Best Paper, Honorable Mention: Charlotte Tang, Sheelagh Carpendale. (2008). Evaluating the Deployment of a Mobile Technology in a Hospital Ward. Proceedings of the ACM Conference on Computer Supported Cooperative Work (CSCW 2008). pp. 205-214. ACM Press. Nov. 2008

2007 Best Paper: Holly Schmidt, Uta Hinrichs, Alan Dunning, Sheelagh Carpendale. (2007). memory [en]code - Building a Collective Memory within a Tabletop Installation. *Proc. Computational Aesthetics in Graphics, Visualization, and Imaging, (CAe'07)*, pp. 135–142, Eurographics Association,

2007 Best Paper, Honorable Mention: Mark Hancock, Sheelagh Carpendale, Andy Cockburn. (2007). Shallow-Depth 3D Interaction: Design and Evaluation of One-, Two- and Three-Touch Techniques. *Proc. Conference on Human Factors in Computing Systems (ACM CHI'07)*, pp. 1147–1156, ACM Press

My Students' Major Awards:

2018 Alice Thudt: Honourable Mention (2nd in the world) in the 2018 IEEE VGTC VPG Doctoral Dissertation Competition for her PhD thesis '*Visualizations for Personal Reflection and Expression'.*

2018 Tanja Blascheck, received EUROVIS Best Doctoral Dissertation for her PhD thesis '*Understanding Interactive Visualizations: Leveraging Eye Movements and Visual Analytics'.* I supervised Tanja Blascheck as an exchange PhD student from University of Stuttgart and I was her Mitberichter

2018 Kyle Hall: Best PhD Award: awarded best PhD in Faculty of Science, University of Calgary for his thesis *'Interweaving Computational Chemistry and Visualization: Explorations into Molecular Processes, Simulation Analysis, and Visualization Design.'*

2017 Jagoda Walny: Honourable Mention (2nd in the world) in the 2015 IEEE VGTC VPG Doctoral Dissertation Competition for her PhD thesis *'Thinking with Sketches: Leveraging Everyday Use of Visuals for Information Visualization'.*

2017 Jagoda Walny: Best HCI PhD in Canada awarded the (**Bill Buxton Award**): for her PhD thesis *'Thinking with Sketches: Leveraging Everyday Use of Visuals for Information Visualization'*. http://graphicsinterface.org/awards/bill-buxton/jagoda-walny/

2015 Jo Vermeulen: who became my PostDoc won the 2015 **FWO-IBM Innovation Award, Best Belgian Computer Science Dissertation** (2015)

2015 Samuel Huron, whom I supervised as an exchange PhD student from INRIA, and subsequently became my PostDoc, was awarded the **2015 IEEE VGTC VPG Doctoral Dissertation Award** for his PhD thesis *'Constructive Visualization: A Token-based Paradigm Allowing to Assemble Dynamic Visual Representation for Non-experts'*. This is a great example of the best that can happen when working at the intersection of two labs (InnoVis and JD Fekete's AVIZ at INRIA)

2012-2015: Marjan Eggermont PhD student who founded, edits, and designs **Zygote Quarterly (**ZQ), which was a finalist (**2nd to Scientific American)** in the Digital Magazine Awards, Science and Nature category, in 2012, 2013, 2014, and 2015. (https://zqjournal.org/).

2012 Uta Hinrichs: Best HCI PhD in Canada (2012) awarded to my PhD student U. Hinrichs (Bill Buxton Award) for her PhD '*Open-Ended Explorations in Exhibition Spaces: A Case for Information Visualization and Large Direct-Touch Displays'.* http://www.cs.ubc.ca/~ksbooth/gi/archive/hci2012.html

2011 Lindsay MacDonald Digital Alberta Award: (2011). My MFA (Computational Media Design) student L. MacDonald was awarded the provincial award for the best student digital media piece for her work '*A Delicate Agreement*'.

2008 Uta Hinrichs and Holly Schmidt: Canadian New Media Awards: finalist. Students U. Hinrichs, H. Schmidt were one of the three finalists in Canada for Interactive Media for their piece '*EMDialog*'.

2008 Torre Zuk: The University of Calgary nominated my student Torre Zuk`s Ph.D. '*Visualizing Uncertainty*' for Best PhD thesis nationally.

2005 Stacey Scott: Best PhD Award: My student S. Scott was awarded best PhD in Faculty of Science, University of Calgary for her thesis '*Territoriality in Collaborative Tabletop Workspaces'.*
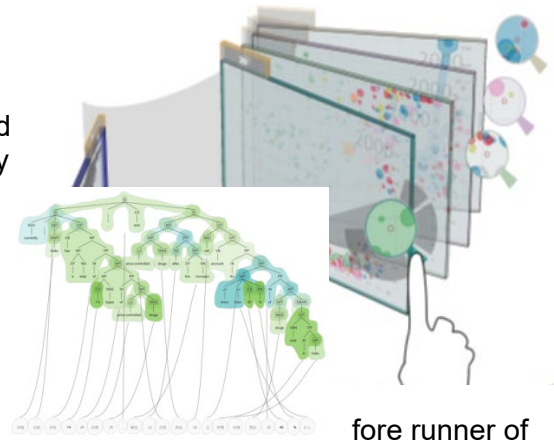
Research Overview

Elastic Presentation Framework (EPF) made a significant contribution to Information Visualization by unifying many previously developed presentation methods allowing the seamless inclusion of more than one presentation method in a single interface. By interpolating between the methods it describes, EPF identifies new presentation variations. The concepts developed in EPF have proven to be extensible to occlusion-reduction techniques that can be applied to 2D and 3D representations. EPF has received considerable academic and industrial attention.

Presentation variations often in include some type of distortion to present information details within their context. We recently introduced the undistort lens into information presentation possibilities.
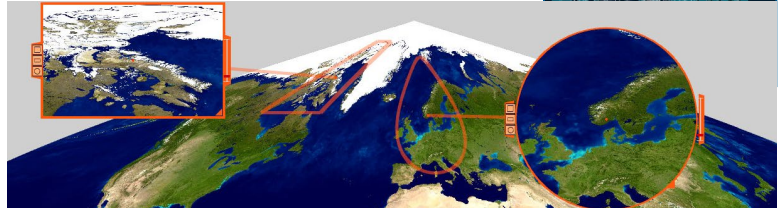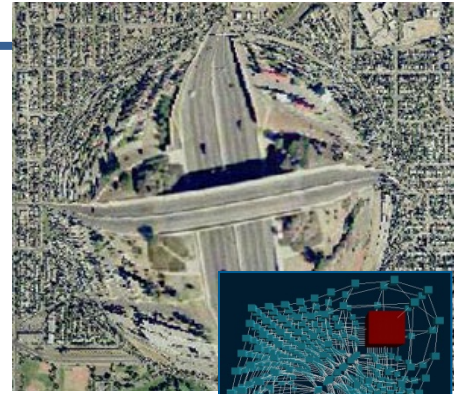
Tabletop Interaction: Based on observational studies, we recognized that both the orientation of items on the table and human territoriality play significant roles in tabletop interaction. Our research revealed that orientation plays three major roles: comprehension, coordination, and communication and that tabletop territoriality helps coordinate task and group interactions during collaboration. These observational studies have proven to be truly foundational. They have deeply influenced the tabletop research community as indicated by being particularly widely cited. Combined, these theories have provided a basis for the development of entirely new tabletop interactions that support the organization and sharing of digital information during collaboration. Even though this is relatively recent research, there are already more than 400 citations. In fact, most papers in Tabletop and Interactive Surfaces conference cite this research.

Visualizing Linguistic Data has included visualizing document content, development of methods to combine the visualization of set membership with relational data and showing uncertainty in machine translation. The complexity of linguistic data led to the development of isLinks, a fundamentally new approach for exploring the relationships between representations of different aspects of data sets. VisLinks makes it possible to reveal relationships, to show connections between two or more primary visualizations, and to enable inter-visualization queries. VisLinks has been publicly praised in keynote talks by senior researchers in the field as a fore runner of

future directions in visualization.

Visualizing Uncertainty is frequently discussed as one of the grand challenges in visualization research. By combining cognitive science, semiology, design literature with a human computer interaction heuristic methodology we created guidelines that can be used for assessing uncertainty visualizations, which was a focus in a subsequent workshop, and is much cited. Also the research into incorporating uncertainty visualization support in diagnostic practices revealed that in reaching a decision both uncertainty in data and uncertainty in reasoning was relevant and has resulted in a model of how the combination of uncertainty in reasoning and data impacts visualization. In this regard, the research into creating visualizations that incorporate uncertainty to support medical diagnosis of pulmonary embolism is moving forward into the process for clinic trial.
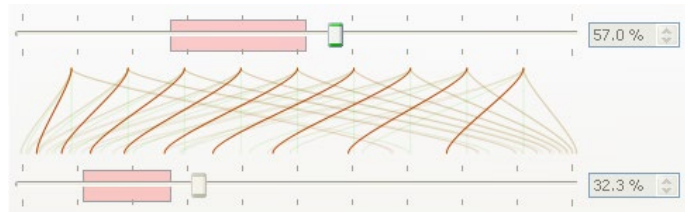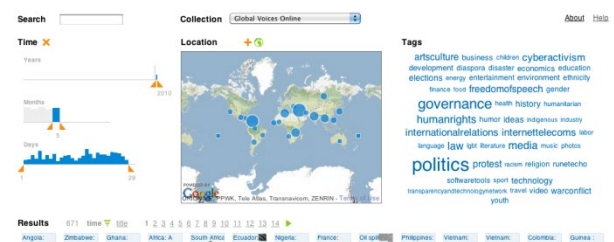
Visualization in Everyday Life is a new research direction that investigates the use of information visualization techniques to enhance information in public and social settings. In our research we have investigated the possibility of using information visualization techniques to support social media and to create interactive installations, such as EMDialog, at the Emily Carr Exhibition at Glenbow Museum. EMDialog allowed the public to explore related information with touch interaction on a large screen. Approximately 29,000 people attended this exhibition. In 2008, EMDialog was a finalist in the Canadian New Media Awards.
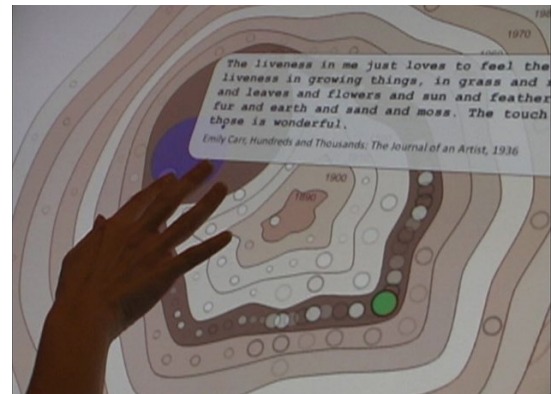
Understanding Nurses' Information Flow: Through a series of observational studies, the first to acquire a nurse-centered understanding of the processes, practices and mechanisms used to support information transfer during shift change, the second to understand the deployment of a mobile wireless information system in the study ward, and the third to study a mobile hands-free voice communication system that was deployed in the study ward to help improve communication among distributed clinicians. Cumulatively, this has resulted in an integrated design for technology use in the ward.
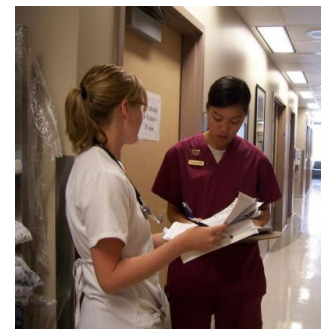
Visualization in Information Search: We are investigating the possibility of conducting information search through the use of information visualizations. We are investigating this opportunity on the web and in libraries. This research continues to impact search in libraries as well as continued research in innovative search on the web.

Employment and Appointments

Current

Full Professor	School of Computing Science, Faculty of Applied Science, Simon Fraser University, BC, Canada • 2018 – current: Full Professor
Full Professor	Department of Computer Science, Faculty of Science, University of Calgary, Calgary, Canada • 2010 – 2018: Full Professor • 2004 – 2010: Associate Professor • 1999 – 2004: Assistant Professor
Industrial Research Chair	**NSERCSMART: Industrial Research Chair: Interactive Technologies** School of Computing Science, Faculty of Applied Sciences, Simon Fraser University, BC, Canada, 2019 – 2020:
Industrial Research Chair	**NSERC/AITF/SMART: Industrial Research Chair: Interactive Technologies** Department of Computer Science, Faculty of Science, University of Calgary, Calgary, Canada, 2014 – 2018:
Canada Research Chair Tier 1	**Canada Research Chair Tier 1: Information Visualization** Department of Computer Science, Faculty of Science, University of Calgary, Calgary, Canada 2015 – 2018 (left to take position at SFU)
SICSA Distinguished Visitor	Hosted by University of St. Andrews, UK. Visiting University of Dundee, Napier University and Duncan of Jordanstone College of Art and Design. 2015
INRIA DIGITEO: Visiting Scientist	INRIA DIGITEO: Visiting Scientist: Campus Paris Saclay: 2014.
Industrial Research Chair	Joint **NSERC/AITF/SMART Industrial Research Chair: Interactive Technologies** Department of Computer Science, Faculty of Science, University of Calgary, 2007 – 2014:
Canada Research Chair	**Canada Research Chair Tier II: Information Visualization** Previously: Canada Research Chair Tier II: Information Visualization Department of Computer Science, Faculty of Science, University of Calgary, Calgary, Canada (2004 – 2014)

Consultant	Microsoft Research, Redmond, Wash. USA
	• 2010 – 2012:

Adjunct Professor	Department of Computer Science University of Toronto, Toronto, Canada
	• 2007 – 2012:

Computer Science Experience

Research Associate	• FRBC (Forest Renewal British Columbia)
	SEED (Simulating and Exploring Ecosystem Dynamics) Project
	School of Computing Science, Simon Fraser University, BC
	Developing visual access for landscape dynamics data.
	  • 1996 – 1999
	• Algorithms Laboratory
	Visualizing Network Theory,
	School of Computing Science, Simon Fraser University, BC
	  • 1992 – 1996 (part time)

Computer Consultant	• Interactive Video Disc Project KYAC (Knowledge for Youths About Careers), Surrey, BC With the team from Degrassi Junior High, developed an interactive career choice program for teenagers. • 1991
Software Designer	• MPR Teltech Ltd., Burnaby, BC Created cohesive user interface, 'Customer Response Kit', that united three expert systems • 1990
Programmer	• ALI: Advanced Light Imaging Technologies, Burnaby, B.C Created visual diagnostic program used to test hardware • 1989
Research Assistant	• Dr. M. Benston. Simon Fraser University, BC Studied gender issues in math and computer education • 1987 - 1988

Arts and Design Experience

Visualisation Consultant	• BRAUNARTS Project: Antarctic Waves: developed with BRAUNARTS and the British Antarctic Survey • 2002
Instructor: Fine Arts	• Humber College • 1973 – 76 • Harbourfront Arts Center, Toronto, Ont.

- 1976 – 79
- Potters Studio: Toronto, Ont.
  - 1977

Artist in Residence
- GreenHouse Arts Retreat, Christina Lake, BC
  - 1997
- Harbourfront Arts Centre, Toronto, Ont.
  - 1976-1979
- Lippincot Couch House Studio, Toronto, Ont.
  - 1973-1979
- World Crafts Conference, Ontario Science Centre, Toronto, Ont.
  - 1974

Artist in the Schools
- Ontario Arts Council, Don Mills Junior High, 1977
- Ontario Arts Council, Subway Academy, 1978

Teacher
- Toronto Board of Education, Toronto, Ont.
  - Grade 13, Studio Art 1977-78
- North York Board of Education, Toronto, Ont.
  - Fine Arts: Grades 7, 8 and 9: 1975-76

Teaching and Supervision

I regularly taught undergraduate and graduate courses in the Department of Computer Science at University of Calgary. I have frequently had the opportunity to design and/or redesign both undergraduate and graduate courses. Several of these new course designs have been interdisciplinary in nature and have led to the formulation of two new graduate programs of studies – a Masters and a PhD in Computational Media Design. I have received the University of Calgary Excellence in Supervision Award, twice, based on a nomination from my graduate students. I currently supervise 3 Post Doctoral Fellows, 9 PhD students, 2 MSc students, and 1 research associate. I have supervised 10 Postdoctoral Fellows, 14 PhD, and 14 Master's students to successful conclusions. I also regularly supervise research exchange students, undergraduate students and research employees.

The Creation of the Computational Media Design (CMD) Program: My interdisciplinary practices in supervision, instruction and research with the Fine Arts and Design faculties have led to the formulation of an interdisciplinary graduate group and the development of Computational Media Design (CMD) graduate programs of study. It is our goal to create an environment where students will be able to collaborate on research projects that explore the boundaries between art, design, and computer science. Two new graduate programs, one MSc and one PhD, will be created at the intersection of Computer Science and Arts & Design. In June, 2008 provincial (EPE) funds were successfully obtained for these new trans-disciplinary programs. While these were based on the success of my ongoing, Arts/Science collaborations, the new programs are evolving and developing as we proceed. They have been successful in meeting the EPE target enrolment was met for 2008/2009, and 2009/2010. Work developing these new computer science and creative practice interdisciplinary programs that bridge computer science, fine arts and environmental design and is already clearly, fostering innovation and attracting top quality students. The program has been approved by the Faculty of Graduate Studies and University of Calgary Academic Planning Committee and is proceeding for provincial approval. The CDM program, as of spring 2012, has 24 graduate students at the MSc and PhD level.

Interdisciplinary Art/Computer Science Pilot Courses. I designed and taught cross-disciplinary courses with A. Dunning, Head of Alberta College of Art and Design's Media Arts and Digital Technologies Program. These courses explore the potential for collaborative research between artists and scientists in an interdisciplinary environment. Students share the facilities of both institutions (ACAD and UofC) and develop project goals and understandings in an intensive workshop held at the Banff Centre for the Arts. This course showed a developing commitment at UofC to exploring the research potential of interdisciplinary collaborative space through innovative programming and partnership.

Interaction Design. I worked with S. Greenberg on creating a fourth year course on Human Computer Interaction with a considerably novel focus. This course is being taught on a student inquiry led basis, similar to many design studio courses. The Design Studio concept is an entirely appropriate pedagogy, for this course concerns the development of the student's interface design skills. This represents a considerable shift from conventional computer science teaching practices. While from my fine arts teaching experience I have taught many design studio courses, finding the right blend to teach interaction design as computer science has taken considerable thought and discussion. S. Greenberg and I have combined these discussions around interaction design and design studio teaching with knowledge about computer science instruction to create a new computer studio design course.

Supervision

Current Post-Doctoral Fellows, Graduate Students and other Supervision

Research Associate
- Sarah Storteboom: June 2020 –

PhD Students
- Maryam Rezaie: September 2020 –
- Foroozand Daneshzand: September 2019 –
- Bon Adriel Aseniero: January 2015 –
- Paul Lapides: September 2013 –

Masters Students
- Tatiana Losev: September 2020 –

Research Associates and Assistants
- Cindy Wheadon: April 2018 –

Completed Post Doctoral Fellows, Graduate Students and other Supervision

Previous PostDocs
- Victor Cheung: January 2020 to April 2020
  NOW: Lecturer, Human Computer Interaction in Computing Science at Simon Fraser University
- Søren Knudsen: January 2017 to July 2020
  NOW: Marie Curie Postdoctoral Scholar: University of Copenhagen
- Jagoda Walny: August 2017 to November 2019
  NOW: Lead Data Visualization Project Canada Energy Regulator
- Helen He: February 2019 – August 2019
  NOW: Assistant Professor, Department of Computer Science at Dalhousie University
- Sonja Thoma: June 2018 – July 2019 (Linguistic PhD for linguistic visualization)
  NOW: Language Coach with FNESC (First Nations Education Steering Committee), for their Language and Culture Program
- Gonzalo Mendez: April 2018 – April 2019
  NOW: Assistant Professor, Department of Computer Science at ESPOL University, Ecuador
- Miriam Sturdee: April 2018 – January 2019
  NOW: Lecturer (Assistant Professor) Lancaster University, UK.
- Christian Frisson: December 2017 – November 2018
  NOW: Post-Doctoral Fellow, McGill, Montreal.
- Jo Vermeulen: January 2016 – July 2017
  NOW: Assistant Professor, Department of Computer Science at Aarhus University

- Adam Bradley: October 2016 – January 2017
  - NOW: Research Scientist, at Visualization for Information Analysis Lab, Ontario Tech University
- Charles Perin: January 2015 – December 2016
  - NOW: Assistant Professor, Computer Science, University of Victoria, Previous: Lecturer, Department of Computer Science at City, University of London, and part of the giCentre research group
- Samuel Huron: October 2014 – November 2015
  - NOW: Associate Professor of Design and Information Communication Technology at Mines Telecom Paris Tech
  - IEEE VGTC Doctoral Dissertation Award
  - Was: Lead Designer at Institute for Research and Innovation of the Pompidou Center (Paris)
  - http://www.cybunk.com/blog2/
- Javad Sadeghi: August 2013 – December 2014
  - NOW: President & CEO of Animation Leader Technology Inc (own start-up)
- Sebastian Boring: November 2011 – October 2012
  - NOW: Professor of Media Technology, Aalborg University, Copenhagen
  - Was: Associate Professor, HCC Group, University of Copenhagen, Copenhagen, Denmark. http://www.sebastianboring.com/
- John Brosz: April 2011 – May 2012
  - NOW: Visualization Research Coordinator, TDFL, Calgary
- Dominikus Baur: January 2012 – September 2012
  - NOW: Lead Software Developer Konux, Munich, DE; was Independent Visualization Researcher and Consultant
  - http://do.minik.us/blog
- Miguel Nacenta: April 2009 – April 2011
  - NOW: Lecturer (Assistant Professor): University of St. Andrews, Scotland
  - https://nacenta.com/research/
- Amy Voida: December 2007 – October 2009
  - NOW: Assistant Professor, University of Colorado Boulder;
  - Previously, Assistant Professor, School of Informatics and Computing, Indiana University. Research Scientist: University of California, Irvine
  - http://amy.voida.com/
- Steve Voida: December 2007 – October 2009
  - NOW: Assistant Professor, University of Colorado Boulder;
  - Amy and Steve Voida: Co-Founders: Department of Information Science, College of Media, Communication, and Information, University of Colorado Boulder
  - Previously, Assistant Professor, School of Informatics and Computing, Indiana University. Research Scientist: University of California, Irvine
- Tobias Isenberg: October 2004 – October 2007
  - NOW: Research Director, INRIA
  - http://tobias.isenberg.cc/
  - Previously: Assistant Professor & Digiteo Chair of Excellence Johann Bernoulli Institute Mathematics & Computer Science

Previous PhD Students

- Fateme Rajabiyazdi: January 2014 –
  NOW: Postdoctoral Researcher at McGill University - Department of Experimental Surgery
- Marjan Eggermont. PhD awarded April 2018.
  NOW: Teaching Professor | Mechanical and Manufacturing Engineering Schulich School of Engineering | University of Calgary
  University of Calgary Teaching Scholar
  Designer/Publisher ZQ | zqjournal.org
- Alice Thudt: PhD awarded April 2018.
  Award: **Best PhD, Honorable Mention: IEEE VGTC VPG Doctoral Dissertation Competition for her PhD thesis '*Visualizations for Personal Reflection and Expression*'.**
  NOW: Independent Data Visualization Designer
- Lindsay MacDonald: PhD awarded February 2018.
  NOW: Postdoctoral Fellow, Centre for Digital Creativity.
  School of Communication & Culture, Digital Design & Information Studies
  Aarhus University, Denmark
- Mona Hosseinkhani: PhD awarded January 2018.
  NOW: HCI and Infovis Research Scientist, at Huawei Noah's Arc Lab
  Previously: PostDoc at Autodesk
- Aura Pon: PhD awarded January 2018.
  NOW: Freelance Musician, Researcher, Designer
- Tanja Blascheck (Mitberichter) PhD awarded July 2017
  Award: **EuroVis Best PhD Award 2018**
  NOW: PostDoc INRIA, Saclay, Paris, France
- Kyle Hall: (co-supervisor): PhD awarded May 2017
  Award: **University of Calgary, Faculty of Science's John Kendall Best PhD Thesis Award**
  NOW: Postdoctoral Fellow, Department of Chemistry
  Temple University, Philadelphia, USA.
- Jagoda Walny: PhD awarded Dec. 2016
  Award: **Best PhD, Honorable Mention: IEEE VGTC VPG doctoral dissertation Competition for her PhD thesis '*Thinking with Sketches: Leveraging Everyday Use of Visuals for Information Visualization*'.**
  Award: **Best HCI PhD in Canada awarded (Bill Buxton Award)**
  NOW: Lead Research Designer for the National Energy Board Data Visualization Project.
- Ovo Adagha (co-supervisor): September 2011 – Dec. 2015
  NOW: Senior Research Associate, The Conference Board of Canada, Calgary, Alberta
- Lawrence Fyfe: January 2009 – April 2015,
  NOW: Research Engineer, INRIA, Saclay.
- Katayoon Etemad: January 2010 – April 2015
  NOW: Data Visualization Designer: VizWorx, Calgary

Previously: Research Associate: University of Calgary

- Andrew Butt: PhD awarded, May 2014
  NOW: Research Scientist: Oil Industry
- Uta Hinrichs: PhD awarded, December 2012
  Award: **Best HCI PhD in Canada awarded (Bill Buxton Award)**
  NOW: Lecturer (Assistant Professor): University of St. Andrews, Scotland.
  Previously, PostDoc: University of St. Andrews, Scotland
- Marian Dörk: PhD awarded May 2012
  NOW: Research Professor (Forschungsprofessor), Potsdam University of Applied Sciences (Fachhochschule Potsdam);
  Previously, PostDoc: Culture Lab, NewCastle University
- Mark Hancock: PhD awarded July 2010
  NOW: Associate Professor: University of Waterloo
  Ontario Early Career Research Award
- Christopher Collins: PhD awarded January 2010
  NOW: **Canada Research Chair: Linguistic Information Visualization**
  University of Ontario Institute of Technology;
  Previously Assistant Professor, SHARC Net Research Chair: University of Ontario Institute of Technology
- Petra Isenberg: PhD awarded December 2009
  NOW: Research Scientist (CR1): INRIA, Paris
- Charlotte Tang: PhD awarded August 2009
  NOW: Assistant Professor: University of Michigan-Flint
  Previously, PostDoc: University of British Columbia
- Torre Zuk: PhD awarded December 2008
  NOW: Graphics Research Scientist: CGG Veritas
- Katherine Mason: PhD awarded May 2006
  NOW: Graphics Researcher: Google
- Stacey Scott: PhD awarded March 2005
  Award: Best PhD, Faculty of Science, University of Calgary
  NOW: Associate Professor: University of Guelph
  Previously at Waterloo, and PostDoc MIT

Previous Masters Students

- Katherine Currier: September 2017 – April 2020
- Tiffany Wun: September 2016 – awarded December 2018
- Sarah Storteboom: September 2016 – awarded October 2017
- Gerry Straathof: September 2012 – awarded April 2015
- Bon Adriel Aseniero: awarded December 2014
- Shahbano Farooq: awarded April 2014
- Sean Lynch: awarded December 2011
- Lindsay MacDonald: awarded April 2011
- Matthew Tobiasz: awarded April 2010

- Katayoon Etemad: awarded December 2009
- Eric Penner: awarded December 2009
- Jeroen Keijser: awarded December 2007
- Annie Tat: awarded April 2007
- Elena Fanea: awarded April 2006
- Nelson Wong: awarded March 2005
- Russell Kruger: awarded July 2004
- Charles (CJ) Baker: awarded April 2004

Previous U-grad Research Students

- Lien Quach: Nov. 2019 – June 2020
- Peter Buk: Nov. 2019 – April 2020
- Katrina Tabuli: July 2019 – January 2020
- Komal Waseem: May 2018 – Dec. 2018
- Lisa Hynes: May 2018 – Dec. 2018
- Tina Huynh: May 2018 – Aug. 2018
- Katrina Tabuli: July 2017 – Aug. 2017
- Shreya Chopra: June 2017 – Aug. 2017
- Lien Quach: April 2017 – Dec. 2018
- Peter Buk: June 2017 – Dec. 2017
- Terrance Mok: June 2016 – Aug. 2016
- Kevin Ta: May 2016 – Aug. 2016
- Mandy Nilson: July 2016 – Aug. 2016
- Alexander Ivanov: April 2016 – Aug. 2016
- Tiffany Wun: Jan. 2016 – May 2016
- Carrie Mah: September 2015 – May 2016
- Mandy Wong: September 2014 – Dec. 2014
- Riane Vardeleon: September 2012 – Aug 2013
- Carrie Mah: May 2013 – Aug 2013
- Amy Banh: June 2013 – Aug 2013
- Faraz Bhojani: May 2012 – August 2012
- Cody Coljee-Gray: May 2011 – July 2012
- Bon Adriel Aseniero: February 2011 – April 2012
- Stephanie Mikulecky: May 2011 – April 2012
- Kimberly Mikulecky: April 2009 – April 2011
- Andrew Seniuk: May 2007 – Sept. 2007
- Aaron Krootje: Sept – Dec. 2008
- Jessica Stezo: Sept. 2008 – April 2009
- Eric Penner: May – Aug. 2004
- Anand Agrawala: Sept. – April 2004
- Matthew Tobiasz: Sept. – April 2004
- Erin Wallace: Sept. – Dec. 2003
- Annie Tat: Sept. – April 2002

- Russell Kruger: Sept – April 2002
- Rong Xing: Sept. – April 2001

Exchange Students

- Fabricio Layedra (exchange from Ecuador) Jan. 2019 – April 2019
- Mathieu Louvet (MSc): April 2018 – Sept. 2018
- Gonzalo Mendez (PhD): October 2017 – Feb. 2018
- Tanja Blascheck (PhD): June 2016 – Sept. 2016
- Sebastian Lay (Ugrad): April 2016 – Sept. 2016
- Philipp Koytek (MSc): April 2016 – Sept. 2016
- Tamara Flemisch (MSc): June 2015 – April 2016
- Sarah Tausch (PhD): July 2014 – October 2014
- Samuel Huron: (PhD) March 2013 – August 2013
- Michael Mauerer: (Diplom) May 2013 – Nov. 2013
- Søren Knudsen: (PhD) October 2013 – Dec. 2013
- Ulrike Kister: (Diplom) November 2011 – August 2012
- Matthias Graf: (Diplom) November 2011 – August 2012
- Alice Thudt: (Diplom) awarded January 2012
- Florian Perteneder: (MSc) Aug. – Dec. 2011
- Christian Grossauer: (MSc) Aug. – Dec. 2011
- Luc Vlaming: (MSc) awarded November 2010
- Ricardo Langner: (internship) awarded August 2010
- Sebastian Schmidt: (internship) awarded August 2010
- Thomas ten Cate: (MSc) awarded November 2009
- Marian Dörk: (Diplom) awarded May 2008
- Jens Grubert: (Diplom) awarded February 2008
- Martin Schwarz: (internship) awarded April 2007
- André Miede: (MSc) awarded April 2006
- Lothar Schlesier: (Diplom), 2006
- Uta Hinrichs: (Diplom), 2004
- Stefan Habelski: (Diplom), 2004
- Henry Sonnet: (PhD exchange), 2004
- Thomas Heine: (Diplom), 2003
- Andreas Oppermann: (Diplom), 2003
- Petra Neumann: (internship), 2003
- Julie Schliebenow: (internship), 2003

Research Associates and Assistants

- Parisa Shiri: Sept. 2019 – Oct 2019
- Mahya Sadeghi: Aug. 2019 – Oct 2019
- Claudia Maurer (National Energy Board Data Visualization: Project Manager): March 2017 –
- Cindy Wheadon: (iLab Coordinator): April 2018 –
- Ricky Pusch (Research Associate): November 2012 – Oct 2019

- Katrina Tabuli: May 2019 –
- Sarah Storteboom: April 2018 – Oct 2019
- Doris Kosminsky: Professor, Communication and Visual Design, (Intermittently in connection with the NEB Project) Federal University of Rio de Janeiro: January 2019 – February 2019.

Supervisory and Examination Committees

PhD
- PhD External Examiner, Student: Andreas Mathisen, Computer Science, Aarhus University, Denmark, August, 2019
Supervisor: Kaj Grønbæk
Thesis title: *Collaborative Visual Analytics: Leveraging Mixed Expertise in Data Analysis*
- PhD thesis Pre-Examiner, July 2019
Student: Khalil Klouche, Aalto University School of Arts, Design and Architecture, Finland
- Simon Stusak, PhD November 18, 2016. *Exploring Potential of Physical Visualizations*. (External Advisor)
- Ebrahim Tarameshloo, PhD, August 10, 2016. Privacy in Geo-Social Networking Systems (committee member)
- Samuel Huron, September 25, 2014. Constructive Visualization. Universite Paris-Sud XI (Advisor)
- Yvonne Jansen, PhD, March 2014: *Physical and Tangible Information Visualization*., Universite Paris-Sud XI (External Examiner)
- Andrew Butt, PhD, May 2014: Interdisciplinary Student: *Visualization in Ecological Decision Processes*: supervisory committee, candidacy, defense examination committee
- Xing-Dong Yang, PhD, August 2013: *Blurring the Boundary Between Direct and Indirect Mixed Mode Input Environments.* University of Alberta, Computer Science. (External Examiner)
- Dominikus Baur: PhD, December 2011: *The Songs of Our Past: Visualizing Music Listening Histories*. Ludwig-Maximilians-Universität: supervisory committee (External Advisor)
- John Brosz: PhD April 2011, *The Flexible Projection Framework* supervisory committee, candidacy examination committee, defence examination committee
- Brian Corrie, PhD. University of Victoria, Computer Science: PhD Examiner July 2010.
- Otmar Hilliges PhD: *Where is the Interface? Exploring Interaction Styles for Interactive Surface Computing*. Ludwig-Maximilians-Universität , defence examination committee July 2009. (External Advisor)
- Michael McGuffin, PhD. University of Toronto, Computer Science, PhD Examiner, April 2007 (External Examiner)
- Carmen Zannier: supervisory committee, candidacy examination committee, defence examination committee, August 2007

- Pauline Jepp: supervisory committee, candidacy examination committee, defence examination committee, November 2007
- Carman Neustaedter: supervisory committee, candidacy examination committee, defence examination committee, January 2007
- Edward Tse, PhD. Computer Science, supervisory committee, candidacy examination committee, defence examination committee, November 2007
- Callum Galbraith: supervisory committee, candidacy examination committee, defence examination committee, September 2005
- Michael Boyle: supervisory committee, candidacy examination committee, defence examination committee, March 2005

Masters
- Masters Thesis: Internal Examiner, November 25, 2019
  Student: Rimika Chaudhury, School of Computing Science, SFU
  Thesis title: Design and Evaluation of In-Context Retrieval Exercises for Informational Videos
- Masters Thesis: Internal Examiner, June 17, 2019
  Student: Kimia Kiani, School of Computing Science, SFU
  Thesis title: Understanding Help-Seeking Diversity in Modern Feature-Rich Applications
- Julie Stromer: MSc Computer Science, Examiner, Jan. 2007
- Julie Grant: MSc Physics and Astronomy, Examiner, September 2006
- Mikolia Cieslak: MSc Computer Science, Internal Examiner, June 2006
- Lawrence Liu, MSc., Computer Science, Internal Examiner, December 2005
- Shui Chun Charlotte Tang, MSc. Computer Science, Internal Examiner, May 2003
- Carman Neustaedter, MSc. Computer Science, Internal Examiner, May 2003
- Mark Mathews, MSc. Computer Science, Internal Examiner, May 2003
- Kevin Baker, MSc. Computer Science, Internal Examiner, May 2002
- Mai Nur, MSc. Computer Science, Internal Examiner, March 2002
- James Tam, MSc. Computer Science, Internal Examiner, Feb. 2002
- Stewart Morgan: MEDes, committee member, Examiner, June 2002
- Shaun Kaasten, MSc. Computer Science, Internal Examiner, April 2003
- Oliver Kuederle: MSc. Computer Science, SFU, committee member, Examiner, August 2000

Technology Transfer

VizworX. VizworX is a 2012 spin company co-founded with Frank Maurer, Jeff LaFrenz and Simon Grange. VizworX is doing exceptionally well and has won the Calgary Chamber of Commerce Innovation Award for small businesses and it is 2019 the TECTERRA Award winner. https://vizworx.com/

Elastic Presentation Framework. When IDELIX Software Inc decided to create presentation tools based on my Ph.D. research, they grew rapidly from no paid employees in 1999 to approximately twenty paid employees in 2002. Through Idelix, GeoConnections Canada and BOEING Autometric are incorporating EPF-based concepts into their software. A BOEING customer, Atlantic Air Survey Ltd., has announced that they have gained 20% productivity with technology developed from Elastic Presentation. In January 2003, IDELIX won the "Imaging Solution of the Year" from Advanced Imaging Magazine. This award recognized their detail-in-context technology, based on my research, as practical and forward-looking.

Antarctic Waves. I consulted with Braunarts, the British Antarctic Survey, and the London Philharmonic to create Antarctic Waves. This project uses visuals to integrate scientific results with Antarctic sounds to create a tool to inspire musical composition. Antarctic Waves won a British Academy of Film and Television Arts, **BAFTA, Interactive Entertainment Award**, in the Offline Learning category. The criteria for this award is *the most effective use of offline interactive media for education*. (British equivalent in Canada to GENIE Award, in USA to an Emmy (television) or an Oscar (film))

CodeZebra. This science/arts collaboration led by S. Diamond looks at creating an artistic chat environment. It has received considerable interest and support both nationally and internationally. I have contributed to the visualization aspects, taking part in CodeZebra workshops in San Francisco, London, and Rotterdam and was part of a presentation at the San Francisco Museum of Modern Art.

The SEED (Simulating and Exploring Ecosystem Dynamics) Project. The SEED Project is composed of the simulation engine, SELES (Spatially Explicit Landscape Event Simulator), and a visualization environment. The SEED project was funded by FRBC (Forest Renewal British Columbia). Publication and dissemination of results beyond the boundaries of BC was not encouraged. The results were disseminated directly through outreach to government agencies and companies. This included: the BC Ministry of Forests (head office, or forest regions and districts), the BC Ministry of Environment, the Canadian Forest Service and the model forest network, MacMillan Bloedel, and environmental non-governmental organizations including the Vancouver Island Marmot Recovery Team. A SEED colleague, Dr. A. Fall established Gowlland Technologies to continue this research. This collaboration continues.

Patents

Title:	***Visualization of Dynamic Weighted Networks***
Patent Number:	8832582
Number:	20140253556 (MS File No. MS 338060.01)
Filing Date:	March 11, 2013**; Publication date:** Sept. 11, 2014
Applicants:	Microsoft Corporation
Inventors:	Henry-Riche, Lee, Carpendale

Title:	***Interactive Control of the Curvature of Links***
Application Number:	15924818
Patent Number:	8832582
Number:	20140337803 (MS File No. MS 331410.01)
Filing Date:	July, 2014
Publication date:	July 26, 2018
Applicants:	Microsoft Corporation
Inventors:	Timothy Dwyer, Nathalie Henry-Riche, Bongshin Lee, Sheelagh Carpendale
Description:	A link curvature processing module enables a user with the ability to control the curvature of links in a node-link diagram. As a node-link diagram is displayed to a user, the user may interact with the diagram and adjust the curvature of one or more links in the diagram to improve the readability of the diagram. The user's modification to the curvature of a link alters the shape of the link so that the position of the nodes connected to the link does not change. By providing the user with such control, the user is able to tailor the visual display of the links to the user's preference.

Title:	***Integration of Sketch-based Interaction and Computer Data Analysis***
Patent Number:	8994732
Number:	20120229468 (MS File No. MS 331410.01)
Filing Date:	March 7, 2011; **Publication date:** Sept. 13, 2012
Assignee:	Microsoft Corporation
Inventors:	Lee, Henry-Riche, Carpendale, Sherwood, Browne
	US Patent 8,994,732
	US Patent 20,120,229,468

Title:	***Method for Manipulating a Graphic Widget in a Three-Dimensional Environment displayed on a Touch Panel of an Interactive Input System***
Patent Number:	8416206
Number:	20110069019;
Filing Date:	Dec. 2, 2009; **Publication Date:** March 24, 2011;
Assignee:	SMART Technologies ULC
Inventors:	Carpendale, Hancock, ten Cate, Isenberg

Title:	***Elastic Presentation Space***
Patent Number:	6768497;
Number:	20020044154
Filing Date:	Oct 18, 2001; **Publication Date:** Jul 27, 2004
Assignee:	Idelix Software Inc.
Inventors:	Baar, Carpendale, Cowperthwaite, Tigges, Komar, Bauer

RESEARCH GRANTS

In Submission

	Title and Granting Agency	Total	Year(s)
S. Carpendale	Data Visualization BCKDF (Knowledge Development Fund)	$150,000	2020-22

Currently held

	Title and Granting Agency	Total	Year(s)
S. Carpendale	Data Visualization CFI (Canadian Foundation for Innovation)	$150,000	2020-22
S. Carpendale	CRC Chair in Information Visualization (tier I) At Simon Fraser University Granting Agency: NSERC	$1,400,000	2020-26
S. Carpendale	Interactive Visualization NSERC Discovery Grant	$360,000 ($72,000/yr)	2019-24
M. Murray, Co-investigator: Carpendale and 18 others	The Canadian Consortium for Arctic Data Interoperability CFI	$5,281,812 (my part $296,000)	2019-23
P. Isenberg plus S. Carpendale and 5 others	Associated Team SEVEN: Situated and Embedded Visualization for Data Analysis	$53,760 (my part $7,680)	2018-20

Previously Held

	Title and Granting Agency	Total	Year(s)
S. Carpendale and W. Willett	National Energy Board	$1,974,020	2016-19
S. Carpendale	CRC Chair in Information Visualization (tier I) At University of Calgary to Oct. 2018 Granting Agency: NSERC	$1,400,000 ($600,000 received)	2015-18
S. Carpendale	NSERC/AITF/SMART Industrial Research Chair in Interactive Technologies (NSERC funding)	$300,000 ($60,000/yr)	2014-20
PI: W. Ghali, Co-PIs: T. Stelfox, J. Conly	W21C: Interdisciplinary Research and Innovation for Health System Quality and Safety	$4,679,601	2013-19

S. Carpendale plus 35 others	Alberta Innovates Health Solutions		
S. Greenberg S. Carpendale	AITF/SMART Technologies Industrial Research Chair in Interactive Technologies Granting Agency: AITF	$500,000 (50%)	2011-20
S. Carpendale	SMART Technologies Industrial Research Chair in Interactive Technologies Granting Agency: SMART	$300,000	2013-20
Carpendale	Insight through Data Visualization NSERC Connect Grant	$18,175	2019
S. Carpendale	Interactive Visualization NSERC Discovery Grant	$310,000 ($62,000/yr)	2012-19
S. Carpendale	CRC Chair in Information Visualization (tier I) At University of Calgary to Oct. 2018 Granting Agency: NSERC	$1,400,000 (received $600,000)	2015-18
S. Carpendale	Interactive Visualization NSERC Accelerator	$120,000 ($40,000/yr)	2015-18
PI: K. Booth S. Carpendale plus 48 others	GRAND: Graphics, Animation and New Media Granting Agency: NCE	$23,000,000 (1%)	2010-15
PI: F. Maurer S. Carpendale (theme leader) plus 12 others	NSERC Digital Surface Software Application Network (SurfNet) Granting Agency: NSERC – Strategic Networks	$5,000,000 (8%)	2010-15
S. Carpendale	Information Visualization in Our Everyday Lives NSERC Steacie Fellowship	$250,000 ($125,000/yr)	2012-14
S. Carpendale	CFI Equipment Grant: Innovations in Visualization: Granting Agency: CFI	$187,876	2009-14
S. Carpendale	CRC Chair in Information Visualization (tier II) Granting Agency: NSERC	$500,000	2009-14
S. Carpendale	SEGP Equipment Grant: Innovations in Visualization: Granting Agency: SEGP	$182,000	2009-14
S. Carpendale	Equipment for visualizing personal informatics NSERC Research Tools and Instruments (RTI)	$86,480	2013
PI: S. Scott S. Carpendale + 4	LIEF: EU-Canada exchange programme	$200,000 (15%)	2010-13
S. Carpendale	Interactive Information Visualization NSERC Discovery Grant	$175,000 ($35,000/yr)	2007-12
S. Carpendale S. Greenberg	NSERC/AITF/SMART Technologies Industrial Research Joint Chair in Interactive Technologies	$500,000	2007-12

	Granting Agency: iCORE (matched NSERC)	(50%)	
S. Carpendale S. Greenberg	NSERC/AITF/SMART Technologies Industrial Research Joint Chair in Interactive Technologies Granting Agency: NSERC	$500,000 (50%)	2007-12
S. Greenberg S. Carpendale	iCORE/SMART Technologies Industrial Research Joint Chair in Interactive Technologies Granting Agency: iCORE (matched SMART)	$500,000 (50%)	2006-11
S. Carpendale S. Greenberg	SMART Technologies Industrial Research Joint Chair in Interactive Technologies Granting Agency: SMART	$500,000 (50%)	2006-11
S. Carpendale	CRC Chair in Information Visualization Granting Agency: NSERC	$500,000 ($100,000/yr)	2004-09
S. Carpendale	CFI Equipment Grant: Innovations in Visualization Granting Agency: CFI	$182,020	2004-09
Ron Baeker, PI, S. Carpendale plus 12 others	The Network for Effective Collaboration Technologies through Advanced Research (NECTAR) Granting Agency: NSERC	$5,200,000 (6%)	2004-09
S. Carpendale,	iCORE Conference Grant for ACM Interactive Tabletops and Surfaces Granting Agency: iCORE	$10,000	2009
S. Greenberg S. Carpendale E. Sharlin	NSERC Equipment Grant: Interactive Technologies Granting Agency: NSERC	$90,747	2007
S. Carpendale,	iCORE Conference grant for Computational Aesthetics CAe'07 Granting Agency: iCORE	$5,000	2007
S. Carpendale	Information Visualization Methodologies NSERC Discovery Grant	$136,000 ($34,000/yr)	2003-07
S. Carpendale	Collaborative Visualization Laboratory, CFI	$293,000	2002-04
S. Carpendale	University Faculty Award (renewal) NSERC	$80,000 ($40,000/yr)	2003-05
B. Wyvill, PI, S. Carpendale and several others	3D Web Canadian Heritage New Media Research	$700,000/yr (5%)	2003-04
Borwein, PI, plus 52 others	15,000,000 WestGrid CFI/ASRIP/Industry- equipment access only)	$15,000,000 (equipment access only)	2003
S. Carpendale	Investigating Elastic Presentation	$96,135	2000-01

	Intel Corporation	$69,178	2001-02
		$71,536	2002-03
S. Carpendale	Investigating Elastic Presentation	$18,000	2000-01
	Intel Corporation: Equipment Grant	$9,920	2002-02
S. Carpendale	MAYA – 3D Software	$270,000	2001
	Alias Wavefront	$60,000	2002
	in kind software donation	$40,000	2003
S. Carpendale	Large Displays for Visualization	$141,650	2003
	Smarter Kids Foundation (purchase large displays)		
S. Carpendale	Information Visualization Methodologies	$60,000	2000-03
	NSERC Operating Grant	($20,000/yr)	
S. Carpendale	University Faculty Award	$120,000	2000-03
	NSERC	($40,000/yr)	
L. Katz, S. Carpendale + 6	Chair Recruitment Grant	$10,000	2001
	ICORE		
S. Carpendale	REE: Start-up Equipment grant	$70,000	1999
	University of Calgary		
F. D. Fracchia, S. Carpendale and 4 others	Simulating and Visualising Forest Ecosystem Dynamics FRBC – Forest Renewal BC	$499,200	1996-99
F. D. Fracchia, S. Carpendale D. Cowperthwaite	Accessing Three-Dimensional Representations	$40,000	1998
	Intel Corporation: Equipment and Travel Grant		
F. D. Fracchia, S. Carpendale D. Cowperthwaite	Equipment Grant	$20,000	1998
	Intel Corporation: Equipment and Travel Grant		

Service

Simon Fraser University
- Member Tenure and Promotion Committee, School of Computing Science, Nov. 2019 –
- Member Diversity Committee, School of Computing Science, January 2019 –

University of Calgary

University level
- Member: Hiring Committee; Computer Science, 2017 – 2018
- Director: Computational Media Design Graduate Program, 2018 (July and August)
- Member: Computational Media Design Graduate Program, 2012 – 2018
- Director: Interdisciplinary Graduate Group – Computational Media Design, 2008 – 2012
- Member: Steering Committee, Ward of the 21st Century, 2004 –2012
- Member: Hiring Committee; CRC Creative Practice, 2006 – 07
- Member: Hiring Committee; Digital Arts, 2006
- Member: Conjoint Faculties Research Ethics Board, 2001 – 06

Faculty level
- Member: Data Science Task Force: 2017 - 2018
- Invited Lead: new strategic research direction: Imaging and Visualization: 2010 –. 2012
- Faculty of Science Representative to the Faculty of Fine Arts Council, 2002/03
- Member: Dean's Women in Science Advisory Group, 2000

Departmental level
- Member: Hiring Committee; Dept. Computer Science, 2017/2018,
- Member: Hiring Committee; Dept. Computer Science, 2011/2012, 2012/2013
- Member: Hiring Committee; Dept. Computer Science, 2008
- Member: Under-graduate Affairs Committee, 2004 – 07
- Member: Departmental Annual Assessment Committee, 2003 and 2008
- Graduate Affairs Committee, Department of Computer Science, 2000 – 02
- TUCFA Department of Computer Science Representative, 2000

Simon Fraser University
- Graduate Program Representative, School of Computing Science, 1998-99
- Graduate Student Harassment Officer, School of Computing Science, 1996–99
- Women's Representative, Computing Science Graduate Student Association, 1993–96
- Graduate Liaison Committee, School of Computing Science, 1994–96
- Treasurer, Computing Science Graduate Student Association, 1995

National

2020, 2019, 2018 – Member: Canadian Human-Computer Communications Society (CHCCS/SCDHM) Award Committee (https://graphicsinterface.org/awards/)

International Service

IEEE Visualization

    2020, 2019, 2018 – Member: IEEE Visualization Ombuds People

    2020, 2019, 2018 – Member: IEEE Visualization Executive Committee (VEC)

    2020 – Member: IEEE Visualization Academy Awards Committee

    2020 – Member: IEEE Visualization Achievement Awards Committee

IEEE Information Visualization (InfoVis)

    2018-2020 – **Chair:** IEEE InfoVis Steering Committee

    2018 – Member: Test of Time Award Committee

    2017 – Chair: Test of Time Award Committee

    2013 – 2020: Member: IEEE InfoVis Steering Committee

    2019, 2018, 2017, 2016, 2015, 2013, 2012, 2011, 2007, 2006, 2005, 2003, 2002, 2001 – IEEE
            InfoVis Program Committee

    2013, 2012, 2011 – Best Paper Committee

    2010 – Conference Chair

    2009 – Papers Co-Chair

    2008 – Papers Co-Chair

    2007 – Panels Co-Chair

    2005 and 2006 – Posters and Demos Co-Chair

    2003 – Publications Chair

ACM Interactive Surfaces and Spaces (ISS), formerly ITS, IEEE Tabletop

    2020 – Programming Committee member

    2016-18 – **Chair:** ACM ISS Steering Committee

    2008 – 2019: Member ISS Steering Committee

    2009 – Papers and Program Co-Chair

EUROVIS

    2020 – Best Short Paper Committee member

IEEE PacificVis

    2013 – Program Chair

    2003 – Program Committee

ACM SIGCHI Conference on Human Factors in Computing Systems (CHI)

    2012, 2011 – Program Committee

Digital Arts and Culture (DAC09)

    2009 – Program Committee

ACM Conference on Computer Supported Cooperative Work (CSCW)

    2011 – Program Committee

    2006 – Videos Chair

Eurographics/IEEE VGTC Symposium on Visualization, EuroVis (EuroGraphics Workshop Series)

    2008 – Program Committee

Computational Aesthetics (CAe) (EuroGraphics Workshop Series)

2006 – present: Steering Committee
2007 – General Co-Chair

ACM Non-Photorealistic Rendering and Animation (NPAR)
2008 – Program Committee

Graphics Interface (GI)
2000 – 2006 Steering Committee
2002 – Student Volunteer Coordinator
2002 – Local Organizer Artificial Intelligence/Graphics Interface/Vision Interface (AI/GI/VI)
2000 - 2006 – Program Committee

Reviewer and Editor

- Member Editorial Board: Foundations and Trends® in Human-Computer Interaction

- Associate Editor: Transactions on Visualization and Computer Graphics (TVCG), 2010 – 2012

- Academic review: regularly review many academic tenure and academic promotion applications, student scholarship applications, student entrance applications, academic ethics applications.

- Funding agencies: Natural Sciences and Engineering Research Council of Canada (NSERC), Alberta Ingenuity (AIF), National Science Foundation (NSF), Canada Research Chairs (CRC)

- Reviewing for journals: the following is a partial list
IEEE Transactions on Visualization and Computer Graphics (TVCG),
Journal of Information Visualization, Computer Graphics Forum (CGF), Computers & Graphics, IEEE Computer Graphics and Applications (CG&A), ACM Transactions on Computer Human Interaction, Journal of Computer Supported Cooperative Work, International Journal of Human-Computer Studies, International Journal of Human-Computer Interaction, Transactions on Human Computer Interaction, Information Design Journal, Journal of Database Management

- Reviewing for conferences outside of program committee reviewing: the follow is a partial list:
ACM Symposium on User Interface Software and Technology (UIST), IEEE Conference on Visualization, ACM Conference on Designing Interactive Systems (DIS), IEEE Conference on Information Visualization, ACM Symposium on Non-Photorealistic Animation and Rendering, ACM Conference on Human Computer Interaction, International Symposium on Computational Aesthetics in Graphics, Visualization and Imaging, Eurographics/IEEE VGTC Symposium on Visualization (EuroVis), ACM Conference on Computer Supported Cooperative Work (CSCW), European Conference on Computer Supported Cooperative Work (ECSCW), EuroGraphics, SIGGRAPH, Pacific Graphics, Graphics Interface.

Memberships

- Member, Association for Computing Machinery (life time member), 1995 – …
- Member, IEEE Computer Society, 1999 – …

Workshop and Tutorial Organization

- VIS 2020 Workshop: Vis Futures: Design Fiction Methods for Envisioning Tomorrow's Visualizations. Charles Perin, Wesley Willett, Katherine Currier, Lora Oehlberg, Sheelagh Carpendale.

- SketCHI 3.0: Hands-On Special Interest Group on Sketching Education in HCI. Sturdee, M., Lewis, M., Mendez, G., Phoa, J., Hoang, T. & Carpendale, S., *CHI'20 Extended Abstracts of the 2020 CHI Conference on Human Factors in Computing Systems.* New York: Association for Computing Machinery (ACM) (cancelled due to COVID-19)

- SketCHI 2.0: Hands-On Special Interest Group on Sketching in HCI. Lewis, M., Sturdee, M., Marquardt, N., Walny, J., Foster, J., Hoang, T. & Carpendale, S., 4/05/2019, *CHI EA '19 Extended Abstracts of the 2019 CHI Conference on Human Factors in Computing Systems.* New York: Association for Computing Machinery (ACM), 5 p. SIG12

- IEEE InfoVis Workshop: Toward a Design Language for Data Physicalization. Oct. 2018, Baltimore: T. Hogan, U. Hinrichs, E. Hornecker, J. Alexander, S. Huron, Y. Janson, S. Carpendale. (2018).

- IEEE InfoVis Tutorial: Considering Qualitative Evaluation: Analyzing qualitative data. Oct. 2017, Baltimore: S. Carpendale, M. Tory, U. Hinrichs, T. Hogan, A. Thudt, J. Vermeulen, J. Walny. (2017).

- ACM ISS Tutorial: Considering Qualitative Evaluation: Analyzing qualitative data. Oct. 17, 2017, Baltimore: S. Carpendale, S. Knudsen, A. Thudt, U. Hinrichs. In *Proceedings ACM Interactive Surfaces and Spaces*, pp 477-481.

- IEEE InfoVis Tutorial: Considering Qualitative Evaluation: Gathering qualitative data. Oct. 2016, Baltimore: S. Carpendale, M. Tory, U. Hinrichs, T. Hogan, A. Thudt, J. Vermeulen, J. Walny. (2016).

- Data Driven Stories: Dagstuhl Seminar: Organizers: Henry-Riche, Lee, Carpendale, Hurter. February 7 – 12, 2016, Dagstuhl Seminar 16061. http://www.dagstuhl.de/16061

- Personal Visualization: Exploring Data in Everyday Life. An IEEE VIS 2015 Workshop, Sunday, October 25 2015, 8:30--12:10. http://www.vis4me.com/personalvis15/index.html

- ACM DIS Workshop: A Personal Perspective on Visualization and Visual Analytics, The PVA 2014 Workshop at DIS 2014, Organizers: M. Tory, S. Carpendale. Saturday, June 21st, 2014 in Vancouver, BC, Canada. http://innovis.cpsc.ucalgary.ca/P/Vis

- Death of the Desktop: Just Another Data Physicalization Workshop. Sunday, Nov. 9th 2pm to 6pm, Organizers: Yvonne Jansen, Petra Isenberg, Jason Dykes, Sheelagh Carpendale, Daniel Keefe Co-located with IEEE VIS 2014, Paris 9-14 Nov. 2014.
  http://dataphys.org/workshops/vis14/organizers/

- InfoVis Tutorial: Data Sketching, *Surfnet Tutorial, Surfnet Summer 2013 Workshop*: S. Carpendale, K. Hall, S. Huron, J. Walny. (2013). *Calgary, Canada*, June 14, 2013.

- Invited Workshop Organization: S. Carpendale, L. Goldsmith, S. Simmons, J. Walny. (2012). Visualization Across Disciplines, *Thinking through Drawing 2012: Drawing in STEAM (Science, Technology, Engineering, Arts & Maths) Symposium, sponsored by International Drawing and Cognition Research, Wimbledon, UK*, invited, planned, moderated, run twice to accommodate attendees, Sept, 2012.

- Personal Visualization and Personal Visual Analytics: Workshop: April 20-22th, 2012. Banff Centre. Organizers: S. Carpendale. T. Tang, M. Tory, K. Hawkey. Partially sponsored by Banff Centre; SMART, SAP, UofC.

- Organizing Committee: Workshop: *Large Displays in Urban Life*. (2011) Organizers: Uta Hinrichs, Nina Valkanova, Kai Kuikkaniemi, Giulio Jacucci, Sheelagh Carpendale, Ernesto Arroyo. *Held at ACM CHI 2011,* Vancouver, Canada. May 7, 2011.

- Workshop Organization: DEXIS: Data Exploration for Interactive Surfaces. P. Isenberg, S. Carpendale, T. Hesselmann, T. Isenberg, B. Lee. *Refereed workshop at ACM Interactive Tabletops and Surfaces (ITS'11)*, 2011.

- Canadian and Global Challenges: Defining Visualization, Imaging, and Visual Analytics Solutions. Banff Visual Analytics Workshop, Sept 24-26 2011. Organizers: David Ebert, Sheelagh Carpendale, Brian Fisher. Banff, Alberta, Canada.

- Invited Workshop Organizer: *Science meets Social Science: Interdisciplinary Approaches*, *New Ways and New Technologies*, University of Calgary, Calgary, invited, planned, moderated, October, 2004.

- Organizing Committee, Bridges II: a workshop on interdisciplinary collaboration at the Banff New Media Institute (BNMI), October 4-6, 2002.

- Organizing Committee Workshop: *Collaboration with Interactive Walls and Tables*. Organizers: Peter Tandler, Carsten Magerkurth, Sheelagh Carpendale, Kori Inkpen. *UBICOMP 2002,* Goteborg, Sweden. September 29 – October 1, 2002.

- Organizing Committee Workshop: *Co-located Tabletop Collaboration: Technologies and directions*. Organisers S. Scott, K. Grant, S. Carpendale, K. Inkpen, R. Mandryk, T. Winograd. *ACM CSCW'02 Conference on Computer Supported Co-operative Work, Conference Companion*, New Orleans, November 2002.

- S. Diamond, lead: CodeZebra workshop: Banff New Media Institute (BNMI), August 6-16, 2002.

- S. Diamond, lead: CodeZebra workshop: Banff New Media Institute (BNMI), V2 Labs. Rotterdam, The Netherlands, July 13-15, 2002.

- S. Diamond, lead: CodeZebra workshop: Banff New Media Institute (BNMI), Sept. 4-8, 2001.

- S. Diamond, lead: CodeZebra workshop: Banff New Media Institute (BNMI) and SMART Labs London UK, April 20-26, 2001.

- S. Diamond, lead: CodeZebra workshop: Banff New Media Institute (BNMI), Arts Alliance and San Francisco Museum of Modern Art (SFMOMA), San Francisco, Nov, 27 –Dec, 4, 2000.

Presentations

Invited Keynotes, Talks and Panels

1. October 30, 2020. Sheelagh Carpendale. **Invited Capstone Talk. IEEE Visualization**. This talk will happen on-line. https://www.youtube.com/watch?v=XQhBHnPIsRk&feature=youtu.be

2. September 15-18. Sheelagh Carpendale. **Invited Keynote Talk. Graph Drawing 2020**. This talk will happen on-line. https://gd2020.cs.ubc.ca/

3. May 25-27, 2020. Sheelagh Carpendale. **Invited Keynote: Canadian Research Software Conference. Canceled due to COVID-19**. - will not be going.

4. April 14-17, 2020. Sheelagh Carpendale. **Invited Keynote: Pacific Vis**, in Tianjin, China. Declined due to COVID-19

5. March 4, 2020. Sheelagh Carpendale. ***Appreciating Our Data Heritage***. Invited Talk. viz@UBC workshop "Critical Visualization for Humanities Research: Designing for People, Context and Politics". https://dfp.ubc.ca/news-and-events/events/critical-visualization-humanities-research

6. February 18-21, 2020. Sheelagh Carpendale attended the invitation only event: Third Canadian Polar Data Workshop (CPDW3), at the Banff Centre for the Arts.

7. February 12th 2020. Sheelagh Carpendale. ***Data Sketching***. SIAT Research Colloquium, 12:30 pm, Room 5380, SFU Surrey Campus.

8. Invited workshop: ***Sketching Data***. University of Massachusetts. Friday January 24, 2020, 9am to 12noon. Amherst, Massachusetts.

9. **Invited Speaker in University of Massachusetts, Computer Science, Distinguished Speaker Series**. Empowerment through Data Visualization. January 23rd, 2020.

10. **Invited Speaker Telecom-Paris-Tech**. Empowerment through Data Visualization. January 20, 2020.

11. **Invited Speaker, Introduction to Data Visualization**. 9:00am to 10:30am and 3:30pm to 5:00pm. BIGDAT, Ancona, Italy, January 17, 2020.

12. January 13, 14th: Sheelagh Carpendale attended the invitation only event, Microsoft Research's Inclusive Data Visualization Workshop, at MSR in Redmond.

13. **Panel member Sheelagh Carpendale: Doctoral Colloquium**, IEEE VIS, Oct. 19, 2019, Vancouver, BC, Canada.

14. **Invited Panel Presentation:** Sheelagh Carpendale. *Collaboration in Visualization Process*. Visualization for Digital Humanities (VIS4DH), IEEE Visualization, Vancouver, BC.

15. Invited Talk: **Interactive Information Visualization. May 13, 2019.** City University London, UK.

16. Invited Talk: **Interactive Information Visualization. May 1, 2019.** Lancaster University, UK.

17. **NCI-SPONSORED INVITED SPEAKERS: NCI-Accelerating Cancer Research through User-Centered Software Design.** NIH Main Campus, Natcher Auditorium, Bldg. 45, 9000 Rockville Pike, Bethesda, MD 20892, January 7-8, 2019

18. **Presenting Status of ACM ISS at ACM CSCC** (Council of Steering Committee Chairs) in Boston, USA, November 8, 9, 2018.

19. **Panel: Succeeding by Failing: The Iceberg in VIS Careers**. Panel Organizers: Luana Micallef, Tatiana von Landesberger; Panel members: Carla Schubert, Sheelagh Carpendale, John Stasko, Niklas Elmqvist, Elizabeth Marai, Helwig Hauser, Daniel Archambault. At *IEEE VIS*. 2018.
This panel opens discussion on how the academic competitive environment and its 'acceptance

& rejection' culture leads to high pressure and stress for researchers at all career stages. The requirement of constant high output production may lead to very long working hours and burnout.

20. **POD CAST: Researching the Boundaries of InfoVis with Sheelagh Carpendale.** A podcast on data visualization with Enrico Bertini and Moritz Stefaner. https://datastori.es/125-researching-the-boundaries-of-infovis-with-sheelagh-carpendale/ 08/08/2018

21. **Invited Keynote Talk**: *My Perspective on Immersive Analytics*. 4th International Symposium on Big Data Visual and Immersive Analytics (BDVA), University of Konstanz, October 17, 2018, Germany.

22. **Invited Talk:** *Interactive Visualization*. Visual and Automated Disease Analytics (VADA) Summer School, University of Manitoba, Winnipeg, Manitoba. May 24, 2018

23. **Invited Keynote Talk**: The Changing Nature of Collaboration in Visualization. BioVis: Biological Data Visualization at International Society for Computational Biology (ISMB), Chicago, USA. July 9, 2018.

24. **Invited Talk:** *The Power of Alternate Representations*. Telecom-Paris Tech. Paris, France, May 24, 2018

25. **Invited Talk TEDx**: Theme New Horizons: *Data Visualization*. [https://www.ted.com/tedx/events/30013] May 10. 2018.

26. **Panel: Extending Conversations about Gender and HCI**. Panel Organizer: Sheelagh Carpendell; Panel members: Sharon Bardzell, Margaret Burnett, Neha Kumar, Madeline Balaam, Alex Ahmed, Gopinaath Kannabiran. In *the Extended Abstracts of the 2018 CHI Conference on Human Factors in Computing Systems. pages 1-6,* 2018, ACM Press.
    This panel aims to create a space for participants at CHI 2018 to see how far we have come as a community in raising and addressing issues of gender, and how far we have yet to go. Our intent is for open discussion to support the community's intentions to move towards greater equity, inclusivity, and diversity.

27. **Invited Talk:** *Data Visualization for an Informed Society*. Information Science, University of Boulder Colorado, April 2, 2018

28. **Invited Panel Presentation:** *Research and Design: Art / Design Computer Science Interdisciplinary Research*. Faculty of Environmental Design, University of Calgary. March 22, 201

29. **Invited Talk Distinguished Lecture Series**: *Data Visualization for an Informed Society*, University of Utah, Faculty of Computer Science, Scientific Visualization Center, Feb. 2, 2018

30. **Invited Distinguished Speaker Series BIG DATA**: *Data Visualization for an Informed Society*. Simon Fraser University Big Data Series, January 24, 2018

31. **Invited Keynote**: *The Power of Alternate Representations*. CREATE Program in Data Analytics & Visualization. Department of Computer Science, York University, Toronto. November 17, 2017.

32. **Interview: TEDx**: *On Data and Visualization*. Calgary. [https://www.ted.com/tedx/events/21800] November 4, 2017

33. **Invited talk**: *New innovations in data visualization*. Innovate Now Canada! Organized by CityAge Media Inc. Vancouver, October 30, 2017

34. **Invited talk**. *The Power of Alternate Representations*. Department of Computer Science, University of Stuttgart. July 20, 2017.

35. **Invited Keynote Talk**: Stories from experience: teaching via physicalization over many years. *At Let's Get Physical: Promoting Data Physicalization in Workshop Formats, Conference on Designing Interactive Systems DIS 2017*, Jun 2017, Edinburgh, Scotland, 2017 June 11

36. **Closing Plenary**: Leveraging Patient-Generated Data. *At Pervasive Health Workshop on Leveraging Patient-Generated Data for Collaborative Decision Making in Healthcare 2017. 11th*

International Conference on Pervasive Computing Technologies for Healthcare, Barcelona, Spain, 2017 May

37. **Invited talk:** New innovations in data visualization. The Data Effect. Ottawa, 13 April, 2017
38. **Invited talk:** Data Visualization, 2017 February
39. **Invited talk:** Visualization and Movement Futures, 2017 January, Talk. At planning meeting for studying how to better enable movement
40. **Distinguished Lecture**: Interacting with Information through Visualization. University of Illinois, Chicago, 2017 January
41. **TUX: Steven Saunders Distinguished Speaker Series**: The power of alternate representations. MARS Center, Toronto, January 10, 2017.
    http://www.tux-hci.org/speaker/sanders-series-invited-speaker/
42. **Invited talk:** The power of alternate representations. Tableau, San Jose, 2016, December
43. **Invited talk:** Data Visualization, Sheelagh Carpendale, Fields Institute, Toronto, 2016 November
44. **IEEE VIS 2016 Panel:** Application Papers: What are they and how should they be evaluated?, Gunther Weber, Sheelagh Carpendale, David Ebert, Brian Fisher, Hans Hagen, Ben Shneiderman, and Anders Ynnerman, Baltimore, USA, Gunther Weber for IEEE VIS,
45. **Invited Keynote Talk**: The power of alternate representations, at BioVis, IEEE Vis 2016, Baltimore, Maryland, USA, 2016 October
46. **Invited Speaker.** Information Visualization and Visual Analysis. At Computational Biology, Toronto. May 16th, 2016. https://www.iscb.org/glbioccbc2016-program/glbioccbc2016-full-agenda
47. **Invited talk:** Interacting with Information through Visualization, Sheelagh Carpendale, New York University (NYU), New York, New York, 2016 January 28
48. *Manipulating Space to Create Thinking Tools.* **Invited Keynote Talk: Spatial Visual Analytics, at GI Science**, Montreal, Canada. Sept. 27, 2016.
49. *Designing Systems to Enhance our Intelligence, Products and related Services in a Societal Context.* **Invited Talk: Eindhoven Technical University,** Sept. 2, 2016.
50. *Interacting with Information through Visualization.* **Invited Keynote Talk: SMART GEOMETRY**, Gothenburg, Sweden. April 9, 2016.
51. *Interacting with Information through Visualization.* **Invited Keynote Talk: President's Dream Colloquium on Engaging Big Data Simon Fraser University (SFU)**, Vancouver, BC. February 23, 2016.
52. *An Interdisciplinary Approach to Information Visualization Innovation*. **Invited Talk: Centre for Digital Media (CDM)**, Vancouver, BC. February 24, 2016.
53. *Interacting with Information through Visualization.* **Invited Talk: New York University (NYU)**, New York, New York. January 28, 2016.
54. *Towards fluid interaction with information on large displays.* **Invited Talk: IBM Watson**, New York, New York. January 26, 2016.
55. *Interacting with Information through Visualization.* **Invited Talk: Chemnitz University**. Chemnitz, Germany. December 1, 2015
56. *Sketching Visualization: organized and ran a hands on workshop.* **Chemnitz University**, Chemnitz, Germany, November 30, 2015
57. *InfoVis on Large Displays.* **Invited Keynote Talk: DEXIS Workshop**. Madeira, Portugal, November 15, 2015
58. **Panel member: Doctoral Colloquium**, IEEE Vis, Baltimore, Maryland, USA.
59. *Up Close and Beautiful: The Importance of Data Visualizations.* **Invited Keynote Talk: Cyber Summit: Generation D: Data Scientists of Tomorrow**. Banff, AB. September 29, 2015.
60. *Panel member: Bridging Interaction, Analytics, Design, and Visualization, Sheelagh Carpendale (U of Calgary), Martha Ladly (OCAD U) and Ann K Emery (Independent Consultant), York University, Toronto, Canada, Canadian Visual Analytics School, CANVAS 2015*

61. *Thinking about Interacting with Information in our Everyday Lives.* **Invited Talk: St. Andrews University**. St. Andrews, Scotland, May 18, 2015

62. *Thinking about Interacting with Information in our Everyday Lives.* **Invited Talk: Napier University**. Edinburgh, Scotland, May 15, 2015

63. *Interdisciplinarity, tricky authorship questions and endlessly fascinating interaction.* **Invited Talk: Duncan of Jordanstone College of Art and Design (DJCAD)***,* Dundee, Scotland, May 14, 2015

64. *Data Sketching: an Approach to Information Visualization Innovation.* **Invited Talk: Dundee University**. Dundee, Scotland, May 13, 2015

65. *Sketching and Constructing Visualization: organized and ran a hands on workshop.* **St. Andrews University**, St. Andrews, Scotland, May 8, 2015

66. *Information Visualization: Exploring New Options.* **Invited Talk: Fields Institute**. Toronto, ON. February 25, 2015

67. *Information Visualization: Making Data Accessible.* **Invited Talk: Fields Institute**. Toronto, ON. January 19, 2015

68. *Constructive Visualization.* **Invited Talk: SMART Technologies**. Calgary AB. January 13, 2015

69. *Thinking about Interacting with Information in our Everyday Lives*. **Invited Speaker: In Situ lab, Inria LRI, Université Paris-Sud, France**. Nov 25, 2014

70. *Thinking about Interacting with Information in our Everyday Lives*. **Invited Speaker: University of Dresden**. Nov 20, 2014

71. Data Visualization Technologies – New Approaches to Data Visualization. **Invited Speaker GRAND Digital Wave Event**, GRAND Ocean Maritime Visualization Workshop, Vancouver August 20, 2014

72. *The interplay between representation and interaction*. **Invited Speaker: Visual Analytics Summer School (CANVAS) July 29, 2014.** Vancouver BC (2) **CANVAC Challenge Panel I: Re–Thinking Visual Analytics in a World of Big Data, Information Visualization and Data Analytics**. Moderator *Fred Popowich (SFU): Speakers* Brian Fisher (SFU)*,* John Stasco (Georgia Tech)*,* Sheelagh Carpendale (UCalgary)*,* Nathalie Riche (Microsoft Research)*,* Christopher Collins (UOIT): CANVAC: **Visual Analytics Summer School (CANVAS)** http://canvas2014.ca/ July 28, 2014, Vancouver BC.

73. Interactive Visualization. **Invited Speaker: Sketching and Education Workshop**. Evanston, Illinois USA. May 9, 2014 *(2) In the science world with an arts background.* **Invited Speaker: Conversations on Art and Science lecture series. Department of Art and Technology Studies, The School of the Art Institute of Chicago**. May 7, 2014 *(3) Interactive Visualization.* **Invited Speaker: Northwestern Segal Design**. May 6, 2014

74. *Usability & Computer Interfaces*. **Keynote:** Visualizing Biological Data, VIZBI 2014

75. *Thoughts on interactive technologies and data visualization for libraries and cultural institutions today and into the future*. **Invited Talk: LIBERACT 2014: Interactive Technologies in Libraries**. TFDL, University of Calgary

76. *Interactive Visualization.* **Distinguished Lecturer in the Department of Computer Science Seminar Series, University of Manitoba.** February 13, 2014.

77. *Interactive Visualization.* **Keynote: Waterloo Institute for Complexity and Innovation**. Nov 2013

78. **Exxon Mobile, Keynote**: Calgary, Alberta: *Trends in Computing and Visualization*, Nov. 1, 2013.

79. **Interaction with Information for Visual Reasoning workshop,** Dagstuhl, Germany: *Fluid Interaction for Visual Analytics,* August 27, 2013

80. **GI (Geographic Information) Centre, City University London**, England: *Information Visualization: Exploring New Options*, July 15, 2013

81. **Summer School on Big Data Information Visualization**, St. Andrews, Scotland: Sketching *Information Visualization,* July 9, 2013
82. **Summer School on Big Data Information Visualization**, St. Andrews, Scotland: *Information Visualization: Exploring New Options,* July 8, 2013
83. **SurfNet AGM**, Calgary, Alberta: *Everyday Visualization*, June13, 2013
84. **CHCCS Achievement Award Acceptance Speech:** Graphics Interface: *Information Visualization: Exploring New Options.* May 30, 2013.
85. **Helsinki Institute for Information Technology HIIT,** Department of Computer Science, University of Helsinki: **Human Centered Big Data Visualization**: *Designing Visualizations.* April 25, 2013.
86. **Aalto University: School of Arts, Design and Architecture**: Dept of Design and Dept of Media: *My Approach to Interdisciplinary Research: Integrating Art, Design and Computer Science*. April 24, 2013
87. **Keynote Speaker: Ward of the 21ˢᵗ Century Forum**. Creating a Common Ground: Apps, Analytics and Visualization for better health and health care in the 21ˢᵗ century. *Information visualization in health care.* April 12, 2013.
88. **Keynote Speaker: 12th International Symposium on Web and Wireless Geographical Information Systems (W2GIS 2013).** *Is GIS Part of InfoVis or InfoVis Part of GIS?* April 4, 2013.
89. **School of Interactive Arts and Technology (SIAT), Simon Fraser University,** Surrey, BC: New *Challenges in Interactive Information Visualization*, March 15, 2013.
90. **Pacific VAST in conjunction with IEEE PacificVis,** Sydney, Australia: *Towards Personal Visual Analytics*, February 26, 2013
91. **Monash University,** Melbourne, Australia**:** *Towards Personal Visual Analytics*, February 25, 2013
92. **OCADU, Euphoria and Distopia:** panel**:** New Perspectives on *Big Data*, Abby Goodrum, Christopher Salter, Sheelagh Carpendale, Feb. 1, 2013
93. **Eyes High Research Speakers Series, University of Calgary:** *Towards Personal Visual Analytics*, January 18, 2013
94. **SIAT Colloquium, School of Interactive Arts and Technology, Simon Fraser University, Surrey, BC:** *Data Sketching: An Approach to Information Visualization Innovation,* January 16, 2013
95. **CRC Seminars at the IRMACS Center, Coast to Coast Seminar Series:** *Towards Personal Visual Analytics*, January 15, 2013. **VIVA Vancouver Institute of Visual Analytics, Simon Fraser University,** Vancouver, BC: *Towards Personal Visual Analytics*, January 15, 2013
96. **University of Minnesota Distinguished Speakers Series**: *Interactive Information Visualizations for Everyday Practices*, Oct. 8. 2012.
97. **Thinking Through Diagrams**: *Visualization Across Disciplines*, Thinking through Drawing 2012: Drawing in STEAM (Science, Technology, Engineering, Arts & Maths) Symposium, sponsored by International Drawing and Cognition Research, Wimbledon, London England, Sept. 14, 2012.
98. **Invited Panel: Drawing broadly: thinking, imagining and visualising.** A. Kantrowitz (chair): panel members G. Anderson, D. Buck, S. Carpendale, T. Coates, A. Corti, H. Edwards, K. Garner. *Thinking through Drawing 2012: Drawing in STEAM (Science, Technology, Engineering, Arts & Maths) Symposium, sponsored by International Drawing and Cognition Research, Wimbledon, UK.* 2012.
99. **CASCON: Visualization for Smart Analytics:** *Aesthetics and Visualization*, Nov. 7, 2012.
100.   **AVI: Workshop on Asynchronous Collaboration in Visual Analytics.** *Collaborative Visualization*. May 20, 2012.
101.   **University of Victoria Distinguished Speakers Series**: *Interactive Information Visualizations for Everyday Practices*, April 20, 2012.

102. **Microsoft Research, Redmond**: *Interactive Information Visualization: where I have been and where I am heading*. July 12, 2011
103. **ITS 2010: Invited Tutorial**: Saarbrücken, Germany: *Qualitative Evaluation as an Interaction Design Approach*, November 7, 2010.
104. **University of Munich**, Munich, Germany: *Working towards supporting Information Visualization on Tabletops*, November 11, 2010.
105. **Otto-von-Guericke-University of Magdeburg**, Madgedeburg, Germany. *Working towards supporting Information Visualization on Tabletops*, November 5, 2010.
106. **SurfNet Industry Day**, University of Calgary, Calgary, Alberta. *SurfNet Theme 1: Humanizing the Digital Interface: Overview*, October 14-16, 2010
107. **AITF 2010 Research and Commercialization Summit**, Banff Centre, Banff, Alberta, *Selected Projects in Interaction Design*, (with S. Greenberg) August 19-21, 2010.
108. **Upper Austria University of Applied Sciences** in Linz, Austria, *Working Towards Supporting Information Work on Tabletops*, May 25, 2010.
109. **Microsoft Research**, Cambridge, UK, *Recent Research Activities in the Innovis Group*, May 27, 2010.
110. **SIGCHI Paris:** Human Computer Interaction and Information Visualization Talk Series, *Integrating art with information visualization to create interactive tabletop applications*, May 31, 2010.
111. **European Summer School in Logic**, Language and Information (ESSLLI'09), Bordeaux, France, *Language and Computation Advanced Course: Linguistic Information* Visualization, July 2009
112. **University of Toronto, Knowledge and Media Design Institute: Visual Thinking Series**, *Visual Thinking: Generating Visual Representations*, June 2009
113. **Keynote Speaker: Computational Aesthetics**, Victoria, BC, *Using Arts Methodology to Create Visualizations*, May 2009
114. **Microsoft Research**, Redmond, Washington, USA, *Integrating Art with Information Visualization to Create Interactive Tabletop Applications*, April 2009
115. **Keynote Speaker: Saskatchewan Interactive**, Saskatoon, Saskatchewan, *Innovations in Information Visualization*, March 2009
116. **IEEE Visualization Panel**: *Building a Research Group in Visualization*, H. Carr, S. Carpendale, T. Ertl, H. Hauser, C. Johnson, M. Chen, S. North, October 23, 2008.
117. **Keynote Speaker:** Banff Summer Arts Festival 75th Anniversary Celebration, Banff New Media Institute, Banff Centre for the Arts, Banff, Alberta, Revisionist Interaction, July 2008
118. Presentation: Evaluation and Information Visualization, Dagsthul, Germany, May 2008
119. **Invited Talk:** Evaluation to Inform Design. Virginia Polytechnic Institute and State University, Virginia, USA, May 2008
120. **Invited Talk:** Innovations in Information Visualization, INRIA (French National Institute for Research in Computer Science), Orsay, France, May 2008
121. Presentation: Issues with Complexity and Evaluation in Information Visualization, Dagsthul, Germany, May 2007
122. **Invited Talk:** An Overview of Information Visualization at Interactions Lab, INRIA (French National Institute for Research in Computer Science), Orsay, France, May 2007
123. **Invited Talk:** Visualizing Digital Communication, University of Southern California Information Sciences Institute, Machine Translation Group, LA, USA, May 2007
124. Invited Talk: Interaction and Visualization @ iLab, iCORE Summit, Banff Centre, Alberta, with S. Greenberg, August 2007
125. Invited Talk: Interactive Visualization at iLab, Western Canadian Graphics, University of Victoria, Canada, February 9 2007.

126. Dagstuhl, Germany: Computational Aesthetics, Aesthetic Interactions, May 31, 2006.
127. Keynote Speaker: Explore-IT: Introducing Teenage Girls to High-Tech Career Options. Southern Alberta Institute for Technology (SAIT) and University of Calgary, Information Visualization and Collaborative Interfaces, May 10, 2006.
128. Keynote Speaker: The CWC/Corus New Media Career Accelerator Program. Information Visualization and Tabletop Interaction. (Thurs, March 2, 2006) February 24 – March 3.
129. Keynote Speaker: Humans and Technology Symposium, Massachusetts Institute of Technology (MIT). Collaborative Tabletop Interfaces: Design through Observation. January, 2006.
130. Keynote Speaker: Clinical Telehealth in the Future. eHealth+Industry, Calgary Health Region. Sharing Visual Information. Wider Horizons, January 24, 2006.
131. **Keynote Speaker**: International Conference on TELEHEALTH. Banff Centre, Banff, Alberta, Canada, Innovations in Visualization, July, 19 – 21, 2005.
132. **Keynote Speaker: Image Research Initiative Workshop.** University of Concordia, Montreal, Canada. *Interactive Visualization and Images*, May 2-3, 2005
133. **Keynote Speaker: The CWC/Corus New Media Career Accelerator Program**. *Information Visualization and Applications to e-Health*, March, 2005
134. **IDELIX Software Inc.,** Vancouver, British Columbia. *Several Presentations on Information Visualisation, Elastic Presentation and Human-Computer Interaction*. 1999 through 2005
135. **Visual and Interactive Computing.** At Industry Day, Computer Science, University of Calgary, November 21, 2005
136. **Panel Moderator: Visualizing Complex Data**. Panelists: Amber Frid-Jimenez, Tom Donaldson. At The Banff Centre Research Summit: Bodies in Play: Shaping and Mapping Mobile Applications, Banff New Media Institute, May 19 – 22, 2005.
137. **Invited Talk.** *Expressive Texts and Interaction Models*. At The Banff Centre Research Summit: Bodies in Play: Shaping and Mapping Mobile Applications, May 19 – 22, 2005.
138. **Panel Moderator: Visualizing Communication – Language, System, Expression**. Panelists: Christopher Collins, Andrew Salway, Andrew Klobucar. At The Banff Centre Research Summit: Bodies in Play: Shaping and Mapping Mobile Applications, May 19 – 22, 2005
139. **Invited Talk**. *Focus on Visualizing Human Communication*. At The Banff Centre Research Summit: Bodies in Play: Shaping and Mapping Mobile Applications, May 19 – 22, 2005
140. **The Ward of the 21st Century Retreat**, University of Calgary. *Applying Information Visualization to Health Issues*, May 5, 2005
141. **Keynote Speaker: New Ways and New Technologies**, Calgary. *New Technologies Meeting the Innovation Imperative*, October 14, 2004
142. **Invited Talk**. *Collocated Collaboration Tools*. Banff Centre Research Summit: Participate/Collaborate: Reciprocity, Design and Social Networks. Sept. 30 – Oct. 3, 2004
143. **Simulation and Other Re-enactments: Modeling the Unseen**: Research Summit, Banff Centre. *From Scientific to Artistic simulation and visualization*. April 29 – May 2, 2004
144. **The Ward of the 21st Century Retreat**. Sheraton, Calgary, *Human Technology Interface*. October 4, 2004
145. **The CWC/Corus New Media Career Accelerator Program**. *Research and New Media*, February 28 to March 5, 2004.
146. **Dutch Electronic Arts Festival, DEAF03**. Rotterdam. *Applying Elastic Presentation Space to 2D and 3D Data Layouts*, February, 2003.
147. **Bell University Labs Conference**, Toronto, Ontario. *Elastic Presentation*. November, 2003.
148. **Department of Visualistics, University of Otto-von Guericke**, Magdeburg, Germany. *Advances in Elastic Presentation*, February, 2003.

149. **SIGGRAPH'03 Course; Theory and Practice of Non-Photorealistic Graphics: Algorithms, Methods, and Production Systems Presentation**. *Viewing Transformations: Perspective, Distortion and Deformation*. Organizer Mario Costa-Sousa. Other instructors, Brett Achorn and Daniel Teece Walt Disney Feature Animation, David S. Ebert Purdue University, Bruce Gooch University of Utah, Victoria Interrante University of Minnesota, Lisa Streit University of British Columbia, Oleg Veryovka Electronic Arts at SIGGRAPH August, 2003.

150. **The Beauty of Collaboration: Methods, Manners and Aesthetics. Banff Centre Research Summit**: S. Carpendale, S. Diamond, Co-moderators: Panel: *Collaboration and Visualization Tools*. Location: Rice Studio The Jeanne and Peter Lougheed Building (JPL), May 22-25, 2003

151. **The Beauty of Collaboration: Methods, Manners and Aesthetics. Banff Centre Research Summit**: S. Carpendale, A. Dunning, combined talk, *Visualization between Disciplines - Constructing a Research Scenario*, May 22-25, 2003.

152. **Skinning Our Tools: Designing for Context and Culture. Banff Centre Research Summit**: S. Carpendale. *Collaborative Tools: Visualization, Collaboration and Participant Design*. Oct. 5, 2003.

153. **MERL Mitsubishi Electric Research Laboratories**, Boston, USA. *Elastic Presentation Framework*. October, 2002.

154. **NewMIC**. Vancouver, British Columbia. *Elastic Presentation*, June, 2002.

155. **Banff New Media Institute (BNMI) Conference on Quintessence: The Clumpy Matter of Art, Math and Science Visualization**. S. Carpendale. *Presentation Spaces and Display Real Estate*. Speaker in a Panel on *Research and Models* with Sara Diamond, Marc Rioux, Kelly Booth, Pierre Boulanger. Theme: Advanced Visualization, September 12-15, 2002.

156. **Banff New Media Institute (BNMI) Conference on Quintessence: The Clumpy Matter of Art, Math and Science Visualization** S. Carpendale: Moderator - Panel: *Data Visualization—Information Architectures and Visualization-Methods and Metaphors*. Panelists: Luigi Benedecenti, Brad Paley, Sara Diamond, Richard Lachman, Kevin Liang. Sept. 12-15, 2002.

157. **Banff New Media Institute (BNMI) Conference on Quintessence: The Clumpy Matter of Art, Math and Science Visualization**. S. Carpendale. (2002). *Data Visualization Strategies, Visual Language and Interpretation, Concepts and Case Studies*. Theme: Advanced Visualization, September 12-15, 2002.

158. **BRIDGES Consortium Two**. At the Banff New Media Institute (BNMI). S. Carpendale and S. Diamond, Co-moderated: Panel: *Perspectives from the Sciences: Towards Interdisciplinary Collaboration*. Theme: Cross-Disciplinary Research, October 4-6, 2002.

159. **Conference on Artificial Stupidity/Artificial Intelligence,** At the Banff New Media Institute (BNMI)**.** S. Carpendale. (2002). *Artificial Stupidity and Visualising Chat*. Theme: What are the Creative Possibilities and Limits of AI, August 1-4, 2002.

160. **IEEE Information Visualization** London England. Panel: S. Diamond, S. Carpendale, V. Interrante, J. Portway S. Xin-Wei. *Visualization, Semantics and Aesthetics*. July: 2002.

161. **CWC/Corus New Media Career Accelerator**. In collaboration with Corus Entertainment and Canadian Women in Communications (CWC). S. Carpendale. *Close to the Machine: Women Inventing Technologies, Women Teaching Women Scientists*. At the Banff New Media Institute (BNMI), March 2-8, 2002.

162. **Human Computer Interaction Series. Stanford University**, Faculty of Computer Science, San Francisco, USA.   S. Carpendale. *Elastic Presentation*. December, 2001.

163. **Intel Corporation**, Research Council, Jones Farm, Portland, USA.   S. Carpendale. *Elastic Presentation Framework*, November, 2001.

164. **Emotional Architectures: Designing for Immersion and Interaction**, Banff Centre.   S. Carpendale. *Presentation Spaces, Process Spaces – Design, Virtual and Public Spaces, Visualisation*, September 19-24, 2001.

165. **Human Generosity Conference**, Banff Centre. *Information Visualisation: sharing digital tools*, August, 2001.
166. **SIGGRAPH 2001.** Panel: S. Diamond, S. Carpendale, V. Interrante, J. Portway S. Xin-Wei. *Visualization, Semantics and Aesthetics. SIGGRAPH 2001. Los Angeles, USA, August, 2001*
167. **Bridges**, UCLA Annenburg Centre, Los Angeles. *Information Visualisation*. May 29 - Jun 2, 2001.
168. **Faculty for Information Technologies, Institute for Simulation and Graphics Otto-von-Guericke University**, Magdeburg, Germany. *The Tardis: an Environment for Visualising Landscape Dynamics*. June, 2000.
169. **Otto von Guericke University**, Faculty of Informatics, Institute of Simulation and Graphics, Magdeburg, Germany. *Elastic Presentation*. June, 2000.
170. **San Francisco Museum of Modern Art (SF MOMA)**. Panel: S. Diamond, J. Lewis, J. Portway, S. Carpendale, A. Grbavec, W. Sack, M. Walter. CodeZebra: Visualizing Human Discourse., December 2, 2000.
171. **Living Architectures: Designing for Immersion and Interaction**, Banff Centre. *3D Visualisation for Data Navigation*. September 22-24, 2000.
172. **Conference on Emotional Computing: Performing Arts, Fiction and Interactive Experience**, Banff Centre. *3D Imaging, Designing with Artists from the Software Perspective*. May 11-13, 2000.
173. **Vision Plus 6; a UNESCO conference**. IIID International Institute for Information Design Conference. *Elastic Presentation Space*. July, 1999.
174. **Electronic Arts**, Burnaby, British Columbia, Invited Research Presentation: *Elastic Presentation Space*. September, 1999.
175. **Derby, Centre for Design Research**. Derby, England. *A Theory of Elastic Presentation Space*. September, 1998.
176. **Intel Corporation**, Research Council, Jones Farm, Portland, USA. *A Distortion Viewing Paradigm*. May, 1997.
177. **Dagstuhl Seminar 9608**: Informatics and Semiotics. Dagstuhl, Germany. *Pliable Surfaces: A Local Magnification Interface for Exploring Visual Information*. February, 1996.

PUBLICATIONS

Books

1. N. Henry Riche, C. Hurter, N. Diakopoulos, S. Carpendale. (2018) *Data Driven Stories.* Taylor and Francis. 2018/3/28, CRC Press.

    This book presents an accessible introduction to data-driven storytelling. Resulting from unique discussions between data visualization researchers and data journalists, it offers an integrated definition of the topic, presents vivid examples and patterns for data storytelling, and calls out key challenges and new opportunities for researchers and practitioners.

2. S. Greenberg, S. Carpendale, N. Marquardt, B. Buxton. (2012) *Sketching User Experiences: The Workbook*, Morgan-Kaufmann, Elsevier Science & Technology. ISBN: 978-0-12-381959-8, pp. I-VIII, 1-262, January 2012

    This book provides information about the step-by-step process of the different sketching techniques. It offers methods called design thinking, as a way to think as a user, and sketching, a way to think as a designer. User-experience designers are designers who sketch based on their actions, interactions, and experiences.

Refereed Journal Papers

1. Julie N. Babion, Wrechelle Ocampo, Sydney Haubrich, Connie Yang, Torre Zuk, Jaime Kaufman, Sheelagh Carpendale, William Ghali, and Ghazwan Altabbaa. (2020). Human-centred design processes for clinical decision support: a pulmonary embolism case study. *International Journal of Medical Informatics* (2020): 104196.

2. Jagoda Walny, Sarah Storteboom, Richard Pusch, Steven Munsu Hwang, Søren Knudsen, Sheelagh Carpendale, Wesley Willett. (2020). PixelClipper: Supporting Public Engagement and Conversation about Visualizations. *IEEE Computer Graphics and Applications: Special Issue Visualization in Public Spaces* 40(2):57-70. IEEE Computer Society Press

3. Doris Kosminsky, Jagoda Walny, Jo Vermeulen, Søren Knudsen, Wesley Willett, Sheelagh Carpendale. (2020). Belief at first sight: Data visualization and the rationalization of seeing. *Information Design Journal. 25(1): Information + Special Issue*: Information Visualization, Dörk, Marian and Isabel Meirelles (eds.) IDJ 25:1:43-55, John Benjamin's Publishing.

4. Jagoda Walny, Christian Frisson, Mieka West, Doris Kosminsky, Søren Knudsen, Sheelagh Carpendale, Wesley Willett. (2020). Data Changes Everything: Challenges and Opportunities in Data Visualization Design Handoff. *IEEE Transactions on Visualization and Computer Graphics. 26(1):12-22, (InfoVis track of IEEE VIS)* **BEST PAPER**, IEEE Computer Society Press

5. Kyle Wm Hall, Adam J Bradley, Uta Hinrichs, Samuel Huron, Jo Wood, Christopher Collins, Sheelagh Carpendale. (2020). Design by immersion: A transdisciplinary approach to problem-driven visualizations. *IEEE Transactions on Visualization and Computer Graphics. 26(1): 109-118, (InfoVis track of IEEE VIS)*, IEEE Computer Society Press.

6. AJ Bradley, V Sawal, S Carpendale, C Collins. (2019) Textension: Digitally Augmenting Document Spaces in Analog Texts. In *DHQ: Digital Humanities Quarterly 13 (3)* (pub date 2019/7/1)

7. Bongshin Lee, Kate Isaacs, Danielle Albers Szafir, GE Marai, Cagatay Turkay, Melanie Tory, Sheelagh Carpendale, Alex Endert. (2019). Broadening Intellectual Diversity in Visualization Research Papers. *IEEE computer graphics and applications*. 39(4):78-85, IEEE Press.

8. Tanja Blascheck, Lindsay MacDonald Vermeulen, Jo Vermeulen, Charles Perin, Wesley Willett, Thomas Ertl, Sheelagh Carpendale. (2019). Exploration Strategies for Discovery of Interactivity in Visualizations. *IEEE Transactions on Visualization and Computer Graphics*. February 2018. IEEE Computer Society Press.

9. Kyle Wm Hall, Zhengcai Zhang, Christian J Burnham, Guang-Jun Guo, Sheelagh Carpendale, Niall J English, Peter G Kusalik. (2018). Does local structure bias how a crystal nucleus evolves? The journal of physical chemistry letters. 9(24):6991-6998. American Chemical Society

10. Allan C. A. Rocha, Julio D. Silva, Usman R. Alim, Sheelagh Carpendale, Mario Costa Sousa (2018) Decal-Lenses: Interactive Lenses on Surfaces for Multivariate Visualization. *IEEE Transactions on Visualization and Computer Graphics*. Accepted 2018/6/26. IEEE CS Press.

11. Charles Perin, R Vuillemot, C Stolper, John Stasko, Jo Wood, S Carpendale (2018) State of the Art of Sports Data Visualization 2018/5/6. *Computer Graphics Forum*. 37(3), 663-686. Wiley

12. Mona Hosseinkhani Loorak, Melanie Tory and Sheelagh Carpendale. (2018). ChangeCatcher: Increasing Inter-author Awareness for Visualization Development. *Computer Graphics Forum.* 37(3): 51-62. Wiley*.

13. Jagoda Walny, Samuel Huron, Charles Perin, Tiffany Wun, Richard Pusch, Sheelagh Carpendale. 2018. Active Reading of Visualizations. *IEEE Transactions on Visualization and Computer Graphics*. 24(1): 770-780, January 2018. IEEE Computer Society press.

14. Philipp Koytek, Charles Perin, Jo Vermeulen, Elisabeth André, Sheelagh Carpendale. 2018. MyBrush: Brushing and Linking with Personal Agency. *IEEE Transactions on Visualization and Computer Graphics*. 24(1): 605-615, January 2018. IEEE Computer Society press.

15. Charles Perin, Tiffany Wun, Richard Pusch, Sheelagh Carpendale. 2018. Assessing the Graphical Perception of Time and Speed on 2D+ Time Trajectories. *IEEE Transactions on Visualization and Computer Graphics*. 24(1): 698-708, January 2018. IEEE Computer Society press.

16. Benjamin Bach, Pierre Dragicevic, Daniel Archambault, Christophe Hurter, Sheelagh Carpendale. 2017. A Descriptive Framework for Temporal Data Visualizations Based on Generalized Space-Time Cubes. *Computer Graphics Forum*. 36(6):36-61

17. Ovo Adagha, Richard M Levy, Sheelagh Carpendale. 2017. Towards a product design assessment of visual analytics in decision support applications: a systematic review. *Journal of Intelligent Manufacturing*. 28(7): 1623-1633, Springer US.

18. Gunther H Weber, Sheelagh Carpendale, David Ebert, Brian Fisher, Hans Hagen, Ben Shneiderman, Anders Ynnerman. 2017. Apply or Die: On the Role and Assessment of Application Papers in Visualization. *IEEE Computer Graphics and Applications*. 38(3): 96-104, IEEE Press

19. Benjamin Bach, Nathalie Henry Riche, Sheelagh Carpendale, Hanspeter Pfister. 2017. The Emerging Genre of Data Comics. *IEEE Computer Graphics and Applications*. 38(3): 96-104, IEEE Press

20. Alice Thudt, Bongshin Lee, Eun Kyoung Choe, Sheelagh Carpendale. 2017. Expanding research methods for a realistic understanding of personal visualization. *IEEE Computer Graphics and Applications*. 37(2):12-18 IEEE Press

21. Alice Thudt, Charles Perin, Wesley Willett, Sheelagh Carpendale. 2017. Subjectivity in personal storytelling with visualization. *Information Design Journal*. 23(1): 48-64. Publisher John Benjamins Publishing Company

22. Ovo Adagha, Richard M. Levy, Sheelagh Carpendale, Cormack Gates, and Mark Lindquist. (2017) Evaluation of a visual analytics decision support tool for wind farm placement planning in Alberta: Findings from a focus group study. *Technological Forecasting and Social Change*: 117, pp 70-83, April 30, 2017.

23. Mona Hosseinkhani Loorak, Charles Perin, Christopher Collins and Sheelagh Carpendale. (2017) Exploring the Possibilities of Embedding Heterogeneous Data Attributes in Familiar Visualizations. *IEEE Transactions on Visualization and Computer Graphics*, 23(1):581-590, January 23, 2017

24. Kyle Wm. Hall, Sheelagh Carpendale and Peter G. Kusalik. Evidence from mixed hydrate nucleation for a funnel model of crystallization. *Proceedings of the National Academy of Sciences (PNAS)*, 113(43):12041-12046, Oct 6, 2016.

25. Adam James Bradley, Travis Kirton, Sheelagh Carpendale, and Mark Hancock. (2016) "Language DNA: Visualizing a Language Decomposition", *Digital Humanities Quarterly: 10(4), Oct 1, 2016. http://www.digitalhumanities.org/dhq/vol/10/4/000259/000259.html*

26. K. Wm. Hall, C. Perin, P. G. Kusalik, C. Gutwin, and S. Carpendale. 2016. Formalizing Emphasis in Information Visualization. STAR – State of the Art Report. *Computer Graphics Forum*. 35(3).

27. E. Tarameshloo, M. Hosseinkhani Loorak, P. Wong, S. Carpendale. (2016). Using Visualization to Explore Original and Anonymized LBSN Data. *Computer Graphics Forum*. 35(3):291-300

28. T. Wun, J. Payne, S. Huron, S. Carpendale. (2016). Comparing Bar Chart Authoring with Microsoft Excel and Tangible Tiles. *Computer Graphics Forum*. 35(3)

29. A. Thudt, D. Baur, S. Huron, S. Carpendale. (2016). Visual Mementos: Reflecting Memories with Personal Data. *IEEE Transactions on Visualization and Computer Graphics,* 22(1):369-378.

30. M. Hosseinkhani Loorak, C. Perin, N. Kamal, M. Hill, S. Carpendale. (2016). TimeSpan: Using Visualization to Explore Temporal Multi-dimensional Data of Stroke Patients. *IEEE Transactions on Visualization and Computer Graphics*, 22(1):409-418.

31. M. Nacenta, M. Hancock, C. Gutwin, S. Carpendale. (2015). The effects of changing projection geometry on perception of 3D objects on and around tabletops. *ACM Transactions on Computer-Human Interaction*., 10.1145/2845081

32. B. Lee, N. Henry Riche, P. Isenberg, S. Carpendale. (2015). More than Telling a Story: A Closer Look at the Process of Transforming Data into Visually Shared Stories. *IEEE Journal of Computer Graphics and Applications*, 21(1):84-90, IEEE Society.

33. J. Walny, S. Huron, S. Carpendale. (2015). An Exploratory Study of Data Sketching for Visual Representation. *Computer Graphics Forum*. 34(3):231-240

34. D. Huang, M. Tory, B. Adriel Aseniero, L. Bartram, S. Bateman, S. Carpendale, A. Tang, R. Woodbury (2015). Personal Visualization and Personal Visual Analytics, *IEEE Transactions on Visualization and Computer Graphics.* 21(3): 420-433.

35. O. Adagha, S. Carpendale, R. Levy. (2015). Decision support requirements for wind farm placement planning in Alberta. *Journal of Decision Systems (JDS) Special Issue on Integrated Decision Support Systems.* 24(2):178-205.

36. Edelsys Codorniu-Hernández, Kyle Wm Hall, A Daniel Boese, Daniel Ziemianowicz, Sheelagh Carpendale, Peter G Kusalik. (2015). Mechanism of O (3P) Formation from a Hydroxyl Radical Pair in Aqueous Solution. In *Journal of chemical theory and computation* 11(10):4740-4748

37. O. Adagha, R.M. Levy, S. Carpendale. (2015). Towards a product design assessment of visual analytics in decision support applications: a systematic review. In *Journal of Intelligent Manufacturing*, pages 1-11, Springer.

38. Bouts, Quirijn W., Tim Dwyer, Jason Dykes, Bettina Speckmann, Sarah Goodwin, Nathalie Henry Riche, Sheelagh Carpendale, Ariel Liebman. (2015). Visual encoding of dissimilarity data via

topology-preserving map deformation. *IEEE transactions on visualization and computer graphics* 22(9): 2200-2213.

39. E. Codorniu-Hernández, K. Wm. Hall, D.I Ziemianowicz, S. Carpendale, P. G. Kusalik. (2014). Aqueous production of oxygen atoms from hydroxyl radicals. In *Physical Chemistry Chemical Physics (PCCP)*. 16(47): 26094-26102

40. S. Huron, Y. Jansen, S. Carpendale. (2014). Constructing Visual Representations: Investigating the Use of Tangible Tokens. In *IEEE Transactions on Visualization and Computer Graphics (InfoVis'14),* 20(12): 2102-2111.

41. K. Etemad, D. Baur, J. Brosz, S. Carpendale, F. Samavati. (2014). PaisleyTrees: A Size-Invariant Tree Visualization. In *Transactions on Creative Technologies (EAI Endorsed)*. 14(1): ICST, 10.

42. M. E. Karagozler, I. Poupyrev, G. K. Fedder, Y. Suzuki, L. Yao, R. Niiyama, J. Ou, S. Follmer, H. Ishii, J. Brosz, M. A. Nacenta, R. Pusch, S. Carpendale, C. Hurter, J. Rekimoto (2014). Demo Hour. *Interactions* 21(3):6-9, ACM Press

43. S. Carpendale, M. Chen, D. Evanko, N. Gehlenborg, C. Gorg, L. Hunter, F. Rowland, M.-A. Storey, H. Strobelt. (2014). Ontologies in Biological Data Visualization. *IEEE Journal of Computer Graphics and Applications*, 34(2):8-14, IEEE Society.

44. J. Walny, S. Carpendale. (2014). Towards Supporting Interactive Sketch-Based Visualizations. *TRACEY Drawing and Visualization Research Journal, Thinking Through Drawing Edition*

45. M. Hosseinkhani, P. Wong, S. Carpendale. (2014). Papilio: Visualizing Android Application Permissions. *Computer Graphics Forum*, 33(3):391 – 400.

46. U. Hinrichs, S. Carpendale, N. Valkanova, K. Kuikkaniemi, G. Jacucci, A. Van de Moere. (2013) Interactive Public Displays. *IEEE Computer Graphics and Applications* 33(2): 25-27

47. J. Walny, B. Lee, P. Johns, N. Henry Riche, S. Carpendale. (2012) Understanding Pen and Touch Interaction for Data Exploration on Interactive Whiteboards. In *IEEE Transactions on Visualization and Computer Graphics (InfoVis'12), 18(12): 2779-2788*

48. B. Lee, P. Isenberg, N. Henry Riche, S. Carpendale. (2012) Beyond Mouse and Keyboard: Expanding Design Considerations for Information Visualization Interactions. In *IEEE Transactions on Visualization and Computer Graphics (InfoVis'12), 18(12): 2689-2698*

49. M. Dörk, C. Williamson, S. Carpendale. (2012) Navigating Tomorrow's Web: From Searching and Browsing to Visual Exploration. In *ACM Transactions on the Web*, TWEB 6(3):13, 28 pages.

50. S. Lynch, J. Haber, S. Carpendale. (2012) ColourVis: exploring colour usage in digital images. In *Journal of Computer and Graphics* 36(6): 696-707

51. H. Lam, E. Bertini, P. Isenberg, C. Plaisant, S. Carpendale. (2012) Empirical Studies in Information Visualization: Seven Scenarios. *IEEE Transactions on Visualization and Computer Graphics*, 18(9): 1520-1536, 2012. Appeared online: 30 Nov. 2011.

52. M. Dörk, S. Carpendale, C. Williamson. (2012) Visualizing explicit and implicit relations of complex information spaces. *Information Visualization*, 11(1):5-21

53. S. Greenberg, S. Carpendale, N. Marquardt, B. Buxton. (2012) The narrative storyboard: telling a story about use and context over time. *ACM Interactions* 19(1):64-69, ACM Press

54. J. Walny, S. Carpendale, N. Henry Riche, G. Venolia, P. Fawcett. (2011) Visual Thinking In Action: Visualizations As Used On Whiteboards. *IEEE Transactions on Visualization and Computer Graphics* (InfoVis'11), 17(6):2508-2517.

55. J. Brosz, S. Carpendale, M. Nacenta. (2011). The Undistort Lens. *Computer Graphics Forum*, 30(3):881-890.

56. M. Dörk, D. Gruen, C. Williamson, S. Carpendale (2010). A Visual Backchannel for Large-Scale Events. *IEEE Transactions on Visualization and Computer Graphics (InfoVis'10)*, 16(6):1129-1138.

57. B. Lee, N. Henry Riche, A. Karlson, S. Carpendale (2010). SparkClouds: Visualizing Trends in Tag Clouds. *IEEE Transactions on Visualization and Computer Graphics (InfoVis'10)*, 16(6):1182-1189.

58. Tang, C., Carpendale, S., & Scott, S.D. (2010). InfoFlow Framework for Evaluating New Healthcare Technologies, *Special Issue on "Evaluating new interactions in healthcare: Challenges and approaches", International Journal of Human-Computer Interaction (IJHCI)*, 26(5):477–505.

59. C. T. Silva, D. S. Ebert, H. Pfister, S. Carpendale. (2010) An Update from VisWeek 2009. *Computing in Science and Engineering* 12(1): 82-87.

60. M. Tobiasz, P. Isenberg, S. Carpendale. (2009). Lark: Coordinating Co-located Collaboration with Information Visualization. *IEEE Transactions on Visualization and Computer Graphics. (InfoVis'09)* 15(6):1065-1072.

61. C. Collins, G. Penn, S. Carpendale. (2009). Bubble Sets: Revealing Set Relations with Isocontours over Existing Visualizations. *IEEE Transactions on Visualization and Computer Graphics. (InfoVis'09)* 15(6): 1009-1015.

62. P. Isenberg, A. Bezerianos, N. Henry, S. Carpendale, J.-D. Fekete. (2009). CoCoNutTrix: Collaborative Retrofitting for Information Visualization. *Computer Graphics and Applications: Special Issue on Collaborative Visualization*, 29(5):44–57.

63. C. Collins, S. Carpendale, G. Penn. (2009). DocuBurst: Visualizing Document Content using Language Structure. *Computer Graphics Forum*. 28(3): 1039-1046

64. U. Hinrichs, H. Schmidt, S. Carpendale. (2008). EMDialog: Bringing Information Visualization into the Museum. *IEEE Transactions on Visualization and Computer Graphics: Proc. IEEE Information Visualization.* 14(6):1181-1188.

65. M. Dörk, S. Carpendale, C. Collins, C. Williamson. (2008). Visgets: Coordinated Visualizations for Web-based Information Exploration and Discovery. *IEEE Transactions on Visualization and Computer Graphics. (InfoVis'08)* 14(6):1205-1212

66. T. Isenberg, M. Everts, J. Grubert, S. Carpendale. (2008). Interactive Exploratory Visualization of 2D Vector Fields. *Computer Graphics Forum*, 27(3):983–990.

67. C. Collins, S. Carpendale. (2007). VisLinks: Revealing Relationships amongst Visualizations. *IEEE Transactions on Visualization and Computer Graphics. (InfoVis'07),* 13(6):1192-1199.

68. P. Isenberg, S. Carpendale. (2007). Interactive Tree Comparison for Co-located Collaborative Information Visualization. *IEEE Transactions on Visualization and Computer Graphics. (InfoVis'07),* 13(6):1232–1238.

69. S.D. Scott, S. Carpendale. (2006). Guest Editor's Introduction: Interacting with Digital Tables. *IEEE Computer Graphics & Applications, Special Issue Interacting with Digital Tabletops,* 26(5):24-27.

70. S.D. Scott, S. Carpendale, S. Habelski. (2005). Storage Bins: Mobile Storage for Collaborative Tabletop Displays. *IEEE Computer Graphics and Applications: Special Issue on Large Displays,* 25(4):58-65.

71. R. Kruger, S. Carpendale, S.D. Scott, S. Greenberg. (2004). Roles of Orientation in Tabletop Collaboration: Comprehension, Coordination and Communication. *Journal of Computer Supported Cooperative Work,* Springer, 13(5-6):501-537.

72. C.A.H. Baker, S. Carpendale, P. Pruiskiewicz, M. Surette. (2003). GeneVis: Simulation and visualization of genetic networks. *Journal of Information Visualization, Special Issue on Coordinated Multiple Views, guest editor J. Roberts, Palgrave-Macmillan,* 2(4):201-217.

73. S. Carpendale. (2001). Elastic Presentation Space. *Information Design Journal*, 10(1):58-69. *John Benjamin's Publishing Co.*

74. J. van der Heyden, K. Inkpen, S. Atkins, S. Carpendale. (2001). Exploring Presentation Methods for Tomographic Medical Image Viewing. *Journal of Artificial Intelligence in Medicine, Special Issue, Information Visualization in Medicine*, 22(2): 89-109.

75. S. Carpendale, D. J. Cowperthwaite, F. D. Fracchia. (1997). Extending Distortion Viewing Techniques from 2D to 3D Data. *IEEE Computer Graphics and Applications, Special Issue on Information Visualization,* vol. 17(4):42-51, IEEE Computer Society Press.

Refereed Conference Papers

1. Tatiana Losev, Sarah Storteboom, Sheelagh Carpendale, and Søren Knudsen. (2020). Distributed Synchronous Visualization Design: Challenges and Strategies. BELIV, IEEE Computer Society. Also available as an *arXiv preprint arXiv:2009.02306* (2020)

2. Bon Adriel Aseniero, Charles Perin, Wesley Willett, Anthony Tang, Sheelagh Carpendale. (2020). Activity River: Visualizing Planned and Logged Personal Activities for Reflection. In Advanced Visual Interfaces (AVI), June 2020. Also available for open access on ArVix (http://arxiv.org/abs/2006.01353)

3. Fatemeh Rajabiyazdi, Charles Perin, Lora Oehlberg, Sheelagh Carpendale. (2020) Exploring the Design of Patient-Generated Data Visualizations. *In the Proceedings of Graphics Interface (GI)*, Canadian Information Processing Society, 2020.

4. David Ledo, Jo Vermeulen, Sheelagh Carpendale, Saul Greenberg, Lora Oehlberg, Sebastian Boring. (2019) Astral: Prototyping Mobile and Smart Object Interactive Behaviours Using Familiar Applications. *Proceedings of the 2019 on Designing Interactive Systems Conference.* pp 711-724, 2019/06/18, ACM

5. Miriam Sturdee, Samuel Mann, Sheelagh Carpendale. (2019). Sketching Sustainability in Computing. *Proceedings of the 2019 on Creativity and Cognition*. Pp 29-40, 2019/06/13 ACM.

6. Tiffany Wun, Lora Oehlberg, Miriam Sturdee, Sheelagh Carpendale. (2019). You say Potato, I say Po-Data: Physical Template Tools for Authoring Visualizations. *Proceedings of the Thirteenth International Conference on Tangible, Embedded, and Embodied Interaction*. Pp 297-206, 2019/03/17, ACM

7. Alice Thudt, Uta Hinrichs, Samuel Huron, Sheelagh Carpendale (2018) Self-reflection and personal physicalization construction. *Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems* (ACM CHI) 2018/4/21, ACM Press.

8. Miriam Sturdee, Jason Alexander, Paul Coulton, Sheelagh Carpendale. (2018). Sketch & the Lizard King: Supporting Image Inclusion in HCI Publishing. *Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems* (ACM Alt.CHI) 2018

9. Fateme Rajabiyazdi, Charles Perin, Jo Vermeulen, Haley MacLeod, Diane Gromala, Sheelagh Carpendale, 2017. Differences That Matter: In-Clinic Communication Challenges. *Proceedings of Pervasive Health*. Pages 251-260 DOI PDF.

10. Aura Pon, Eric Pattison, Lawrence Fyfe, Laurie Radford, Sheelagh Carpendale (2017) Torrent: Integrating Embodiment, Physicalization, and Musification in Music-Making. Proceedings of the Tenth International Conference on Tangible, Embedded, and Embodied Interaction (ACM TEI). pp 209-216, ACM Press.

11. Søren Knudsen and Sheelagh Carpendale. (2016). View Relations: An Exploratory Study on Between-View Meta-Visualizations. In *Proceedings of the 9th Nordic Conference on Human-Computer Interaction*, pp 1-15, ACM Press

12. Jo Vermeulen, Lindsay MacDonald, Johannes Schöning, Russell Beale, and Sheelagh Carpendale. (2016). Heartefacts: Augmenting Mobile Video Sharing Using Wrist-Worn Heart Rate Sensors. In *Proceedings of the 2016 Conference on Designing Interactive Systems*, ACM DIS, pp 712-713. ACM Press

13. Alice Thudt, Jagoda Walny, Charles Perin, Fateme Rajabiyazdi, Lindsay MacDonald, Riane Vardeleon, Saul Greenberg, and Sheelagh Carpendale. (2016). Assessing the Readability of Stacked Graphs. In *Proceedings of the 2016 Graphics Interface Conference, pages 167-174,* June 2016. DOI PDF

14. J. Sadeghi, C. Perin, T. Flemisch, M. Hancock, S. Carpendale. (2016). Flexible Trees: Sketching Tree Layouts. In *Advanced Visual Interfaces*. pp 84-97.

15. F. Botros, C. Perin, B. Asenario, S. Carpendale. (2016). Go and Grow: Mapping Personal Data to a Living Plant. In *Advanced Visual Interfaces*. pp 112-119.

16. K. Etemad, F. Samavati, S. Carpendale. (2016). Daisy Visualization for Graphs. In *Proceedings of Computational Aesthetics*. pp 103-112.

17. B. Bach, N. Kerracher, K.W. Hall, S. Carpendale, J. Kennedy, N.H. Riche. (2016). Telling Stories about Dynamic Networks with Graph Comics. In *Proceedings of the Conference on Human Factors in Information Systems (ACM CHI)* pp 3670-3682.

18. Fateme Rajabiyazdi, Jagoda Walny, Carrie Mah, John Brosz, Sheelagh Carpendale. (2015). Understanding Researchers' Use of a Large, High-Resolution Display Across Disciplines. *In Proceedings of the tenth ACM International Conference on Interactive Tabletops and Surfaces* (pp. 107-116), ACM Press. Nov. 2015, DOI PDF

19. A. Pon, J. Wang, S. Carpendale, L. Radford. (2015). Womba: A Musical Instrument for an Unborn Child. In *Proceedings of New Interfaces for Musical Expression.* ACM Press

20. A Bradley, C MacArthur, M Hancock, S Carpendale. (2015). Gendered or neutral?: considering the language of HCI. In Proceedings of the 41st Graphics Interface Conference, 163-170.

21. A. Thudt, U. Hinrichs, S. Carpendale. (2015). A Modular Approach to Promote Creativity and Inspiration in Search. In *Proceedings of the 2015 ACM Conference on Creativity and Cognition,* (pp. 245-254). ACM Press.

22. B. Adriel Aseniero, T. Wun, D. Ledo, G. Ruhe, A. Tang, S. Carpendale. (2015). STRATOS: Using Visualization to Support Decisions in Strategic Software Release Planning. In *Proceedings of ACM CHI'15 Conference on Human Factors in Computing Systems*. pages 1479-1488. ACM Press.

23. P. Lapides, A. Chokshi, S. Carpendale, S. Greenberg. (2015). News Feed: What's in it for Me?. In *Proceedings of ACM CHI'15 Conference on Human Factors in Computing Systems*. pages 163-172. ACM Press.

24. B. Lee, G. Smith, N. Henry Riche, A. Karlson, S. Carpendale. (2015). SketchInsight: Natural Data Exploration on Interactive Whiteboards Leveraging Pen and Touch Interaction. *Proceedings of the IEEE Conference Pacific Visualization.* pages 199-206.

25. K.W. Hall, E. Codorniu-Hernandez, P.G. Kusalik, S. Carpendale. (2015). ERICAs: Enabling Insights into ab initio Molecular Dynamics simulations. *Proceedings of the IEEE Conference Pacific Visualization.* pages 105-109. IEEE Press.

26. L. MacDonald, J. Brosz, M.I A. Nacenta, S. Carpendale. (2015). Designing the Unexpected: Endlessly Fascinating Interaction for Interactive Installations. In *Proceedings of the Ninth*

International Conference on Tangible, Embedded, and Embodied Interaction, pp 41-48, ACM Press.

27. J. Ichino, A. Pon, E. Sharlin, D. Eagle, S. Carpendale. (2014). Vuzik: the effect of large gesture interaction on children's creative musical expression. In *Proceedings of the 26th Australian Computer-Human Interaction Conference on Designing Futures: the Future of Design.* pp 240-249. ACM Press.

28. F. M. Rodrigues, T. Seyed, F. Maurer, S. Carpendale (2014). Bancada: Using Mobile Zoomable Lenses for Geospatial Exploration. *Proceedings of the Ninth ACM International Conference on Interactive Tabletops and Surfaces.* pp 409-414, ACM Press

29. M. Brehmer, S. Carpendale, B. Lee, M. Tory (2014). Pre-design empiricism for information visualization: Scenarios, methods, and challenges. *Proceedings of the Fifth Workshop on Beyond Time and Errors: Novel Evaluation Methods for Visualization*, pages 147-515. ACM Press

30. K. Etemad, S. Carpendale, F. Samavati. (2014). Node-Ring Graph Visualization Clears Edge Congestion. In *the Proceedings of the IEEE VIS Arts Program (VISAP)*, 67-74.

31. N. Henry Riche, Y. Riche, N. Roussel, S. Carpendale, T. Madhyastha, T. J. Grabowski. (2014). LinkWave: a visual adjacency list for dynamic weighted networks. *Proceedings of the 26th Conference on l'Interaction Homme-Machine*. pp 113-122. ACM Press

32. C. Hurter, A. R. Taylor, S. Carpendale, A. Telea (2014). Interactive exploration and selection in volumetric datasets with color tunneling. *Proceedings of the adjunct publication of the 27th annual ACM symposium on User interface software and technology*. pp 49-50, ACM Press

33. K. Etemad, S. Carpendale, F. Samavati. (2014). Spirograph Inspired Visualization of Ecological Network. In *Proceedings of Computational Aesthetics in Graphics, Visualization, and Imaging, (CAe'14)*, pages 81-89.

34. L. Fyfe, A. Tindale, S. Carpendale. (2014). Extending the Nexus Data Exchange Format (NDEF) Specification. In *Proceedings of the Conference on New Interfaces for Musical Expression* (NIME), pages 343-346.

35. S. Huron, S. Carpendale, A. Thudt, A. Tang, M. Mauerer. (2014). Constructive Visualization. In *Proceedings of the ACM Conference on Designing Interactive Systems*. pp 433-442, ACM Press. (**Honourable Mention Award**).

36. S. Carpendale, M. Tory, A. Tang (2014). A personal perspective on visualization and visual analytics. *Proceedings of the 2014 companion publication on Designing interactive systems*. pp 223-225. ACM Press

37. B. Bach, P. Dragicevic, D. Archambault, C. Hurter, S. Carpendale. (2014). A Review of Temporal Data Visualizations Based on Space-Time Cube Operations. *EuroVis: State of the Art Reports*. pp 1-19.

38. J. Haber, M. Nacenta, S. Carpendale. (2014). Paper vs. Tablets: The Effect of Document Media in Co-located Collaborative Work. In *Advanced Visual Interfaces* (AVI'14), pages 89 - 96. ACM

39. S. Somanath, S. Carpendale, E. Sharlin, M. Costa Sousa. (2014). Information Visualization Techniques for Exploring Oil Well Trajectories in Reservoir Models. In *Proceedings of Graphics Interface*, pages 145- 150. CIPS

40. C. Coljee-Gray, M. Dörk, S. Carpendale. (2014) Visually Exploring Books along their Subject Headings. In *Proceedings of iConference* 2014, pp 729 - 734, March, 2014.

41. C. Hurter, R. Taylor, S. Carpendale, A. Telea. (2014) Color Tunneling: Interactive Exploration and Selection in Volumetric Datasets. In *Proceedings of IEEE PacificVis*. pp 225-232.

42. J. Brosz, M. Nacenta, R. Pusch, S. Carpendale, C. Hurter. (2013) Transmogrification: causal manipulation of visualizations. *Proceedings Paper: ACM symposium on user interface software and technology* (UIST). pp. 97-106. ACM Press, Oct. 2013.

43. A. Thudt, D. Baur, S. Carpendale. (2013). Visits: A Spatiotemporal Visualization of Location Histories. In *Proceedings of European Conference on Visualization*, EuroVis'13. **(Best Short Paper Award).** June 2013.

44. S. Carpendale. (2013). Innovations in Visualization. In *Proceedings of Graphics Interface*, pp: 1-8. **Invited CHCCS Award paper: CHCCS/SCDHM Achievement Award is presented periodically to a Canadian researcher who has made a substantial contribution to the fields of computer human interaction**.

45. H. MacLeod, A. Tang, S. Carpendale. (2013). Personal Informatics in Chronic Illness Management. In *Proceedings of Graphics Interface*, pp: 149-156.

46. Marian Dörk, Patrick Feng, Christopher Collins, Sheelagh Carpendale (2013). Critical InfoVis: exploring the politics of visualization. In *Proceedings of ACM CHI'13 Extended Abstracts on Human Factors in Computing Systems*. pp 2189-2198. ACM Press.

47. T. Kirton, S. Boring, D. Baur, L. MacDonald, S. Carpendale. (2013). C4: a creative-coding API for media, interaction and animation. In *the Proceedings of ACM Conference on Tangible and Embedded Interaction (TEI'13)* pp 279-286.

48. D. Baur, B. Lee, S. Carpendale. (2012) TouchWave: Kinetic Multi-touch Manipulation for Hierarchical Stacked Graphs. *Proceedings ACM international conference on Interactive tabletops and surfaces.* pp. 255-264. ACM Press.

49. A. Pon, J. Ichino, E. Sharlin, D. Eagle, N. d'Alessandro, S. Carpendale. (2012). Vuzik: A Painting Graphic Score Interface for Composing and Control of Sound Generation. *Proceedings International Computer Music Conference*. pp 579-583

50. D. Baur, A. Butz, S. Carpendale. (2012) Arcs.fm - A Backdrop Visualization for Music Talk. *Proceedings EuroVis*. 109-113pp. Eurographics - European Association for Computer Graphics

51. N. Henry Riche, T. Dwyer, B. Lee, S. Carpendale. (2012) Exploring the Design Space of Interactive Link Curvature in Network Diagrams. In *Proceedings of the International Conference on Advanced Visual Interfaces ACM AVI 2012, pp 506-513*

52. M. Nacenta, U. Hinrichs, S. Carpendale. (2012) FatFonts: Combining the Symbolic and Visual Aspects of Numbers. *In AVI 2012: Proceedings of the International Conference on Advanced Visual Interfaces*, pp 407-414.

53. M. Dörk, S. Carpendale, C. Williamson. (2012) Fluid Views: A Zoomable Search Environment. In *AVI 2012: Proceedings of the International Conference on Advanced Visual Interfaces*, pp 233-240.

54. M. Nacenta, M. Jakobsen, R. Dautriche, U. Hinrichs, M. Dörk, J. Haber and S. Carpendale. (2012) The LunchTable: A Multi-User, Multi-Display System for Information Sharing in Casual Group Interactions. In *ISPD 2012: Proceedings of the International Symposium on Pervasive Displays*, 18 pages.

55. L. Fyfe, A. Tindale and S. Carpendale. (2012) JunctionBox for Android: An Interaction Toolkit for Android-based Mobile Devices. In *Proceedings of the Linux Audio Conference*, (LAC2012), *(CCRMA, Stanford University, CA, USA. April 12-15*, 2012)

56. L. Fyfe, A. Tindale and S. Carpendale. (2012) Node and Message Management with the JunctionBox Interaction Toolkit. In *Proceedings of the Conference on New Interfaces for Musical Expression*, pages 520-521, 2012.

57. A. Thudt, U. Hinrichs and S. Carpendale. (2012). The Bohemian Bookshelf: Supporting Serendipitous Book Discoveries through Information Visualization. In *CHI '12: Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*, pp 1461-1470, ACM Press.

58. J. Haber, S. Lynch, S. Carpendale. (2011) ColourVis: exploring colour usage in paintings over time. In *Proceedings of the International Symposium on Computational Aesthetics in Graphics, Visualization, and Imaging*, pp 105-112, ACM Press.

59. K. Mikulecky, M. Hancock, J. Brosz and S. Carpendale. (2011) Exploring physical information cloth on a multi-touch table. In *ITS '11: Proceedings of the ACM International Conference on Interactive Tabletops and Surfaces*. ACM, pages 140-149, 2011.

60. J. Walny, J. Haber, M. Dörk, J. Sillito and S. Carpendale. (2011) Follow that Sketch: Lifecycles of Diagrams and Sketches in Software Development. In VISSOFT 2011: Proceedings of International Workshop on Visualizing Software for Understanding and Analysis. IEEE, 2011.

61. S. Lynch., M. Nacenta, S. Carpendale, (2011). ToCoPlay: Graphical Multi-touch Interaction for Composing and Playing Music, in *Proceedings of the Conference on Human Computer Interaction - INTERACT 2011*, 18 pages.

62. L. Fyfe, A. Tindale, S. Carpendale. (2011). JunctionBox: A Toolkit for Creating Multi-touch Sound Control Interfaces. In *Proceedings of the Conference on New Interfaces for Musical Expression (NIME'11)*, pp. 276-279, 2011.

63. U. Hinrichs, S. Carpendale. (2011). Gestures in the Wild: Studying Multi-Touch Gesture Sequences on Interactive Tabletop Exhibits. In *CHI '11: Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*. ACM Press, 3023-3032, 2011.

64. M. Dörk, S. Carpendale, C. Williamson. (2011) The Information Flaneur: A Fresh Look at Information Seeking. In *CHI '11: Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*. ACM Press pp. 1215-1224, 2011.

65. M. Dörk, S. Carpendale, C. Williamson. (2011). EdgeMaps: Visualizing Explicit and Implicit Relations. In *Proceedings of VDA 2011: Conference on Visualization and Data Analysis*. IS&T/SPIE, 2011. **(Best Paper Award).**

66. A. Tang, M. Pahud, S. Carpendale, B. Buxton, B. (2010). VisTACO: Visualizing Tabletop Collaboration. in *Proceedings of the ACM Conference on Interactive Tabletops and Surfaces - ACM ITS'2010*, ACM Press, pp. 29-38, 2010.

67. L. Vlaming, C. Collins, M. Hancock, M. Nacenta, T. Isenberg, S. Carpendale. (2010). Integrating 2D mouse emulation with 3D manipulation for visualizations on a multi-touch table. in *Proceedings of the ACM Conference on Interactive Tabletops and Surfaces - ACM ITS'2010*, ACM Press, pp. 221-230.

68. S. Schmidt, M. Nacenta, R. Dachselt, S. Carpendale. (2010) A Set of Multi-touch Graph Interaction Techniques. In *Proceedings of the ACM Conference on Interactive Tabletops and Surfaces - ITS'10*. pp. 113-116, ACM Press.

69. R. Jota, M. Nacenta, J. Jorge, S. Carpendale, S. Greenberg. (2010). A Comparison of Ray Pointing Techniques for Very Large Displays. In *Proceedings of Graphics Interface - GI'2010*, ACM Press, 8 pages, May 31 - June 2, 2010.

70. L. Fyfe, S. Lynch, C. Hull, S. Carpendale. (2010). SurfaceMusic: Mapping Virtual Touch-based Instruments to Physical Models. In *Proceedings of the Conference on New Interfaces for Musical Expression (NIME'10)*, pp. 360-363. ACM Press, 2010.

71. M. Hancock, T. ten Cate, S. Carpendale, T. Isenberg. (2010). Supporting Sandtray Therapy on an Interactive Tabletop. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems* (CHI'10), pp. 2133-2142, ACM Press, 2010.

72. A. Voida, S. Carpendale, S. Greenberg. (2010). The individual and the group in console gaming, in the *Proceedings of the ACM Conference on Computer-Supported Cooperative Work (CSCW'10)*, pp. 371-380. ACM Press.

73. N. Marquardt, T. Gross, S. Carpendale and S. Greenberg. (2010). Revealing the invisible: visualizing the location and event flow of distributed physical devices. In *Proceedings of the Fourth International Conference on Tangible, Embedded and Embodied Interaction - TEI'10*, pages 41-48. ACM.

74. M. Hancock, T. ten Cate, S. Carpendale. (2009). Sticky tools: Full 6DOF force-based interaction for multi-touch tables. In *Proceedings of the ACM International Conference on Interactive Tabletops and Surfaces ITS*, pp. 145-152, ACM Press 2009

75. M. Hancock, M. Nacenta, C. Gutwin, S. Carpendale. (2009). The effects of changing projection geometry on the interpretation of 3D orientation on tabletops. In *Proceedings of the ACM International Conference on Interactive Tabletops and Surfaces ITS*, pp. 175-182, ACM Press.

76. M. Hancock, O. Hilliges, C. Collins, D. Baur, S. Carpendale. (2009). Exploring tangible and direct touch interfaces for manipulating 2D and 3D information on a digital table. In *Proceedings of the ACM International Conference on Interactive Tabletops and Surfaces ITS*, pp. 85-92, ACM Press.

77. S. Voida, M. Tobiasz, J. Stromer, P. Isenberg, S. Carpendale. (2009). Getting practical with interactive tabletop displays: Designing for dense data, 'fat fingers', diverse interactions, and face-to-face collaboration. In *Proceedings of the ACM International Conference on Interactive Tabletops and Surfaces (ITS)*, pp. 109-116, ACM Press.

78. N. Marquardt, M. Nacenta, J. Young, S. Carpendale, S. Greenberg, E. Sharlin (2009). The Haptic Tabletop Puck: Tactile Feedback for Interactive Tabletops. In *Proceedings of the ACM International Conference on Interactive Tabletops and Surfaces ITS*'09, pp. 93-100, ACM Press.

79. C. Tang, S. Carpendale. (2009). Supporting Nurses' Information Flow by Integrating Paper and Digital Charting. *Proc. of the European Conference on Computer Supported Cooperative Work (ECSCW'09)*, pp. 43-62, Sept. 2009.

80. K. Etemad, S. Carpendale. (2009). ShamsehTrees: Providing Hierarchical Context for Nodes of Interest. In *Proceedings of Bridges 2009: Mathematics, Music, Art, Architecture, Culture*, pp 293-300, 2009.

81. J. Brosz, S. Carpendale, F. Samavati, H. Wang, A. Dunning. (2009). Art and Nonlinear Projection. In *Bridges 2009: Mathematical Connections in Art, Music and Science*, pp. 105-114, 2009.

82. C. Tang, S. Carpendale. (2009). A Mobile Voice Communication System in Medical Setting: Love it or Hate it? *Proc. Conference on Human Factors in Computing Systems (ACM CHI'09)*, pp. 2041-2050, ACM Press, April 2009.

83. T. Au Yeung, S. Carpendale, S. Greenberg. (2008). Preservation of Art in the Digital Realm. in *Proceedings of iPRES2008: The Fifth International Conference on Digital Preservation* (London), British Library, 8 pages, September 29-30, 2008.

84. C. Tang, S. Carpendale. (2008). Evaluating the Deployment of a Mobile Technology in a Hospital Ward. *Proceedings of the ACM Conference on Computer Supported Cooperative Work* (CSCW 2008). pp. 205-214. ACM Press. Nov. 2008. **(CSCW Honorable Mention - best paper nominee)**

85. C. Tang, S. Carpendale. (2008) Support for Informal Information Use and its Formalization in Medical Work. *Proceedings of IEEE Computer Based Medical systems* (CBMS'08). pp. 476-481. June 2008

86. P. Isenberg, A. Tang, S. Carpendale. (2008). An Exploratory Study of Visual Information Analysis. *Proc. Conference on Human Factors in Computing Systems (ACM CHI'08)*, pp. 1217–1226, ACM Press.

87. P. Isenberg, T. Zuk, C. Collins, S. Carpendale. (2008). Grounded Evaluation of Information Visualizations. *Proc. Beyond Time and Errors: Novel Evaluation Methods for Information Visualization (BELIV'08) (held at ACM CHI'08),* pp. 56-63, ACM DL.

88. T. Zuk, J. Downton, D. Gray, S. Carpendale, J.D. Liang. (2008). Exploration of Uncertainty in Bidirectional Vector Fields. *Proc. Conference on Visualization and Data Analysis, SPIE-IS&T Electronic Imaging, (SPIE Vol. 6809, p. 68090B).*

89. U. Hinrichs, M.S. Hancock, C. Collins**,** S. Carpendale. (2007). Examination of Text-Entry Methods for Tabletop Displays. *Proc. IEEE International Workshop on Horizontal Human-Computer Systems (Tabletop'07)*, pp. 105-112, IEEE Computer Society.

90. M.S. Hancock, S. Carpendale. (2007). Supporting Multiple Off-Axis Viewpoints at a Tabletop Display. *Proc. IEEE International Workshop on Horizontal Human-Computer Systems (Tabletop'07)*, pp. 171-178, IEEE Computer Society.

91. M. Nunes, S. Greenberg, S. Carpendale, C. Gutwin, (2007). What Did I Miss? Visualizing the Past through Video Traces. *Proc. European Conference on Computer Supported Cooperative Work (ECSCW'07)*, pp. 1-20.

92. M. Schwarz, T. Isenberg, K. Mason, S. Carpendale. (2007). Modeling with Rendering Primitives: An Interactive Non-Photorealistic Canvas. *Proc. Non-Photorealistic Animation and Rendering (NPAR'07),* pp. 15–22, ACM Press.

93. J. Broz, S. Samavati, M. Costa-Sousa, S. Carpendale. (2007). Single Camera Flexible Projections. In *Proceedings of Non-Photorealistic Animation and Rendering* (NPAR'07), pp. 33-42, ACM Press.

94. P. Neumann, T. Isenberg, S. Carpendale. (2007). NPR Lenses: Interactive Tools for Non-Photorealistic Line Drawings. *Proc. Smart Graphics (vol. 4569 Lecture Notes in Computer Science)*, pp. 10–22. Springer-Verlag.

95. T. Zuk, S. Carpendale. (2007). Visualization of Uncertainty and Reasoning. *Proc. Smart Graphics (vol. 4569 Lecture Notes in Computer Science)*, pp. 164–177. Springer-Verlag.

96. H. Schmidt, U. Hinrichs, A. Dunning, S. Carpendale. (2007). memory [en]code - Building a Collective Memory within a Tabletop Installation. *Proc. Computational Aesthetics in Graphics, Visualization, and Imaging, (CAe'07)*, pp. 135–142, Eurographics Association, **(Best Paper Award)**

97. A. Stamp, T. Isenberg, S. Carpendale. (2007). A Case Study from the Point of View of Aesthetics: A Dialogue Between an Artist and a Computer Scientist. *Proc. Computational Aesthetics in Graphics, Visualization, and Imaging, (CAe'07)*, pp. 129–134, Eurographics Association.

98. P. Neumann, A. Tat, T. Zuk, S. Carpendale. (2007). KeyStrokes: Personalizing Typed Text with Visualization. *Proc. Eurographics / IEEE VGTC Symposium on Visualization, (EuroVis'07),* pp. 43–50, Eurographics Association.

99. C. Collins, S. Carpendale, G. Penn. (2007). Visualization of Uncertainty in Lattices to Support Decision-Making. *Proc. Eurographics / IEEE VGTC Symposium on Visualization, (EuroVis'07),* pp. 51-59, Eurographics Association.

100. M.S. Hancock, S. Carpendale, A. Cockburn. (2007). Shallow-Depth 3D Interaction: Design and Evaluation of One-, Two- and Three-Touch Techniques. *Proc. Conference on Human Factors in Computing Systems (ACM CHI'07)*, pp. 1147–1156, ACM Press **(CHI Honorable Mention – best paper nominee)**

101. C. Tang, S. Carpendale. (2007). An Observational Study on Information Flow during Nurses' Shift Work. *Proc. Conference on Human Factors in Computing Systems (ACM CHI'07)*, pp. 219–228, ACM Press. May 2007

102. J. Keijser, S. Carpendale, M.S. Hancock, T. Isenberg. (2007). Exploring 3D Interaction in Alternate Control-Display Space Mappings. *Proc. IEEE 3D User Interfaces (3DUI'07),* pp 17–24, IEEE Computer Society.

103. N. Wong, S. Carpendale. (2007). Supporting Interactive Graph Exploration Using Edge Plucking. *Proc. Conference on Visualization and Data Analysis, SPIE-IS&T Electronic Imaging (SPIE vol. 6495, p. 649508).*

104. L. Schlesier, J. Hughes, A. Fall, S. Carpendale. (2006). The LuMPB Key: A Multiple View Interface to Explore High Dimensional Mountain Pine Beetle Simulation Data. *Proc. International Conference on Coordinated and Multiple Views in Exploratory Visualization, CMV 2006*, pp 31-41.

105. T. Isenberg, P. Neumann, S. Carpendale, M. Costa Sousa, J.A. Jorge. (2006). Non-Photorealistic Rendering in Context: An Observational Study. *Proc. Non-Photorealistic Animation and Rendering (NPAR'06)*, pp. 115–126, ACM Press.

106. U. Hinrichs, S. Carpendale, S.D. Scott. (2006). Evaluating the Effects of Fluid Interface Components on Tabletop Collaborations. *Proc. Advanced Visual Interfaces (AVI'06),* pp. 27–34, ACM Press.

107. M.S. Hancock, J.D. Miller, S. Greenberg, S. Carpendale. (2006). Exploring Visual Feedback of Change Conflict in a Distributed 3D Environment. *Proc. Advanced Visual Interfaces (AVI'06)*, pp. 209–218, ACM Press.

108. T. Zuk, L. Schlesier, P. Neumann, M.S. Hancock, S. Carpendale. (2006). Heuristics for Information Visualization Evaluation. *Proc. Beyond Time and Errors: Novel Evaluation Methods for Information Visualization (BELIV'06), (held at Advanced Visual Interfaces, AVI 2006),* pp. 55–60, ACM Press.

109. P. Neumann, S. Carpendale, A. Agarawala. (2006). PhylloTrees: Phyllotactic Patterns for Tree Layout. *Proc. Eurographics / IEEE VGTC Symposium on Visualization (EuroVis'06)*, pp. 59–66, Eurographics Association.

110. A. Tang, M. Tory, B. Po, P. Neumann, S. Carpendale. (2006). Collaborative Coupling over Tabletop Displays. *Proc. Conference on Human Factors in Computing Systems (ACM CHI'06)*, pp. 1181–1290, ACM Press.

111. T. Zuk, S. Carpendale. (2006). Theoretical Analysis of Uncertainty Visualizations. *Proc. Conference on Visualization and Data Analysis, SPIE-IS&T Conf. Electronic Imaging, Vol. 6060,* 606007.

112. T. Isenberg, A. Miede, S. Carpendale. (2006). A Buffer Framework for Supporting Responsive Interaction in Information Visualization Interfaces. *Proc. International Conference on Creating, Connecting and Collaborating through Computing (C^5'06),* pp. 262–269, IEEE Computer Society.

113. A. Tat, S. Carpendale. (2006). CrystalChat: Visualizing Personal Chat History. *Proc. Persistent Conversations (held at HICSS-39)*, pp. 58-70.

114. M.S. Hancock, F.D. Vernier, D. Wigdor, S. Carpendale, C. Shen. (2006). Rotation and Translation Mechanisms for Tabletop Interaction. *Proc. IEEE International Workshop on Horizontal Interactive Human-Computer Systems (TableTop'06)*, pp. 79–86, IEEE Computer Society.

115. T. Zuk, S. Carpendale, W.D. Glanzman. Visualizing Temporal Uncertainty in 3D Virtual Reconstructions. *Proc. Virtual Reality, Archaeology and Cultural Heritage, (VAST'05)*, *cooperation with ACM and Eurographics,* pp. 99-106. ACM Press.

116. E. Fanea, S. Carpendale, T. Isenberg. (2005). An Interactive 3D Integration of Parallel Coordinates and Star Glyphs. *Proc. IEEE Symposium on Information Visualization (InfoVis'05)*, pp. 149–156, IEEE Computer Society.

117. H. Sonnet, S. Carpendale, T. Strothotte. (2005). Integration of 3D Data and Text: The Effects of Text Positioning, Connectivity, and Visual Hints on Comprehension. *Proc. International Conference on Human-Computer Interaction (INTERACT'05),* pp. 615-628.

118. U. Hinrichs, S. Carpendale, S.D. Scott, E. Pattison. (2005). Interface Currents: Supporting Fluent Collaboration on Tabletop Displays. *Proc. of Smart Graphics, (vol. 3638, Lecture Notes in Computer Science),* pp. 185-197, Springer.

119. K. Mason, J. Denzinger, S. Carpendale. (2005). Negotiating Gestalt: Artistic Expression by Coalition Formation Between Agents. *Proc. of Smart Graphics, (vol. 3638, Lecture Notes in Computer Science),* pp. 103-114, Springer.

120. T. Isenberg, S. Carpendale, M. Costa Sousa. (2005). Breaking the Pixel Barrier. *Proc. Computational Aesthetics in Graphics, Visualization and Imaging, (CAe'05, May 18–20)*, pp. 41–48, Eurographics Association.

121. P. Neumann, S. Schlechtweg, S. Carpendale. (2005). ArcTrees: Visualizing Relations in Hierarchical Data. *Proc. of Eurographics / IEEE VGTC Symposium on Visualization (EuroVis'05)*, pp. 53–60, Eurographics Association.

122. R. Kruger, S. Carpendale, S.D. Scott, A. Tang. (2005). Fluid Integration of Rotation and Translation. *Proc. Conference on Human Factors in Computing Systems (ACM CHI'08)*, pp. 601–610, ACM Press.

123. T. Zuk, S. Carpendale. (2005). Interactive Simulation and Visualization using the GPU. *Proc. Visualization and Data Analysis, SPIE-IS&T Electronic Imaging, SPIE Vol. 5669*, pp. 262-273.

124. S.D. Scott, S. Carpendale, K.M. Inkpen. (2004). Territoriality in Collaborative Tabletop Workspaces. *Proc. ACM Computer-Supported Cooperative Work*, *CHI Letters vol. 6(3)*. pp. 294-303. ACM Press.

125. S. Carpendale, J. Light, E. Pattison. (2004). Achieving Higher Magnification in Context. *Proc. ACM user interface software and technology, CHI Letters 6(2)*, pp. 71-80. ACM Press.

126. H. Sonnet, S. Carpendale, T. Strothotte. (2004). Integrating Expanding Annotations with a 3D Explosion Probe. *Proc. Advanced Visual Interfaces (AVI'04),* pp. 61-70, ACM Press.

127. B. Wyvill, K. van Overveld, S. Carpendale. (2004). Rendering Cracks in Batik. *Proc. Non-Photorealistic Animation and Rendering (NPAR'07),* pp. 61-67, ACM Press.

128. R. Kruger, S. Carpendale, S.D. Scott, S. Greenberg. (2003). How People Use Orientation on Tables: Comprehension, Coordination and Communication. *Proc. Group'03, an ACM Conference on Computer Supported Cooperative Work*, pp. 369-378, ACM Press.

129. N. Wong, S. Carpendale, S. Greenberg. (2003). EdgeLens: An Interactive Method for Managing Edge Congestion in Graphs. *Proc. IEEE Information Visualization, (InfoVis'03),* pp. 51-58.

130. C.A.H. Baker, S. Carpendale, M. Surette, P. Prusinkiewicz. (2002). GeneVis: Visualization Tools for Genetic Regulatory Network Dynamics. *Proc. of IEEE Conference on Visualization, VIS'02*. pp. 243-250.

131. A. Tat, S. Carpendale. (2002). Visualizing Human Dialog. *Proc. of IEEE Conference on Information Visualization IV'02*, pp. 16-24 **(Won a Best Paper Award).**

132. A. Duta, S. Carpendale, K. Barker. (2002). VICO: A Tool for Supporting Visual Comparisons of Different Pine-Beetle Management Approaches. *Proc. of IEEE Conference on IEEE Information Visualization IV'02,* pp. 234-242.

133. A. Zanella, S. Carpendale, M. Rounding. (2002). Studying Comprehension Issues with Distortion. *Proc. of ACM Nordi-CHI Conference on Human-Computer Interaction, Nordi-CHI'02*, pp. 119-128, ACM Press.

134.   S. Carpendale, C. Montagnese. (2001). A Framework for Unifying Presentation Space. *Proc. ACM Symposium on User Interface Software and Technology UIST'01, CHI Letters vol. 3(2),* ACM Press, pp 61-70.

135.   K. Mason, S. Carpendale. (2001). Artist-Driven Expressive Graphics. *Proc. of Eurographics: Short Papers*, pp 87-96.

136.   O. Kuederle, K.M. Inkpen, S. Atkins, S. Carpendale. (2001).Interacting with Image Sequences: Detail-in-Context and Thumbnails. *Proc. Graphics Interface,* pp 111-118.

137.   O. Kuederle, S. Atkins, K. Inkpen, S. Carpendale. (2001). Evaluation of viewing methods for magnetic resonance images. *Medical Imaging 2001: Visualization, Display, and Image-Guided Procedures, ed: S. K. Mun, Proc. of SPIE Vol. 4319,* pp. 536-545.

138.   J. van der Heyden, K. Inkpen, S. Atkins, S. Carpendale. (1999). A User Centred Task Analysis of Interface Requirements for MRI Viewing. *Proc. of Graphics Interface'99, GI'99*, pp 18-26.

139.   J. van der Heyden, S. Atkins, K. Inkpen, S. Carpendale. (1999). Presentation of MRI on a computer screen. *Medical Imaging 1999: Image Display*, ed: S. K. Mun, Y. Kim, Proc. of SPIE Vol. 3658*, pp. 370-381.

140.   S. Carpendale, D.J. Cowperthwaite, M. Tigges, A. Fall, F.D. Fracchia. (1999). The Tardis: A Visual Exploration Environment for Landscape Dynamics. *Visual Data Exploration and Analysis VI, ed: R.F. Erbacher, P.C. Chen, C.M. Wittenbrink, Proc. of SPIE Vol. 3643*, pp. 110-119.

141.   M. Lantin, S. Carpendale. (1998). Case Study: Supporting Detail in Context for the DNA Representation, H-Curves. *VIS'98: Proc. IEEE Conference on Visualization,* pp 443-446, IEEE Computer Society Press.

142.   J. van der Heyden, S. Carpendale, K. Inkpen, S. Atkins. (1998). Case Study: Visual Presentation of Magnetic Resonance Images. *VIS'98: Proc. IEEE Conference on Visualization*, pp 423-426, IEEE Computer Society Press.

143.   S. Carpendale, D.J. Cowperthwaite, F.D. Fracchia. (1997). Making Distortions Comprehensible, *IEEE Symposium on Visual Languages*, pp 36 - 45, IEEE Computer Society Press.

144.   S. Carpendale, D.J. Cowperthwaite, F.D. Fracchia. (1996). Distortion Viewing Techniques for 3D Data. *INFO-VIS'96: Proc. IEEE Symposium on Information Visualization*, pp 46 - 53, IEEE Computer Society Press.

145.   S. Carpendale, A. Fall, D.J. Cowperthwaite, J. Fall, F.D. Fracchia. (1996). Case Study: Visual Access for Landscape Event Based Temporal Data*. VIS'96: Proc. IEEE Conference on Visualization*, pp 425 - 428, IEEE Computer Society Press.

146.   S. Carpendale, D.J. Cowperthwaite, F.D. Fracchia. (1995). Three-Dimensional Pliable Surfaces: For Effective Presentation of Visual Information. *UIST'95, Proc. ACM Symposium on User Interface Software and Technology*, pp 217 - 226, ACM Press.

147.   S. Carpendale, D.J. Cowperthwaite, F.D. Fracchia, T. Shermer. (1995). Graph Folding: Extending Detail and Context Viewing into a Tool for Subgraph Comparisons. *Ed: F. J. Brandenburg, GD'95; Symposium on Graph Drawing, Lecture Notes in Computer Science 1027*, pp 127 - 139, Springer-Verlag.

Edited Collections, Proceedings and Special Issues

1. *Special Issue:* Personal Visualization and Personal Visual Analytics. (2015) IEEE Computer Graphics and Applications. Editors: Melanie Tory and Sheelagh Carpendale. Guest editors' introduction: Personal Visualization and Personal Visual Analytics, 35(4):26-27. IEEE Computer Society Press.

2. ***Special Issue:*** Best of IEEE Pacific Visualization. (2014) IEEE Transactions on Visualization and Computer Graphics 20(8); Editors: S. Carpendale, W. Chen, S.-H. Hong. Guest editors' introduction: Best of IEEE Pacific Visualization. 20(8); 1085-1086. IEEE Computer Society Press.

3. ***Proceedings:*** S. Carpendale, S. Hong, W. Chen. Editors. (2013) *The Proceedings of the IEEE Sixth Annual Pacific Visualization Symposium, PacificVis 2013,* February 26th to March 1st, Sydney, Australia, (275 pages) ISBN: 978-1-4673-4799-0, IEEE Catalog Number: CFP13APV-ART

4. ***Special Issue:*** U. Hinrichs, S. Carpendale, N. Valkanova, K. Kuikkaniemi, G. Jacucci, A. Van de Moere. Editors*. (2013) Special Issue: Interactive Public Displays. IEEE Computer Graphics and Applications 33(2).*

5. ***Proceedings:*** P. Isenberg, S. Carpendale, T. Hesselmann, T. Isenberg, B. Lee. (2012) *Proceedings of the Workshop on Data Exploration for Interactive Surfaces, DEXIS 2011*. Research Report 0421, INRIA, Domaine de Voluceau - Rocquencourt, Le Chesnay Cedex, France, May, 2012

6. ***Proceedings:*** S. Carpendale, S. Scott, M. Haller. *ACM Interactive Tabletops and Surfaces Conference Proceedings*, ACM Press, 240 pages, November, 2009.

7. ***Proceedings:*** K-L. Ma, T. Moller, H. Pfister, S. Carpendale, J-D. Fekete. *IEEE Transactions on Visualization and Computer Graphics, Proceedings of Information Visualization and Proceedings of Visualization*, TVCG Vol. 15(6), Papers, IEEE Computer Society Press, 730 pages, Nov./Dec., 2009.

8. ***Proceedings:*** M. Chen, C. Hansen, K-L. Ma, C. North, S. Carpendale. *IEEE Transactions on Visualization and Computer Graphics, Proceedings of Information Visualization and Proceedings of Visualization*, TVCG 14(6), Papers, IEEE Computer Society Press, 614 pages, Nov./Dec., 2008.

9. ***Proceedings:*** G. Kindlman, D. Weiskopf, S. Carpendale, K-L. Ma, E. Chi. *IEEE Visualization Conference, IEEE Information Visualization Conference, and IEEE Symposium on Visual Analytics Science and Technology: Conference Compendium*, November/December, 2006.

10. ***Special Issue:*** S.D. Scott and S. Carpendale, Co-editors, *Special Issue on Interacting with Digital Tabletops*, IEEE Computer Graphics and Applications, 26(5), September/October, 2006.

11. ***Proceedings:*** D. Laidlaw, D. Weiskopf, R. Kosara, S. Carpendale, C. North. *IEEE Visualization Conference, IEEE Information Visualization Conference, and IEEE Symposium on Visual Analytics Science and Technology: Conference Compendium*, November/December, 2005.

Chapters in Books

1. David Martin, Sheelagh Carpendale, Neha Gupta, Tobias Hoßfeld, Babak Naderi, Judith Redi, Ernestasia Siahaan, Ina Wechsung. 2017. Understanding the Crowd: Ethical and Practical Matters in the Academic Use of Crowdsourcing. Pages 27-69. Chapter in Book: *Evaluation in the Crowd. Crowdsourcing and Human-Centered Experiments*. Editors: Archambault, Daniel, Helen Purchase, and Tobias Hoßfeld: Dagstuhl Seminar 15481. Publisher Springer, Cham.

2. Maurer, F. (editor). (2016). Surfnet: Designing Digital Surface Application. University of Calgary, Calgary, Canada, SurfNet , March. ISBN 978-0-88953-388-2-(PDF). Available on line http://nsercsurfnet.ca/system/publications/files/000/000/049/original/SurfNet_Book_-_Designing_Digital_Surface_Applications.pdf?1457974578

3. Carpendale, S. and Scott, S. (2016). Humanizing the Digital Interface. Introduction to Section #1 in Surfnet: Designing Digital Surface Applications. (Maurer, F., Ed.). University of Calgary, Calgary, Canada, SurfNet, pages 17-25, March. ISBN 978-0-88953-388-2-(PDF).

4. Brosz, J., Nacenta, M. A., Pusch, R., Hurter, C., and Carpendale, S. (2016). Transmogrification: Casual Manipulation of Visual Information. In Surfnet: Designing Digital Surface Applications. (Maurer, F., Ed.). University of Calgary, Calgary, Canada, SurfNet, pages 95-104, March. ISBN 978-0-88953-388-2-(PDF).

5. Walny, J., Huron, S., and Carpendale, S. (2016). Understanding Sketching Practices for Surface Interface Design. In Surfnet: Designing Digital Surface Applications. (Maurer, F., Ed.). University of Calgary, Calgary, Canada, SurfNet, pages 112-139, March. ISBN 978-0-88953-388-2-(PDF).

6. Farooq, S., Carpendale, S., and Maurer, F. (2016). Pairing for Designing Visualizations. In Surfnet: Designing Digital Surface Applications. (Maurer, F., Ed.). University of Calgary, Calgary, Canada, SurfNet, pages 155-168, March. ISBN 978-0-88953-388-2-(PDF).

7. Huron, S., Thudt, A., Adriel Aseniero, B., Tang, A., and Carpendale, S. (2016). Constructive Visualization: A New Paradigm to Empower People to Author Visualization. In Surfnet: Designing Digital Surface Applications. (Maurer, F., Ed.). University of Calgary, Calgary, Canada, SurfNet, pages 169-191, March. ISBN 978-0-88953-388-2-(PDF).

8. Hinrichs, U., Thudt, A., MacDonald, L., Nacenta, M., Brosz, J., and Carpendale, S. (2016). Beyond Efficiency: Intriguing Interaction for Large Displays in Public Spaces. In Surfnet: Designing Digital Surface Applications. (Maurer, F., Ed.). University of Calgary, Calgary, Canada, SurfNet, pages 347-373, March. ISBN 978-0-88953-388-2-(PDF).

9. Charlotte Tang, Sheelagh Carpendale. (2011) Human Centered Design for Health Information Technology: a qualitative approach. In *Ziefle, M. and Röcker, C. (eds.), Human-Centered Design of E-Health Technologies: Concepts, Methods and Applications*, pages 296-318, IGI Global.

10. P. Isenberg, U. Hinrichs, M. Hancock, S. Carpendale. (2010). Digital Tables for Collaborative Information Exploration, in *Mueller-Tomfelde, Christian (Ed.) Tabletops--Horizontal Interactive Displays*, Springer Verlag, pp. 387-406, 2010.

11. S.D. Scott, S. Carpendale. (2010). Theory of Tabletop Territoriality. In *C. Müller-Tomfelde (ed.), Tabletops - Horizontal Interactive Displays*, Springer (HCI Series), (ISBN: 978-1-84996-112-7), pp. 387-406. Springer, 2010.

12. S. Carpendale. (2008). Evaluating Information Visualizations, in *A.Kerren, J.T. Stasko, JD. Fekete, and C. North (Eds.). Information Visualization – Human-Centered Issues and Perspectives*, Volume 4950 of LNCS State-of-the-Art Survey, Springer, pp. 19-45, 2008.

13. S. Carpendale. (2008). Invited Regular Entry: Distortion Techniques, in *Ling Liu & Tamer Özsu, Editors-in-Chief: Encyclopaedia of Database Systems*, Springer, 2008.

14. J. Heer, F. van Ham, S. Carpendale, C. Weaver, P. Isenberg. (2008). Creation and Collaboration: Engaging New Audiences for Information Visualization, in *A. Kerren, J.T. Stasko, J-D. Fekete, C. North (Eds.), Information Visualization – Human-Centered Issues and Perspectives*. Vol. 4950 of LNCS State-of-the-Art Survey, Springer, pp. 92-133, 2008.

15. S. Carpendale. (2003). Viewing Transformations: Perspective, Distortion and Deformation. In *SIGGRAPH'03 Course Notes; Theory and Practice of Non-Photorealistic Graphics: Algorithms, Methods, and Production Systems Presentation. Editor Mario Costa-Sousa.* ACM SIGGRAPH.

16. S. Carpendale. (1998). D. J. Cowperthwaite, F. D. Fracchia. (1998). Extending Distortion Viewing Techniques from 2D to 3D Data*. Readings in Information Visualization: Using Vision to Think. edited by: S. Card, J. Mackinley, B. Shneiderman*. Morgan Kaufmann Publishers.

Refereed Short Papers and Workshop Papers

1. Miriam Sturdee, Makayla Lewis, Gonzalo Gabriel Méndez, Jess Phoa, Thuong Hoang, and Sheelagh Carpendale. (2020). SketCHI 3.0: Hands-On Special Interest Group on Sketching Education in HCI." In *Extended Abstracts of the 2020 CHI Conference on Human Factors in Computing Systems*, pp. 1-4. 2020.

2. Bon Adriel Aseniero, Søren Knudsen, William A. Ghali, and Sheelagh Carpendale. (2019) Visualizing the 11th Classification of Diseases. *Science* (2019).

3. Søren Knudsen, Jagoda Walny, Sarah Storteboom, Jo Vermeulen, Wesley Willett, Sheelagh Carpendale. (2019). Philosophical concerns of Visual Representation and Interaction. *At ACM CHI 2019 Workshop: Standing on the Shoulders of Giants: Exploring the Intersection of Philosophy and HCI. ACM CHI, 2019*

4. Søren Knudsen, Sheelagh Carpendale. (2019). Data Science Work Practices from a Ubiquitous Analytics Perspective. *At ACM CHI 2019 Workshop: Human-Centered Study of Data Science Work Practices. ACM CHI, 2019*

5. Makayla Lewis,Miriam Sturdee,Jagoda Walny,Nicolai Marquardt,Thuong Hoang,Joanna Foster,Sheelagh Carpendale. (2019). Organizers: *SketCHI 2.0: Hands-On Special Interest Group on Sketching in HCI*

6. Tiffany Wun, Lora Oehlberg, Sheelagh Carpendale. (2018). Making-With-Data: Supporting DIY Data Physicalizations. *At the ACM CHI 2018 workshop: Maker Movements, Do-It-Yourself Cultures and Participatory Design: Implications for HCI Research.*

7. Katherine Currier, Soren Knudsen, Miriam Sturdee, Sheelagh Carpendale. (2018). Combining Ideation and Journaling to Explore to New Possibilities for Visualization on Mobile Devices. *At the ACM CHI 2018 workshop: Data Visualization on Mobile Devices.*

8. Adam Bradley, Victor Sawal, Sheelagh Carpendale, Christopher Collins. (2018). Textension: Digitally Augmenting Analog Texts Using Mobile Devices. *At the ACM CHI 2018 workshop: Data Visualization on Mobile Devices.*

9. Kevin Ta, Jo Vermeulen, Lora Oehlberg, Sheelagh Carpendale. (2018). Product Fingerprints: Studying Mobile Visualizations In-Situ. *At the ACM CHI 2018 workshop: Data Visualization on Mobile Devices.*

10. Soren Knudsen, Sheelagh Carpendale. (2018). The Visualization View as a Toolbox. *Presented at the ACM CHI 2018 workshop: Rethinking Interaction.*

11. Soren Knudsen, Sheelagh Carpendale. (2017). Multiple Views in Immersive Analytics. *In Proceedings of IEEE VIS Workshop on Immersive Analytics*.

12. Fatemeh Rajabiyazdi, Charles Perin, Lora Oehlberg, Sheelagh Carpendale. The Challenges of Individuality to Technology Approaches to Personally Collected Health Data, In Proceedings of the 2017 Pervasive Computing Technologies for Healthcare, pages 448-451. ACM, 2017. PDF

13. Alice Thudt, Uta Hinrichs, Sheelagh Carpendale. 2017. Data craft: integrating data into daily practices and shared reflections. ACM CHI 2017 Workshop on Quantified Data & Social Relationships.

14. Sebastian Lay, Jo Vermeulen, Charles Perin, Eric Donovan, Raimund Dachselt, Sheelagh Carpendale. Slicing the Aurora: An Immersive Proxemics-Aware Visualization. In *Immersive Analytics '16, ACM ISS 2016 Workshop*. IEEE, 2016.

15. Benjamin Bach, Raimund Dachselt, Sheelagh Carpendale, Tim Dwyer, Christopher Collins, Bongshin Lee. 2016. Immersive Analytics: Exploring Future Interaction and Visualization

Technologies for Data Analytics. *Proceedings of the 2016 ACM Conference on Interactive Surfaces and Spaces ACM ISS.* pp 529-533

16. Marjan Eggermont, Charles Perin, Bon Adriel Aseniero, Roxane Fallah, and Sheelagh Carpendale (2016) Leveraging Biological Inspiration in an Information Visualization Class Pedagogy of Data Visualization Workshop at IEEE VIS 2016 • October 23, 2016 • Baltimore, MD

17. Samuel Huron, Sheelagh Carpendale, Jeremy Boy, and Jean Daniel Fekete (2016) Using VisKit: A Manual for Running a Constructive Visualization Workshop. Pedagogy of Data Visualization Workshop at IEEE VIS 2016 • October 23, 2016 • Baltimore, MD

18. J. Babione , F. Rajabiyazdi, C. Perin, J. Tropiano, M. Cosby, M. Santana, J. Kaufman, S. Carpendale, W. Ghali, P. Sargious. Identifying opportunities for innovation in patient-centred care plans through user-centred design research, To appear in Patient Oriented Research Summer Institute Conference, Calgary, Canada, 2016.

19. Fateme Rajabiyazdi, Charles Perin, Julie Babione, Joseph Tropiano, Maria Santana, Jaime Kaufman, William Ghali, Peter Sargious, and Sheelagh Carpendale. (2016) Challenges Involving Patients in their Care Plan from Clinicians' Perspective. *WISH - Workshop on Interactive Systems in Healthcare (CHI'16)*, San Jose, CA, USA, May. 2016, ACM PDF

20. Tamara Flemisch, Fatemeh Rajabiyazdi, Mona Hosseinkhani, Sheelagh Carpendale. (2015). NeckLan: Language as Jewellery. In *Electronic Conference Proceedings of VIS'15 Workshop on Personal Visualization: Exploring Data in Everyday Life,* (VIS 2015), October 2015. PDF

21. X. Tong, D. Gromala, L. Bartram, F. Rajabiyazdi, S. Carpendale. (2015). Evaluating the Effectiveness of Three Physical Activity Visualizations - How People Perform vs. Perceive. In *Electronic Conference Proceedings of VIS'15 Workshop on Personal Visualization: Exploring Data in Everyday Life,* (VIS 2015), October 2015. PDF

22. C. Mah, R. Pusch, S. Huron, S. Carpendale. (2015). A Visualization Fingerprint: Comparing Nutrient Data Visually. In *Electronic Conference Proceedings of VIS'15 Workshop on Personal Visualization: Exploring Data in Everyday Life,* (VIS 2015), October 2015.

23. A. Thudt, D. Baur, S. Carpendale. (2014). Autobiographical Visualizations: Challenges in Personal Storytelling. In *Proceedings of the DIS'14 Workshop on A Personal Perspective on Visualization and Visual Analytics*, (DIS 2014), June 2014

24. B.A. Aseniero, A. Tang, S. Carpendale. (2014). River: Using Personalisation to Support Reflection on Personal Activities, In *Proceedings of the DIS'14 Workshop on A Personal Perspective on Visualization and Visual Analytics* (DIS 2014), June 2014

25. J. Payne, A. Tang, S. Carpendale. (2014). Physical Visualization and Personal Visual Analytics. In *Proceedings of the DIS'14 Workshop on A Personal Perspective on Visualization and Visual Analytics,* (DIS 2014), June 2014

26. M. Dörk, P. Feng, C. Collins, S. Carpendale (2013) Critical InfoVis: exploring the politics of visualization. *Alt.CHI, ACM Conference on Human Computer Interaction, Extended Abstracts* CHI'13: 2189-2198

27. J. Walny, S. Carpendale. (2013) Blended Interaction for Information Visualization. In *Blended Interaction: Envisioning Future Collaborative Interactive Spaces, a ACM CHI 2013 Workshop*, Apr 28, 2013, Paris, France, 6 pages.

28. L. MacDonald, D. Ledo, M. Nacenta, J. Brosz, S. Carpendale. (2013). Authorship in Art/Science Collaboration is Tricky. In *Proceedings of the CHI'13 Workshop on Crafting Interactions: Learning from Digital Arts Practice, a ACM CHI 2013 Workshop*, Apr 27, 2013, Paris, France, 4 pages.

29. *J.* Walny, S. Carpendale. (2012) Towards Supporting Interactive Sketch-Based Visualizations. (2012) *Thinking through Drawing 2012: Drawing in STEAM (Science, Technology, Engineering, Arts & Maths) Symposium, sponsored by International Drawing and Cognition Research, Wimbledon, UK. (12 pages) (***invited to submit an extended version to the Journal TRACEY***)*

30. *U.* Hinrichs, S. Carpendale. 2012. *Making Sense of Wild Data: Using Visualization to Analyze In-the-Wild Video Records. Research in the Wild workshop, at ACM DIS'12*

31. F. Perteneder, C. Grossauer, T. Seifried, J. Walny, J. Brosz, T. Tang, S. Carpendale. (2012) *Idea Playground: When Brainstorming is not enough. Designing Collaborative Interactive Spaces for e-Creativity, e-Science and e-Learning Workshop, ACM Advanced Visual Interfaces* (AVI'12)

32. B. Adriel Aseniero, S. Carpendale, T. Tang. 2012. *Deep Personalization in Tools for Reflection. Personal Informatics Workshop: ACM CHI* 2012

33. *J.* Polleti, D. Baur, T. Tang, S. Carpendale. 2012. ECOBalance Exploring Design Issues for Mobile Persuasion. *Personal Informatics Workshop: ACM CHI* 2012

34. *C.* Grossauer, F. Perteneder, M. Haller, J. Walny, J. Brosz, T. Tang, S. Carpendale. (2012). MathSketch: Designing a Dynamic Whiteboard for Instructional Contexts. *In Proceedings of the SIGCHI Workshop on Educational Interfaces, Software, and Technology, May, 2012.*

35. M. Dörk, S. Carpendale and C. Williamson. (2011) Exploring Growing Information Spaces. In *HCIR 2011: Workshop on Human-Computer Interaction and Information Retrieval*, 4 pages, 2011.

36. U. Hinrichs, N. Valkanova, K. Kuikkaniemi, G. Jacucci, S. Carpendale, E. Arroyo. (2011). Large Displays in Urban Life: from Exhibition Halls to Media Facades, In *CHI '11: Extended Abstracts of the SIGCHI Conference on Human Factors in Computing Systems, May, 2011. a CHI 2011 Workshop*; http://largedisplaysinurbanlife.cpsc.ucalgary.ca/ .

37. J. Haber, M. Nacenta, U. Hinrichs, M. Dörk, R. Dautriche, S. Carpendale. (2011). Let's All Go to the Lunch Table: Performance in Interactive Semi-Public Spaces**,** in *Proceedings of the CHI'11 Workshop on Performance Interaction in Public Space*, *May, 2011. a CHI 2011 Workshop*

38. M. Dörk, S. Carpendale, and C. Williamson (2009). Visual Web Exploration: Beyond Ranked Snippets and Thumbnails. *Position Paper, Putting Visualization on the Web Workshop, VisWeek.*

39. M. Dörk, C. Williamson, S. Carpendale. (2009). Towards Visual Web Search: Interactive Query Formulation and Search Result Visualization, in *WSSP 2009: WWW Workshop on Web Search Result Summarization and Presentation*, 2009.

40. C. Tang**,** R. Randell, S. Wilson, S. Carpendale. (2009). A Tale of Two Studies: Evaluating New Technologies in Healthcare. In *Workshop on Evaluating New Interactions in Healthcare*, CHI 2009, Boston, MA, April 4, 2009.

41. P. Isenberg, U. Hinrichs, M. Hancock, M. Tobiasz and S. Carpendale, (2009). Information Visualization on Interactive Tabletops in Work vs. Public Settings, in *Proceedings of the Workshop on Collaborative Visualization on Interactive Surfaces (*CoVIS *2009 held at VisWeek, October 11, 2009, Atlantic City, USA)*, 2009. Available in the Technical Reports series of the Department of Media Informatics of the Ludwig-Maximilians-University of Munich, Germany.

42. T. Isenberg, U. Hinrichs and S. Carpendale, (2009). Studying Direct-Touch Interaction for 2D Flow Visualization. In *Proceedings of the Workshop on Collaborative Visualization on Interactive Surfaces (*CoVIS *2009, October 11, 2009, Atlantic City, USA)*, 2009. Available in the Technical Reports series of the Department of Media Informatics of the Ludwig-Maximilians-University of Munich, Germany.

43. T. Isenberg, J. Grubert, Maarten Everts, S. Carpendale. (2008). Hands-On Analysis and Illustration: Interactive Exploratory Visualization of Vector Fields. *Proc. Conference of the Advanced School for Computing and Imaging (ASCI CONFERENCE 2008)*, pp. 222–229.

44. P. Isenberg, S. Carpendale. (2008). Social Data Analysis in Co-located Environments. *Proc. CHI Workshop on Social Data Analysis (CHI'08).*

45. C. Tang, S. Carpendale. (2007). Impacts of Technology Deployment on Information Assembly and Disassembly during Shift Change. *Workshop at ECSCW'07 European Conference on Computer Supported Cooperative Work*.

46. T. Isenberg, P. Neumann, S. Carpendale, M. Costa Sousa, J.A. Jorge. (2006). Aesthetics of Hand-Drawn and Computer-Generated Illustrations. In *Dagstuhl Seminar 06221 on Computational Aesthetics in Graphics, Visualization and Imaging*.

47. C. Tang, S. Carpendale. (2006). Healthcare Quality and Information Flow during Shift Change. *Workshop on Pervasive Healthcare, Ubicomp*'06.

48. A. Tat, S. Carpendale. (2006). Visualizing Digital Text Conversations. In *Karahalios, K. and Viegas, F. (Eds) ACM CHI 2006 Workshop on Social Visualization: Exploring Text, Audio, and Video Interactions*.

49. M. Nunes, S. Greenberg, S. Carpendale, C. Gutwin. (2006). Video traces. In *Karahalios, K. and Viegas, F. (Eds) ACM CHI 2006 Workshop on Social Visualization: Exploring Text, Audio, and Video Interactions*.

50. U. Hinrichs, S. Carpendale, S.D. Scott. (2005). Interface Currents: Supporting Fluent Face-to-Face Collaboration. *Technical Sketch, Proceedings of SIGGRAPH '05 ACM SIGGRAPH*, ACM Press.

51. R. Schmidt, E. Penner, S. Carpendale. (2004). Reconfigurable Displays. In *Ubiquitous Display Environments. Workshop: Ubiquitous Display Environments ACM Conference on Ubiquitous Computing, UBICOMP'04*.

52. S. Carpendale. (2004). Elastic Presentation Space Libraries. *Workshop on Information Visualization Software Infrastructures; K. Börner, J.-D. Fekete (eds), at IEEE Information Visualization*.

53. S. Carpendale. (2004). Are Concepts from Post-Normal Science Applicable to the Evaluation of Collocated Collaborative Processes? *Workshop: Methodologies for Evaluating Collaboration Behaviour in Co-Located Environments, ACM Conference on Computer Supported Cooperative Work 2004*

54. P. Tandler, C. Magerkurth, S. Carpendale, K. Inkpen, S. Scott. (2002). Collaboration with Interactive Walls and Tables Workshop at the *Conference on Ubiquitous Computing (UbiComp)'02*, Sept. 29-Oct 1, 2002, Göteborg, Sweden.

55. M. S. T. Carpendale, C.A.H. Baker. (2002). An Abstract Approach to Genetic Visualization. *Workshop: Visualization in Bioinformatics and Cheminformatics. IEEE Visualization.* Workshop Chairs: G. Grinstein, J. P. Lee. Boston, Mass. October.

56. R. Kruger, S. Carpendale. (2002). Orientation and Gesture on Horizontal Displays. *Workshop: Collaboration with Interactive Walls and Tables, UBICOMP 2002.* Organisers: P. Tandler, C. Magerkurth, S. Carpendale, K. Inkpen. Goteborg, Sweden. Sept. 29 – Oct. 1.

57. S. Carpendale, R. Xing. (2001). Examining Edge Congestion. *ACM CHI'01: Conference on Human Factors in Computing Systems, Conference Companion*, pp 115-116, ACM Press.

58. S. Carpendale, M. Tigges, David J. Cowperthwaite, F. D. Fracchia. (1998). Bringing the Advantages of 3D Distortion Viewing into Focus. *INFO-VIS'98: Hot Topics, IEEE Conference on Information Visualisation*, pages 17-20, IEEE Computer Society Press.

59. S. Carpendale, D.J. Cowperthwaite, F.D. Fracchia. (1996). Multi-scale Viewing. *Technical Sketch, Visual Proceedings of SIGGRAPH '96, ACM SIGGRAPH*, pp 149, ACM Press.

60. D. Cowperthwaite, S. Carpendale, F.D. Fracchia. (1996). Visual Access for 3D Data. *ACM CHI '96: Conference on Human Factors in Computing Systems, Short Paper, Conference Companion*, pp 175 - 176, ACM Press.

Refereed Posters, Videos and Demos

61. Sarah Storteboom, Tatiana Losev, Neil Chulpongsatorn. Jackie Yu, Sheelagh Carpendale, Soren Knudsen (2020). COVID Gowns: Breaking Scales with an Unknown End. *Poster: InfoVis track, IEEE VIS*.

62. Maryam Rezaie, Lien Quach, Victor Cheung, Sheelagh Carpendale (2020). Exploring Active Practice in Spatial Thinking. *Poster: InfoVis track, IEEE VIS*.

63. Foroozan Daneshzand, Bhairavi Warke, Charles Perin, Sheelagh Carpendale (2020). Physicalization Inspired by Kirigami. *Poster: InfoVis track, IEEE VIS*.

64. Lucia Otero Varela, Søren Knudsen, Sheelagh Carpendale, Catherine Eastwood, Hude Quan. (2019). Comparing ICD-Data Across Countries: A Case for Visualization. In *Posters of the 10th workshop on Visual Analytics in Healthcare (VAHC2019), in conjunction with IEEE VIS 2019, Oct. 20, 2019*.

65. Marjan Eggermont, Soren Knudsen, Richard Pusch, Sheelagh Carpendale (2019). BioMole: Visualizing Functional Co-Occurrence. *Poster: InfoVis track, IEEE VIS*.

66. Andie Green-Harrison, Soren Knudsen, Sheelagh Carpendale. (2019). Visualizing Density of Healthcare Workers Across Time and Countries. *Poster: InfoVis track, IEEE VIS*.

67. Weina Jin, Sheelagh Carpendale, Ghassan Hamareh, Diane Gromala. (2019). Bridging AI Developers and End Users: an End-User-Centred Explainable AI Taxonomy and Visual Vocabularies. *Poster: VAST track, IEEE VIS*. (**BEST POSTER DESIGN AWARD**)

68. Fabricio Layedra, Tiffany Wun, Gonzalo Mendez, Bongshin Lee, Sheelagh Carpendale. (2019). TabbyGraph: Interactively Transforming Graphs. Poster: InfoVis track, IEEE VIS.

69. Kendra Wannamaker, Lora Oehlberg, Sheelagh Carpendale, Wesley Willett. (2018) Data Embroidery. *In Posters Compendium IEEE VIS, InfoVis, 2018.* (**BEST POSTER, HONORABLE MENTION**)

70. Lisa Hynes, Tina Huynh, Sarah Storteboom, Jagoda Walny, Christian Frisson, Doris Kosminsky Mieka West, Sheelagh Carpendale, Wesley Willett. (2018) Discovering the Data Mapping of an Unfamiliar Visualization. *In Posters Compendium InfoVis, 2018.*

71. Carmen Hull, Wesley Willett, Sheelagh Carpendale (2018) Simultaneous Worlds: Using Physical Models to Contextualize and Compose Visualizations. *In Posters Compendium InfoVis, 2018.*

72. Tina Thanh Huynh, Soren Knudsen, Sheelagh Carpendale (2018) Views as Rich Menus for Other Views: A Case Study on Personal Data Visualization. *In Posters Compendium InfoVis, 2018.*

73. Katherine Currier, Sheelagh Carpendale (2018) Arctic Movement: Visualization of a Photographic Collection. *In Posters Compendium InfoVis, 2018.*

74. Fateme Rajabiyazdi, Charles Perin, Lora Oehlberg, Sheelagh Carpendale (2018) Personal Patient-Generated Data Visualizations for Diabetes Patients. *In Posters Compendium InfoVis at IEEE VIS, 2018.* PDF

75. Bon Adriel Aseniero, Anthony Tang, Sheelagh Carpendale (2018) Health Visualizations at Home: Who Sees What Where? *In Posters Compendium InfoVis, 2018.*

76. Søren Knudsen, Jo Vermeulen, Doris Kosminsky, Jagoda Walny, Mieka West, Christian Frisson, Bon Adriel Aseniero, Lindsay MacDonald Vermeulen, Charles Perin, Lien Quach, Peter Buk, Katrina Tabuli, Shreya Chopra, Wesley Willett, Sheelagh Carpendale. (2018) Democratizing Open Energy Data for Public Discourse using Visualization. *DEMO: Extended Abstracts of the 2018 CHI Conference on Human Factors in Computing Systems*. page 406. 2018

77. Sarah Storteboom, Alice Thudt, Soren Knudsen, Sheelagh Carpendale. (2017). *Poster: in ACM Interactive Surfaces and Spaces (ISS)* 2017.

78. Richard Pusch, Charles Perin, Sheelagh Carpendale (2016) SDCurve.js: A JavaScript Library for Interactive Subdivision Curves. *In Posters Compendium InfoVis, 2016.*

79. Bon Adriel Aseniero, Charles Perin, Marjan Eggermont, Sheelagh Carpendale (2016) Fireflies: Biomimicry-Inspired InfoVis for Exploring Public Opinion about an Infectious Disease *(InfoVis Honorable Mention) In Posters Compendium InfoVis, 2016.*

80. Fateme Rajabiyazdi, Charles Perin, Sheelagh Carpendale. WESt: Visualizing non-Emergency Surgery Waiting Times. In *Posters Compendium InfoVis*, 2015. PDF

81. Charles Perin, Sheelagh Carpendale. Who Rules Infovis? unwrapping the Conference Organization. In *Posters Compendium InfoVis*, 2015.

82. Paul Lapides and Sheelagh Carpendale. Friend Bubbles: Personal Visualization for Facebook. In *Posters Compendium InfoVis*, 2014.

83. Kyle Hall, Peter Kusalik and Sheelagh Carpendale. Alternative Projections of 3D Free Energy Surfaces. In *Posters Compendium SciVis*, 2014.

84. Jagoda Walny and Sheelagh Carpendale. Data Sketches: An Exploratory Study. In *Posters Compendium InfoVis*, 2014.

85. Lindsay MacDonald. Interacting in Liminal Times and Places. Poster presented at the Universities Art Association Conference, October 4, 2013.

86. John Brosz, Miguel Nacenta, Ricky Pusch, Sheelagh Carpendale, Christophe Hurter. 2013. *Transmogrification: UIST Demo.* **UIST Honourable Mention Demo Award.** ACM Symposium on User interface software and technology (UIST).

87. R. Vardeleon, S. Carpendale. DreamVis: Visualizing Logged Dream Data. Poster: *IEEE Information Visualization*, Atlanta, USA, October 2013.

88. K. W. Hall, P. G. Kusalik, S. Carpendale. Molecular Trajectory Projections using Molecular Symmetry. Poster: *IEEE Information Visualization*, Atlanta, USA, October 2013.

89. Lindsay MacDonald. Interacting in Liminal Times and Places. Poster presented at the Universities Art Association Conference, October 4, 2013.

90. L. Fyfe, A. Tindale, S. Carpendale. (2013). The JunctionBox Interaction Design Toolkit: Making interaction programming easier to allow for sketching with sound. *Poster presented at the GRAND Conference*, May 14, 2013.

91. A. Xiang, S. Carpendale, T. Tang, S. Boring, S. Greenberg. (2012) Spalendar: Spatially Visualizing Group's Calendar Activities as a Public Interactive Display. P*oster: International Workshop on Advanced Visual Interfaces* (AVI 2012).

92. A. Thudt, U. Hinrichs, S. Carpendale. Interactivity: Bohemian Bookshelf. ACM CHI, 2012.

93. B.A. Aseniero, D. Ledo, A. Tang, S. Carpendale. (2012) A Need for Deep Personalization: Personal Infovis Branching from Goals of Individuals. *Poster presented at GRAND Conference*, Montreal, QC, Canada, May 2012.

94. J. Browne, B. Lee, N. Henry-Riche, S. Carpendale and T. Sherwood. (2011) iSketchVis: Data Exploration through Sketch-based Charting. In *Proceedings of EuroVis 2011, Poster Compendium*.

95. R Langner, J Brosz, R Dachselt, S Carpendale. (2010) PhysicsBox: Playful educational tabletop games. ACM International Conference on Interactive Tabletops and Surfaces (ITS'10), 273-274

96. M. Frisch, S. Schmidt, J. Heydekorn, M. Nacenta, R. Dachselt, S. Carpendale (2010) Editing and exploring node-link diagrams on pen-and multi-touch-operated tabletops, *ACM International Conference on Interactive Tabletops and Surfaces*, 303-304

97. K. Etemad, S. Carpendale. (2010). Symmetry and Node Focused Visualization of Large Trees. (Poster) In *GRAND NCE Annual conference*.

98. J. Haber, S. Carpendale. (2010). QR VIS: Turning Printed Infographics into Interactive Visualizations. *Poster: IEEE Conference on Information Visualization*.

99. N Marquardt, M. Nacenta, J. Young, S Carpendale, S Greenberg, E Sharlin (2009) The Haptic Tabletop Puck: the video. In *Proceedings of the ACM International Conference on Interactive Tabletops and Surfaces* ACM Press

100. S. Voida, M. Tobiasz, J. Stromer, P. Isenberg, and S. Carpendale. (2009). Getting practical with interactive tabletop displays: Designing for dense data, 'fat fingers', diverse interactions, and face-to-face collaboration. In *Demonstrations of the ACM International Conference on Interactive Tabletops and Surfaces (ITS)*.

101. T. Isenberg, S. Nix, M. Schwarz, A. Miede, S.D. Scott, S. Carpendale. (2008). Mobile Spatial Tools for Fluid Interaction. *Proc. IEEE Tabletop (Tabletop'08)*, IEEE Computer Society (extended abstract and poster).

102. M. Tobiasz, A. Henderson, S. Carpendale, A. Dunning, P. Woodrow. (2007). Developing Colour Sequences for High Dynamic Range Data. *Proc. IEEE Information Visualization (InfoVis'07), Poster Compendium,* pp. 120-121.

103. S. Carpendale, T. Isenberg, S.D. Scott, U. Hinrichs, A. Miede, R. Kruger, S. Habelski, K. Inkpen. (2006). Collaborative Interaction on Large Tabletop Displays. *Interactive Demo: ACM CSCW'06 Conference on Computer Supported Co-operative Work Conference Companion, Extended Abstracts.* pp. 57-58. ACM Press.

104. U. Hinrichs, S. Carpendale, S.D. Scott. (2006). Interface Currents: Supporting fluid face-to-face collaboration. *Video: ACM CSCW'06 Conference on Computer Supported Co-operative Work Conference Companion, Extended Abstracts*.

105. M. Nunes, S. Greenberg, S. Carpendale, C. Gutwin. (2006). Demonstrating Timeline: Video Traces for Awareness. *Video: ACM CSCW'06 Conference on Computer Supported Co-operative Work Conference Companion, Extended Abstracts.*

106. P. Neumann, A. Tat, T. Zuk, S. Carpendale. (2006). Visualization of Typed Communication. *Interactive Demo: ACM CSCW'06 Conference on Computer Supported Co-operative Work Conference Companion, Extended Abstracts*. pp. 139-140.

107. A. Seniuk, S. Carpendale. (2006). Visualizing Program Syntax to Support Agile Programming. *Interactive Demo: ACM CSCW'06 Conference on Computer Supported Co-operative Work Conference Companion, Extended Abstracts*.

108. T. Isenberg, P. Neumann, S. Carpendale, S. Nix, S. Greenberg. (2006). Interactive Annotations on Large, High-Resolution Information Displays. *Poster: IEEE Symposium on Information Visualization, InfoVis'06,* pp. 124-125.

109. P. Neumann, A. Tat, T. Zuk, S. Carpendale. Interactive Poster: Personalizing Typed Text through Visualization. *In IEEE Symposium on Information Visualization Conference Compendium, InfoVis'06,* pp. 138-139.

110. A. Tat, R. Kruger, S. Carpendale, A. Dunning. (2006). Plant Post: Visualizing Temporal Aspects of Message Posting. *Poster: IEEE Symposium on Information Visualization Conference Compendium, InfoVis'06*.

111. A. Seniuk, S. Carpendale. (2006). Visualizing Program Syntax to Support Agile Programming. *Poster: IEEE Symposium on Information Visualization Conference Compendium, InfoVis'06,* 2006.

112. P. Neumann, T. Isenberg, S. Carpendale. (2006). NPR Lenses: Local Effect Control for Non-Photorealistic Line Drawings. *Posters of the Fourth International Symposium on Non-Photorealistic Animation and Rendering,* pp. 115-126, NPAR 2006.

113. E. Penner, R. Schmidt, S. Carpendale. (2006). A GPU Cluster without the Clutter: A Drop-in Scalable Programmable-Pipeline with Several GPUs and Only One PC. *ACM Conference on Interactive 3D Interface: Poster Compendium, I3D'06*, pp. 17–18.

114. P. Neumann, S. Schlechtweg, S. Carpendale. (2005). Interactive Poster: ArcTrees – Relations in Hierarchies. *IEEE Information Visualization Symposium Compendium, InfoVis'05*, pp. 35-36.

115. K. Tee, S. Carpendale, S. Greenberg. (2005). Interactive Poster: Visualizing Online Interaction. *IEEE Symposium on Information Visualization: Published in IEEE Information Visualization Symposium Compendium, Infovis'05*.

116. N. Wong, S. Carpendale. (2005). Interactive Poster: Using Edge Plucking for Interactive Graph Exploration. *IEEE Symposium on Information Visualization: Published in IEEE Information Visualization Symposium Compendium, Infovis'05*, pp. 51-52.

117. E. Fanea, S. Carpendale, T. Isenberg. (2005). An Interactive 3D Integration of Parallel Coordinates and Star Glyphs. (The Video). *Electronic Video DVD Proceedings of IEEE Symposium on Information Visualization, InfoVis'05*, IEEE Press. (companion to identically-named paper published in the same conference).

118. S. Carpendale, A. Agarawala. (2004). PhylloTrees: Harnessing Nature's Phyllotactic Patterns for Tree Layout. *Poster: IEEE Symposium on Information Visualization (InfoVis) Symposium Companion*.

119. K. Mason, J. Denzinger, S. Carpendale. (2004). Negotiating Gestalt: Artistic Expression and Coalition Formation in Multi-agent Systems. *Poster: ACM International Joint Conference on Autonomous Agents and Multi Agent Systems AAMAS'04*, pp. 1350-1351.

120. N. Wong, S. Carpendale, S. Greenberg. (2003). EdgeLens: An Interactive Method for Managing Edge Congestion in Graphs (The Video). *Electronic Video DVD Proceedings of IEEE Symposium on Information Visualization, InfoVis'03*, IEEE Press. (companion to identically-named paper published in the same conference).

121. R. Kruger, S. Carpendale, S. Greenberg. (2002). Collaborating over Physical and Electronic Tables. *In Extended Abstracts of ACM CSCW'02 Conference on Computer Supported Co-operative Work,* pages 137-138. New Orleans USA. ACM Press, November.

122. C. Neustaedler, S. Greenberg, S. Carpendale. (2002). IMVis: Instant Messenger Visualization. *Video, in ACM CSCW'02 Conference on Computer Supported Co-operative Work Conference Companion,* pages 221-222. New Orleans USA. ACM Press, November.

123. C.A.H Baker, S. Carpendale, M. Surette. (2002). Using Visual Simulation to Observe Genetic Regulatory Networks. *Pacific Symposium on Biocomputing.*

124. C.A.H Baker, S. Carpendale, M. Surette. (2001). GeneVis: Genetic Network Visualizer. *BioNorth,* Ottawa, ON.

125. M. Tigges, S. Carpendale, B. Wyvill. (1999). Alternate Distance Metrics for Implicit Surface Modeling. *Graphics Interface*, *GI'99*, pages 25-26, Kingston, ON, June.

126. S. Carpendale, D. Cowperthwaite, M.A.D. Storey, F. D. Fracchia and A. Liestman. (1997). Distinct Aspects of the Distortion Viewing Paradigm. *CODATA Euro-American Workshop Visualization of Information and Data, Paris Workshop on Visualization of Information and Data, Poster Presentation*, June 24 – 25.

Doctorial Colloquiums

127. Fatemeh Rajabiyazdi. (2016) Designing and Developing Technologies to Facilitate Clinician-Patient Communication, In Proceedings of the 2016 International Conference on Interactive Surfaces and Spaces, pages 19-24. ACM. Nov. 2016. [PDF](#)

128. Mona Hosseinkhani Loorak. (2015). Visualizing Complex Data: Exploring New Ways for Visualizing Structural and Multidimensional Data. In *IEEE VIS Doctoral Colloquium*, 2015.

129. Jagoda Walny. (2014). Supporting Everyday Thinking Practices in Information Visualization Interfaces. In *Proceedings of the Ninth ACM International Conference on Interactive Tabletops and Surfaces*. pp 479-484, ACM Press.

130. L. MacDonald. (2014). For Every Action: Interactive Installations in Liminal Spaces. In *Proceedings of the 2014 Companion Publication for Doctoral Colloquium at the ACM SIGCHI Conference on Designing Interactive Systems (DIS)*, , pp. 181–184, June, 2014.

131. M. Dörk, Information Visualization for Web-based Search and Exploration, *VisWeek 2010 Doctoral Colloquium, 4 pages*, October 2010.

132. U. Hinrichs, Large Display Information Visualization in Public Spaces, In *Extended Abstract for Doctoral Colloquium at the ACM SIGCHI Conference on Designing Interactive Systems (DIS)*, August, 2010.

133. C. Tang, Designing Technology to Support Information Flow for Asynchronous Co-located Medical Shift Work, *Doctorial Consortium, Adjunct Proc. ACM CSCW*, November, 2006.

134. S.D. Scott. (2003). Territory-Based Interaction Techniques for Tabletop Collaboration. Doctoral Colloquium: *Proc. Conference Supplement of Symposium on User Interface Software and Technologies, UIST'03*, pp 17-20. ACM Press.

Other Publications

Some of these reports have been published in a revised form above. They are included below for completeness.

1. Helen Ai He, Jagoda Walny, Sonja Thoma, Wesley J Willett, Sheelagh Carpendale. (2019). Discussing Open Energy Data and Data Visualizations with Canadians. 2019/11/26. University of Calgary. Faculty of Science, Department of Computer Science.

2. Gonzalo Gabriel Méndez, Jagoda Walny, Søren Knudsen, Charles Perin, Samuel Huron, Jo Vermeulen, Richard Pusch, Sheelagh Carpendale. (2019). ReConstructor: A Scalable Constructive Visualization Tool. arXiv:1908.00605v1 [cs.HC], 1 August, 2019.

3. Tiffany Wun, Lora Oehlberg, Miriam Sturdee, Sheelagh Carpendale. (2018). You say Potato, I say Po-Data: Physical Template Tools for Visualization Authoring. *Technical Report, University of Calgary.*

4. David Ledo, Jo Vermeulen, Sheelagh Carpendale, Saul Greenberg, Lora Oehlberg, and Sebastian Boring. (2018). Astral: Prototyping Mobile and IoT Interactive Behaviours via Streaming and Input Remapping. *Technical Report 2018-1107-06, Department of Computer Science, University of Calgary, Calgary, AB, Canada*, T2N 1N4. July.

5. B.A. Aseniero, A. Tang, S. Carpendale, S. Greenberg. (2013) Showing Real-time Recommendations to explore the stages of Reflection and action. *Technical Report, University of Calgary,* 2013

6. Chen, Xiang 'Anthony'; Boring, Sebastian; Carpendale, Sheelagh; Tang, Anthony; Greenberg, Saul. (2012). SPALENDAR: Visualizing a Group's Calendar Events over a Geographic Space on a Public Display, *Technical Report, University of Calgary*, 2012.

7. Petra Isenberg, Sheelagh Carpendale, Tobias Hesselmann, Tobias Isenberg, Bongshin Lee. 2012. *Proceedings of the Workshop on Data Exploration for Interactive Surfaces, DEXIS 2011.* Tech Report:

8. X. Chen, S. Boring, S. Carpendale, T. Tang. 2012. *SPALENDAR: Visualizing a Group's Calendar Events over a Geographic Space on a Public Display.* Tech Report:

9. A. Mostafa, S. Carpendale, E. Brazil, D. Eaton, E. Sharlin, M. Costa Sousa. 2012. *Visualizing highly multidimensional time varying Microseismic Events.* Tech Report:

10. Pon, Aura; Ichino, Junko; Sharlin, Ehud; Eagle, David; Carpendale, Sheelagh. *(2011) Vuzik: An Interactive Surface Application for Music Visualization and Creation. Technical Report, University of Calgary, 2011.*

11. Alice Thudt, Uta Hinrichs and Sheelagh Carpendale. The Bohemian Bookshelf: Supporting Serendipitous Discoveries through Visualization. Technical Report 2011-1009-21, University of Calgary, 2011.

12. H. Lam, E. Bertini, P. Isenberg, C. Plaisant, S. Carpendale. (2011) Seven Guiding Scenarios for Information Visualization Evaluation. *Techreport 2011-992-04, Department of Computer Science, University of Calgary*, Calgary, AB, Canada, January, 2011.

13. U. Hinrichs, S. Carpendale. (2010). Interactive Tables in the Wild Visitor Experiences with Multi-Touch Tables in the Arctic Exhibit at the Vancouver Aquarium. *Technical Report, Department of Computer Science, University of Calgary, Calgary*.

14. R. Jota, M. Nacenta, J. Jorge, S. Carpendale and S. Greenberg. (2009). A Comparison of Ray Pointing Techniques for Very Large Displays**.** *Technical Report 2009-942-21, University of Calgary, Calgary, Alberta, Canada, September.*

15. Y. Ghanam, S. Carpendale. (2008). ChatVis: A visualization Tool for Instant Messaging. *Technical Report 2008-902-15, Department of Computer Science, University of Calgary, Calgary*.

16. Y. Ghanam, S. Carpendale. (2008). A Survey Paper on Software Architecture Visualization. *Technical Report 2008-906-19, Department of Computer Science, University of Calgary, Calgary*.

17. U. Hinrichs, H. Schmidt, T. Isenberg, M.S. Hancock, S. Carpendale. (2008). BubbleType: Enabling Text Entry within a Walk-Up Tabletop Installation. *Technical Report 2008-893-06, Department of Computer Science, University of Calgary, Calgary*. (10 pages).

18. C. Collins, S. Carpendale. (2007). VisLink: Revealing Relationships Amongst Visualizations. *Technical Report 2007-866-18, Department of Computer Science, University of Calgary*, Calgary.

19. T. Isenberg, S. Nix, M. Schwarz, A. Miede, S.D. Scott, S. Carpendale. (2007). Mobile Spatial Tools for Fluid Interaction. *Technical Report 2007-872-24, Department of Computer Science, University of Calgary*, Calgary.

20. P. Neumann, A. Tang, S. Carpendale. (2007). A Framework for Visual Information Analysis. *Technical Report 2007-871-23, Department of Computer Science, University of Calgary*, Calgary. (8 pages).

21. J. Grubert, S. Carpendale, T. Isenberg. (2007). Interactive Stroke-Based NPR using Hand Postures on Large Displays. *Technical Report 2007-883-35, Department of Computer Science, University of Calgary*, Calgary.

22. J. Grubert, M. Hanckock, S. Carpendale, E. Tse, T. Isenberg. (2007). Interacting with Stroke-Based Rendering on a Wall Display. *Technical Report 2007-882-34, Department of Computer Science, University of Calgary*. (10 pages).

23. T. Isenberg, S. Nix, M. Schwarz, A. Miede, S.D. Scott, S. Carpendale. (2007). Mobile Spatial Tools for Fluid Interaction. *Technical Report 2007-872-24, Department of Computer Science, University of Calgary*. (4 pages).

24. M. Schwarz, T. Isenberg, K. Mason, S. Carpendale. (2007). Modeling with Rendering Primitives: An Interactive Non-Photorealistic Canvas. *Technical Report 2007-851-03, Department of Computer Science, University of Calgary*. (8 pages)

25. M. Nunes, S. Greenberg, S. Carpendale, C. Gutwin. (2007). What Did I Miss? Visualizing the Past through Video Traces. *Report 2007-855-07, Dept. Computer Science, University of Calgary*, Calgary, Alberta, Canada. March. 21 pages.

26. S.D. Scott, S. Carpendale. (2006). Investigating Tabletop Territoriality in Digital Tabletop Workspaces. *Technical Report. TR-2006-836-29, Department of Computer Science, University of Calgary*.

27. M.S. Hancock, S. Carpendale. (2006). The Complexities of Computer-Supported Collaboration. University of Calgary *Technical Report. TR-2006-812-05 Department of Computer Science, University of Calgary*.

28. M. Nunes, S. Greenberg, S. Carpendale, C. Gutwin. (2006). Video traces. University of Calgary *Technical Report. TR-2006-809-02, Department of Computer Science, University of Calgary*.

29. T. Isenberg, P. Neumann, S. Carpendale, M. Costa Sousa, J. A. Jorge. (2005). Non-Photorealistic Rendering in Context: An Observational Study. *Technical Report 2005-805-36, Department of Computer Science, University of Calgary*. (10 pages)

30. T. Isenberg, A. Brennecke, M. Costa Sousa, S. Carpendale. (2005). Beyond Pixels: Illustration with Vector Graphics. *Technical Report 2005-804-35, Department of Computer Science, University of Calgary. (3 pages)*

31. R. Diaz-Marino, S. Carpendale, S. Greenberg. (2005). Lyric Text. *Video Report, Interactions Laboratory, Department of Computer Science, University of Calgary, Calgary. Duration 3:42.*

32. N. Wong, S. Carpendale. (2005). Supporting Interactive Graph Exploration with Edge Plucking. *Technical Report 2005-795-26, Department of Computer Science, University of Calgary*, Calgary.

33. K. Elliot, S. Carpendale. (2005). Awareness and Coordination: A Calendar for Families. *Technical Report 2005-791-22, Department of Computer Science, University of Calgary*, Calgary.

34. E. Fanea, S. Carpendale, T. Isenberg. (2005). An Interactive 3D Integration of Parallel Coordinates and Star Glyphs. *Technical Report 2005-782-13, Department of Computer Science, University of Calgary*, Calgary. (8 pages).

35. E. Fanea, S. Carpendale. A Linguistic Formalism for Specifying Visual Representations. *Technical Report 2005-781-12, Department of Computer Science, University of Calgary*, Calgary.

36. U. Hinrichs, S. Carpendale, S.D. Scott. (2005). Interface Currents: Supporting Co-Located Collaborative Work on Tabletop Displays. *Technical Report (2005-773-04) Department of Computer Science, University of Calgary*, Calgary.

37. P. Neumann, T. Isenberg, S. Carpendale, T. Strothotte. (2005). Expressive Distortion of Strokes and 3D Meshes. *Technical Report 2005-776-07, Department of Computer Science, University of Calgary*. (7 pages).

38. S.D. Scott, S. Carpendale, S. Habelski. (2004). Storage Bins: Mobile Storage for Collaborative Tabletop Displays. *Technical Report 2004-767-32, Department of Computer Science, University of Calgary*, Calgary.

39. R. Schmidt, S. Carpendale, E. Penner. (2004). MAD Boxes: A Plug-And-Play Tiled Display Wall. *Technical Report 2004-768-33, Department of Computer Science, University of Calgary*, Calgary.

40. R. Kruger, S. Carpendale, A. Tang, S.D. Scott. (2004). Fluid Orientation on a Tabletop Display: Integrating Rotation and Translation. *Technical Report 2004-747-12, Department of Computer Science, University of Calgary*, Calgary.

41. S.D. Scott, S. Carpendale, K. Inkpen. (2004). Territoriality in Collaborative Tabletop Workspaces. *Technical Report 2004-743-08, Department of Computer Science, University of Calgary*, Calgary.

42. S.D. Scott, S. Carpendale, K. Inkpen. (2004) Exploring Casual Tabletop Interactions. *Technical Report 2004-742-07, Department of Computer Science, University of Calgary*, Calgary.

43. P. Neumann, S. Carpendale. (2003). Taxonomy for Discrete Lenses. *Technical Report 2003-734-37, Department of Computer Science, University of Calgary*, Calgary. (57 pages).

44. A. Tang, D. Kraft, S. Carpendale, A. Dunning. (2003). Sensing and Visualizing Physiological Arousal. *Technical Report 2003-727-30, Department of Computer Science, University of Calgary*, Calgary.

45. K. Mason, S. Carpendale, B. Wyvill. (2003). Perspective in Context. *Proc. of the Western Computer Graphics Symposium*, p. 40-50.

46. B. Wyvill, K. van Overveld, S. Carpendale. (2003). The Batik Trick. *Proc. of the Western Computer Graphics Symposium*, p. 59-66.

47. R. Kruger, S. Carpendale. (2003). Exploring Orientation on a Table Display. *Technical Report 2003-726-29, Department of Computer Science, University of Calgary*, Calgary.

48. B. Wyvill, K. van Overveld, S. Carpendale. (2003). Visualizing Batik. *Technical Report No. 2002-701-04, Department of Computer Science, University of Calgary*. Calgary.

49. S. Carpendale. (2003). Considering Visual Variables as a Basis for Information Visualization. *Technical Report 2001-693-16, Department of Computer science, University of Calgary*.

50. R. Kruger, S. Carpendale. (2002). The e-Table: Exploring collaborative interaction on a horizontal display. Technical Report 2002-714-17, *Department of Computer Science, University of Calgary, Calgary, Alberta, Canada*, December.

51. A. Duta, S. Carpendale. (2002). VICO: A Tool for Supporting Visual Comparisons of Different Pine-Beetle Management Approaches. *In the Proceedings of the Western Computer Graphics Symposium, British Columbia, Canada*.

52. C.A.H. Baker, S. Carpendale, M.G. Surette. (2001). Simulation and Visualisation of Genetic Regulatory Networks. Technical Report 2001-696-19, *Department of Computer Science, University of Calgary, Calgary, Alberta, Canada,* December 20.

53. K. Mason, S. Carpendale, P. MacMurchy, B. Wyvill. (2001). Eastern Perspectives and the Question of Personal Expression. Technical Report 2001-696-19, *Department of Computer Science, University of Calgary, Calgary, Alberta, Canada*, December 20.

54. K. Mason, S. Carpendale. (2001). Expanding the Expressive Palette*. In the Proceedings of the Western Computer Graphics Symposium, Kamloops, British Columbia, Canada*.

55. A. Zanella, M. Rounding, S. Carpendale. (2000). On the effects of visual cues in comprehending distortions. Technical Report 2000-668-20, *Department of Computer Science, University of Calgary, Calgary, Alberta, Canada*, October 12.

56. M. Rounding, S. Greenberg, S. Carpendale. (2000). Awareness Projected: Moving Awareness to a Public Space. *In Proceedings of the Western Computer Graphics Symposium,* March 26-29.

57. M. Boyle, S. Kaasten, M. Rounding, J. Tam, A. Zanella, S. Greenberg, S. Carpendale, F. Maurer. (2000). Grouplab at Skigraph. Report 2000-652-04, *Department of Computer Science, University of Calgary, Calgary, Alberta, Canada*. March.

58. D.J. Cowperthwaite, S. Carpendale, F.D. Fracchia. (1999). Editing in Elastic Presentation Spaces. Technical Report: U-SFraser-CMPT-TR: 1999-11, *School of Computing Science, Simon Fraser University, British Columbia, Canada,* October.

59. S. Carpendale. (1999). Ph.D. Thesis, "A Framework for Elastic Presentation Space", Topic: Information Visualization, *School of Computing Science, Simon Fraser University, British Columbia, Canada*, Committee: David Fracchia (Co-Senior Supervisor), Tom Shermer (Co-Senior Supervisor), Art Liestman, (Supervisor), SFU Examiner: John Dill, External Examiner: Thomas Strothotte, March.

60. M. Tigges, S. Carpendale, B. Wyvill. (1999). Generalized Distance Metrics for Implicit Surface Modeling. *Proceedings of the Tenth Western Computer Graphics Symposium*, pages 14-18, March.

61. S. Carpendale, D. Cowperthwaite, A. Fall. (1999). SEED: Simulating & Exploring Ecosystem Dynamics, 1998, *Poster Presentation, BC Advanced Systems Institute (ASI) Exchange*, *Vancouver, British Columbia, Canada*, March **(CSS Excellent Student Poster Award)**.

62. M. Lantin, S. Carpendale. (1998). Supporting Detail-in-Context for the DNA Representation, H-Curves. Technical Report CMPT1998-09, *School of Computing Science, Simon Fraser University, British Columbia, Canada*, April.

63. S. Carpendale, D. Cowperthwaite, A. Fall. (1998). SEED: Simulating & Exploring Ecosystem Dynamics, 1998, *Poster Presentation, BC Advanced Systems Institute (ASI) Exchange*, *Vancouver, British Columbia, Canada*. March **(ASI Best Student Paper Award and CSS Best Student Poster Award)**.

64. S. Carpendale, D. Cowperthwaite M.A.D. Storey, F. D. Fracchia. (1997). Exploring Distinct Aspects of the Distortion Viewing Paradigm. Technical Report CMPT1997-08, *School of Computing Science, Simon Fraser University, British Columbia, Canada*, March.

65. D. Cowperthwaite, A. Fall. S. Carpendale. (1997). SEED: Simulating & Exploring Ecosystem Dynamics, 1998, *Poster Presentation, BC Advanced Systems Institute (ASI) Exchange*, *Vancouver, British Columbia, Canada,* March **(ASI Best Student Paper Award and CSS Best Student Poster Award)**.

66. D. Cowperthwaite, S. Carpendale, F.D. Fracchia. (1995). Distortion Viewing Techniques for 3-Dimensional Data. Technical Report CMPT1995-06, *School of Computing Science, Simon Fraser University, British Columbia, Canada*, November.

67. M.-A.D. Storey, F.D. Fracchia, S. Carpendale. (1994). A Top-down Approach to Algorithm Animation. Technical Report CMPT1994-05, *School of Computing Science, Simon Fraser University, British Columbia, Canada*, September.

68. S. Carpendale. (1993). MBG: A Storyboard Approach for Visualising Minimum Broadcast Graph Research. *Poster Presentation, BC Advanced Systems Institute (ASI) Exchange*. March.

Supervised Theses

Ph.D. Theses

1. Bon Adriel Aseniero (September 18, 2020). *An Autobiographical Reflection on Designing Visualizations for Personal Contexts*. PhD Thesis, Computer Science. University of Calgary
   Supervisor: S. Carpendale; co-supervisor Tony Tang;
   External Examiner: Andrew Vande Moore, University of Leuven;
   Internal Examiner: Steve Liang, Geography, University of Calgary;
   Committee: Wesley Willett, Carman Neustaedter (SFU).

2. Fatemeh Rajabiyazdi (November 19, 2018). *Exploring the Design of Visualizations to Facilitate Patient-Provider Communication*. PhD Thesis, Computer Science. University of Calgary. PDF
   Supervisor: S. Carpendale; co-supervisor Lora Oehlberg;
   External Examiner: Anastasia Bezerianos, Universite de Paris;
   Internal Examiner: Larry Katz, Kinesiology, University of Calgary;
   Committee: Diane Gromala, Charles Perin.

3. Marjan Eggermont. (April 13, 2018). *Bio-inspired design and Information visualization*. PhD Thesis, Computational Media Design. University of Calgary.
   Supervisor: S. Carpendale, Co-supervisor G. Hushlak;
   External Examiner: Ali Mazalek;
   Internal Examiner: Morley Hollenberg
   Committee: Lora Oehlberg, Branko Kolarevic.

4. Alice Thudt. (April 6, 2018). *Visualizations for Personal Reflection and Expression*. PhD Thesis, Computational Media Design. University of Calgary.
   Supervisor: S. Carpendale, Co-supervisor Barry Wylant;
   External Examiner: David Flatla;
   Internal Examiner: Stefania Forlini:
   Committee: Uta Hinrichs, Wesley Willett.

5. Lindsay MacDonald. (February 14, 2018). *Neither here nor there: Installations in liminal spaces*. PhD Thesis, Computational Media Design. University of Calgary.
   Supervisor: S. Carpendale, Co-supervisor JR Leblanc;
   External Examiner: Ann Morrison;
   Internal Examiner: Alexander Bruton;
   Committee: Susan Cahill, Wesley Willett.

6. Aura Pon. (January 22, 2018). *Designing for the Mindbody in Technology-Mediated Music-Making*. PhD Thesis, Computational Media Design. University of Calgary.
   Supervisor: S. Carpendale, Co-supervisor L. Radford;
   External Examiner: Andrew McPherson;
   Internal Examiner: Larry Katz
   Committee: Friedemann Sallis, Anthony Tang.

7. Mona Hosseinkhani Loorak. (January 8, 2018). *View-Flattening: Revealing Heterogeneous Multi-Dimensional Data Attributes within a Single View*. PhD Thesis, Department of Computer Science, University of Calgary.
   Supervisor: S. Carpendale;
   External Examiner: Michael McGuffin;
   Internal Examiner: Steve Liang;

Committee: Christopher Collins, Ehud Sharlin.

8. Tanja Blascheck. (July 20, 2017). Understanding Interactive Visualizations: Leveraging Eye Movements and Visual Analytics. Faculty of Computer Science, Electrical Engineering and Information Technology, University of Stuttgart.
Hauptberichter: Prof. Dr. Thomas Ertl
Mitberichter: Prof. Dr. Sheelagh Carpendale
Received the EuroVis 2018 Best PhD Award

9. Kyle Hall. (May 18, 2017). *Interweaving Computational Chemistry and Visualization: Explorations into Molecular Processes, Simulation Analysis, and Visualization Design*. PhD Thesis, Chemistry and Computer Science. University of Calgary. (Vanier, NSERC, AITF Scholarship student)
Supervisors: P. Kusaluk, S. Carpendale;
External Examiner: Gren Patey (UBC); Internal-External Examiner: D. Ebert (Purdue)
Committee: Viola Briss (UofC); Valeria Molinero (Utah)
Received the Faculty of Science, University of Calgary 2018 Best PhD Award

10. Jagoda Walny. (October 20, 2016). *Thinking with Sketches: Leveraging Everyday Use of Visuals for Information Visualization*. PhD Thesis, Computer Science. University of Calgary. (Was an NSERC Scholarship student. Won the Best HCI PhD in Canada Award; Won 2nd place in IEEE)
Supervisor: S. Carpendale;
External Examiner: Jo Wood; Internal Examiner: Dan Jacobson
Committee: A. Tang, N. Henry Riche
2017 Bill Buxton Best Canadian HCI Dissertation Award.
2nd Place, Honorable Mention, IEEE VPG Doctoral Dissertation Award 2017 at IEEE VIS 2017

11. Ovo Adagha. (December 10, 2015). *A Socio-Technical Approach to Designing a Visual Analytics Decision Support Tool for Wind Farm Placement Planning in Alberta*. PhD Thesis, Computational Media Design. University of Calgary.
Supervisors: R. Levy, S. Carpendale;
External Examiner: P. Boulanger; Internal Examiner: T. Keenan
Committee: C. Gates, M. Lindquist

12. Lawrence Fyfe. (April 27, 2015). *JunctionBox: A Multi-touch Interaction Mapping Toolkit for Creating Musical Interfaces*. PhD Thesis, Computational Media Design. University of Calgary.
Supervisor: S. Carpendale, Co-supervisor D. Eagle;
External Examiner: L. Wyse; Internal Examiner: C. Bok
Committee: J. Boyd, C. Chafe

13. Katayoon Etemad. (April 17, 2015). *Graph Visualizations Inspired by Alternative Aesthetics*. PhD Thesis, Department of Computer Science; Specialization Computational Media Design. University of Calgary.
Supervisor: S. Carpendale, Co-supervisor R. Levy;
External Examiner: P. Boulanger; Internal Examiner: L. Katz
Committee: A. Tang, J. Rockne.

14. Uta Hinrichs. (December 2012). *Open-Ended Explorations in Exhibition Spaces: A Case for Information Visualization and Large Direct-Touch Displays*. PhD Thesis, Department of Computer Science, University of Calgary.
Supervisor: S. Carpendale; External Examiner: G. Jacucci.
2012 Bill Buxton Best Canadian HCI Dissertation Award.

15. Marian Doerk. (May 2012). *Visualization for Search: Exploring Complex and Dynamic Information Spaces*. PhD Thesis, Department of Computer Science, University of Calgary.
    Supervisor: S. Carpendale, Co-supervisor C. Williamson; External Examiner: J. Dykes.

16. Mark Hancock. (July 2010). *3D Tabletop Display Interaction*. PhD Thesis, Department of Computer Science, University of Calgary.
    Supervisor: S. Carpendale; External Examiner: G. Kurtenbach.

17. Christopher Collins. (December 2009). *Interactive Visualizations of Language*. PhD Thesis, Department of Computer Science, University of Toronto.
    Supervisors: G. Penn, S. Carpendale; Examiners: R. Beaker, S. Card.

18. Petra Isenberg. (November 2009). *Collaborative Information Visualization in Co-located Environments*. PhD Thesis, Department of Computer Science, University of Calgary.
    Supervisor: S. Carpendale; Examiners: P. Feng, C. Ware.

19. Charlotte Tang. (August 2009) *Studying Nurses' Information Flow to Inform Technology Design*. PhD Thesis, Department of Computer Science, University of Calgary.
    Supervisor: *S.* Carpendale; Examiners: B. Baylis, G. FitzPatrick.

20. Torre Zuk. (November 2007). *Visualizing Uncertainty*. PhD Thesis, Department of Computer Science, University of Calgary,
    Supervisor: *S.* Carpendale, Examiners: D. Jacobs, A. MacEachern.

21. Katherine Mason. (May 2006). *A Framework for Element-Based Computer Graphics*. Ph.D. Dissertation, Department of Computer Science, University of Calgary.
    Supervisor: *S.* Carpendale; Examiners: B. Rusted, S. Fels

22. Stacey Scott. (March 2005). *Territoriality in Collaborative Tabletop Workspaces*. Ph.D. Dissertation, Department of Computer Science, University of Calgary.
    Supervisors: S. Carpendale, K. Inkpen; Examiners: M. Chiasson, T. Rodden.

Master's Theses

1. Katherine Currier. April 17, 2020. In-Home Data and Data Visualization. Masters in Computer Science.
   Supervisor: Sheelagh Carpendale;
   Co-supervisor: Tony Tang
   Examiners: External Stefania Forlini; Internal Mea Wang

2. Tiffany Wun. December 14, 2018. *Authoring Data Visualizations with Physical Template Tools*. Masters in Computer Science.
   Supervisor: S. Carpendale,
   Co-supervisor: L. Oehlberg;
   Examiners: Internal: Nelson Wong, External: Joel Reardon.

3. Sarah Stortebroom. Oct. 13, 2017. *Objective Meaning: Exploring Mediated Discourse with Anonymous Public Interaction and Visual Techniques*.

Masters in Computational Media Design.
Supervisors: S. Carpendale, J-R Leblanc; Examiners: Internal: Stefania Forlini, External: Christine Sowiak.

4. Gerry Straathof (Jan. 2015). *Where is every body: Locating people directly in front of large screens using multiple kinects*. Masters in Computational Media Design, University of Calgary.
Supervisors: S. Carpendale, R. Levy; Examiners: Internal: Vera Parlac, External: April Viczko

5. Bon Adriel Aseniero (Dec. 2014). *The Design of Visualization to Support Decision-making in Software Release Planning*. Masters in Computer Science, Department of Computer Science, University of Calgary.
Supervisors: S. Carpendale, A. Tang; Examiners: Larry Katz, Robert Kremer

6. Shahbano Farooq (April 2014). *Design and Discussion of Visualizations in Pairs*. Masters in Computer Science, Department of Computer Science, University of Calgary.
Supervisors: F. Maurer, S. Carpendale; Examiners: Laleh Behjat (ENEL), Mario Costa-Sousa

7. Sean Lynch: (December 2011). *Tabletop Interfaces for Music.* Master's Thesis (MSc), Specialization, Computational Media Design, Department of Computer Science, University of Calgary.
Supervisors: S. Carpendale, A. Dunning; Examiners: A. Tang, M. Hollenberg

8. Lindsay MacDonald. (April 2011). *"A Delicate Agreement": Exploring Subtle Gaze-Triggered Interaction in Art.* Master's Thesis (MFA), Specialization, Computational Media Design, Department of Art, University of Calgary.
Supervisors: J-R. Leblanc, S. Carpendale; Examiners: E. Sharlin, M. Hollenberg

9. Matthew Tobiasz. (April 2010). *Lark: Using Meta-visualizations for Coordinating Collaboration*. Master's Thesis, Specialization, Computational Media Design, Department of Computer Science, University of Calgary.
Supervisor: S. Carpendale; Examiner: M. Surette.

10. Katayoon Etemad. (December 2009) *Node Focused Visualization of Large Trees*. Master's Thesis, Department of Computer Science, University of Calgary.
Supervisor S. Carpendale: Examiners: E. Huang, R. Levy.

11. Eric Penner. (December 2009). *Three-Dimensional Medical Image Visualization Techniques on Modern Graphics Processors*. Master's Thesis, Department of Computer Science, University of Calgary.
Supervisors: S. Carpendale, R. Mitchell; Examiners: J. Rokne: M. Hollenberg.

12. Jeroen Keijser. (November 2007). *Alternate 3D Control-Display Mappings*. Master's Thesis, Department of Computer Science, University of Calgary,
Supervisors: S. Carpendale, K. Barker; Examiners: J. Boyd, G. Hushlak.

13. Annie Tat. (April 2007). *Visualizing Human Dialog*. Interdisciplinary Master's Thesis in Computer Science and Fine Arts, Department of Computer Science, University of Calgary.
Supervisors: S. Carpendale, P. Woodrow; Examiners: E. Sharlin, J. Eiserman, R. Levy.

14. Elena Fanea. (April 2006) *Establishing Graphical and Formal Relationships between Visualizations of Multi-Dimensional Data*. MSc Thesis, Department of Computer Science, University of Calgary.
Supervisor: *S.* Carpendale; Examiners: R. Kremer, E. Braverman.

15. Nelson Wong. (March 2005). *EdgeLens: An Interactive Technique for Mitigating Edge Congestion in Graphs*. MSc Thesis, Department of Computer Science, University of Calgary.
Supervisor: S. Carpendale; Examiners: E. Sharlin, L. Katz.

16. Russell Kruger. (July 2004). *Fluid Orientation on Tabletop Displays: Supporting Co-located Collaboration*. MSc Thesis, Department of Computer Science, University of Calgary.
Supervisor: S. Carpendale; Examiners: F. Maurer, R. Wardell.

17. C.J. Baker. *GeneVis: Simulating and Visualizing Genetic Regulatory Networks*. MSc Thesis, Department of Computer Science, University of Calgary.
Supervisor: S. Carpendale; Examiners: P. Prusinkiewicz, J. Dill.

Exchange Student Theses and Diplomas

1. Markus Tessman. (October 17, 2017). Exploring the Relationship between Comprehension and Visualization. Master's Thesis. Ludwig-Maximilians-Universitat Munchen Department: Institute for Informatics. Media Informatics.
Advisor: Dr. Sheelagh Carpendale & Prof. Dr. Andreas Butz
Professor: Prof. Dr. Andreas Butz.

2. Philipp Koytek. (June 29, 2017). Exploring Brushing and Linking with Personal Agency for Coordinated Multiple Views in Information Visualization. Masters Thesis. Institute of Software & Systems Engineering. University of Augsburg. Prof. Dr. Elisabeth Andre, University of Augsburg, Prof. Dr. Bernhard Bauer, University of Augsburg.
Advisor: Prof. Dr. Sheelagh Carpendale, University of Calgary

3. A. Thudt. (2011). *The Bohemian Bookshelf: Design and Implementation of a Visualization Prototype for Serendipitous Browsing*. Projektarbeit/Bachelors thesis, Dept Institut fur Informatik, Ludwig-Maximilians-Universitat Munchen, Munich, Germany. Research Location: Interactions Laboratory, Department of Computer Science, University of Calgary.
Supervisors: S. Carpendale, U. Hinrichs. Dr.-Prof. Andreas Butz: Professor in charge

4. R. Langner. (2010). *PhysicsBox: Playful Educational Tabletop Games*. Internship thesis. Dept of Simulation and Graphics, Faculty of Computer Science, Otto-von-Guericke-Universität Magdeburg, Magdeburg, Germany. Research Location: Interactions Laboratory, Department of Computer Science, University of Calgary.
Supervisors: S. Carpendale, J. Brosz. Dr.-Prof. Raimund Dachselt: Professor in charge

5. S. Schmidt. (2010) *Graph Exploration Techniques for Multitouch Tabletops*. Internship thesis. Dept of Simulation and Graphics, Faculty of Computer Science, Otto-von-Guericke-Universität Magdeburg, Magdeburg, Germany. Research Location: Interactions Laboratory, Department of Computer Science, University of Calgary.
Supervisors: S. Carpendale, M. Nacenta. Dr.-Prof. Raimund Dachselt: Professor in charge

6. L. Vlaming. (November 2010). *Integrating 2D Mouse Emulation with 3D Manipulation for Visualizations on a Multi-Touch Table*. Masters thesis. Johann Bernoulli Institute for Mathematics and Computer Science (FWN-JBI-SVCG) University of Groningen, Groningen, The Netherlands. Research Location: Interactions Laboratory, Department of Computer Science, University of Calgary.
   Supervisors: S. Carpendale, M. Nacenta. Dr. Tobias Isenberg: Professor in charge

7. Thomas ten Cate. (August 2009). *A Virtual Sandtray on a Tabletop Computer*. Master's thesis. Johann Bernoulli Institute for Mathematics and Computer Science (FWN-JBI-SVCG) University of Groningen, Groningen, The Netherlands. Research Location: Interactions Laboratory, Department of Computer Science, University of Calgary.
   Supervisors: S. Carpendale, M. Hancock. Dr. Tobias Isenberg: Professor in charge

8. M. Dörk. (June 2008). *Towards a Better VIEW: Visual Information Exploration on the Web*. Diplom Thesis, School of Computer Science, Otto-von-Guericke-University of Magdeburg, Germany. Research Location: Interactions Laboratory, Department of Computer Science, University of Calgary.
   Supervisors: S. Carpendale, C. Williamson. Dr. -Ing. Maic Masuch: Professor in charge.

9. J. Grubert. (February 2008). *Interacting with Stroke-Based Non-Photorealistic Rendering on Large Displays*. Internship Thesis, School of Computer Science, Otto-von-Guericke-University of Magdeburg, Germany. Research Location: Interactions Laboratory, Department of Computer Science, University of Calgary.
   Supervisors: S. Carpendale, T. Isenberg. Dr. -Ing. Maic Masuch: Professor in charge

10. M. Schwarz. (May 2007). *An Interactive Non-Photorealistic Canvas*. Internship Thesis, School of Computer Science, Otto-von-Guericke-University of Magdeburg, Germany. . Research Location: Interactions Laboratory, Department of Computer Science, University of Calgary.
    Supervisors: S. Carpendale, T. Isenberg. Dr. -Ing. Stefan Schlechtag: Professor in charge

11. L. Schlesier. (September 2006). *Creating an Interactive Visualization of Mountain Pine Beetle Simulation Data*. Diplom Thesis, School of Computer Science, Otto-von-Guericke-University of Magdeburg, Germany. Research Location: Interactions Laboratory, Department of Computer Science, University of Calgary, and Pacific Forestry Centre, Victoria, British Columbia.
    Supervisors: S. Carpendale; Dr. -Ing. Stefan Schlechtag: Professor in charge

12. A. Miede. (June 2006). *Realizing Responsive Interaction for Tabletop Interaction Metaphors*. MSc. Thesis, School of Computer Science, Otto-von-Guericke-University of Magdeburg, Germany. Research Location: Interactions Laboratory, Department of Computer Science, University of Calgary.
    Supervisors: S. Carpendale, T. Isenberg. Dr. -Ing. Maic Masuch: Professor in charge

13. U. Hinrichs. (September 2005). *Interface Currents: Evaluating a Fluid Interface for Tabletop Collaboration*. Diplom Thesis, Otto-von-Guericke University of Magdeburg, Magdeburg, Germany. Research Location: Interactions Laboratory, Department of Computer Science, University of Calgary.
    Supervisors: S. Carpendale, M. Gotze. Dr. Prof. T. Strothotte: Professor in charge

Exhibits

1. Mieka West, Sheelagh Carpendale. (2018). Anthropocene Footprints. VIS Arts Program (VISAP), 2018.

2. Benjamin Bach, Natalie, Kyle Hall, Sheelagh Carpendale, Jessie Kennedy, Nathalie Henry Riche. (2018). ***Telling Stories and Dynamic Networks with Graph Comics***. In Art of Networks III. International Village, Northeastern University, 1155-1175 Tremont St., Boston, MA 02116, USA. Exhibition open January 13, 2018 to March 12, 2018, Organizing Committee: Chair Isabel Meirelles (OCAD University, Toronto, Canada), members Matthew Brehmer (Microsoft Research, Redmond, WA), Marian Dörk (University of Applied Sciences Potsdam, Germany), Ronaldo Menezes (Florida Institute of Technology, Melbourne, FL), and Nicole Samay (Northeastern University, Boston, MA). Co-located with Complenet 2018

3. Sebastian Lay, Jo Vermeulen, Charles Perin, Eric Donovan, Raimund Dachselt, and Sheelagh Carpendale. (2016). Slicing the Aurora. In VISAP 2016

4. Bon Adriel Aseniero, Charles Perin, Marjan Eggermont, and Sheelagh Carpendale. (2016). Fireflies. in VISAP 2016

5. M. Doerk, C. Williamson, S. Carpendale. The Art of Networks II. New York Hall of Science, 47-01 111th St Queens, NY, NY, USA. 2015

6. L. MacDonald, S. Carpendale. (2012) "Conditional Balance". Les HTMlles 10: *Affaires à risques / Risky Business*. Studio XX, Montréal, Quebec. November 10 – 23, 2012.

7. L. MacDonald, M. Nacenta, J. Brosz, S. Carpendale. (2012). "A Delicate Agreement", *The New Alberta Contemporaries* • Esker Foundation, Calgary, June 15 – August 25, 2012

8. Carpendale's Computational Media Design student L. MacDonald, "A Delicate Agreement", MFA Thesis Exhibition, Taylor Family Digital Library, University of Calgary, March 25 to April 22, 2011. **(Digital Alberta Award)**

9. S. Carpendale. (2008). Revisionist Interaction. Invited Installation. Banff Summer Arts Festival 75th Anniversary Celebration, Banff New Media Institute, Banff Centre, Banff for the Arts, July.

10. Carpendale's Art/Science partnership students J. Brosz and H. Wang, Perspectives, ACAD Grad Show, April 24 to May 9, 2008.

11. Carpendale's Art/Science partnership students N. Dempsey, G. Baumgartner and J. Wong, Digital Doodle, ACAD Grad Show, April 24 to May 9, 2008.

12. Carpendale's Art/Science partnership students L. Rogers and K. Etemad, Transition, Sculpture Gallery, University of Calgary, April 18 to 20, 2008.

13. Carpendale's Art/Science partnership students S. Lynch and S. Kyoung Choi, Moirae, ACAD Grad Show, April 24 to May 9, 2008.

14. Carpendale's Art/Science partnership students T. Au Yeung and S. Esopenko, Video Reaction Booth, ACAD Grad Show, April 24 to May 9, 2008. (**Governor General's Award**)

15. Carpendale's Art/Science partnership students U. Hinrichs and H. Schmidt, EMDialog, Invited Installation. Emily Exhibit, GlenBow Museum, Calgary, Alberta. Nov 2007 to January 2008. (**finalist in Canadian New Media Awards**)

16. Carpendale's Art/Science partnership students U. Hinrichs and H. Schmidt's piece, Memory (En)code, was accepted for a juried art show as part of Computational Aesthetics (CAe'07) held at the Banff Centre for the Arts, June 19 to June 23, 2007. (**best in show award**)

17. Carpendale's Art/Science partnership students U. Hinrichs and H. Schmidt, Memory (En)code, at the University of Calgary, Little Gallery, May 14 to May 18, 2007.

18. Carpendale's Art/Science partnership students A. Inkster and S. Jenkins, Cycle of Perceptions, Nickel Museum, University of Calgary, Fine Arts Grad Show, April 27 to May 15, 2007.

19. Carpendale's Art/Science partnership students A. Seniuk and D. Baumgart, COSMOSIS, ACAD Grad Show, April 26 to May 5, 2007.

20. Carpendale's Art/Science partnership students H. He and D. Osborn, Explorer, ACAD Grad Show, April 26 to May 5, 2007.

21. Carpendale's Art/Science partnership students M. Tobiasz and A. Henderson: performance piece, BookRDX, April 22 to April 25, and installation piece, BookRDX, ACAD Grad Show, April 26 to May 5, 2007.