

PhD Student

School of Interactive Arts and Technology
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Research Interests and Areas of Expertise

- Interactive Digital Storytelling
- Virtual Worlds
- Game Studies
- Narrativized and Embodied Interface
- Nonverbal Communication
- User Modeling
- Semiotics
- Social Media
- Affective Computing
- Expressive Interface

Education

PhD – Interactive Arts and Technology, Simon Fraser University, Surrey, BC, Canada (In progress)
MA – Interactive Arts and Technology, Simon Fraser University, Surrey, BC, Canada (2008)
BA – Music and Mythology, Johnston Center for Integrated Studies, University of Redlands, Redlands, CA, USA (2002)

Publications & Presentations

Refereed Journal Articles and Book Chapters

- Bizzocchi, J., Lin, B., & Tanenbaum, J. (2010). Games, Narrative, and the Design of Interface. *International Journal of Art and Technology (IJART)*. Special Issue on Interactive Experiences in Multimedia and Augmented Environments.
- Bizzocchi, J., & Tanenbaum, J. (Forthcoming). Well Read: Applying Close Reading Techniques to Gameplay Experiences. In D. Davidson (Ed.), *Well Played 3.0*. Pittsburgh, PA: ETC-Press
- Tanenbaum, K., & Tanenbaum, J. (2010). Agency as Commitment to Meaning: Communicative Competence in Games. *Digital Creativity*.
- Tanenbaum, J., & Bizzocchi, J. (2008). Close Reading Oblivion: Character Believability and Intelligent Personalization in Games. *Loading...The Journal of the Canadian Games Studies Association*, 3(4).
- Tanenbaum, J., & Tomizu, A. (2008). Narrative Meaning Creation in Interactive Storytelling. *International Journal of Computational Science*, 2(1), 3-20.

Peer Reviewed Conference Papers

- Tanenbaum, K., Tanenbaum, J., Antle, A.N., Seif El-Nasr, M., Hatala, M. (forthcoming - 2011) *Experiencing the Reading Glove*. In Proceedings of Conference on Tangibles and Embedded Interaction (TEI'11), ACM Press, Portugal.
- Antle, A.N., Bevans, A., Tanenbaum, J., Seaborn, K. and Wang, S. (forthcoming - 2011) *Futura: Design for collaborative learning and game play on a multi-touch digital tabletop*. In Proceedings of Conference on Tangibles and Embedded Interaction (TEI'11), ACM Press, Portugal.
- Tanenbaum, J., Tanenbaum, K., Bizzocchi, J. (forthcoming - 2010). Getting Your Hands on Electronic Literature: Exploring Tactile Fictions with the Reading Glove. In the Proceedings of the International Digital Media and Arts Association Conference on The Digital Narrative (iDMAa), Vancouver, BC.
- Tanenbaum, J., Tanenbaum, K., & Seif El-Nasr, M. (2010). *Authoring Tangible Interactive Narratives Using Conceptual Hyperlinks*. Paper to be presented at the 3rd Workshop on Intelligent Narrative

- Technologies at the 2010 Foundations of Digital Games Conference. June 18, Monterey, USA.
- Tanenbaum, J., Antle, A., Tanenbaum, K., Bevins, A., Wang, S., & Seaborn, K. (2010). *Futura: A Case Study in the Design of an Educational Multi-Touch Tabletop Game*. Paper to be presented at the Games + Learning + Society Conference (GLS). June 9 – 11, Madison, USA.
- Tanenbaum, J., Tanenbaum, K. & Antle, A. (2010). *The Reading Glove: Designing interactions for object-based tangible storytelling*. In Proceedings of the The 1st Augmented Human International Conference (Mageve, France, April 2nd & 3rd, 2010). ACM Press.
- Tanenbaum, K., & Tanenbaum, J. (2009). *Commitment to Meaning: A Reframing of Agency in Games*. In the Proceedings of the 8th Annual Conference on Digital Arts and Culture (DAC). December 12-15, Irvine, USA
- Tanenbaum, J., & Bizzocchi, J. (2009) *Rock Band: A Case Study in the Design of Embodied Interface Experience*. In the Proceedings of ACM SIGGRAPH 2009. August 4-8, New Orleans, USA.
- Tanenbaum, J., & Tanenbaum, K. (2008). *Improvisation and Performance as Models for Interacting with Stories*. In U. Spierling & N. Szilas (Eds.), *Interactive Storytelling* (Vol. 5334, pp. 250 - 263). Berlin: Springer Berlin / Heidelberg.
- Tanenbaum, J., & Tomizu, A. (2007). *Affective Interaction Design and Narrative Presentation*. In the proceedings of the AAAI Fall Symposium on Intelligent Narrative Technology. November 9 - 11, Arlington, USA

Conference Presentations and Invited Talks

- Bizzocchi, J., Camlot, J., Simon, J., & Tanenbaum, J. (2010). *Games and Narrative – An Analytical Framework Revisited*. Paper to be presented at the 4th annual Canadian Gaming Studies Association Conference. May 28 – 29, Montreal, Canada.
- Tanenbaum, J., & Bizzocchi, J. (2009). *Close-Reading and the Poetics of Form and Experience in an Emergent Medium*. Paper presented at the 3rd Annual Canadian Gaming Studies Association Conference. May 23 - 24, Ottawa, Canada
- Tanenbaum, J. (2009) *A Framework for Mapping Virtual Geography in World of Warcraft*. Graduate Student Symposium on the Serious Study of Virtual Worlds at the State of Play VI Conference. New York Law School, June 18 -20, New York, USA.
- Tanenbaum, J., & Tanenbaum, K. (2009) *Digital Storytelling*. The Johnston Center for Integrative Studies 40th Reunion. University of Redlands, February 13 -15, Redlands, USA.
- Tanenbaum, J. (2008) *Improvisation and Performance as Models for Interacting with Stories*. SFU SIAT Research Colloquium. November 19, Surrey, Canada.
- Tanenbaum, J., & Bizzocchi, J. (2008). *A Preliminary Framework for Narrative and Embodied Interaction in Games*. Paper presented at the Expanding Our Horizons: Canadian Game Studies at Home and Abroad. September 19 – 21, Vancouver, Canada
- Tanenbaum, J., & Bizzocchi, J. (2008). *You Must Be An Experienced Thief: Intelligent Personalization in Oblivion*. Paper presented at the 2nd Annual Canadian Gaming Studies Association Conference. May 31, Vancouver, Canada
- Tanenbaum, J., & Tanenbaum, K. (2007) *Interactive Narrative Roundtable*. Vancouver New Forms Festival: ArtCamp. September 8, Vancouver, Canada.
- Tanenbaum, J., & Tomizu, A. (2007) *Affective Interaction Design and Narrative Presentation*. SFU SIAT Research Colloquium. October 10, Surrey, Canada.
- Tanenbaum, J., & Tanenbaum, K. (2006) *LIFE: a Framework for Low-resource Improvised Filmmaking Experiences*. Vancouver New Forms Festival: ArtCamp. September 21, Vancouver, Canada.

Thesis

- Tanenbaum, J. (2008). *Master's Thesis: Believability, Adaptivity, and Performativity: Three Lenses for the Analysis of Interactive Storytelling*. Simon Fraser University, Canada. Defended July 29, 2008.

Research

Tangible Ubiquitous Narrative Environment (TUNE): Fall 2008 - present

- **Funding Agency:** Graphics Animation and New Media (GRAND) NCE: Play and Performance (PLAYPR)
- **Institutions:** Simon Fraser University, Concordia University
- **Collaborators:**
 - *SFU:* Karen Tanenbaum, Jim Bizzocchi, Magy Seif El-Nasr, Marek Hatala, Ron Wakkary, Alissa Antle.
 - *Concordia:* Bart Simon, Lynne Hughes
- **Roles:** Researcher, Writer, Tangible User Interface(TUI) Designer

TUNE is an ongoing series of experiments into interactive narrative and games using expressive tangible interfaces. The first prototype for TUNE is a tangible device called the Reading Glove, which allows interactors to extract a layer of digital information from tagged physical objects using RFID technology. Future iterations of the system will incorporate spatial, multi-sensory storytelling and interaction techniques, and adaptive AI that personalizes the experience to the reader.

Virtual Environment Real User Study (VERUS): Social Signaling in Virtual Worlds: Fall 2009 – present

- **Funding Agency:** SRI International
- **Institutions:** Simon Fraser University, York University, Nottingham University, Multiverse
- **Collaborators:** Magy Seif El-Nasr, Suzanne de Castell
- **Role:** Research Assistant

The VERUS Project is looking at the relationship between real world demographics and player actions in virtual worlds. We are developing a framework for evaluating nonverbal communication for social signaling behaviors in virtual worlds, and are running an extensive mixed-methods study of socialization in *Second Life* and *World of Warcraft*.

Futura: The Sustainable Futures Game: Fall 2009 – present

- **Funding Agency:** Graphics Animation and New Media (GRAND) NCE: Digital Games for Learning and Training (DIGLT)
- **Institutions:** Simon Fraser University
- **Collaborators:** Alissa Antle, Karen Tanenbaum, Allen Bevins, Sijie Wang, Katie Seaborn
- **Role:** Lead Game Designer, Interface Designer, Writer

Futura is a multi-player educational game, on a multi-touch tabletop, designed to teach children basic principles of sustainable development. Futura was developed by an interdisciplinary team of researchers including specialists in education, game development, and sustainable design.

Creativity Assistive Tools for Games (CAT Games) – Gestural and Embodied Game Interfaces Group: Spring 2008 – Spring 2009

- **Funding Agency:** Canadian Heritage – New Media Research Networks Fund
- **Institutions:** Simon Fraser University, Seneca College of Applied Arts and Technology, University of Western Ontario, Credo Interactive, The Masters of Digital Media (MDM) Program, Interactive Ontario, New Media BC (NMBC), Mozilla Corporation
- **Collaborators:** Steve DiPaola, Jim Bizzocchi, Ron Wakkary, Tom Calvert
- **Role:** Research Assistant

The CATGames research network developed innovative technological tools for game development. We developed a framework for the design and analysis of novel gestural and embodied game interfaces.

Adaptive Digital Storytelling – Scarlet Skellern and the Absent Urchins (SSAU): Spring 2007 – Fall 2008

- **Funding Agency:** Unfunded
- **Institutions:** Simon Fraser University
- **Collaborators:** Angela Tomizu
- **Role:** Researcher, Lead Game Designer, Writer, Composer, Programmer

The Adaptive Digital Storytelling project developed an interactive storybook in Flash called Scarlet Skellern and the Absent Urchins (SSAU). SSAU used several interactional heuristics to infer information about the affective state of the reader and adapt the narrative experience to her mood.

Academic Contract Work

- **Games and Narrative** (SSHRC Standard Grant Preparation) – SIAT, Simon Fraser University. With Jim Bizzocchi. Fall 2009
- **GRAND Narrative** (NCE Grant Preparation) – SIAT, Simon Fraser University. With Jim Bizzocchi. Summer 2009
- **Metaphor Study V** (Contractor) – SIAT, Simon Fraser University. With Alissa Antle. Spring 2009
- **Thinking with Hands** (Video Editor)—SIAT, Simon Fraser University. With Alissa Antle. Fall 2008
- **Kurio** (Video Editor)—SIAT, Simon Fraser University. With Ron Wakkary. Summer 2008
- **Ec(h)oVUE** (Web Developer)—SIAT, Simon Fraser University. With Ron Wakkary. Summer 2007
- **Ec(h)o** (Video Editor)—SIAT, Simon Fraser University. With Ron Wakkary. Spring 2007
- **Creative Collaboration** (NSERC Grant Preparation) – SIAT, Simon Fraser University. With Maia Engeli. Fall 2006
- **Two Hand Interfaces for 3D Modeling** (Contractor) – SIAT, Simon Fraser University. With Chris Shaw. Fall 2006

Teaching

- Teaching Assistant**, TechOne, Simon Fraser University. Tech 114 *Technology in Everyday Contexts*, Spring 2010
- Teaching Assistant**, SIAT, Simon Fraser University. IAT 309w *Writing for Design, Media & Informatics*, Fall 2009
- Teaching Assistant**, TechOne, Simon Fraser University. Tech 114 *Technology in Everyday Contexts*, Spring 2008
- Teaching Assistant**, TechOne, Simon Fraser University. Tech 114 *Technology in Everyday Contexts*, Fall 2007
- Teaching Assistant**, SIAT, Simon Fraser University. IAT 101 *New Media Images*, Spring 2007
- Course Facilitator**, Johnston Center for Integrated Studies, University of Redlands, *The Johnston Archive Project*, Spring 2002.
- Course Facilitator**, Johnston Center for Integrated Studies, University of Redlands, *The Science of Science Fiction*, Spring 2000.

Awards

- **Graduate Fellowship (PhD)**, Fall 2010. Simon Fraser University – award value \$6,250cad
- **Graduate Fellowship (PhD)**, Spring 2010. Simon Fraser University – award value \$6,250cad
- **First Place in the Bluesky Innovation Competition**, 2009, University of California Santa Barbara Transliteracies Project – award value \$3,000usd

- **Pacific Century Graduate Scholarship**, 2008-2009. Simon Fraser University – award value \$10,000cad
- **Faculty of Applied Science Graduate Fellowship**, 2007-2008. Simon Fraser University – award value \$6,000cad

Leadership & Service

- **Reviewer**—International Journal of Human Computer Studies. 2010
- **Team Leader**—SMART Tech Tabletop Multitouch Innovation Contest. 2009
- **Project Lead**—UIST Student Innovation Contest, 2009
- **Facilitator**—TA Fundamentals Workshop, 2009
- **Reviewer**—International Journal of Arts and Technology (IJART), 2009
- **Audio Visual Organizer**—Center for Print and Media Cultures, Summer Symposium, 2009.
- **Juror, Papers Committee**—ACM SIGGRAPH, Games Papers Track. 2009
- **Reviewer**—IEEE Transactions on Computational Intelligence and AI in Games. 2009
- **Technical Director**—IGDA Global Game Jam, Vancouver, 2009
- **Convener**—Art Camp 08 20/20, Vancouver New Forms Festival, 2008
- **Audio Visual Organizer**—Center for Print and Media Cultures, Summer Symposium, 2008.
- **Reviewer**—IEEE Transactions on Computational Intelligence and AI in Games. 2008
- **Facilitator**—TA Fundamentals Workshop, 2008
- **Graduate Program Committee Representative**—2008, SIAT, Simon Fraser University.
- **Communication Coordinator**—Graduate Student Association, 2007-2008. SIAT, Simon Fraser University.

Memberships and Associations

- Canadian Game Studies Association (CGSA)
- Graduate Students in Virtual Worlds (GSVW)
- SFU Center for Studies in Print and Media Cultures (CSPMC)
- Association for Computing Machinery (ACM)
- ACM Special Interest Group in Graphics (ACM SIGGRAPH)
- Upgrade Vancouver
- New Media BC
- Dorkbot, Vancouver

Industry Experience (selected)

- **Composer, Audio Engineer**—Freelance, San Diego CA, 2002-2006
- **Audio Visual Director**—*Cyberfashion '05*, ACM Siggraph, Los Angeles CA, USA, 2005
- **Co-Founder, Producer, Audio Director**—Eternal Adventures Entertainment, San Diego, CA, USA, 2004-2005
- **Photographer**—*Cyberfashion '04*, ACM Siggraph, Los Angeles CA, USA, 2004
- **Audio Engineer**—Miracle Theater Productions, San Diego, CA, USA, 2004-2005
- **Director of Audio Department, Audio Video Engineer**—Audio Visual Concepts, San Diego, CA, USA, 2003-2005
- **Lighting Engineer**—Pacific Event Productions, San Diego, CA, USA, 2003
- **Audio and Lighting Engineer**—Club Xanth, San Diego CA, USA, 2002-2003

Art Practice and Performance (selected)

- **Director, Editor** – *Futura Demo Video*, SIAT, Simon Fraser University. With Alissa Antle. Summer 2010
- **Director, Editor** – *Evolving Darwin's Gaze*, SIAT, Simon Fraser University. With Steve DiPaola. Spring 2009
- **Writer, Director, Editor**—Vancouver Film Race, *The Collector*, Vancouver, Canada, 2008
- **Writer, Director**—First Place Winner, ArtsConnect 5th annual “Quick Flick Challenge”, *Takeout for Two*, Port Moody, Canada, 2008.
- **Composer**— *Lost Cause*, SIAT, Simon Fraser University. With Kirstin Johnson. Fall 2007
- **Singer, Composer, Arranger**—*The Cheshire Singers*, San Diego, CA, USA 2005-2006
- **Director, Editor**—*LIFE: Low Resource Improvised Film Experiments*, San Diego CA, USA, 2002-2006
- **Composer, Director, Singer**—*Senior Recital: Three variations on Lime in the Coconut*, Johnston Center for Integrated Studies, University of Redlands, Redlands CA, USA, 2002
- **Sound Designer**—*Two*, Johnston Center for Integrated Studies, University of Redlands, Redlands CA, USA, 2002
- **Curator, Composer**—*Johnston Musicians Recital*, Johnston Center for Integrated Studies, University of Redlands, Redlands CA, USA, 2002
- **Curator**—*Hard Travelin': An Evening with Paul Zarzyski & Tom Russell*, Johnston Center for Integrated Studies, University of Redlands, Redlands CA, USA, 2001
- **Composer, Performer**—*VALIS*, Johnston Center for Integrated Studies, University of Redlands, Redlands CA, USA, 2000
- **Playwright**—*Delusions of Control*, 1st place winner, Visions and Voices One Act Play Festival, Mount Carmel High School, San Diego CA, USA, 1998
- **Playwright**—*The Fanatic*, Visions and Voices One Act Play Festival, Mount Carmel High School, San Diego CA, USA, 1997