

# USC Institute for Creative Technologies

## GFY13 USC ICT Achievements Report

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## Honors & Awards

- Best Paper award; A. Feng, Y. Huang, Y. Xu, A. Shapiro; *Automating the Transfer of a Generic Set of Behaviors Onto a Virtual Character*, Fifth International Conference on Motion in Games, November 2012
- Kurzweil Award for Best AGI (Artificial General Intelligence) Paper; Paul Rosenbloom; *Deconstructing Reinforcement Learning in Sigma*; The Fifth Conference on Artificial General Intelligence, December 2012
- Best Paper Award; Stefan Scherer, Giota Stratou, Jill Boberg, Jonathan Gratch, Albert Rizzo and Louis-Philippe Morency, *Automatic Behavior Descriptors for Psychological Disorder Analysis*, IEEE Conference on Automatic Face and Gesture Recognition, April 22-26, 2013
- USC Phi Kappa Phi Faculty Recognition Award; Paul Rosenbloom; *On Computing: The Fourth Great Scientific Domain*; April 23, 2013
- Nomination for Best Student Paper Award: S. Park, S. Scherer, J. Gratch, P. Carnevale, and L.-P. Morency. *Mutual Behaviors during Dyadic Negotiation: Automatic Prediction of Respondent Reactions*. In Proceedings of International Conference on Affective Computing and Intelligent Interaction (ACII), 2013
- Nomination for Best Paper Award: D. DeVault, K. Georgila, R. Artstein, F. Morbini, D. Traum, S. Scherer, A. Rizzo, L.-P. Morency. *Verbal Indicators of Psychological Distress in Interactive Dialogue with a Virtual Human*. In Proceedings of the 14th Annual Meeting of the Special Interest Group on Discourse and Dialogue (SigDial), 2013

### Editorships and Editorial Board Membership

- Jonathan Gratch; Editor-in-Chief (founding), *IEEE Transactions on Affective Computing* (2010-)
- Jonathan Gratch; Associate Editor, *Emotion Review* (2007-)
- Jonathan Gratch; Associate Editor, *Journal of Autonomous Agents and Multiagent Systems* (2010-)
- Jonathan Gratch; Guest Editor, *IEEE Intelligent Systems*, special issue on *Social and Economic Computing*
- H. Chad Lane; Associate Editor; *Interactive Learning Environments*
- H. Chad Lane; Associate Editor; *Cognitive Technology*
- H. Chad Lane; Editorial Board; *International Journal of Artificial Intelligence in Education*
- H. Chad Lane; Guest Editor for *AI Magazine*, Special Issue on Intelligent Learning Technologies, Fall 2013
- Belinda Lange; Associate Editor for the *Journal of Computer Animation and Virtual Worlds*
- Belinda Lange; Editorial Board Member for the *International Journal of Human Computer Interaction*
- Belinda Lange; Guest Editor of Special Issue for the *Journal of Medical Internet Research*
- Belinda Lange; Guest Editor of Special Issue on *Advanced User Interfaces for Neurorehabilitation for the BioMed Research International Journal*
- Belinda Lange; Co Editor Springer Book - Cobb S and Lange B (Editors). Volume 4: *Design, Technologies, Tools, Methodologies & Analysis*. Sharkey P. Springer Series (4 Volumes): *Virtual Reality Technologies for Health and Clinical Applications*. Springer, In Press
- Louis-Philippe Morency; Member of the Editorial Board for the Springer *Journal on Multimodal User Interfaces* (JMUI)
- Louis-Philippe Morency; Associate Editor for the *International Journal of Computer Vision & Signal Processing*
- Louis-Philippe Morency; Guest editor for the *ACM Transactions on Interactive Intelligent Systems*, Special issue on *Affective Interaction in Natural Environment*
- Paul Rosenbloom; Member of the Editorial Board for the *International Journal of Intelligence Science*
- Paul Rosenbloom; Member of the Editorial Board for the *Journal of Artificial General Intelligence*
- Paul Rosenbloom; Member of the Editorial Board for the World Scientific Publishers book series on *Intelligence Science*
- William Swartout, Member of Editorial Board for *Entertainment Computing Journal*, Elsevier
- William Swartout, Member of Editorial Board for *Open Virtual Reality Journal*
- William Swartout, Member of Editorial Advisory Board for *IEEE Intelligent Systems*
- David Traum Executive Board Member *Dialogue and Discourse Journal*

## Board/Committee Memberships

- Paul Debevec, Vice President of ACM SIGGRAPH
- Paul Debevec, Visual Effects Society (VES)
- Paul Debevec, Academy of Motion Picture Arts and Sciences (AMPAS)
- Paul Debevec, AMPAS Science and Technology Council
- Andrew S. Gordon; ACM Conference on Hypertext and Social Media, Technical Program Committee, May 1-3, 2013
- Andrew S. Gordon; International Symposium on Logical Formalizations of Commonsense Reasoning, Technical Program Committee, May 27-29, 2013
- Andrew S. Gordon; International Conference on Interactive Digital Storytelling, Technical Program Committee, November 6-9, 2013
- Andrew S. Gordon; Computational Models of Narrative, Technical Program Committee, Aug 4-6, 2013
- Andrew S. Gordon; Intelligent Narrative Technologies, Technical Program Committee, October 14-15, 2013
- Jonathan Gratch; National Academy of Sciences (NRC): Committee member for study on the context of military environment: social and organization factors (2013)
- Jonathan Gratch; Senior Program Committee Member: International Conference on Autonomous Agents and Multiagent Systems, Challenges and Visions Track (2014)
- Jonathan Gratch; Senior Program Committee Member: International Joint Conference on Artificial Intelligence (2013)
- Jonathan Gratch; Senior Program Committee Member: International Conference on Autonomous Agents and Multiagent Systems (2010, '13, '14)
- Jonathan Gratch; Senior Program Committee Member: International Conference on Affective Computing and Intelligent Interaction (2013)
- Jonathan Gratch; Senior Program Committee Member: International Conference on Automatic Face and Gesture Recognition (2013)
- Jonathan Gratch; Program Committee Member: AAI Fall Symposium on Integrated Cognition (2014)
- Randall W. Hill, Jr.; National Academies Board on Army Science and Technology
- Randall W. Hill, Jr.; National Research Council Committee on Making the Soldier Decisive on Future Battlefields
- H. Chad Lane; Executive Committee, International Artificial Intelligence in Education Society
- H. Chad Lane; Advisory Board, NSF Center for Innovative Research in Cyberlearning (CIRCL)
- Belinda Lange; elected to 2 year term on the Board of Directors of the International Society for Virtual Rehabilitation
- Belinda Lange; Workshop Chair: International Conference on Virtual Rehabilitation, 2013, Philadelphia

- Belinda Lange; Conference Program Committee: Meaningful Play 2012: Designing and Studying Games that Matter, October 18-20, East Lansing, Michigan, USA
- Louis-Philippe Morency; Area Chair; International Conference on Intelligent User Interfaces (IUI 2013); March 19-22, 2013
- Louis-Philippe Morency; Area chair; 12th International Conference on Autonomous Agents and Multiagent Systems (AAMAS 2013); May 6-10, 2013
- Louis-Philippe Morency; Senior Program Committee; IEEE Conference on Automatic Face and Gesture Recognition (FG 2013); April 22-26, 2013
- Louis-Philippe Morency; Doctoral Consortium Co-Chair; IEEE Conference on Automatic Face and Gesture Recognition (FG 2013), Shanghai, April 22-26, 2013
- Louis-Philippe Morency; 12th International Conference on Autonomous Agents and Multiagent Systems (AAMAS 2013), Senior Program Committee, May 6-10, 2013
- Albert Rizzo; National Academies of Science, Committee for the Institute of Medicine on Assessment of Ongoing Efforts in the Treatment of PTSD (2011-2014)
- Albert Rizzo, Conference Program Committee member. The Annual Laval VR International Conference; Medicine Meets Virtual Reality
- Albert Rizzo, Conference Program Committees member. The Symposium on Virtual Reality
- Albert Rizzo, Conference Program Committee member. The International Conference on Disability, Virtual Reality, and Associated Technologies
- Albert Rizzo, Conference Program Committee member. The International Conference on Virtual Rehabilitation
- Kenji Sagae elected information officer of Sigparse
- David Traum elected to 2 year term on SIGDIAL scientific and advisory board
- Paul Rosenbloom, ACM-AAAI Allen Newell Award Committee
- Paul Rosenbloom, Carnegie Mellon School of Computer Science Alumni Award for Undergraduate Excellence, Judging Committee
- William Swartout, AAI, Cognitive Systems Track, Program Committee Member, 2013
- William Swartout, Conference on Advances in Cognitive Systems, Program Committee Member, 2012
- David Traum, Senior Program Committee, 12th International Conference on Autonomous Agents and Multiagent Systems (AAMAS 2013), May 6-10, 2013
- David Traum, USA Expert for International Standards Organization (ISO) TC 37/SC 4 and member of TAG, ANSI
- David Traum, Advisory board member, Semdial
- David Traum, Advisory Committee Member, Young Researchers' Roundtable on Spoken Dialog Systems
- David Traum, Advisory board member, Belief tracking Challenge
- David Traum, Advisory board member, Spoken Dialogue Challenge

- Ron Artstein, Advisory Board member, Semdial

## Conference Chairs

- Louis-Philippe Morency, General co-chair for the 14th International Conference on Multimodal Interaction (ICMI 2012), Santa Monica, CA, October 2012
- Louis-Philippe Morency, General co-chair of the First Workshop on Multimodal Learning Analytics, co-located with ICMI 2012, Santa Monica, CA, October, 2012
- Louis-Philippe Morency, Doctoral Consortium Co-Chair, IEEE Conference on Automatic Face and Gesture Recognition (FG 2013)
- Louis-Philippe Morency, General co-chair of the 5th International Workshop on Affective Interaction in Natural Environments (AFFINE): Interacting with Affective Artefacts in the Wild, as part of ACII 2013
- Louis-Philippe Morency, General co-chair of the 2nd Grand Challenge Workshop on Multimodal Learning Analytics, as part of the ICMI 2013 conference
- Louis-Philippe Morency, Workshop Co-Chair, 15th International Conference on Multimodal Interaction (ICMI 2013) Sydney, Australia, December 9-13, 2013
- Louis-Philippe Morency, Program Chair for the 16th International Conference on Multimodal Interaction (ICMI 2014) which will be hosted in Istanbul, Turkey
- David Traum, Area chair for dialogue and discourse, NAACL 2013, June 2013
- Kallirroi Georgila, Mentoring Chair for the 14th Annual SIGdial Meeting on Discourse and Dialogue (SIGdial 2013), Metz, France, August 23-24, 2013
- Kallirroi Georgila, Associate Chair for the 15th ACM International Conference on Multimodal Interaction (ICMI 2013), Sydney, Australia, December 9-13, 2013
- Andrew Gordon, Co-Program Chair of the 2013 ACM conference on Knowledge Capture (K-CAP 2013), June 23-26, 2013, Banff, Canada
- Evan Suma, General Chair of ACM Symposium on Spatial User Interaction (SUI 2013), July 20-21 in Los Angeles, CA
- Jacki Morie, Chair the ACM Digital Arts Committee. 2004-current
- Andrew S. Gordon, Program Chair, ACM Conference on Knowledge Capture, June 23-26, 2013
- Jonathan Gratch, International Workshop on Emotion Representations and Modelling for Human-Computer Interaction Systems, Co-Chair 2013
- Belinda Lange, Workshop Chair: International Conference on Virtual Rehabilitation, 2013, Philadelphia
- Belinda Lange, Conference Program Committee: Meaningful Play 2012: Designing and Studying Games that Matter, October 18-20, East Lansing, Michigan, USA
- Evan A. Suma, General Chair for the ACM Symposium on Spatial User Interaction, July 20-21, 2013
- David M. Krum, Local Arrangements Chair, ACM Symposium on Spatial User Interaction, July 20-21, 2013.
- Allison Aptaker, Local Arrangements Chair, ACM Symposium on Spatial User Interaction, July 20-21, 2013
- Paul Rosenbloom, Co-chair: IJCAI-2103 Workshop on Intelligence Science, Beijing, China, August 4, 2013

- David Traum & Stacy Marsella, Chair, U Stockholm STINT Collaboration workshops: ICT, May 13-15, Stokholm June 19, 19, 2013
- David Traum, Chair, NSF Workshop on Signing Creatures, Nov 15-16, 2013, Washington DC
- H. Chad Lane, Program co-chair, 16<sup>th</sup> International Conference on Artificial Intelligence in Education (AIED 2013), Memphis, TN, July 9-13



## Keynote Talks

- Paul Debevec. *Creating Photoreal Digital Actors: Capturing Light and Reflectance*. IS&T and the Society for Information Display. November 12–16, 2012
- Paul Debevec. *Creating Photoreal Digital Actors*. Activision Executive Retreat. Santa Barbara, CA, January 31, 2013
- Paul Debevec. *From Spider-Man to The Avengers: Achieving Photoreal Digital Actors*. IEEE International Conference on Image Processing. Melbourne, Australia, September 18, 2013
- Paul Debevec. *Lighting Hollywood's Photoreal Digital Actors*. International Association of Lighting Designers Enlighten Americas Conference. Montreal, Canada, October 5, 2013
- Jonathan Gratch. *It takes more than a smile: issues in using emotion to enhance human-machine interaction*. Workshop on *Empathic and Emotional Agents* at the International Conference on Autonomous Agents and Multiagent Systems. Valencia, Spain, June 2012
- Randall W. Hill, Jr. *Warfighter Training in the Human Dimension*. SMi Joint Forces Simulation and Training Conference. London, England. February 5-6, 2013
- Randall W. Hill, Jr. *On the Frontiers of Training with Creative Technologies*. Association of the United States Army Annual Meeting and Exposition. Washington, D.C. October 22-24, 2012.
- Randall W. Hill, Jr. *Interactive Digital Game Changers*. Advanced Micro Devices Executive Retreat. Austin, TX. March 21, 2013
- Randall W. Hill, Jr. *Games for Training*. SMi Military Flight Training Conference. London, England. September 19-20, 2012
- H. Chad Lane. *How can we intelligently make more intelligent computer scientists for the world to enjoy?* 1<sup>st</sup> Workshop on AI-supported Education for Computer Science (AIED-CS)
- H. Chad Lane. *Virtual Humans for education and behavior change: design, implementation, and evaluation*. NIH mHealth Institute. UCLA. Los Angeles, CA, August 27, 2013
- Belinda Lange. *Game-based Rehabilitation: Future directions*. REHAB 2013 Workshop. 7<sup>th</sup> International Conference on Pervasive Computing Technologies in Healthcare. Venice, Italy, May 5-8, 2013
- Stacy Marsella. *Virtual humans, emotion and negotiation*. International Conference on Group Decision-Making and Negotiation Conference. Stockholm, Sweden, June 19, 2013
- Albert Rizzo. *Clinical Virtual Reality: A Brief Review of the Future*. International Conference on Recent Advances in Neurorehabilitation 2013. Valencia, Spain, March 7th-8th, 2013
- Albert Rizzo. *Virtual Humans to Populate Virtual Worlds*. International Symposium of Advanced Neuro-rehabilitation. Taipei, Taiwan, May 26, 2013

- Albert Rizzo. (2013). *Virtual Reality goes to War: Emerging Clinical Applications for the Prevention*. Assessment and Treatment of Posttraumatic Stress. NCIRE Brain at War Conference. San Francisco, CA, June 20, 2013
- Albert Rizzo. *Clinical Virtual Reality: A Brief Review of the Future!* International Symposium of Advanced Neuro-rehabilitation. Taipei, Taiwan, May 26, 2013
- Albert Rizzo. *Virtual Reality Exposure Therapy for Combat-Related Post Traumatic Stress Disorder*. State of the Science Symposium on Virtual Reality and its Role in Wounded Warrior & Veteran Care. Walter Reed Army Medical Center, Bethesda, MD, November 30, 2012
- Todd Richmond. *Analog Soul, Digital World*. TEDxVeniceBeach. Los Angeles, CA, September 15, 2013
- Todd Richmond. *Accidental Renaissance – New Models and Approaches to Research Partnerships*. Sci/Tech 2.0. Los Angeles, CA, September 28-29, 2013
- Paul Rosenbloom. *The Sigma Cognitive Architecture*. IJCAI 2013 Workshop on Intelligence Science. Beijing, China, August 4, 2013
- William Swartout. *Building and Using Virtual Humans*. Autumn Simulation Multi-Conference. Society for Modeling and Simulation International. San Diego, CA, October 29, 2012
- David Traum. *Machine Learning in Virtual Human Dialogue* – invited panelist for Panel on Machine Learning for Interactive Systems: Practical Challenges and Opportunities. Microsoft Faculty Summit. July 15, 2013
- David Traum. *Situating Human-Machine Dialogue in the Social world*. 2013 Summer Institute: Understanding Situated Language in Everyday Life. July 24, 2013
- Evan Suma. *The Changing Face of VR Systems*. Keynote panel talk at Workshop on *Software Engineering and Architectures for Realtime Interactive Systems (SEARIS)*. Orlando, FL, March 17, 2013