

R. Michael Young
Professor
School of Computing and
Deputy Director, Engineering Arts and Entertainment Program
University of Utah
Salt Lake City, UT
young@eae.utah.edu

BIOGRAPHIC SUMMARY

Michael Young is a Professor in the School of Computing and Deputy Director of the Engineering, Arts and Entertainment Program at the University of Utah in Salt Lake City. Michael joined the University of Utah in 2016 after 16 years on the faculty at North Carolina State University, where he was a professor of Computer Science, University Faculty Scholar and founder and executive director of the NC State Digital Games Research Initiative. Michael directs the Liquid Narrative research group where, together with more than 13 students and research staff, he develops computational models of interactive narrative with applications to computer games, educational and training systems and virtual environments. His work is grounded in computational approaches, but seeks to cross disciplinary boundaries, involving collaborators and concepts from cognitive psychology, linguistics, narrative theory, cinematography and other disciplines where human cognition and interaction are central. He is actively engaged in leadership activities with games industry professional and trade organizations at the national, state and local levels.

Young's research looks primarily at new models of plans and planning and the use of these knowledge representation techniques to characterize aspects of narratives. He was among the first researchers to develop models of planning adapted for story generation and leveraged the well-defined nature of these models to design algorithms that adapt interactive story lines to user activity. He has shown close correlations between the plan-based models he uses in story generation and the cognitive models of story comprehension developed by psychologists. Based on these correlations, he has developed approaches to story generation that target the creation of specific cognitive and emotional responses on the part of game players or story readers. His work has targeted the generation of story experiences that prompt suspense, surprise and predictive inferences about upcoming events in an unfolding story-based game. Building on his previous work in the area of computational linguistics, he has developed a generative model of 3D camera control. In this approach, the specification of shots and shot sequences for a camera that is filming action within a 3D environment is computed based on models of linguistic discourse structure. This work has application in the automatic generation of cinematic sequences for video game cut-scenes, pre-visualizations rendered for film makers and instructional videos or highlight reels of activity within a virtual environment. Young has applied the computational methods he has developed beyond entertainment contexts, building systems that effectively generate natural language discourse, instructional text, tools for intelligence analysis and computer-assisted scaffolding used in intelligent tutoring systems. The tools he has developed have been used by other researchers in projects involving the automatic generation of instructional text, intelligent tutoring systems and informative multi-media presentations.

Young has published more than 145 scientific papers in the venues including leading conferences and journals in computer games, artificial intelligence, computational linguistics, autonomous agents and intelligent user interfaces. He has served to co-found and build several of the leading conferences in the area of computer games research (the International Conference on Artificial Intelligence and Interactive Entertainment, the International Conference on the Foundations of Digital Games) and has served as program committee member or program or conference chair of more than 50 leading conferences across the areas of artificial intelligence, virtual worlds and computer games. He serves as vice-president and is a founding board member of the Society for the Advancement of the Science of Digital Games (SASDG), a scientific society leading the community of scholars and practitioners advancing games research. Moreover, he served as editor-in-chief for the *Journal of Game Development* and serves or has served as a member of the editorial board of the leading journals in the area of games and AI research, including *ACM Transactions on Intelligent Interactive Systems*, *IEEE Transactions on Computational Intelligence and AI Games*, *the International Journal of Gaming and Computer-Mediated Simulations* and *Advances in Cognitive Systems*. He has won a number awards including a National Science Foundation Career Award and an IBM Faculty Award. He is the only person in NCSU's history to win all three university-level awards for outstanding faculty (teaching, extension and engagement, research). In 2015, he was named an NCSU

University Faculty Scholar. He was a GlaxoSmithKline Faculty Fellow in Public Policy and Public Engagement in 2010 and his work with North Carolina games companies and state policy makers to strengthen the state's games ecosystem has been widely recognized. In 2010, his work with the North Carolina Department of Commerce and the state legislature contributed to the establishment of financial incentives in the state budget in support of the digital media industry. He is an ACM Distinguished Scientist and a senior member of both the Associate for the Advancement of Artificial Intelligence (AAAI) and the IEEE. He is a member of the International Game Developers' Association (IGDA), where he served for four years on the board of the North Carolina Triangle chapter. He is a founding board member of the Triangle Games Initiative, a trade organization promoting the NC Triangle games industry.

Young has supervised 32 M.S. and Ph.D. students since joining NC State University in 1999. His research group is internationally known as a leading center for work on games research, especially in the area of interactive storytelling and AI in games. His group has developed algorithms that address issues in cinematic 3D camera control in virtual worlds, the automatic construction of coherent, rich and understandable story lines, cloud-based architectures for the intelligent control of game environments and models of adaptation of story lines in interactive narrative contexts. His students have continued their research past graduation as tenure-track faculty at leading universities (i.e., Georgia Tech, UC Santa Cruz and IT University Copenhagen), as lecturers and educators in undergraduate institutions with strong games programs like Baylor University, as senior scientists at research labs like USC's Institute for Creative Technologies and as technical directors at companies in the games industry (e.g., Emergent Game Technologies). His group has actively collaborated with many industrial and governmental organizations including Epic Games, Virtual Heroes, Microsoft, The Triangle Games Initiative and the DOD Advanced Distributed Learning initiative. Within NC State University, he led the establishment of a core set of games scholars that grew from one in 2000 to seventeen faculty members and research staff across four colleges in 2014.

In 2015, Young proposed and received approval for a new cluster hire effort at NCSU in the area of visual narrative. He served as co-director of the Visual Narrative cluster, part of the NCSU Chancellor's Faculty Excellence Program — a multi-year effort to strengthen NCSU's multi-disciplinary research capabilities. As co-director, he shared the direction for four faculty searches (computer science, electrical and computer engineering, art and design and history) and the creation of a new 9000 sq. ft research/ collaboration space on campus. The VN initiative serves as a focal point for narrative research in computational media, and supports both games research as well as interdisciplinary efforts in digital humanities/scholarship across campus.

In 2008, Young developed the NCSU Computer Science Department's undergraduate concentration in game development. Since that time, he worked to direct the concentration; this effort has led to the expansion of the program's course offerings, the addition of new tenure-stream faculty in the games concentration, and the inclusion of industry partners as lecturers, adjuncts and guest speakers. Since 2010, Princeton Review has rated NCSU's game development program as one of the top 25 in North America. In 2014, the program was ranked #4 in North America among public universities. Graduates from NCSU's program have worked at many top games companies, including Activate3D, America's Army, Atomic Games, Epic Games, Icarus Studios, KnowWonder Games, Lockheed Martin Virtual Worlds Lab, Mid-Carolina Media, Psyonix Studios, Spark Plug Games, Vicious Cycle Games, Virtual Heroes, Womengamers.com and Zipper Interactive.

Young's research is currently supported by NSF, NSA, IARPA and several industrial partners, and he has served as a PI or Co-PI on more than 17 grants. Since 2000, Young has brought in \$14.6M in sponsored research awards and gifts, including an NSF CAREER award.

RESEARCH INTERESTS

Artificial intelligence techniques in virtual worlds like computer games. Planning and plan recognition, natural language generation, computer games. Computational models of interactive narrative, automatic 3D camera control, character dialog, story generation and presentation. The role of computer games in education, training, intelligence analysis, criminal investigation and other serious games contexts.

PROFESSIONAL EXPERIENCE

May, 2016 to date: University of Utah, Salt Lake City, UT.

Professor, University of Utah School of Computing.

Deputy Director, Engineering Arts and Entertainment Program

January, 1999 to May, 2016: North Carolina State University, Raleigh, NC.

August, 2012 to present: Professor, North Carolina State University, Department of Computer Science.

May, 2006 to May 2012: Associate Professor, North Carolina State University, Department of Computer Science.

April 2005 to present: Program Faculty, North Carolina State University Multi-Disciplinary Studies Program in Science, Technology and Society.

May 2005 to present: Affiliated Faculty, North Carolina State University College of Humanities and Social Sciences Program in Communication, Rhetoric, and Digital Media,.

January, 1999 to May, 2006: Assistant Professor, North Carolina State University, Department of Computer Science.

October 1997 to October 1998: Post-doctoral Fellow, Carnegie Mellon University Robotics Institute, Pittsburgh, PA.

July, 1991 to December, 1993: Technical Scientist, Price Waterhouse Technology Center, Menlo Park, CA.

April, 1987 to January, 1990: Technical Scientist, Rockwell Palo Alto Science Center, Palo Alto, CA.

October, 1986 to April, 1987: Computer Scientist, FMC Corporation Artificial Intelligence Center, San Jose, CA.

Summer, 1986: Software Development Engineer, Hewlett-Packard Laboratories - Computer Languages Laboratory, Palo Alto, CA.

July, 1984 to June, 1986: Software Development Engineer, Hewlett-Packard Knowledge Systems Laboratory, Cupertino, CA.

EDUCATION

Ph.D. in Intelligent Systems, December 1997, University of Pittsburgh, Pittsburgh, PA.

MS in Computer Science, December, 1987, Stanford University, Stanford, CA.

BS in Computer Science, May 1984, California State University, Sacramento, Sacramento, CA.

PROFESSIONAL SOCIETIES

Distinguished Scientist, Association for Computing Machinery (ACM)

Senior Member, Association for the Advancement of Artificial Intelligence (AAAI)

Senior Member, Institute for Electrical and Electronic Engineering (IEEE)

Member, International Game Developers Associate (IGDA)

HONORS

Recipient, Outstanding Faculty Research Award, NC State Alumni Association, North Carolina State University, 2015.

University Faculty Scholar, NC State University, five year term from 2015 through 2019.

Winner, Student Best Paper Award (with Stephen Ware), Tenth AAAI Conference on Artificial Intelligence and Interactive Digital Entertainment, 2014.

Distinguished Scientist, Association for Computing Machinery, 2013.

Senior Member, Association for the Advancement of Artificial Intelligence, 2013.

Recipient, NC State University Libraries Faculty Award, 2012.

Winner, Student Best Paper Award (with Stephen Ware and Rogelio Cardona-Rivera), Workshop on Computational Models of Narrative, 2012.

Recipient, GlaxoSmithKline Faculty Fellowship in Engagement and Public Policy, NCSU Institute for Emerging Issues, 2010.

Recipient, Outstanding Faculty Extension Award, NC State Alumni Association, North Carolina State University, 2009.

Promotion to the NC State University Academy of Outstanding Faculty Engaged in Extension, 2009 to present

Winner, Best Paper Award, International Conference on Interactive Digital Storytelling, 2008.

Recipient, IBM Faculty Award, 2007.

Recipient, Outstanding Faculty Teaching Award, NC State Alumni Association, North Carolina State University, 2006.

Promotion to the NC State University Academy of Outstanding Teachers, 2006 to present.

Recipient, National Science Foundation Early Career (CAREER) Award, 2001.

SUPPORT FOR SPONSORED RESEARCH

Since joining NCSU in January of 1999, Young has obtained a total of \$14,589,945 in support of his research, teaching and extension efforts (counting both sole-PI and joint PI awards and gifts). This includes \$1,044,637 in currently active research funding.

CURRENT GRANTS

Total in this category: \$1,044,637

Laboratory for Analytic Sciences
Narrative Processing, Delivery Order 6
 1/1/2016 - 12/31/2016
 Role: Principal Investigator
 Amount: \$815,000

National Science Foundation, *HCC:Small:CollaborativeResearch:Integrating Cognitive and Computational Models of Narrative for Cinematic Generation*
 8/01/13 - 7/31/16
 Role: Principal Investigator
 Amount: \$229,637

COMPLETED GRANTS

Total in this category: \$13,970,743

Laboratory for Analytic Sciences
Narrative Processing, Delivery Order 5
 5/15/2014 - 12/31/2015
 Role: Principal Investigator
 Amount: \$805,295

Institute for Museum and Library Services, National Leadership Grant for Libraries Program
ALICE: A model for sustaining technology-rich Adaptive Learning Spaces and Interactive Content Environments in Libraries and Museums,
 1/01/2014-10/31/2015
 Role: Principal Investigator
 Amount: \$345,093

National Science Foundation, Cyber-enabled Discovery and Innovation Program
CDI-Type II: IC-CRIME: Interdisciplinary Cyber-Enabled Crime Reconstruction through Innovative Methodology and Engagement
 1/01/09 - 2/28/15
 Role: Co-Principal Investigator
 Amount: \$1,400,000

Laboratory for Analytic Sciences
Narrative Processing, Delivery Order 3
 5/15/14 - 5/15/15
 Role: Principal Investigator
 Amount: \$764,022

Laboratory for Analytic Sciences
Narrative Processing, Delivery Order 2
 10/01/13 - 12/31/14
 Role: Principal Investigator
 Amount: \$1,001,000

National Science Foundation, Human-Centered Computing Program
HCC: Small: Plan-Based Models of Narrative Structure for Virtual Environments,
 8/01/09 - 7/31/13
 Role: Principal Investigator
 Amount: \$497,860

National Science Foundation, Research Experiences for Undergraduates Supplement Program
HCC: Small: Plan-Based Models of Narrative Structure for Virtual Environments,
 8/01/09 - 7/31/13
 Role: Principal Investigator
 Amount: \$15,000

US Army Research Office, Multidisciplinary University Research Initiative (MURI) Program
Human Centric Computer-aided Cyber Situation Awareness
 9/01/09 - 8/31/14
 Role: Co-Principal Investigator
 Amount: \$6,250,000

NCSU DELTA IDEA Program
A Cloud-Based Tool for Machinima Generation in Instructional Contexts
 9/01/09 - 8/31/10
 Role: Principal Investigator
 Amount: \$8,000

National Science Foundation, Research Experiences for Undergraduates (Site) Program
REU: DesignTech
 8/1/2007 - 7/31/2009
 Role: Principal Investigator
 Amount: \$268,000

National Science Foundation, Innovative Technology Experiences for Students and Teachers (ITEST) Program
Integrating Affordable, Web-based Competitive Simulations into North Carolina's 6-12 Science Curriculum through a Sustainable Program of Teacher Leadership and Professional Development
 8/1/2005 - 7/31/2009
 Role: Co-Principal Investigator
 Amount: \$1,197,268

National Science Foundation, Robust Intelligence Program
Creating Effective Task Descriptions from Action Plans
 8/15/2004 - 7/31/2007
 Role: Principal Investigator
 Amount: \$300,000

National Science Foundation, Research Experiences for Undergraduates Supplement Program
Creating Effective Task Descriptions from Action Plans
 8/15/2004 - 7/31/2007
 Role: Principal Investigator
 Amount: \$15,000

National Science Foundation, CAREER Program
Plan-Based Integration of Control and Coherence in Intelligent Exploratory Environments

3/15/01 - 2/28/06
Role: Co-Principal Investigator
Amount: \$469,000

National Science Foundation, Research Experiences for Undergraduates Supplement Program
Plan-Based Integration of Control and Coherence in Intelligent Exploratory Environments
3/15/2001 - 2/28/2005
Role: Principal Investigator
Amount: \$15,000

North Carolina State University Faculty Research and Development Program
Combining Artificial Intelligence and Narrative Theory: Action Representations for Interactive Learning Environments
9/01/00 - 8/31/01
Role: Co-Principal Investigator
Amount: \$22,500

GIFTS

Total in this category: \$169,000

Donor: NVIDIA Corporation
2/2013
Amount: \$16,000 (in kind)

Donor: Triangle Game Initiative
6/2009
Amount: \$8,000

Donor: Microsoft Research University Relations
7/2007
Amount: \$100,000

Donor: IBM (Faculty Award, joint with George Rouskas)
8/2007
Amount: \$30,000

Donor: Epic Games
4/2004
Amount: \$15,000

PUBLICATIONS

JOURNAL ARTICLES

Rogelio E. Cardona-Rivera, Thomas W. Price, David R. Winer, and R. Michael Young, Question Answering in the Context of Stories Generated by Computers, to appear in *Advances in Cognitive Systems*, 2016.

Ware, Stephen and Young, R. Michael, Intentionality and Conflict in The Best Laid Plans Interactive Narrative Virtual Environment, to appear in the *IEEE Transactions on Computational Intelligence and Artificial Intelligence in Games*, 2016.

Young, R. Michael, Ware, Stephen, Cassell, Bradley and Robertson, Justus, A Review of Plan-Based Approaches to the Generation of Story, Discourse and Interactivity in Narratives, in the journal *Sprache*

- und Datenverarbeitung*, special issue on Computational Models of Narrative, volume 17, no. 1-2, pages 41-64. 2014.
- Niehaus, James and Young, R. Michael, Cognitive Models of Discourse Comprehension for Narrative Generation, to appear in the journal *Literary and Linguistic Computing*, special issue on Computational Models of Narrative, 2014.
- Horswill, Ian, Montfort, Nick and Young, R. Michael, Computational Narrative and Games, in the *IEEE Transactions on Computational Intelligence and Artificial Intelligence in Games*, special issue on Computational Narrative and Games. pages 93 to 96, June, 2014.
- Cheong, Yun-gyung and Young, R. Michael, Suspenser: A Story Generation System for Suspense, in the journal *IEEE Transactions on Computational Intelligence and AI in Games*, May, 2014
- Bae, Byung-Chul and Young, R. Michael, A Computational Model of Narrative Generation for Surprise Arousal, in the journal *IEEE Transactions on Computational Intelligence and AI in Games*, pages 131- 143, November, 2013.
- Ware, Stephen, Young, R. Michael, Harrison, Brent and Roberts, David, A computational model of narrative conflict at the fabula level, in the journal *IEEE Transactions on Computational Intelligence and AI in Games*, vol. 6, num. 3, pp. 271-288, 2013
- Riedl, Mark O. and Young, R. Michael, Narrative Generation: Balancing Plot and Character, in *the Journal of Artificial Intelligence Research*, vol. 39, pages 217-268, 2011.
- Thomas, Jim and Young, R. Michael, Annie: Automated Generation of Adaptive Learner Guidance For Fun Serious Games, in *IEEE Transactions on Learning Technologies*, vol 3, no. 4, pages 329 - 343, October-December, 2010.
- Jhala, Arnav and Young, R. Michael, Cinematic Visual Discourse: Representation, Generation, and Evaluation, in the journal *IEEE Transactions on Computational Intelligence and AI in Games*, vol. 2, no. 2, pages 69 - 94, June 2010.
- Harris, Justin and Young, R. Michael, Proactive Mediation in Plan-Based Narrative Environments, in the journal *IEEE Transactions on Computational Intelligence and AI in Games*, vol. 1, no. 3, pages 233- 244, September 2009.
- Young, R. Michael, Story and Discourse: A Bipartite Model of Narrative Generation in Virtual Worlds, in *Interaction Studies: Social Behaviour and Communication in Biological and Artificial Systems*, Volume 8, Number 2, June 2007 , pp. 177-208(32)
- Riedl, Mark and Young, R. Michael, A Planning Approach to Story Generation for History Education to appear in *International Journal of Continuing Education and Life-long Learning Special Issue on Virtual and Mixed Reality for New Training, Educational and Gaming Perspectives*.
- Riedl, Mark, and Young, R. Michael. From Linear Story Generation to Branching Story Graphs, in the *IEEE Journal of Computer Graphics and Applications*, pages 23- 31, 2006.
- Riedl, Mark, and Young, R. Michael. Story Planning as Exploratory Creativity: Techniques for Expanding the Narrative Search Space, in the *Journal of New Generation Computing*, 24(3), May 2006.
- Young, R. Michael, Riedl, Mark, Branly, Mark, Jhala, Arnav, Martin, R.J. and Saretto, C.J., An architecture for integrating plan-based behavior generation with interactive game environments, in *The Journal of Game Development*, vol.1 issue 1, pages 51-70, March 2004.

Young, R. Michael. Using Grice's Maxim Of Quantity To Select The Content Of Plan Descriptions. *Artificial Intelligence*, no. 115, 215-256, 1999.

Button, Brian, R. Michael Young and Diane M. Ahart. A framework for troubleshooting asynchronous data communications links. In *Hewlett-Packard Journal*, 31(11):41-47, 1986.

EDITED PROCEEDINGS

Oyarzun, David, Peinado, Federico, Young, R. Michael, Elezade, Ana and Medez, Gonzalo (eds). *International Conference on Intelligent Digital Storytelling*, ICIDS 2012, San Sebastian, Spain, November 2012, Proceedings (Lecture Notes in Computer Science / Lecture Notes in Artificial Intelligence), Springer, 2012.

Young, R. Michael (ed), *The Proceedings of the Fourth International Conference on the Foundations of Digital Games*. ISBN 978-1-60558-437-9. Available in the ACM Digital Library. 2009.

Gratch, Jonathan, Young, R. Michael, Aylett, Ruth and Ballin, Daniel (eds). *Intelligent Virtual Agents: 6th International Conference*, IVA 2006, Marina Del Rey, CA; USA, August 21-23, 2006, Proceedings (Lecture Notes in Computer Science / Lecture Notes in Artificial Intelligence), Springer, 2006.

BOOKS AND PARTS OF BOOKS

Cavazza, Marc, and Young R. Michael, section editors for section on Interactive Narrative: A Systems Approach, In Ryohei Nakatsu, Paolo Ciancarini and Matthias Rauterberg (eds.), *Handbook of Digital Games and Entertainment Technologies*. Springer Verlag, to appear.

Cavazza, Marc, and Young R. Michael, Introduction to Interactive Narrative: A Systems Approach, In Ryohei Nakatsu, Paolo Ciancarini and Matthias Rauterberg (eds.), *Handbook of Digital Games and Entertainment Technologies*. Springer Verlag, to appear.

Riedl, Mark, and Young R. Michael, The Importance of Narrative as an Affective Instructional Strategy, In Robert Sottolare, Arthur Graesser, Xiangen Hu, and Benjamin Goldberg (eds.), *Design Recommendations for Adaptive Intelligent Tutoring Systems: Adaptive Instructional Strategies (Volume 2)*. Springer Verlag, to appear.

Jhala, Arnav, and Young R. Michael, Intelligent Machinima Generation for Visual Storytelling, In Pedro Gonzales Calero (Ed.) *Artificial Intelligence for Computer Games*. Springer Verlag, 2011.

Young, R. Michael. Cognitive and Computational Models in Interactive Narratives, in *Cognitive Systems: Human Cognitive Models in Systems Design*, Chris Forsythe, Michael L. Bernard & Timothy E. Goldsmith, editors, Lawrence Erlbaum, pages 213-235, 2006.

Young, R. Michael. Internet Games, in *Practical Handbook of Internet Computing*, M. Singh, Ed. Pages 11-14, CRC Press, 2004.

Young, R. Michael. The Co-Operative Contract in Interactive Entertainment, in *Socially Intelligent Agents*, Kerstin Dautenhahn, Alan Bond, Lola Canamero and Bruce Edmonds, Eds. Pages 229-234, Kluwer Academic Press, 2002.

REFEREED CONFERENCE PRESENTATIONS WITH PROCEEDINGS

Robertson, Justus and Young, R. Michael, Automated Gameplay Generation from Declarative World Representations, in the International Conference on AI and Interactive Digital Entertainment, Santa Cruz, CA, 2015.

Robertson, Justus and Young, R. Michael, Finding Schroedinger's Gun, in the International Conference on AI and Interactive Digital Entertainment, Raleigh, NC, 2014.

Fendt, Matthew and Young, R. Michael, Adapting IRIS, a Non-Interactive Narrative Generation System, to an Interactive Text Adventure Game, in *Proceedings of the 27th International Conference of the Florida Artificial Intelligence Research Society (FLAIRS2014)*. Pensacola Beach, FL, USA, 2014

Cardona-Rivera, Rogelio, Robertson, Justus, Ware, Stephen Harrison, Brent, Roberts, David and Young, R.s Michael, Foreseeing Meaningful Choices. To appear in Proceedings of the 10th AAAI Conference on Artificial Intelligence and Interactive Digital Entertainment (AIIDE-14), Raleigh, NC, USA, 2014.

Ware, Stephen and Young, R. Michael, Glaive: A State-Space Narrative Planner Supporting Intentionality and Conflict (*), in Proceedings of the 10th Conference on Artificial Intelligence and Interactive Digital Entertainment (AIIDE2014). Raleigh, NC, USA, 2014.

(*) Winner of the AIIDE 2014 Best Student Paper Award.

Rogelio E. Cardona-Rivera, and R. Michael Young; "A Cognitivist Theory of Affordances for Games," in Proceedings of the Digital Games Research Conference: DeFragging Game Studies (DiGRA2013). Atlanta, GA, USA, 2013

Justus Robertson, and R. Michael Young; "Modeling Character Knowledge in Plan-Based Interactive Narrative to Extend Accommodative Mediation," in Proceedings of the 9th Conference on Artificial Intelligence and Interactive Digital Entertainment (AIIDE2013). Boston, MA, USA, 2013

Justus Robertson; "Improving Plan-Based Interactive Narrative Generation," in Proceedings of the 9th Conference on Artificial Intelligence and Interactive Digital Entertainment Conference (AIIDE2013). Stanford, CA, USA, 2013

Ware, Stephen, Young, R. Michael, Harrison, Brent and Roberts, David, Four Quantitative Metrics Describing Narrative Conflict, in the Proceedings of the International Conference in Interactive Digital Storytelling, San Sebastian, Spain, 2012.

Cardona-Rivera, Rogelio and Young, R. Michael, Characterizing Gameplay in a Player Model of Game Story Comprehension, in the Proceedings of the International Conference on the Foundations of Digital Games, 2012.

Ware, Stephen and Young, R. Michael, Validating a Plan-Based Model of Narrative Conflict, in the Proceedings of the International Conference on the Foundations of Digital Games, 2012.

Bae, Byung-Chul, Cheong, Yun-Gyung and Young, R. Michael, Toward a Computational Model of Focalization in Narrative, in the Proceedings of the International Conference on the Foundations of Digital Games, 2011.

- Dominguez, Michael, Young, R. Michael and Roller, Stephen, Automatic Identification and Generation of Highlight Cinematics for 3D Games, in the Proceedings of the International Conference on the Foundations of Digital Games, 2011.
- Ware, Stephen and Young, R. Michael, CPOCL: A narrative planner supporting conflict, in the Seventh International Conference on Artificial Intelligence and Interactive Digital Entertainment 2011, October, 2011.
- Bae, Byung-Chul, Cheong, Yun-Gyung and Young, R. Michael, Automated Story Generation with Multiple Internal Focalization, in the Proceedings of the International Conference on Computational Intelligence in Games, Seoul, Korea, 2011.
- Thomas, Jim and Young, R. Michael, Dynamic Guidance for Task-Based Exploratory Learning, in the Proceedings of the Fifteenth International Conference on Artificial Intelligence and Education, June, 2011.
- Thomas, James and Young, R. Michael, Annie: A Tutor that Works in Digital Games, in the Proceedings of the Tenth International Conference on Intelligent Tutoring Systems, Pittsburgh, PA, 2010.
- Ware, Stephen G. and Young, R. Michael, Modeling narrative conflict to generate interesting stories, in the Proceedings of the Conference on Artificial Intelligence and Interactive Digital Entertainment (AIIDE 2010), Stanford, CA, October, 2010.
- Young, R. Michael, Extending Models of Conflict and Intent Dynamics in Narrative-Based Virtual Worlds, in the *Proceedings of the ACM Conference on Multimedia Systems*, pages 199 - 208, 2010.
- Bae, Byung-Chul and Young, R. Michael, Suspense? Surprise! or How to Generate a Story with Surprise Endings Using a Disparity of Knowledge between the Reader and Characters in the Story, in the *Proceedings of the International Conference on Interactive Digital Storytelling*, pages 304 - 307, Guimarães, Portugal, 2009.
- Bae, Byung-Chull and Young, R. Michael, Evaluation of a Computational Model of Surprise Arousal in Narratives, in the *Proceedings of the 2009 International Conference on Affective Computing and Intelligent Interaction (ACII 09)*, Amsterdam, the Netherlands, September, 2009.
- Cash, Pat and Young, R. Michael, Bowyer: A Planning Tool for Bridging the gap between Declarative and Procedural Domains, to appear in the *Proceedings of the Fifth AAAI Conference on Artificial Intelligence and Interactive Digital Entertainment (AIIDE-09)* Stanford, CA, October 14 - 16, 2009.
- Jhala, Arnav and Young, R. Michael, Comparing Effects of Different Cinematic Visualization Strategies on Viewer Comprehension, in the *Proceedings of the International Conference on Interactive Digital Storytelling*, Guimarães, Portugal, pages 26 - 37, 2009
- Jhala, Arnav and Young, R. Michael, Evaluation of Intelligence Camera Control Systems Based on Cognitive Models of Comprehension, in the *Proceedings of the International Conference on the Foundations of Digital Games (ICFDG 09)*, Orlando, FL, April 26 - 30, 2009, pages 327 - 329.
- Jhala, Arnav and Young, R. Michael, Evaluation of Intelligent Camera Control Systems Based on Cognitive Models of Comprehension, in the *Proceedings of the International Conference on the Foundations of Digital Games (ICFDG 09)*, Orlando, FL, April 26 - 30, 2009.
- Munilla, Sam and Young, R. Michael. Zuzen, a Cloud-based Framework for Automated Machinima Generation, in the *Proceedings of the Advances in Computer Entertainment Conference (ACE)*, 2009.
- Thomas, Jim and Young, R. Michael, A Domain-Independent Framework to Automate Scaffolding of Task-Based Learning in Digital Games, in the Proceedings of the International Conference on the Foundations of Digital Games (ICFDG 09), Orlando, FL, April 26 - 30, 2009, pages 331 - 333.

- Thomas, James and Young, R. Michael, Using Task-Based Modeling to Generate Scaffolding in Narrative-Guided Exploratory Learning Environments, in the Proceedings of the International Conference on Artificial Intelligence and Education (AIED 09), Brighton, UK, July, 2009.
- Bae, Byung-Chull and Young, R. Michael, A Use of Flashback and Foreshadowing for Surprise Arousal in Narrative Using a Plan-Based Approach (*), in the *Proceedings of the International Conference on Interactive Digital Storytelling* (ICIDS 08), Erfurt, Germany, November, 2008.
- (*) Winner of the ICIDS 2008 Best Paper Award.
- Cheong, Yun-Gyung and Young, R. Michael, Narrative Generation for Suspense: Modeling and Evaluation,, in the *Proceedings of the International Conference on Interactive Digital Storytelling* (ICIDS 08), Erfurt, Germany, November, 2008.
- Cheong, Yun-Gyung, Jhala, Arnav, Bae, Byung-Chul and Young, R. Michael. Automatically Generating Summary Visualizations from Game Logs, in the *Proceedings of the Conference on Artificial Intelligence and Interactive Digital Entertainment* (AIIDE 08), Stanford, CA, October, 2008.
- Jhala, Arnav, Rawls, Curtis and Young, R. Michael, Longboard: A Sketch Based Intelligent Storyboarding Tool for Creating Machinima, in the *Proceedings of the Florida Artificial Intelligence Research Society Conference (FLAIRS)*, 2008.
- Roberts, Eric and Young, R. Michael, Maintaining Cognitive Engagement in Training Scenarios Using Explicit Cognitive Models, in the Proceedings of the Interservice/Industry Training, Simulation and Education Conference (I/ITSEC 08), Orlando, FL December, 2008.
- Cheong, Yun-Gyung and Young, R. Michael. A Framework for Summarizing Game Experiences as Narratives, in the *Proceedings of the Second Conference on Artificial Intelligence and Interactive Digital Entertainment*, 2006.
- Jhala, Arnav and Young, R. Michael. Representational Requirements for a Plan Based Approach to Automated Camera Control, in the *Proceedings of the Second Conference on Artificial Intelligence and Interactive Digital Entertainment*, 2006.
- Vernieri, Thomas and Young, R. Michael, Web Services for Interactive Narrative, Proceedings of the Second GAMEON North America Conference, Monterey, CA, September 2006.
- Amerson, Dan, Kime, Shaun and Young, R. Michael. Real-Time Cinematic Camera Control for Interactive Narratives, in the *Proceedings of the ACM International Conference on Advances in Computer Entertainment*, 2005 pg. 369 - 370.
- Christian, David, and Young, R. Michael. Conversation Starters: Using Spatial Context to Initiate Dialogue in First-Person Perspective Games, in the *Proceedings of the Second Australasian Conference on Interactive Entertainment*, Sydney, Australia, November 2005.
- Jhala, Arnav, Bares, William and Young, R. Michael. Towards an Intelligent Story boarding Tool for 3D Games, in the *Proceedings of the ACM Conference on Advances in Computer Entertainment (ACE)*, 2005, pages 367-368
- Harris, Justin and Young, R. Michael, Proactive Mediation in Plan-Based Narrative Environments, in the *Proceedings of the International Conference on Intelligent Virtual Agents 2005*, pages 292-304, 2005.
- Jhala, Arnav and Young, R. Michael. Cinematic Camera Control Using Discourse Planning Techniques, in the *Proceedings of the 2005 National Conference on Artificial Intelligence*, pages 307-312

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CONFERENCE POSTERS

Robertson, Justus and Young, R. Michael, Finding Schroedinger's Gun, in the International Conference on AI and Interactive Digital Entertainment, Raleigh, NC, 2014.

Bahamon, Julio and Young, R. Michael, Toward a Computational Model for the Automatic Generation of Character Personality in Interactive Narrative, to appear in the International Conference on Intelligent Virtual Agents, Santa Cruz, CA, August, 2012.

Bae, Byung-Chul, Cheong, Yun-Gyung and Young, R. Michael, Toward a Computational Model of Focalization in Narrative, in the Proceedings of the International Conference on the Foundations of Digital Games, 2011.

Young, R. Michael and Rivera-Cardona, Rogelio, Approaching a Player Model of Game Story Comprehension Through Affordance in Interactive Narrative, to appear in the Working Notes of the Fourth Workshop on Intelligent Narrative Technologies, at the Seventh International Conference on Artificial Intelligence and Interactive Digital Entertainment, Stanford, CA, October, 2011.

Fendt, Matthew and Young, R. Michael, The Case for Intention Revision in Stories and its Incorporation into IRIS, a Story-Based Planning System, to appear in the Working Notes of the Fourth Workshop on Intelligent Narrative Technologies, at the Seventh International Conference on Artificial Intelligence and Interactive Digital Entertainment, Stanford, CA, October, 2011.

Bae, Byung-Chul, Cheong, Yun-Gyung and Young, R. Michael, Toward a Computational Model of Focalization in Narrative, in the Proceedings of the International Conference on the Foundations of Digital Games, 2011.

Dominguez, Michael, Young, R. Michael and Roller, Stephen, Automatic Identification and Generation of Highlight Cinematics for 3D Games, in the Proceedings of the International Conference on the Foundations of Digital Games, 2011.

Dominguez, Mike, Young, R. Michael and Roller, Stephen, Design and Evaluation of Afterthought, a System that Automatically Creates Highlight Videos, to appear in the Proceedings of the International Conference on Artificial Intelligence and Interactive Digital Entertainment 2011, October, 2011.

Bevan, Charles and Young, R. Michael, Planning Attack Graphs, to appear in the Proceedings of the Annual Computer Security Applications Conference 2011, December, 2011.

STRONGLY REFEREED WORKSHOPS WITH PROCEEDINGS

Barot, Camille, Potts, Colin M., and Young, R. Michael, A Tripartite Plan-based Model of Narrative for Narrative Discourse Generation, to appear in the working notes of the 8th International Intelligent Narrative Technologies Workshop, part of the AAAI Conference on AI and Interactive Digital Entertainment, Santa Cruz, November, 2015.

Cardona-Rivera, Rogelio and Young, R. Michael, Symbolic Plan Recognition in Interactive Narrative Environments, to appear in the working notes of the 8th International Intelligent Narrative Technologies Workshop, part of the AAAI Conference on AI and Interactive Digital Entertainment, Santa Cruz, November, 2015.

Eger, Markus, Potts, Colin, Barot, Camille, and Young, R. Michael, Operationalizing the Master Book of All Plots, to appear in the working notes of the 8th International Intelligent Narrative Technologies Workshop, part of the AAAI Conference on AI and Interactive Digital Entertainment, Santa Cruz, November, 2015.

Eger, Markus, Barot, Camille and Young, R. Michael, On the Merits of a Temporal Modal Logic for Narrative Discourse Generation, to appear in the working notes of the 8th International Intelligent Narrative Technologies Workshop, part of the AAAI Conference on AI and Interactive Digital Entertainment, Santa Cruz, November, 2015.

Robertson, Justus and Young, R. Michael, Interactive Narrative Intervention Alibis through Domain Revision, to appear in the working notes of the 8th International Intelligent Narrative Technologies Workshop, part of the AAAI Conference on AI and Interactive Digital Entertainment, Santa Cruz, November, 2015.

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Robertson, Justus and Young, R. Michael, Gameplay as On-Line Mediation Search, in the working notes of the AIIDE Workshop on Experimental AI in Games (EXAG 2014), Raleigh, NC, 2014.

Robertson, Justus and Young, R. Michael, The General Mediation Engine, in the working notes of the AIIDE Workshop on Experimental AI in Games (EXAG 2014), Raleigh, NC, 2014.

Cardona-Rivera, Rogelio E. and Young, R. Michael, Games as Conversation, in the working notes of the AIIDE Workshop on Games and Natural Language Processing (GAMENLP 2014), Raleigh, NC, 2014.

Robertson, Justus and Young, R. Michael, Gameplay as On-Line Mediation Search, in the working notes of the AIIDE Workshop on Experimental AI in Games (EXAG 2014), Raleigh, NC, 2014.

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- Young, R. Michael, Thomas, James, Bevan, Charles and Cassell, Bradley A., Zocalo, a service-oriented architecture facilitating sharing of computational resources in interactive narrative research, in the Working Notes of the Workshop on Sharing Interactive Digital Storytelling Technologies, at the Fourth International Conference on Digital Storytelling, Vancouver, Canada, November, 2011.
- Ware, Stephen, Harrison, Brent, Young, R. Michael and Roberts, David, Initial Results for Measuring Four Dimensions of Narrative Conflict, in the Working Notes of the Fourth Workshop on Intelligent Narrative Technologies, at the Seventh International Conference on Artificial Intelligence and Interactive Digital Entertainment, Stanford, CA, October, 2011.
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- Thomas, Jim and Young, R. Michael, Using a Declarative Representation of Actions in Game Environments to Model and Guide Player Experience, in the *Workshop on Player Experience in Games* at the International Conference on the Foundation of Digital Games, Bordeaux, France, June 2011.

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- Gray, Oliver and Young, R. Michael, Video Games: A New Interface for Non-Professional Game Developers, in the *CHI 2007 Workshop on Supporting Non-professional Users in the New Media Landscape*, San Jose, CA, 2007.
- Cheong, Yun-Gyung and Young, R. Michael, A Computational Model of Narrative Generation for Suspense, in *Working Notes of the AAAI 2006 Workshop on Computational Aesthetics*, Boston, MA, July, 2006.
- Thomas, Jim and Young, R. Michael. Author in the Loop: Using Mixed-Initiative Planning to Improve Interactive Narrative, in *Working Notes of the ICAPS 2006 Workshop on AI Planning for Computer Games and Synthetic Characters*, The Midlands, UK, July 2006.
- Thomas, Jim and Young, R. Michael. Elicitation and Application of Narrative Constraints Through Mixed-Initiative Planning, in *Working Notes of the ICAPS 2006 Workshop on Preferences and Soft Constraints in Planning*, The Midlands, UK, July 2006.
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- Riedl, Mark and Young, R. Michael. Story Planning as Exploratory Creativity: Techniques for Expanding the Narrative Search Space, in *Working Notes of the IJCAI 2005 Workshop on Computational Creativity*, Edinburgh, Scotland, August 2005.
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- Young, R. Michael Notes on the use of plan structures in the creation of interactive plot, in *the Working Notes of the AAAI Fall Symposium on Narrative Intelligence*, Cape Cod, MA, pages 164-167, November, 2000
- Young, R. Michael, Computer support for collaborative dramatic art. In *Working notes of the Workshop on Use and Design of MUDs for Serious Purposes*, 1996 Conference on Computer-Supported Co-Operative Work, Boston, MA, 1996.
- Young, R. Michael and Johanna D. Moore, DPOCL: A principled approach to discourse planning, in *Proceedings of the Seventh International Workshop on Natural Language Generation*, Kennebunkport, ME, pages 13-20, July, 1994.
- Young, R. Michael and Johanna D. Moore, (1994) Does Discourse Planning Require a Special-Purpose Planner? In the *Proceedings of the AAAI Workshop on Planning for Inter-Agent Communication*, Seattle, WA, 83-90

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- Cheong, Yun-Gyung and Young, R. Michael. Computational Model of Focalization in Narrative Planning, to appear in the *Proceedings of Point of View, Perspective, Focalization: Modeling Mediacy, Internationales und interdisziplinäres Symposium der DFG-Forschergruppe Narratologie an der Universität Hamburg*, 13. - 15. October 2006.

TECHNICAL REPORTS

- Thomas, James M. and Young, R. Michael. Guiding discovery learning with an extensible representation of actions in digital games. Technical Report DGRC-2009-01, Digital Games Research Center, North Carolina State University, Raleigh, North Carolina, 2009.
- Christian, David and Young, R. Michael, Comparing Cognitive and Computational of Narrative Structure, Liquid Narrative Group Technical Report TR 03-001, North Carolina State University, 2003
- Young, R. Michael. A Developer's Guide to the Longbow Discourse Planning System, Intelligent Systems Program Technical Report 94-4, University of Pittsburgh, 1994.
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SCIENTIFIC MAGAZINE AND NEWSLETTER ARTICLES

- St. Amant, Robert and Young, R. Michael, "Interface agents in model world environments," in *AI Magazine*, special issue on interface agents, vol. 22, no. 3, pages 95-107, Fall 2001.

St. Amant, Robert, and Young, R. Michael, Introductory AI educational resources on the web, *Intelligence*, the ACM SIGART newsletter, vol. 12 issue number 4, pages 15-17, Winter 2001.

St. Amant, Robert, and Young, R. Michael, Common Lisp resources on the web, *Intelligence*, the ACM SIGART newsletter, vol. 12 issue number 3, pages 21-23, Fall 2001.

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St. Amant, Robert, and Young, R. Michael, AI planning resources on the web, *Intelligence*, the ACM SIGART newsletter, vol. 12 issue number 1, pages 17-19, Spring, 2001.

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Young, R. Michael. Towards a Computational Model of Suspense. Presented at Interactive Frictions: The Conference Produced at the Pressure Point Between Theory and Practice: An International Conference on Interactive Narrative, University of California, Los Angeles, CA, Tuesday, June 3, 1999.

WORKSHOP REPORTS

Dan Frost, Mateas, Michael, Young, R. Michael Young, Zordan, Victor, Advanced Game Technologies, in Scacchi, W. (ed), The Future of research in Computer Games and Virtual World Technologies: workshop Report, Technical Report UCI-ISR-12-8, Institute for Software Research, University of California, Irvine, Irvine, CA, July 2012.

Michael Mateas, Elizabeth André, Ruth Aylett, Mirjam P. Eladhari, Richard Evans, Ana Paiva, Mike Preuss, and R. Michael Young. Believable Agents and Social Simulations. Artificial and Computational Intelligence in Games (Dagstuhl Seminar 12191), Dagstuhl Reports, ISSN 2192-5283, volume 2, number 5, page 54. edited by Simon M. Lucas and Michael Mateas and Mike Preuss and Pieter Spronck and Julian Togelius, 2012.

Young, R. Michael, Ruth S. Aylett, Paolo Burelli, Mirjam P. Eladhari, Richard Evans, and Ana Paiva, Computational Narrative. Artificial and Computational Intelligence in Games (Dagstuhl Seminar 12191), Dagstuhl Reports, ISSN 2192-5283, volume 2, number 5, page 64. edited by Simon M. Lucas and Michael Mateas and Mike Preuss and Pieter Spronck and Julian Togelius, 2012.

PRESENTATIONS

KEYNOTE ADDRESSES

Intentional reasoning as a building block for narrative in computational media, presented at the International Conference on the Foundations of Digital Games, Asilomar, CA, June, 2015

Cracks in the Fourth Wall: Digging into a Humanistic Phenomenon Using Computational Models, presented at the AAAI Conference on Artificial Intelligence and Interactive Digital Entertainment (AIIDE) 2010, Stanford, CA, October 2010.

The Representational Challenges of Fictional Worlds, presented at the IJCAI 2009 Workshop on Logic and the Simulation of Interaction and Reasoning 2: Interactive Logic and Computer Games, held at the International Joint Conference on Artificial Intelligence, Los Angeles, CA, August, 2009

Liquid Narrative: Building Computational Models of Storytelling for Game Worlds, IBERAMIA, Lisbon, Portugal, October, 2008

Computer-Supported Story Construction for Narrative Learning Environments: Lessons Needed, Workshop on Standards for Advanced Learning Environments, University of Memphis, November, 2005

Service-oriented architectures for intelligent control of games, keynote address at the Second Australasian Conference on Interactive Entertainment, Sydney, Australia, November 22-25, 2005.

Grand Theft Academic: Stealing from Six Disciplines to Create Interactive Narratives, opening keynote address at the Fifth International Conference for Computer Games, Artificial Intelligence, Design and Education 2004, Reading, UK, November 8, 2004.

PLENARY ADDRESSES

Artificial Intelligence and Interactive Entertainment, plenary address given at the 2001 AAAI Spring Symposia Series, Stanford University, March 27, 2001.

Artificial Intelligence and Interactive Entertainment, plenary address given at the 2000 AAAI Spring Symposia Series, Stanford University, March 14, 2000.

INVITED TALKS

Invited Conference Presentations

“Enabling Games Research Through User-Centered Library Design,” presented at the Fourth Designing Libraries for the 21st Century Conference, Raleigh, NC, September 20, 2015.

“How the Hunt Engages Faculty for Research, or How I Learned to Stop Worrying and Love the Library,” presented at the Second Designing Libraries for the 21st Century Conference, Raleigh, NC, October 8, 2013.

“In Support of Cinematic Creativity,” presented at the 6th Mexican International Colloquium in Computational Creativity, Mexico City, October 20, 2011.

“Interactive Narrative: Computation and Cognition,” presented at the 6th Mexican International Colloquium in Computational Creativity, Mexico City, October 21, 2011.

“IC-CRIME: a support tool for virtual collaboration during crime scene investigation,” presented at Unite 2011, the Unity3D Annual Conference, September 30, 2011.

“Procedural Everywhere,” presented at the NSF Workshop on the Future of Research in Computer Games and Virtual Worlds, UC Irvine, Irvine CA, September 23, 2010.

“Computational Narrative,” presented at the Dagstuhl Workshop on Computational Intelligence and Artificial Intelligence in Games, Schloss Dagstuhl, Germany, May 2012.

“Transforming Narratives” (with Katherine Hayles, Duke University) presented at the UNC Chapel Hill CHAT Festival, February 16, 2010.

“A value proposition for industry/academic collaboration” presented at the Montreal International Games Summit, November 28, 2007.

- “Cognitive and Computational Models in Interactive Narrative,” at the International Conference on Narrative and Interactive Learning Environments, Edinburgh, UK, August 2006.
- “Integrating research systems and coursework with commercial game engines,” at the Microsoft Academic Days on Gaming Conference, Cozumel, Mexico, January 19, 2006.
- “Storytelling as Art, Science and Technology: Artificial Intelligence Techniques for Narrative in Games,” at the 2005 Game Writers’ Conference, Austin, TX, October 2005.
- “Connecting Gameplay to AI,” Advanced Distributed Learning Co-Lab Demofest, Orlando, November, 2005.
- “Managing User Interaction in Structured Narrative Environments,” Session on Immersive Environments, Plugfest 9 and the Workshop on Shareable Content Object Reference Model (SCORM) Sequencing and Navigation, sponsored by the US Advanced Distributed Learning Initiative and the National Institute of Standards and Technology (NIST), February 25, 2005. Travel supported by US Institute for Defense Analysis.
- “Grand Theft Academic: stealing from six disciplines to build a computational model of interactive narrative,” Game-on 2004, International Conference on Computer Games: Artificial Intelligence, Design and Education, Reading, UK, November 8-10, 2004.
- “Grand Theft Academic: stealing from six disciplines to build a computational model of interactive narrative,” Third International Conference on Narrative and Interactive Learning Environments, Edinburgh, UK, August 11, 2004.
- “Storytelling as Art, Science and Technology: Artificial Intelligence Techniques for Narrative in Games,” at the 2005 Game Writers’ Conference, Austin, TX, October 2005.
- “Integrating research systems and coursework with commercial game engines,” at the Microsoft Academic Days on Gaming Conference, Cozumel, Mexico, January 19, 2006.

Distinguished Speaker Series

- “Generating and Managing Interactive Narratives” Ashby Dialogues on the Future of Narrative, University of North Carolina at Greensboro, Greensboro, NC. October 3, 2002.
- “Coherence and Control: The Inevitable Battleground of Interactive Narratives” Distinguished Speaker Series, Center for Information Society Studies, NC State University, Raleigh, NC. April 6, 2001.
- “Coherence and Control: The Inevitable Battleground of Interactive Narratives” The Interactive Arena Speaker Series, Canadian Film Centre, Toronto, Canada. December 4, 2000.

Invited Workshop Presentations

- “The Logic of Narrative Interaction,” at the Workshop on Logic and the Simulation of Interaction and Reasoning 2, IJCAI 2009, Pasadena, CA.
- “Procedural Everywhere,” presented at the NSF Workshop on the Future of Research in Computer Games and Virtual Worlds, UC Irvine, Irvine CA, September 23, 2010.
- “More Cowbell: Approaching fun from a scientific perspective” presented at the AAAI Workshop on AI and Fun, AAAI 2010, Atlanta, GA, July 2010.

“Using a Service-Oriented Architecture to Control Narrative-Based 3D Game Engines,” Workshop on Intelligent Tutoring Systems, University of Memphis, Memphis, TN, July 27, 2007.

“Story and Discourse: Planning and Natural Language Generation in the Creation of Engaging and Interactive Stories in Computer Games”, Workshop on Cognitive Systems: Human Cognitive Models in System Design, hosted by Sandia National Laboratories and the University of New Mexico, Santa Fe, NM, June 30, 2003.

“How can computational systems create liquid narratives?” First International Workshop on Narrative and Interactive Learning Environments, Edinburgh, UK, August, 2000.

“Cognitive and Computational Models in Interactive Narrative,” at the International Conference on Narrative and Interactive Learning Environments, Edinburgh, UK, August 2006.

“Managing User Interaction in Structured Narrative Environments,” Session on Immersive Environments, *Plugfest 9 and the Workshop on Shareable Content Object Reference Model (SCORM) Sequencing and Navigation*, sponsored by the US Advanced Distributed Learning Initiative and the National Institute of Standards and Technology (NIST), February 25, 2005.

“Connecting Gameplay to AI,” Advanced Distributed Learning Co-Lab Demofest, Orlando, November, 2005.

Invited University, College and Departmental Colloquia and Seminars Outside of North Carolina State University

“Cracks in the Fourth Wall: Games, Narrative and a Science of Computational Media,” University of Wisconsin, Madison, March 23, 2015.

“Cracks in the Fourth Wall: Games, Narrative and a Science of Computational Media,” University of California, Santa Cruz, March 7, 2015.

“Cracks in the Fourth Wall: Games, Narrative and a Science of Computational Media,” Florida Polytechnic University, Lakeland, FL, February 23, 2015.

“Building a science of narrative: Computational contributions to the study of stories and their telling,” Lehigh University Joint Seminar in Computer Science and Cognitive Science, Bethlehem, PA, October 28, 2013.

“Liquid Narrative: The Importance of Story,” University of North Carolina at Chapel Hill, Games for Learning Initiative, Chapel Hill, NC, January 14, 2009.

“Leveraging Narrative Constructs in the Automatic Generation of Interactive Experiences” at the Auto-Tutor Research Group, University of Memphis Institute for Intelligent Systems, Memphis, TN, March 11, 2007.

“Leveraging Narrative Constructs in the Automatic Generation of Interactive Experiences” IT University, Copenhagen, May 9, 2007.

“Leveraging narrative concepts in the automatic construction of interactive experiences” at the Visualization Technology Group Friday Forum, Duke University, Durham, NC, February 11, 2007.

“Cognitive and Computational Models in Interactive Narrative,” at the University of Edinburgh Human Communication Research Centre, Edinburgh, UK, December 2006.

“Cognitive and Computational Models in Interactive Narrative,” at the Heriot-Watt University Department of Informatics, Edinburgh, UK, December 2006.

“Cognitive and Computational Models in Interactive Narrative,” at the University of California, Santa Cruz Department of Computer Science, Santa Cruz, CA, November 2006.

“Factoring Interactive Narrative Research: Story, Discourse and Interactivity,” University of Southern California Institute for Creative Technologies, Marina del Rey, CA, June 7, 2005.

“Interactive Narratives and Computer Games” Meredith College Mathematics and Computer Science Club, Raleigh, NC. October 21, 2002.

“Capturing Narrative in Computational Models,” at the Department of Computer Science, UC Santa Cruz, Santa Cruz, CA, September 2006.

“Factoring Interactive Narrative Research: Story, Discourse and Interactivity,” University of Southern California Institute for Creative Technologies, Marina del Rey, CA, June 7, 2005.

North Carolina Renaissance Computing Institute, *Research on Interactive Narrative in Games*, Research Triangle Park, NC, June 8, 2006.

University of North Carolina at Chapel Hill, Department of Computer Science, *Interactive Narrative in Games and Virtual Environments*, Chapel Hill, NC, June 7, 2006.

Ohio State University, Department of Computer Science, *Story and Discourse and The Liquid Narrative Project*, Columbus, Ohio, April 4, 2001.

Virginia Tech, Department of Computer Science, *The Role of Story and Discourse in Virtual Worlds Interaction*, Falls Church, Virginia, March 19, 2001.

Georgia Institute of Technology, College of Computing, *Story and Discourse: Creating and Maintaining Coherent Engaging Interactions in Virtual Worlds*, Atlanta, GA, May 4, 2000

University of Southern California, Information Sciences Institute, *Using Grice's Maxim of Quantity to Select the Content of Plan Descriptions* Marina Del Rey, CA, June, 1999

Microsoft Corporation, Microsoft Research, *Generating Concise Descriptions for Complex Activities*, Redmond, WA, April, 1997

Carnegie Mellon University, Robotics Institute, *Generating Concise Descriptions for Complex Activities*, Pittsburgh, PA, May 1997.

Massachusetts Institute of Technology, Program for Media Arts and Sciences (Media Lab), *When Less is More, More or Less: Generating Effective Task-Related Discourse* Cambridge, MA, March, 1997.

Presentations at North Carolina State University

“Envisioning the Future of Computational Media” NC State University presentation to Digital Humanities Lightning Rod Wrap Up day, Raleigh, NC, September 26, 2014.

“Innovation in Games Research” NC State University presentation to US Office of Naval Research Scientific Advisory Board, Raleigh, NC, November 12, 2013.

“The academic life of games” NC State University Fabulous Faculty speaker series, Raleigh, NC, November 11, 2011

“*Is Learning a Serious Game?*” NC State University Teaching and Learning with Technology Roundtable, Raleigh, NC, February 4, 2009

“Computer Games and Online Instruction,” NC State University Multi-Media Users’ Group, February 10, 2005.

“The NCSU Center for Digital Entertainment,” International Game Developers’ Association North Carolina Triangle Chapter Meeting, April 20, 2004.

“Coherence and Control: The Inevitable Battleground of Interactive Narratives” Distinguished Speaker Series, Center for Information Society Studies, NC State University, Raleigh, NC. April 6, 2001.

“Computer Models of Narrative: Making more engaging interfaces to information technology” Spring Speaker Series, Center for Information Society Studies, NC State University, April 4, 2001.

“Computer Models of Narrative: Making more engaging interfaces to information technology” Spring Speaker Series, Center for Information Society Studies, NC State University, April 4, 2001.

Other Invited Presentations

“The NCSU Center for Digital Entertainment,” International Game Developers’ Association North Carolina Triangle Chapter Meeting, April 20, 2004.

“Interactive Narrative and Artificial Intelligence,” Trapeze Media Group, Toronto, Ontario, Canada, December 5, 2000.

INVITED CONFERENCE PARTICIPATION

Invited attendee, Microsoft Research Faculty Summit, Redmond, WA. Invited and attended 2003 - 2008.

RESEARCH SUPERVISION

RESEARCH SCIENTISTS SUPERVISED

Camille Barot, Ph.D, 2014 to 2016.

DEVELOPMENT STAFF SUPERVISED

Scott Carpenter, senior software development engineer, August, 2015 to July, 2016.

Trey Overman, project manager, August, 2015 to July, 2016.

Jeff Ligon, Ph.D, senior software development engineer, April 2014 to March 2015.

Donnie Wrights, artist/designer, July, 2014 to date.

POST-DOCTORAL FELLOWS SUPERVISED

Jim Thomas, Ph.D., 2011 - 2012.

DOCTORAL DISSERTATIONS DIRECTED

Stephen Ware, *Automated Scaffolding of Task-Based Learning in Non-Linear Game Environments*, graduated Summer 2014. Currently Assistant Professor, Computer Science, University of New Orleans.

Matthew Fendt, *Leveraging Intention Revision in Narrative Planning to Create Suspenseful Stories*, graduated Summer 2014. Currently lecturer, Computer Science, Baylor University.

Jim Thomas, *Automated Scaffolding of Task-Based Learning in Non-Linear Game Environments*, graduated Spring 2011. Currently Senior Scientist, SoarTech Inc.

Arnav Jhala, *Cinematic Discourse Generation*, graduated Spring 2009. Currently Assistant Professor, University of California at Santa Cruz Department of Computer Science.

Byung-Chul Bae, *A Computational Model of Narrative Generation for Surprise Arousal*, graduated Summer 2009. Currently a visiting scientist, IT University of Copenhagen.

James Niehaus, *Cognitive Models of Discourse Generation for Narrative Comprehension*, graduated Summer 2009. Currently a staff scientist, Charles River Associates.

Yun-Gyoung Cheong, *A Computational Model of Narrative Generation for Suspense*, graduated Spring 2007. Currently Post-doctoral Fellow, IT University Copenhagen.

Brad Mott (co-advised with James Lester), *Decision-Theoretic Narrative Planning for Guided Exploratory Learning Environments*, graduated Spring 2006. Currently Research Scientist, NC State University Department of Computer Science.

Wei Zhang (co-advised with James Lester), graduated Spring 2005. Currently staff, University of Nebraska at Lincoln.

Mark Riedl, *Narrative Planning: Balancing Plot and Character*, graduated Fall 2004. Currently Assistant Professor, Georgia Tech, Department of Computer Science.

DOCTORAL DISSERTATIONS BEING DIRECTED AT UTAH

David Winer. Dissertation topic: computational models of cinematography.

DOCTORAL DISSERTATIONS BEING DIRECTED AT NC STATE UNIVERSITY

Adam Amos-Binks (co-advised with David Roberts). Dissertation topic: qualitative and quantitative comparisons of narrative structure.

Rogelio Cardona-Rivera. Dissertation topic: narrative affordance and the design of stories for engagement.

Brad Cassell. Dissertation topic: computational models of cinematic discourse, narrative attention and redundant information presentation in game environments.

Markus Eger. Dissertation area: extracting narrative structure from game play.

Colin Potts. Dissertation topic: plans and planning in narrative and games

Brandon Thorne. Dissertation area: modeling and generation of narrative engagement.

Justus Robertson. Dissertation topic: narrative mediation and plan recognition.

EXTERNAL EVALUATOR, PH.D. ADVANCEMENT

Constantine Diamantis Ph.D. Advancement Application reviewer, University of Teesside, Teesside, UK, September 2004.

James Skorupski, Ph.D. Advancement to candidacy external committee member, Department of Computer Science, UC Santa Cruz. December 2010.

Ann Sullivan, Ph.D. Advancement to candidacy external committee member, Department of Computer Science, UC Santa Cruz. July 2009.

Gillian Smith, Ph.D. Advancement to candidacy external committee member, Department of Computer Science, UC Santa Cruz. July 2009.

Christophe Lino, Ph.D. external committee member, University of Rennes 1, Rennes, France, October 2013.

Peter Mawhorter, Advancement to candidacy external committee member, Department of Computer Science, UC Santa Cruz. December 2013.

MASTERS THESES DIRECTED

Mike Dominguez, *Automatic Identification and Generation of Highlight Cinematics in Games*, graduated Spring 2010

Pat Cash, *Boyer: A Planning Tool for Bridging the Gap Between Declarative and Procedural Domains*, graduated Summer 2008

Vikram Kumaran, *Plan Recognition as Candidate Space Search*, graduated Summer 2006

Byung-Chul Bae, *A Computational Model of Narrative Generation for Suspense*, graduated Spring 2006

Thomas Vernieri, *A Web Services Approach to Generating and Using Plans in Configurable Execution Environments*, graduated Spring 2006

Justin Harris, *Proactive Mediation in Plan-Based Narrative Environments*, graduated Fall 2005

David Christian, *Strategic Deception in Agents*, graduated Summer 2004

Ashwin Ramachandran, *Intelligent Context-Sensitive Help for Dynamic User and Environment Contexts*, graduated Fall 2004

Arnav Jhala, *An Intelligence Cinematic Camera Planning System*, graduated Fall 2003

Sirish Somanchi, *A Computational Model of Suspense in Virtual Worlds*, graduated Summer 2003

Shannon Garlick, *The Inclusion of Reference Seeds in Generated Dialogue*, graduated Summer 2001

C.J. Saretto, *Mediating User Interaction In Narrative-Structured Virtual Environments*, graduated Summer 2001

TEACHING

ACADEMIC PROGRAM DEVELOPMENT

New Programs Developed

Designed and directed Computer Science undergraduate concentration in Game Development. Curriculum approved Spring, 2008. Program directed Spring 2008 to date.

In March of 2014, Princeton Review ranked NCSU's Game Development Program 22nd in North America and 4th among public institutions.

In March of 2013, Princeton Review ranked NCSU's Game Development Program 15th in North America.

In March, 2011 and again in March of 2012, Princeton Review ranked NCSU's Game Development Program in the top 30 in North America.

Between 2005 and 2013, NCSU graduates were placed at the following companies working in the games space: #C Technologies, Activate3D, America's Army, Electronic Arts, Emergent Game Technologies, Epic Games, Icarus Studios, Joystick Labs, Lockheed-Martin Virtual Worlds Lab, Mid-Carolina Media, Mighty Rabbit Studios, Red Storm Entertainment, RTI International, Spark Plug Games, Vicious Cycle Software, Virtual Heroes, Inc. and Zipper Interactive.

Between 2005 and 2011, NCSU graduates created four start-ups in the games space: Activate3D (Raleigh, NC), Mighty Rabbit Studios (Durham, NC), Psionix Studios (San Diego, CA), Sparkplug Games (Cary, NC). All companies are currently active.

New Courses Developed

Foundations of Interactive Game Design (CSC281). CSC281 serves as a university-wide elective for the NCSU undergraduate General Education Program interdisciplinary perspectives category.

Computer Game Design and Development (CSC481)

Advanced Game Development Projects (CSC482)

Design and Development of Virtual Worlds (CSC495D)

(developed with Patrick Fitzgerald from the Department of Art and Design)

Research Projects in Intelligent Interactive Entertainment (CSC495G)

Computational Models of Interactive Narrative (CSC582)

COURSES TAUGHT AT UNIVERSITY OF UTAH

Graduate Courses

EAE 6120 *Game Projects 2* (one semester)

COURSES TAUGHT AT NORTH CAROLINA STATE UNIVERSITY

Undergraduate Courses

CSC495 *Research Projects in Intelligent Interactive Entertainment* (five semesters)

CSC482 *Advanced Computer Game Projects* (regularly taught once per year since 2005)

CSC481 *Computer Game Design and Development* (eight semesters)

CSC411 *Introduction to Artificial Intelligence* (four semesters)

CSC281 (was CSC295) *Foundations of Interactive Game Design* (regularly taught once per year since 2009)

CSC114 *Introduction to Computing in C++* (one semester)

Graduate Courses

CSC591 *Current Techniques in Intelligent Multi-Media* (one semester)

CSC591 *Artificial Intelligence and Virtual Worlds* (three semesters)

CSC591 *Computational Models of Discourse Processing* (one semester)

CSC582 *Computational Models of Interactive Narrative* (regularly teach once per year since 2004)

CSC520 *Artificial Intelligence I* (one semester)

COURSES TAUGHT ELSEWHERE

Duke University Film Studies/Information Systems and Information Sciences Programs, *Foundations of Interactive Game Design* (2010)

East China University of Science and Technology, Shanghai, China, *Foundations of Interactive Game Design* (2010)

GRANTS AND GIFTS IN SUPPORT OF TEACHING

Grants

North Carolina State University Center for Teaching and Learning New Course Development
Program
Building Virtual Worlds
Role: Co-Principal Investigator
Amount: \$3,000,

NCSU Center for Teaching and Learning Travel Program
Game Developers Conference 2002
1/15/2002 - 4/30/2002
Role: Principal Investigator
Amount: \$1,600

Gifts

Donor: Microsoft Research University Relations
7/2002
Amount: \$8,200 (in kind)

Donor: NVIDIA Corporation
7/2007
Amount: \$2,000 (in kind)

Donor: AMD Corporation
7/2007
Amount: \$750 (in kind)

UNDERGRADUATE MENTORING

Undergraduate Research Symposia

Tramposh, Adam and Young, R. Michael, "*Design Space for Interactive Stories*," August, 2008.

Munilla, Samuel and Young, R. Michael, "*The Development of Computational Models of Interactive Narrative in Virtual Worlds*", August 3, 2006.

Lee, Michael and Young, R. Michael, "*Technical analysis of input devices for game platforms*," November, 2005.

Downy, Luke and Young, R. Michael, "*An iPhone client for 3D Cinematic Renders*," November, 2005.

Burke, David and Young, R. Michael, "*The Development of Computational Models of Interactive Narrative in Virtual Worlds*", April 22, 2004.

Vaughan, Kevin and Young, R. Michael, "*Selection Technique for desktop virtual reality in a target-rich dynamic environment*," August 13, 2003.

Saretto, CJ and Young, R. Michael, "*Mediation in Mimesis Liquid Narratives*," April 10, 2001.

Undergraduate Honors Theses Supervised

Stephen Roller, graduated Spring 2010.

Honors thesis title: Interfaces for Story Navigation in 3D Virtual Worlds

Current affiliation: Ph.D. student, computer science, University of Texas, Austin

Joe France, graduated Fall 2008.

Honors thesis title: Influencing Game Players' Choices through Design Manipulation

Current affiliation: serious game developer, Orlando, FL

Samuel Munilla, graduated Spring 2007

Honors thesis title: Longboard: Towards an Intelligent Storyboarding Tool

Current affiliation: MS student, NCSU CSC

Michael Lee, graduated Spring 2006

Honors thesis title: Technical analysis of input devices for game platforms

Current affiliation: game developer, Research Triangle Park, NC

Clay Lehman, graduated Spring 2005

Honors thesis title: Persistent Session Management in Web Services for Planning Systems

Current affiliation: unknown

Eric Pelkey, graduated Spring 2004

Honors thesis title: Advisable Narrative Planning with the Crossbow Planner

Current affiliation: unknown

Will Emigh, graduated Spring 2003

Honors thesis title: Empirically Relating Comprehension and Plan Reasoning

Current affiliation: unknown

Milind Kulkarni, graduated Spring 2002

Honors thesis title: A component-based architecture for intelligent narrative generation

Current affiliation: Assistant Professor, Purdue University, IN

RJ Martin, graduated Fall 2002

Honors thesis title: Controlling plan execution in the Mimesis architecture

Current affiliation: Software Engineer, America's Army, Seattle, WA

Daniel Amerson, graduated Spring 2001

Honors thesis title: 3D Camera control using plan generation

Current affiliation: Co-founder and Chief Technical Officer, Activate3D, Raleigh, NC

C.J. Saretto, graduated Spring 2001

Honors thesis title: Mediation in Mimesis Liquid Narratives

Current affiliation: Senior Project Manager, Microsoft Corporation, Redmond, WA

Shannon Garlick, graduated Spring 2000

Honors thesis title: A seeding technique for discourse planners

Current affiliation: Software Engineer, Intel Corporation, Portland, OR

Park Scholar Mentoring

Daniel Amerson, graduated Spring 2001

Current affiliation: Co-founder and Chief Technical Officer, Activate3D, Raleigh, NC

Undergraduates Supported from National Science Foundation Research Experiences for Undergraduate Awards (including both site and supplemental awards)

Youssef Biaz (Summer 2015)
 Kacey Eichen (Summer 2015)
 Stephanie Yang (Summer 2014)
 Mary Beth Kery (Summer 2013)
 Christian Stith (Summer 2013)
 Andrea Aldana (Fall 2012)
 Eric Lang (Spring, Summer, Fall 2012)
 Zack Litzsinger (Spring, Summer, Fall 2012, Fall 2013)
 Evan Kochuk (Spring 2011)
 Courtney Harrison (Spring 2011)
 Yaphet Marlborough (Summer 2009)
 Stephen Roller (Summer, 2009)
 Jack Snyder (Summer 2009)
 Luke Downey (Summer, Fall 2008)
 Adam Tramposh (Summer, 2008)
 Rhys Harwell (Spring 2007)
 Smith Newnam (Spring 2007)
 Tim Bennet (Spring 2007)
 Jeff Bailey (Spring 2007)
 Joseph France (Spring 2007)
 Ryan Gerleve (Fall 2007)
 Smith Newnam (Fall 2006, Spring 2007)
 Sam Munilla (Summer 2006, Fall 2006)
 David Tredwell (Fall 2005, Summer 2006, Fall 2006, Spring 2007)
 Ricky Patel (Fall 2006)
 Tim Bennet (Fall 2006, Spring 2007)
 Matt Baker (Summer 2005, Fall 2005)
 Nick Darnell (Summer 2005, Fall 2005)
 Michael K. Lee (Spring 2005)
 Craig Allen (Fall 2004)
 Joshua Stutts (Spring, Summer 2004)
 Jamaal Wesley (Spring 2004)
 Eric Pelkey (Fall 2003, Spring 2004)
 Brian Shiver (Fall 2003)

Faculty Advisor for Student Organizations

NCSU Game Developers Club (2004 to 2006, 2009 to 2013).

SERVICE

EDITORIAL SERVICE

Editorial Advisory Board Member, *International Journal of Gaming and Computer-Mediated Simulations (IJGCMS)*, May, 2014 to date

Editorial Board Member, *Advances in Cognitive Systems*, June, 2012 to date.

Associate Editor, *IEEE Transactions on Computational Intelligence and Artificial Intelligence in Games*, October, 2008 to date.

Associate Editor, *ACM Transactions on Interactive Intelligent Systems*, March, 2012 to February, 2014.

Associate Editor, *Journal of Virtual Reality and Broadcasting*, December, 2007 to March, 2015.

Editor-in-Chief, *Journal of Game Development*, 2007, 2008.

CONFERENCE CREATION

Co-founder, International Conference on the Foundations of Digital Games, 2005. This conference is now in its tenth year.

Co-founder, AAAI International Conference on Artificial Intelligence and Interactive Digital Entertainment, 2004. This conference is now in its eleventh year.

CONFERENCE CHAIRS

General Chair

General Co-Chair, Workshop on Intelligence Camera Control and Editing (WICED), at the International Conference on the Foundations of Digital Games, Raleigh, NC. (2012)

Co-Founder, Conference Chair and Finance Chair, Conference on AI and Interactive Digital Entertainment (2005)

Program Chair

Program Co-Chair, 2012 International Conference on Intelligent Digital Storytelling (2012)

Program Committee Co-Chair, IEEE Symposium on Computational Intelligence and Games (2010)

Co-Founder and Program Chair, 2009 International Conference on the Foundations of Digital Games (2009)

Program Chair, 2008 Conference on Game Development in Computer Science Education (2007)

Senior/Primary Organizer

Senior Program Committee Member, International Conference on Intelligent Virtual Agents, Delft, the Netherlands. (2015)

Senior Program Committee Member, International Conference on Intelligent Virtual Agents, Boston, MA. (2014)

Co-Organizer, First Workshop on Diversity in Games Research, AIIDE 2014, Raleigh, NC, October, 2014.

Co-Organizer, First Workshop on Research in Cognitive-based Approaches to Intelligent Interactive Digital Entertainment (RCAIIDE), AIIDE 2014, Raleigh, NC, October, 2014.

Co-Organizer, Second Workshop on Games and Natural Language Processing, International Conference on Intelligent Digital Storytelling, Istanbul, Turkey, November, 2013.

Senior Program Committee Member, International Conference on Intelligent Virtual Agents, Edinburgh, UK. (2013)

Senior Program Committee Member, International Conference on Intelligent Virtual Agents, Santa Cruz, CA. (2012)

Organizing Committee Member, 2006 International Conference on Intelligent Virtual Agents (2006)

Organizing Committee Member, 2004 International Conference on Technologies for Interactive Digital Storytelling and Entertainment (2004).

Local Arrangements

Local Arrangements Chair, AAAI Conference on Artificial Intelligence and Interactive Digital Entertainment (AIIDE), October, 2014.

Local Arrangements Chair, 2012 International Conference on the Foundations of Digital Games (2012)

Local Arrangements Chair, 2009 International Conference on Intelligent Users Interfaces (2009)

Track Chair

Track Chair (Artificial Intelligence), Program Committee, Foundations of Digital Games Conference, Chania, Greece, 2013.

Tutorials Chair

Tutorials Chair, Second Conference on Artificial Intelligence and Interactive Digital Entertainment (2006)

PROGRAM COMMITTEES

Program Committee Member, Eurographics Workshop on Intelligent Camera Control, Cinematics and Film Editing, Zurich, Switzerland, 2015.

Program Committee Member, Computational Models of Narrative Workshop, Canada, 2014.

Program Committee Member, Advances in Cognitive Systems, Palo Alto, CA. 2013.

Program Committee Member, AAAI International Conference on Artificial Intelligence and Interactive Digital Entertainment. 2013.

- Program Committee Member, Annual Conference of the Digital Games Research Association (DiGRA 2013), Atlanta, GA., 2013.
- Program Committee Member, Workshop on Computational Models of Narrative, part of the Cognitive Science Annual Conference, Hamburg, Germany. 2013.
- Program Committee, Conference on Advances in Cognitive Systems, November 2012.
- Program Committee, Fifth Workshop on Intelligent Narrative Technologies, Stanford, CA, October 2012.
- Program Committee, International Conference on Artificial Intelligence and Interactive Digital Entertainment, Doctoral Consortium Stanford, CA, 2012.
- Program Committee, International Conference on Artificial Intelligence and Interactive Digital Entertainment, Stanford, CA, 2012.
- Program Committee Member, Workshop on Computational Models of Narrative, part of the 2012 Language Resources and Evaluation Conference (LREC'2012) Istanbul, Turkey, 2012.
- Program Committee Member, International Conference on the Foundations of Digital Games Doctoral Consortium. (2012)
- Program Committee Member, International Conference on Autonomous Agents and Multi-Agent Systems. (2012)
- Program Committee Member, Fourth Workshop on Intelligent Narrative Technologies (2011)
- Program Committee Member, AAI Fall Symposium on Advances in Cognitive Systems (2011)
- Program Committee Member, Association for the Advancement of Artificial Intelligence, Video Competition (2011)
- Program Committee Member, International Conference on Autonomous Agents and Multi-Agent Systems, Senior Program Committee (2011)
- Program Committee Member, Workshop on Procedural Content Generation for Games, International Conference on Foundations of Digital Games (2011)
- Program Committee Member, International Conference on the Foundations of Digital Games (2010)
- Program Committee Member, International Conference on Intelligent User Interfaces (2010)
- Program Committee Member, Workshop on Procedural Content Generation for Games, International Conference on Foundations of Digital Games (2010)
- Program Committee Member, International Conference on Artificial Intelligence and Interactive Digital Entertainment (2009)
- Program Committee Member, International Conference on E-Learning and Games (2009)
- Program Committee Member, International Conference on Interactive Digital Storytelling (2009)
- Program Committee Member, Workshop on Agent-Based Systems for Human Learning and Entertainment, at the International Conference on Autonomous Agents and Multi-Agent Systems (2009)

- Program Committee Member, International Workshop on Interactive Digital Storytelling for Competence Development, in conjunction with the International Joint Conference on Computer Vision, Imaging and Computer Graphics Theory and Applications- VISIGRAPP 2009.
- Senior Program Committee Member, International Conference on Autonomous Agents and Multi-Agent Systems (2008, 2011, 2012)
- Program Committee Member, National Conference of the American Association for Artificial Intelligence (AAAI), Special Track on New Scientific and Technical Advances in Research (2007)
- Program Committee Member, Australasian Conference on Interactive Entertainment (2007)
- Program Committee Member, International Joint Conference on Artificial Intelligence (2007)
- Program Committee Member, International Conference on Entertainment Computing Scientific Program Committee (2006)
- Program Committee Member, International Conference on Autonomous Agents and Multi-Agent Systems, Program Committee (2006)
- Program Committee Member, Australasian Conference on Interactive Entertainment (2006)
- Program Committee Member, International Conference on Narrative and Interactive Learning Environments (2006)
- Program Committee Member, Workshop on AI Planning for Computer Games and Synthetic Characters, International Conference on AI and Planning Systems (2006)
- Program Committee Member, National Conference of the American Association for Artificial Intelligence (AAAI), Special Track on New Scientific and Technical Advances in Research (2006)
- Program Committee Member, International Conference on Autonomous Agents and Multi-Agent Systems, Program Committee (2005)
- Program Committee Member, ACM Conference on Advances in Computer Entertainment (2005)
- Program Committee Member, Australasian Conference on Interactive Entertainment (2005)
- Program Committee Member, International Conference on Entertainment Computing Scientific Program Committee (2005)
- Program Committee Member, Workshop on Narrative Learning Environments, International Conference on Artificial Intelligence in Education (2005)
- Program Committee Member, International Conference on Intelligent Virtual Agents (2005)
- Program Committee Member, Workshop on Games and Interactive Learning Environments, International Conference on Artificial Intelligence in Education (2005)
- Program Committee Member, Florida AI Research Conference (FLAIRS), special track on User Modeling and HCI Approaches in Natural Language Generation, 2004
- Program Committee Member, International Conference on Autonomous Agents and Multi-Agent Systems, Program Committee (2004)
- Program Committee Member, International Conference on Technologies for Interactive Digital Storytelling and Entertainment (2004)

Program Committee Member, International Conference on Narrative and Interactive Learning Environments (2004)

Program Committee Member, National Conference of the American Association for Artificial Intelligence (2004)

Program Committee Member, International Conference on Intelligent Virtual Agents (2003)

Scientific Committee Member, International Conference on Virtual Storytelling (2003)

Scientific Committee Member, International Conference on Virtual Storytelling (2001)

Program Committee Member, International Conference on Intelligent User Interfaces (2001)

Program Committee Member, Autonomous Agents (2001)

Program Committee Member, International Conference on Modeling and Using Context (2001)

Program Committee Member, National Conference of the American Association for Artificial Intelligence (2000)

Program Committee Member, National Conference of the American Association for Artificial Intelligence (1998)

Program and Organizing Committee Member, AAAI Spring Symposium on Computational Implicature: Computational Approaches to Interpreting and Generating Conversational Implicature (1996)

Student Session Program Committee Member, Association for Computational Linguistics Annual Conference (1995)

FUNDING PANELS

Austrian Academy of Sciences Doctoral Fellowship, 2013

United States Army Research Laboratory's Army Research Office seedling proposal, 2012.

French *Agence Nationale du Recherche*, French national research agency, 2012.

European Commission, 2009.

United Kingdom Engineering and Physical Sciences Research Council, 2008, 2007, 2005, 2004.

Canadian Research Council, 2007.

Singapore National Research Foundation, Program on Interactive Digital Media, 2007.

South Carolina Experimental Program to Stimulate Competitive Research & Institutional Development Award (EPSCOR IDEA), 2006.

North Carolina Biotechnology Center, proposal reviewer , 2005.

United States National Science Foundation, 2004, 2002, 2001, 2000.

UNIVERSITY UTAH MAJOR PROGRAMATIC ACTIVITIES

Deputy Director, Engineering Arts and Entertainment Program (EAE). <http://eae.utah.edu>. 2016 to date.

NC STATE CENTER DIRECTION AND MAJOR PROGRAMATIC ACTIVITIES

Founder and co-director, The NCSU Digital Games Research Center (DGRC). <http://dgrc.ncsu.edu>. May 2008 to 2011. Executive director, 2011 to date.

Responsibilities include a) formation of multi-disciplinary, multi-college research center, design of center bylaws and management of center establishment within NCSU and UNC System procedures, b) provide primary point of contact with games industry collaborators and with state and federal policy-makers, c) integrate faculty to collaborate on large-scale research efforts, both pre- and post-award.

Founder and co-director, The NCSU Visual Narrative Initiative: <http://visualnarrative.ncsu.edu>. June 2014 to date.

Responsibilities include a) formation of multi-disciplinary cluster-hire initiative, supported by the NCSU Chancellor's Faculty Excellence Program, to bring four new hires focused on visual narrative to NCSU, b) to build and provision a new 9000 sq. ft. research lab and teaching facility shared between

ADVISORY BOARDS AND ORGANIZATIONAL ACTIVITIES

Member, Board of Advisors, Workshop on Intelligent Narrative Technologies. (2013 to date).

Member, Board of Advisors, Generalized Intelligent Framework for Tutoring (GIFT), a joint project of the US Army Research Laboratory HRED, the Advanced Distributed Learning Center for Intelligent Tutoring Systems Research & Development (ADL CITSRD) and the University of Memphis. (2013 to date).

Member, Board of Advisors, AAAI Conference on Artificial Intelligence and Interactive Digital Entertainment (AIIDE), (2010 to date).

Member, Board of Advisors, International Game Developers Association (IGDA) Triangle North Carolina Chapter (2003 to date).

Co-Founder and member, Board of Directors and Research Director, Triangle Game Initiative, May 2008 to date.

Co-Founder, Vice-President and Member, Board of Directors, The Society for the Advancement of the Science of Digital Games, October, 2008 to date.

Member, Board of Advisors, Wake Technical Community College Games and Simulation Degree Program, 2006 to date.

Member, Board of Advisors, Central Piedmont Community College Games and Simulation Degree Program, 2006 to date.

FUNDING PANELS AND REVIEWS

Microsoft Research Faculty Fellowship Program Review Board, 2012

Agence Nationale du Recherche (France) proposal reviewer (2012)
 European Commission proposal reviewer (2009)
 Engineering and Physical Sciences Research Council (UK) proposal reviewer (2008)
 Engineering and Physical Sciences Research Council (UK) proposal reviewer (2007)
 Singapore National Research Foundation, Program on Interactive Digital Media, proposal reviewer (2007)
 Canadian Research Council proposal reviewer (2007)
 South Carolina Experimental Program to Stimulate Competitive Research & Institutional Development Award (EPSCOR IDEA), proposal reviewer (2006)
 North Carolina Biotechnology Center, proposal reviewer (2005)
 Engineering and Physical Sciences Research Council (UK) proposal reviewer (2005)
 Engineering and Physical Sciences Research Council (UK) proposal reviewer (2004)
 National Science Foundation, program panel member (2004)
 National Science Foundation, program panel member (2002)
 National Science Foundation, program panel member (2001)
 Engineering and Physical Sciences Research Council (UK) proposal reviewer (2000)
 National Science Foundation, program panel member (2000)

INTER-UNIVERSITY COLLABORATION

Member, Ad Hoc Exploratory Committee on the Research Triangle Humanities Collaborative, National Humanities Center, Spring 2012 to date.

REVIEWING

Journal reviewing

ACM Computers and Entertainment (2011)
Journal of Intelligent Information Systems (2009)
IEEE Transactions on Learning Technologies (2009)
Journal of Intelligent Information Systems (2008)
Communications of the ACM (2008)
IEEE Spectrum (2008)
Journal of Artificial Intelligence Research (2008)
The Journal of Artificial Intelligence in Education (2007)

The Journal of Artificial Intelligence in Education (2006)

The Computer Journal: The Journal of the British Computer Society (2005)

Artificial Intelligence (2004)

Journal of Game Development (2004)

Virtual Reality (2004)

International Journal of Continuing Education and Life Long Learning (2003)

Journal of Artificial Intelligence Research (2003)

Journal of Artificial Intelligence Research (2000)

Computational Linguistics (1996)

Conference reviewing

SIGGRAPH (2011)

CHI Conference on Human Factors in Computing Systems (2005)

CHI Conference on Human Factors in Computing Systems (2004)

IEEE International Conference on Advanced Learning Technologies (2004)

CHI Conference on Human Factors in Computing Systems (2003)

International Joint Conference on Artificial Intelligence (2003)

Graphics Interface (2000)

Brazilian Conference on Graphics and Interfaces (SIBGRAPI) (2000)

SIGGRAPH Courses Program (2000)

International Workshop on Agent Theories, Architectures and Languages (1998)

IFCIS Conference on Cooperative Information Systems (CoopIS'98) (1998)

International Conference on Multi-Agent Systems (1998)

International Joint Conference on Artificial Intelligence (1995)

BOOK PROPOSAL REVIEWING

Reviewer, Springer, book on Disney's storytelling process across media from film to digital games (2011).

Reviewer, John Wiley and Sons, book on game development project management (2007).

Reviewer, John Wiley and Sons, book on artificial intelligence and interactive digital entertainment (2005).

Reviewer, Elsevier Focal Press, book on constructing game-based learning environments (2005).

Reviewer, Thomson Course Technology, book on cross-platform computer game development (2005).

INTERNATIONAL STANDARDS COMMITTEES

IFIP Specialist Group on Entertainment Computing working group in Interactive Storytelling, August 2004 to date.

Working Group for Goal-Oriented Action Planning, International Game Developers' Association Artificial Intelligence Interface Standards Committee, January 2003 to June 2005.

SCIENTIFIC MAGAZINE SERVICE

Column co-editor (with R. St. Amant), *Links*, in ACM SIGART quarterly magazine *Intelligence*. (November, 2000 to May 2002).

DOCTORAL CONSORTIUM MENTORING

One on one mentor, Doctoral Consortium at the International Conference on Artificial Intelligence and Interactive Digital Entertainment, Stanford, CA, October, 2012.

EXTERNAL UNIVERSITY SERVICE

Member, Ad Hoc Exploratory Committee on the Research Triangle Humanities Collaborative, led by National Humanities Center, participation from NCSU, UNC-CH and Duke. Spring 2012 to date.

Member, External Review Committee, Faculty Position in Game Development, IT University, Copenhagen (2008)

Member, External Review Committee, Faculty Position in Game Development, IT University, Copenhagen (2007)

NORTH CAROLINA STATE UNIVERSITY SERVICE

Co-chair, Chancellor's Faculty Excellence Program, Visual Narrative Initiative Co-director, 2015 to date.

Co-chair, Chancellor's Faculty Excellence Program Faculty Search, Digital Transformation of Education Cluster, 2012 to 2015.

Member, University Task Force on Digital Humanities, Fall 2013 to date.

Member, Computer Science Department Graduate Programs Oversight Committee, Fall 2012 to date.

Designer and Lead, NCSU College of Engineering summer camp "Game Maker Girls," first held in July, 2012 and held each subsequent summer to date.

Search Committee lead, Adaptive Game Technologies position, NCSU Chancellor's Faculty Excellence cluster hire in Digital Transformation of Education, Spring 2012 to date.

NC State University Professional Science Masters Council, 2011 to date.

Host, Engineering Summer Camp Video Game Development Day, June 2011.

Member, Hunt Library Technology Advisory Board, Summer 2011 to date.

Member, College of Engineering College Leadership Survey Committee, Fall 2011.

Search committee head, Computer Science faculty position in computer games research, Fall 2010, Spring 2011.

Presentation to College of Engineering Faculty, Games Research Overview, Engineering College faculty meeting, September, 2010.

Presentation to NC State Board of Trustees, Games Research Overview, September, 2010.

GlaxoSmithKline Faculty Fellow in Public Policy and Public Engagement, Institute for Emerging Issues, NC State University, 2010.

Search committee member, Computer Science faculty position in multi-agent systems, Fall 2009, Spring 2010.

Advisory Council Member, NCSU Multi-Disciplinary Studies Program in Science, Technology and Society (1999 – 2004)

Advisory Council Member, NCSU Center for Information Society Studies (1999 – 2004)

Presenter, College of Engineering Park Scholar Finalist Weekend, February 16. 2007.

Author, white paper proposing the NCSU Campus Computer Game Initiative. This paper, drafted at the request of the Vice-Provost for Information Technology, describes the integration of managed NCSU IT resources and on-campus residential computing with student PC-based gaming (2006).

DEPARTMENTAL SERVICE

Member, University of Utah School of Computing Executive Committee, (2016 to date)

Chair, Computer Science Department Faculty Recruiting Committee, Visual Narrative and Computer Games (2015 to 2016)

Chair, Computer Science Department Faculty Recruiting Committee, Computer Games (2014 to 2015)

Chair, Computer Science Department Faculty Recruiting Committee, Adaptive Games Technologies, part of the CFEP Digital Transformation of Education cluster (2012 to 2015)

Member, Computer Science Department Faculty Recruiting Committee, Intelligent Tutoring Systems (2012 to 2013)

Member, Graduate Program Oversight Committee (2012)

Member, Accreditation Committee, CSC 116 (2010)

Member, Accreditation Committee, CSC481 (2010)

Chair, Computer Science Department Faculty Recruiting Committee, Computer Game Development (2010)

Chair, Computer Science Department Faculty Recruiting Committee, Computer Game Development (2009)

Chair, Computer Science Department Faculty Recruiting Committee, Computer Game Development (2008)

Member, Computer Science Department Faculty Recruiting Committee, AI (2007)

Member, Computer Science Department Faculty Recruiting Committee, Agents (2007)

Member, Computer Science Department Graduate Admissions and Recruiting Committee (2006)

Member, Computer Science Department Graduate Admissions and Recruiting Committee (2005)

Member, Computer Science Department Graduate Admissions and Recruiting Committee (2004)

Member, Computer Science Department Accreditation Committee (2004)

Park Scholar Program Student Advisor (2004)

Director, Computer Science Department Undergraduate Honors Program (2003)

Presenter, CSC/ECE Groundbreaking Ceremony (2003)

Park Scholar Program Student Advisor (2003)

Director, Computer Science Department Undergraduate Honors Program (2002)

Park Scholar Program Student Advisor (2002)

Director, Computer Science Department Undergraduate Honors Program (2001)

Park Scholar Program Student Advisor (2001)

Director, Computer Science Department Undergraduate Honors Program (2000)

Park Scholar Program Student Advisor (2000)

Director, Computer Science Department Undergraduate Honors Program (1999)

EXTERNAL ENGAGEMENT

ENGAGEMENT-RELATED GRANTS AND HONORS

Recipient, GlaxoSmithKline Faculty Fellowship in Engagement and Public Policy, NCSU Institute for Emerging Issues, 2010.

Recipient, Economic Development Cluster Award, NCSU Office of the Vice-Chancellor for Extension, Engagement and Economic Development. Grant for \$40,000 for use in the marketing of NCSU's efforts in serious games research and education and to build relationships with the North Carolina games industry (2008)

EXTERNAL WORK FOR PAY

Director of Research, Vizuron Entertainment, Raleigh, NC. 2010-2011.

ECONOMIC DEVELOPMENT ACTIVITIES

Panelist, Forum on Local Economy: The North Carolina Games Industry, Leadership Raleigh (Raleigh Chamber of Commerce) (2013).

Participant, Governor's Luncheon on the North Carolina Interactive Digital Media Industry, Governor's Mansion, Raleigh, NC (2012).

Panelist, Games Industry Roundtable, North Carolina Department of Commerce (2011)

Co-organizer (with entire Triangle Game Initiative Board of Directors/Officers), 2009 Triangle Game Conference, Raleigh Convention Center, Raleigh, NC. (2009 to date)

Co-organizer and moderator, 2008 Wake County Economic Development Forum: Serious Games, Sponsored by Wake County's Office of Economic Development and the NCSU Office of Extension, Engagement and Economic Development (EEED). NC State's Friday Institute for Educational Innovation, Wednesday, May 21st, 2008.

NCSU Digital Games Research Center representative, Wake County Economic Development exhibit, Austin Game Developers' Conference, September 2008.

NCSU Digital Games Research Center representative, Wake County Economic Development exhibit, Game Developers' Conference, March 2008, 2009, 2011.

Co-Organizer (with Tim Buie and Frank Boosman) of the Workshop on Collaboration in the North Carolina Serious Games Space. (2006)

Co-organizer and Moderator, (with Frank Boosman), Forum on Serious Games: Games Night, North Carolina Center for Entrepreneurial Development. May 17, 2006.

Co-organizer and Moderator, panel on "Computer Games in Serious Applications: Education, Training, and Beyond," the Council for Entrepreneurial Development InfoTech Conference, October 12, 2005, Raleigh, NC.

Co-organizer (with Frank Booseman, 3DSolve Inc), Forum on Entertainment for Education: Serious Games in the Triangle, North Carolina Center for Entrepreneurial Development. October 20, 2004.

ADVISORY BOARDS AND ORGANIZATIONAL ACTIVITIES

Member, Board of Advisors, International Game Developers Association (IGDA) Triangle North Carolina Chapter (2003 to 2015).

Co-Founder and member, Board of Directors and Research Director, Triangle Game Initiative, May 2008 to date.

FEDERAL AND STATE GOVERNMENTAL POLICY ACTIVITIES

Participant, Computing Research Association *Leadership in Science Policy Institute*, Washington DC, March 2013.

Advisor to North Carolina Department of Commerce and to the North Carolina state senate Office of the President *Pro Tem* on the development of tax-based economic incentives for the North Carolina Games Industry. Process resulted in establishment of incentive in state budget during 2010 legislative session.

Presenter and representative for the Computing Research Association, The Coalition for National Science Funding Science Exposition, House Office Building, Washington, DC. June, 2008.

OP-EDS

R. Michael Young, "Game on for computer science" *Raleigh News and Observer* (print and on-line). December 10, 2010.

Alex Macris and R. Michael Young, "First Amendment embraces video games" *Raleigh News and Observer* (print and on-line). October 5, 2010.

R. Michael Young, "Staying strong in video games" *Raleigh News and Observer* (print and on-line). April 5, 2010.

PUBLICITY

TELEVISION STORIES

PBS, *Cool Spaces* episode *Libraries*, featured interview and system demonstration discussing research partnerships between NC State Faculty and the Hunt Library.

PBS, *Nova* episode *Forensics Under Fire*, featured interview and system demonstration discussing scientific contributions to the future of forensic sciences detailing the IC-CRIME game-based virtual forensics system.

National Geographic Channel, *The Link*, episode *From Fireworks to Forensics*, featured interview and system demonstration discussing scientific contributions to the future of forensic sciences detailing the IC-CRIME game based virtual forensics system.

UNC Television, *North Carolina Today*, segment on the North Carolina games industry, initially aired 12/27/2010

CNN, *Next at CNN*, November 15, 2003.

RADIO SHOWS

ABC (Australian Broadcast Corporation) Radio National *The Deep End*. Interview focusing on the future of computer games. December 15, 2005.

BBC Five Live *Weekend News*. Live interview focusing on the Liquid Narrative Group and the future of computer games. February 2, 2003.

Radio FM4 *Digital Underground* (Austrian Broadcasting Corporation). Interview focusing on the Liquid Narrative Group. February, 2003.

NEWSPAPER ARTICLES

Jennifer Jung, "Creating a game in the pursuit of 'NOL' edge", *The Technician*, June 27, 2012.

Juliana Deitch, "University praised for video game development program", *The Technician*, March 15, 2012.

Lindsey Rosenbaum, "Hunt library goes digital: Plans for Hunt Library include several high-tech and digital applications for students", *The Technician*, February 28, 2012.

Jay Price, "NCSU freeze on academic centers affects Easley project", *The Raleigh News and Observer*, May 29, 2009.

Lucianna Chavez, "They've got next," *The Raleigh News and Observer*, May 3, 2009.

David Ranii, "Wake recruits video game developers," *The Raleigh News and Observer*, April 27, 2009.

Sam LaGrone, "Game maker seeks Triangle space", *The Raleigh News and Observer*, March 23, 2007

Tony C. Yang, "Little Budget, Big Box Exposure," *The Raleigh News and Observer*, June 17, 2006.

Staff reporter, "People," *The Raleigh News and Observer*, August 29, 2005.

Elsa Youngsteadt, "The Evolution," *The Technician*, July 27, 2005.

Seth Schiesel, Redefining the Power of the Gamer, *New York Times* (top story, Arts Section), June 7, 2005.

Jonathan B. Cox, Colleges got game: Schools adding classes to prepare students for careers in growing video-game industry," *The Raleigh News and Observer*, May 15, 2005.

Fiona Morgan, "Geeks at play: The art of the rocket-propelled ninja throwing star, and other lessons in computer gaming at NCSU", *The Independent Weekly*, May 11, 2005.

Martha Quilin, "The Dude Behind Snood: Wacky Computer Game's Success Amazes Creator", *The Raleigh News and Observer*, January 30, 2005.

Tyler Dukes, "Hailing one and all: New technology redefines the common gamer," *The Technician*, November 30, 2004.

Jonathan B. Cox, Vicki Lee Parker and Alan M. Wolf (lead), "A look ahead: Tech in 2004 - Triangle techies see trends", *The Raleigh News and Observer*, December 31, 2003.

Michel Mariott, "Games Made for Remaking", *The New York Times*, December 4, 2003.

Michel Mariott, "Video Game Players Get Their Say", *International Herald Tribune*, December 8, 2003.

Michel Marriott, "Avid gamers build own virtual world," *Marin Independent Journal* Dec. 15, 2003.

Matt Ehlers, "Making the unreal a reality -- Video game workshop draws more than 200 potential designers," *The Raleigh News and Observer*, November 12, 2003.

Guiherme Werneck, "VIDEOGAME," *Folha de Sao Paulo*, Sao Paulo, Brazil. February 17, 2003. *Folha de Sao Paulo* is the most widely read newspaper in Brazil, with a circulation of over 500,000.

Jonathan Cox, "Q&A With Michael Young," *The Raleigh News and Observer*, January 15, 2003. Story also carried by ACM TechNews Digest, Volume 5, Issue 446: January 15, 2003.

Jonathan Cox, "Q&A With Michael Young," ACM TechNews Digest, Volume 5, Issue 446: January 15, 2003.

Dan Kane, Jane Stancill, "Tuition hike could further boost faculty pay" *The Raleigh News and Observer*, February 19, 2002.

MAGAZINE ARTICLES

Erin Dunn, "Rapid Fire Growth: Locked and loaded, Epic Games blasts its way up this year's ranking of private companies," *Business North Carolina*, October, 2012.

Sylvia Adcock, Expert Witnesses: NC State Researchers are Using Everything from Blow Flies to Carpet Fibers to Skull Mapping to Advance Forensic Science, *NC State Alumni Magazine*, Winter 2011.

Staff Writer, Game Time! NC State is Fueling Big-Time Growth in North Carolina's Games Industry, *NC State Engineering Magazine*, Spring 2011

Staff Writer, Not All Fun and Games, *NC State Alumni Magazine*, Fall 2008.

Staff Writer, Engineering Frontline, College of Engineering, NC State University, Fall 2008.

Staff Writer, *County Profile: Wake County*, Business Leader Magazine, June 2008, http://www.businessleadermagazine.com/Index.aspx?page=ui_article&PID=7017

Staff writer, *When Looks Are No Longer Enough*, *The Economist*, June 8, 2006.

Maurer, Allan, *Using Game Technology to Train Workers*, *North Carolina Magazine*, March 2005, page 20.

Wolff, Michael, *Corporate Experience: Learn from the Computer Game Companies*, NC State University Center for Innovative Management Studies Technology Management Report, Fall 2003- 2004, pages 3-4.

Wolff, Michael, *Corporate Experience: Visit the Game Players*, NC State University Center for Innovative Management Studies Technology Management Report, Winter 2003- 2004, pages 3-4.

Rudd, Linda, "Research Updates: Computer Gaming More Than Child's Play", *Engineering Frontline: NC State Engineering Foundation, Inc., Annual Report 2002-03*, pages 14-15.

Pauley, Diane Summer, "Using AI in Games," *IEEE Computer*, July, 2003. vol 36 no. 7, page 21.

Thompson, Jason, "Choose Your Own Adventure," *Streaming Media Magazine*, March 2001. Also appeared in on-line version: <http://www.streamingmedia.com/article.asp?id=7106>, April 12, 2001.

SIGNIFICANT INTERNET COVERAGE

Large Scale Visualization: Video Display Walls in the James B. Hunt Jr. Library, NCSU Libraries, http://www.youtube.com/watch?v=ZnysKDV6glw&list=ECD55CB2CA2013ACF8&index=1&feature=plpp_video

Erin Dunn, "Rapid Fire Growth: Locked and loaded, Epic Games blasts its way up this year's ranking of private companies.", *Business North Carolina*, October 15, 2012. <http://www.businessnc.com/articles/2012-10/rapid-fire-growth-category/>

Jennifer Jung, "Creating a game in the pursuit of 'NOL' edge", *The Technician*, June 27, 2012.

<http://www.technicianonline.com/features/creating-a-game-in-the-pursuit-of-nol-edge-1.2745824#.UDKJhkL2Xe4>

Unite 2011 (Unity User's Conference) presentation on IC-CRIME in the Unity Serious Games Showcase. URL: <http://video.unity3d.com/video/3710221/unite-11-serious-games>

Jacqueline Conciatore, National Science Foundation, Police Investigators Revisit Crime Scenes Using Virtual Reality. July 25, 2012. <http://www.livescience.com/21833-virtual-reality-tool-nsf-ria.html>

UNC Television, *North Carolina Today*, segment on the North Carolina games industry, available on YouTube February 2011. Over 80,000 unique views.

Staff Writer, "County Profile: Wake County," *Business Leader Magazine*, June 2008,

<http://www.businessleadermagazine.com/Index.aspx?page=ui.article&PID=7017>

Staff writer, "When Looks Are Not Enough," *The Economist* online version, June 8, 2006. http://www.economist.com/displaystory.cfm?story_id=E1_SDDTSVG

Tony Yang, "Little Budget, Big Box Exposure," *The Raleigh News and Observer* online edition, June 17, 2006. <http://www.newsobserver.com/685/story/451707.html>.

Sian Prior and Jonathan Gazdir, Weiss, Christoph, "Arty Computer Games," *The Deep End*, the website of ABC (Australian Broadcast Corporation) Radio National's *The Deep End* program, November, 2005. <http://www.abc.net.au/rn/arts/deepend/stories/s1531894.htm>.

Elsa Youngsteadt, "The Evolution," *The Technician*, July 27, 2005. <http://www.technicianonline.com/story.php?id=011915>

Seth Schiesel, Redefining the Power of the Gamer, *New York Times* (top story, Arts Section), June 7, 2005. <http://www.nytimes.com/2005/06/07/arts/07arti.html>? ACM TechNews also carried a summary of this article, along with a link to its on-line source: Volume 7, Issue 801: Wednesday, June 8, 2005. <http://www.acm.org/technews/articles/2005-7/0608w.html#item4>

Maurer, Allan, Serious Games Train Workers, *North Carolina magazine On-line*, March 2005. <http://www.nccbi.org/NCMagazine/2005/mag-03-05schools.htm>

Jonathan B. Cox, Colleges got game: Schools adding classes to prepare students for careers in growing video-game industry," *The Raleigh News and Observer*, May 15, 2005. http://www.newsobserver.com/print/sunday/work_money/story/2408459p-8786385c.html

Fiona Morgan, "Geeks at play: The art of the rocket-propelled ninja throwing star, and other lessons in computer gaming at NCSU", *The Independent Weekly*, May 11, 2005. <http://indyweek.com/durham/current/ae.html>

Staff reporter, Conference Aims to Bring Artificial Intelligence Researchers, Game Developers Together, *dBusinessNews*, April 14, 2005.

Staff reporter, 'Serious Games' Showcased at CED's October Tech Forum, *Business Wire: TMCnet*, Oct. 14, 2004.

Staff Reporter, "Theirs for the Tweaking," *Kiplinger.com*, Dec. 4, 2003.

Mariott, Michel, "Games Made for Remaking," *New York Times On-line*, <http://www.nytimes.com/2003/12/04/technology/circuits/04modd.html>, December 4, 2003.

- McGraw, Walk, "Hello modder, hello fodder: Hundres of games converge at Unreal University," CNN Headline News, <http://www.cnn.com/2003/TECH/11/12/hln.game.unreal.university/>, November 12, 2003.
- Ehlers, Matt, "Making the unreal a reality -- Video game workshop draws more than 200 potential designers," Raleigh News and Observer, <http://www.newsandobserver.com/business/technology/story/3017993p-2761008c.html>, November 12, 2003.
- Gamasutra.net Education pages, *User Interaction in Narrative-Structured Virtual Environments*, October 15, 2003. http://www.gamasutra.com/education/theses/20031013/saretto_01.shtml#
- Unreal University 2003, co-sponsored by the NCSU Center for Digital Entertainment and hosted at NCSU, received wide coverage within the gaming industry on-line community (i.e., Slashdot, IGN, MacGamer, Blue's News)
- Werneck, Guiherme, "VIDEOGAME," *Folha de Sao Paulo Online*, the website of Brazil's largest newspaper, February 17, 2003.
- Weiss, Christoph, "Computer Games Tell Infinite Stories," *Radio FM4 Online*, the website of Austrian National Radio, February, 2003
- Slashdot thread, "Infinite Games?," <http://slashdot.org/article.pl?sid=03/01/31/1317200&mode=thread&tid=127>, created January 31, 2003. Slashdot is the premier web log/discussion board for information technology professionals and practitioners.
- Ludology.org thread, "The never ending story, I mean game. Well, game/story," <http://www.ludology.org>, created February 25, 2003. Ludology.org is the leading web log focused on the study of computer games as art forms.
- Ward, Mark, "Video Games Without Frontiers," ***BBC News Online***, the website of BBC Radio, <http://news.bbc.co.uk/1/hi/technology/2708995.stm>, January 31, 2003.
- Jonathan Cox, "Q&A With Michael Young," ACM TechNews Digest, Volume 5, Issue 446, <http://www.acm.org/technews/articles/2003-5/0115w.html#item6>, January 15, 2003. Story originally appeared in *The Raleigh News and Observer*, January 15, 2003.
- Thompson, Jason, "Choose Your Own Adventure," *Streaming Media Research Online*, the website of the print magazine *Streaming Media*, <http://www.streamingmedia.com/article.asp?id=7106>, April 12, 2001.

PROFESSIONALLY RELEVANT COMMUNITY SERVICE

- Web developer and webmaster for Immaculata Catholic School Annual Auction website, www.icsbid.com. Fall, 2008.
- Contest Judge, International Game Developer's Association Triangle Chapter Game Boy Advance Programming Contest, April 20, 2004.
- Member, Technology Committee, The Franciscan School, Raleigh, NC, (2003- 2004).
- Invited Speaker, Meredith College Mathematics and Computer Science Club, Raleigh, NC, October 21, 2002.

Invited Speaker, North Carolina School of Math and Science, CyberCamp. Durham, NC, June 18, 2001

Invited Speaker, North Carolina School of Math and Science, CyberCamp. Durham, NC, June 22, 2001