



Andrew M. Phelps

Curriculum Vitae

Associate Professor and Chair
Department of Interactive Games and Media
B. Thomas Golisano College of Computing and Information Sciences
Rochester Institute of Technology
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EDUCATION

Master of Science in Information Technology, May 1999, Rochester Institute of Technology
Master's Thesis: **Multi-User Three-Dimensional Interactive Narrative: Defining the Orange for Multiple Viewers**
Advisors: W. Stratton, S. Jacobs, and S. Kurtz

Bachelor of Fine Arts in Computer Art, May 1997, Bowling Green State University
Graduated Magna Cum Laude

Bachelor of Fine Arts in Painting, May 1997, Bowling Green State University
Graduated Magna Cum Laude

RESEARCH INTERESTS

Game Engine Design and Development, Entertainment Technology Systems, Game Design, Casual and Serious Game Systems, Desktop Virtual Reality, Simulation Systems, Computer Mediated Communication, Computer Supported Cooperative Work, Web Technology Design and Implementation, Data-Driven Rich-Media Experiences, Computer-Based Art, Animation, Technical Art, Development Processes, Distributed Systems, Adaptable Media and Genetic Algorithms.

PEDAGOGICAL INTERESTS

Computing Education, Educational Interactive Multimedia, Studio Classroom Instruction, Computer Supported Collaborative Learning, Project Based Learning, Objects-First Computer Programming, Computational Literacy as a Liberal Art, Concept-Based Curriculum, Active Learning, Studio Project Based Instruction, Team-Based Learning, Art and Technology Fusion, Educational Games, Games for STEM education and Serious Games.

PROFESSIONAL EXPERIENCE

- 7/2009-present **Associate Professor and Chair**, Department of Interactive Games and Media
B. Thomas Golisano College of Computing and Information Sciences
Rochester Institute of Technology (Rochester, NY)
- Founding Chair of the Department of Interactive Games and Media (Established July 1, 2009) and responsible for the strategic mission and day to day activities of the Department of Interactive Games and Media. Responsibilities include faculty evaluation, program planning, student evaluation, faculty mentorship, outreach, strategic initiative planning, and interaction with administrative units above the department level. In addition, responsible for teaching and research activities related to the Game Design and Development as well as the New Media Programs.
- 9/2004-6/2009 **Director**, Game Design & Development
B. Thomas Golisano College of Computing and Information Sciences
Rochester Institute of Technology (Rochester, NY)
- Responsible for the creation and implementation of courses related to both the Game Design and Development concentration as well as the MS and BS Game Design and Development Degrees. Responsibilities included acting as program representative to the IT department chair, dean's office, institute, and outside agencies.
- 9/2004-present **Research Director**, Laboratory for Game Design & Development
B. Thomas Golisano College of Computing and Information Sciences
Rochester Institute of Technology (Rochester, NY)
(Formerly the CASCI Laboratory for Graphical Simulation, Visualization & Virtual Worlds)
http://games.rit.edu/research/casci_lab_for_gdd/
- Responsible for coordinating research activities among faculty whose scholarship involved simulation or game development. Provided financial and resource support for a number of industry funded initiatives, including those sponsored by Microsoft Research.
- 6/1999-6/2009 **Instructional Faculty**, Information Technology Department
B. Thomas Golisano College of Computing and Information Sciences
Rochester Institute of Technology (Rochester, NY)
Academic Tenure Awarded: 07/2005
- Responsible for teaching courses as well as performing research and scholarship within the Game Design and Development as well as New Media Interactive Development groups.

ADDITIONAL EXPERIENCE

- 7/1998 &
7/1999 **Summer Instructor**, Kids on Campus
Rochester Institute of Technology (Rochester, NY)
- 2007 **Academic Consultant / Educational Leader** (NOVA Academy / RIT)
Rochester Institute of Technology (Rochester, NY)
Middle College Program administered by U. Boyd, D. Spang

AWARDS

- 2009 *XNA Game Studio Express Innovation Award*
Microsoft Corporation
Funding Awarded: \$15,000
- 2003 *ETD Best Session Award*
For Lunt, B., Reichgelt, H., Ashford, T., Willis, C., Slazinsky, E., and Phelps, A., "An Empirical Comparison of Baccalaureate Programs in Computing." Presented at the American Society for Engineering Education annual conference presented by A. Phelps

NOMINATIONS

- 2009 Outstanding Alumni Award, Rochester Institute of Technology
- 2008 Trustees Scholarship Award, Rochester Institute of Technology
B. Thomas Golisano College of Computing and Information Sciences Finalist Candidate (one of 8 at the institutional level)
- 2007 Trustees Scholarship Award, Rochester Institute of Technology
- 2004 Eisenhart Teaching Award, Rochester Institute of Technology

PEER-REVIEWED JOURNAL AND CONFERENCE FULL PUBLICATIONS

1. Phelps, A., Egert, C., and Bayliss, J., "Games in the Classroom: Using Games as a Motivator for the Study of Computing (Part II)", in *IEEE Multimedia*, 16(3), pp. 2-7, 2009
2. Phelps, A., Egert, C., and Bayliss, J., "Games in the Classroom at the Rochester Institute of Technology: A Case Study", in *IEEE Multimedia*, 16(3), pp. 82-88, 2009

3. Phelps, A., Egert, C., and Bayliss, J., "Games in the Classroom: Using Games as a Motivator for the Study of Computing (Part I)", in *IEEE Multimedia*, 16(2), pp.4-8, April-June 2009
4. Phelps, A., Egert, C., and Weber, G., "Implementation Strategies for Microsoft XNA Game Development in Academic Laboratory Environments", Academic Resource Center, Microsoft Corporation, <http://www.academicresourcecenter.net/curriculum/pfv.aspx?ID=7459>, September 2008
5. Egert, C., Jacobs, S., and Phelps, A., "Bridging the Gap: Balancing Faculty Expectations and Student Realities in Computer Gaming Courses", in *FuturePlay*, Toronto, Ontario, Canada, pp. 201-204, October 2007
6. Egert, C., Bierre, K., Phelps, A., and Ventura, P., "Hello, M.U.P.P.E.T.S.: Using a 3D Collaborative Virtual Environment to Motivate Fundamental Object-Oriented Learning", in *Companion to the 21st Annual ACM SIGPLAN Conference on Object-Oriented Programming Systems, Languages, and Applications (OOPSLA)*, Portland, OR, pp. 881-886, October 2006
7. Phelps, A., Egert, C., and Bierre, K., "Games First Pedagogy: Using Games and Virtual Worlds to Enhance Programming Education", *Journal of Game Development*, 1(4), pp. 45-64, May 2006
8. Bierre, K., Ventura, P., Phelps, A., and Egert, C., "Motivating OOP by Blowing Things Up: An Exercise in Cooperation and Competition in an Introductory Java Programming Course", in *Proceedings of the 37th Technical Symposium on Computer Science Education*, Houston, TX, pp. 354-358, March 2006
9. Phelps, A., Egert, C. and Bierre, K., "MUPPETS: Multi-User Programming Pedagogy for Enhancing Traditional Study: An Environment for both Upper and Lower Division Students", in *IEEE Frontiers in Education*, Indianapolis, IN, pp. S2H-8 - S2H-15, October 19-22, 2005
10. Phelps, A. and Parks, D., "Fun and Games with Multi-Language Development", in *ACM Queue*, 1(10), pp. 46-56, February 2004
11. Bierre, K., and Phelps, A., "The Use of M.U.P.P.E.T.S. in an Introductory Java Course", in *Proceedings of the 5th Conference in Information Technology Education, ACM Special Interest Group for Information Technology Education*, Salt Lake City, UT, pp. 122-127, 2004.
12. Phelps, A., Bierre, K. and Parks, D., "MUPPETS: Multi-User Programming Pedagogy for Enhancing Traditional Study", in *Proceedings of the 4th Conference in Information Technology Education, ACM Special Interest Group for Information Technology Education*, Lafayette, IN, pp. 100-105, 2003
13. Lunt, B., Reichgelt, H., Ashford, T., Willis, C., Slazinsky, E., and Phelps, A., "An Empirical Comparison of Baccalaureate Programs in Computing", in *Journal of Information Technology Education*, 3, Santa Rosa, CA, pp. 19-34, 2004
14. Lunt, B., Reichgelt, H., Ashford, T., Willis, C., Slazinsky, E., and Phelps, A., "An Empirical Comparison of Baccalaureate Programs in Computing", in *Proceedings of the 2003 International Conference on Engineering and Computer Education (ICECE 2003)*, Santos, Brazil, March 2003

JURIED- AND PEER- REVIEWED CONFERENCE EXTENDED ABSTRACTS

1. Phelps, A. and Egert, C., "Educational Practices for Technology Students in Entertainment Domains", American Society for Engineering Education St. Lawrence Section Conference, Binghamton, NY, 2005

INVITED PRESENTATIONS

1. Phelps, A., "Student Work and Curricular Design From RIT Interactive Games and Media Department", presented at Adobe MAX 2009, Los Angeles, CA, October 2009
2. Phelps, A., "AEL Presentation", Adobe Education Leader Summer Institute, Los Angeles, CA, July, 2009
3. Phelps, A., "Games & Learning in STEM Disciplines: About the G4LI", External Research Symposium, Microsoft Research, Redmond, WA, http://research.microsoft.com/en-us/events/ersymposium2009/phelps_ersymp09.pdf, Spring 2009
4. Egert, C. and Phelps, A., "M.U.P.P.E.T.S.: An Overview", SUNY Conferences on Computing in the Disciplines (COCID), SUNY Institute of Technology, Utica, NY, April 3, 2009
5. Williams, A., Thomas, M., Holt, D., Plourde, J., Solt, P., Solt, B., Ray, A. and Phelps, A. Presentation of "Impulse" – a student game created in 2D Graphics Programming at RIT. Winner of a PAX 10 Penny Arcade Challenge top-10 award. PAX 10 Penny Arcade Conference, Seattle, WA, August 2008.
6. Phelps, A., "Leadership and Games | Games for School Leadership", Presentation at the Games + Learning + Society conference, Madison, WI, July 2008
7. Phelps, A., Presentation at AMTRA (Assoc. Math Teachers – Rochester Area) Annual Conference St. John Fisher College, 2008
8. Steinkeuhler, C. and Phelps, A., "The Guilt of Guild Leadership", Games, Learning & Society 2.0, University of Wisconsin-Madison, Madison, WI, July 2007
9. Nordlinger, J. and Phelps, A., "Games First Pedagogy: Using Games and Virtual Worlds to Enhance Programming Education", Microsoft Research, Redmond, WA, http://research.microsoft.com/en-us/um/redmond/events/fs2007/agenda_mon.aspx, Spring 2007
10. Phelps, A., "The Intersection of Games, Youth, and Modern Culture", Pediatric Grand Rounds, University of Rochester Pediatrics, Strong Memorial Hospital, Rochester General Hospital, Fall 2006

11. Phelps, A., "A Nexus of Education, Inspiration, Research, and Play", Faculty Scholars Series. The Idea Factory, Wallace Memorial Library, Rochester Institute of Technology, Fall 2006
12. Phelps, A. and Egert, C., "Learning by Playing Together: The Impact of Collaborative Virtual Environments on Student Interaction and Program Cohesiveness", Conference on Games, Learning, and Society, Madison, WI, June 2006
13. Nordlinger, J. and Phelps, A., "Gaming for Computer Science Instruction", Microsoft Research Faculty Summit, Microsoft Research, Redmond, WA, http://research.microsoft.com/en-us/um/redmond/events/fs2006/agenda_tue.aspx, Spring 2006
14. Phelps, A., Presentation at the Latin American Microsoft Research Faculty Summit, Santiago, Chile, 2006
15. Phelps, A., "Social Aspects of Game Related Software." Microsoft Research Social Software Symposium, Microsoft Research, Redmond, WA, Spring 2006
16. Phelps, A., "Mastering the 3D Experience", Presentation at Macromedia MAX 2005, Anaheim, CA, October 2005
17. Phelps, A. and Parks, D., "M.U.P.P.E.T.S.: The Multi-User Programming Pedagogy for Enhancing Traditional Study", Presentation at the Game Developer's Conference, San Diego, CA, Winter 2005
18. Phelps, A. and Parks, D., "M.U.P.P.E.T.S.: The Multi-User Programming Pedagogy for Enhancing Traditional Study", Presentation at the Computer Gaming Technologies Conference, Toronto, Ontario, Canada, April 2004
19. Phelps, A., "IGDA Annual Report on Web and Downloadable Games", Presented at Game Developer's Conference (GDC), San Diego, March, 2004
20. Phelps, A. "Ethical Dilemmas in Developing Video Game Content" St. John Fisher College Colloquium Series, Pittsford, NY, 2004
21. Phelps, A., "The Battle for Your Living Room." Presentation at SoftEdge 2003, Reuters Venture Capital Group and the New School University, New York, NY, October 2003
22. Phelps, A., "O'REILLY Alpha Geek", Speaking engagement at the Emerging Technologies Conference 2003, by personal invitation of Tim O'Reilly, Spring 2003
23. Lunt, B., Reichgelt, H., Ashford, T., Willis, C., Slazinsky, E., and Phelps, A., "An Empirical Comparison of Baccalaureate Programs in Computing", presentation at the American Society for Engineering Education annual conference by A. Phelps, Winner of "2003 ETD Best Session Award.", 2003
24. Phelps, A., "Games and Information Technology." Presentation at the Society for Information Technology Education, Savannah, GA, September 2002

25. Phelps, A., "Non-Linear Narrative and 3D Virtual Worlds", Presentation at the Society for Literature and Science (SLS) Conference, hosted by the Georgia Institute of Technology. Colony Square, Atlanta, Georgia, Fall 2002
26. Phelps, A., "Ten Things Wrong with Games in the Academic Community." Presentation at the Computer Gaming Technologies Conference, Algoma, Canada, May 2002
27. Phelps, A., "3D Games as Educational Tools", Presentation on the use of 3D games as an educational tool at the V-Learn 2000 conference physical node at the Cornell Theory Center, Ithaca, NY, October 2000
28. Phelps, A., "The Orange Project", Presentation at the Digital Biota 3 conference at San Jose State University for work in multi-user, Java/VRML based networked virtual reality environments, Sponsored by the Contact Consortium, San Jose State University Department of Mathematics and the NASA Ames Research Center, November 1999

EDITORIALLY SELECTED TRADE PUBLICATIONS

1. Phelps, A. and Egert, C., "A Balrog in the Browser: Simulating Fire in Shockwave 3D", featured at the Director Online User's Group, <http://www.director-online.com>, 2005
2. Phelps, A., "Simulating Water with Shockwave 3D", Director-Online User's Group, October 2004
3. Phelps, A., "Using JavaScript Syntax in Director MX 2004 for 3D File system Visualization", Macromedia DevNet Center for Director, Macromedia, Inc., <http://www.adobe.com/devnet/director/articles/visualization.html>, February 2004
4. Phelps, A. and Cloutier, A., "Methodologies for Quick Approximation of 2D Collision Detection Using Polygon Armatures", simultaneously published both at the Directors Online User's Group [DOUG] and the Macromedia DevNet forum, <http://www.director-online.com/buildArticle.php?id=1114>, 2003
5. Phelps, A., "Generating Perlin Noise with Director MX", Published by the Macromedia DevNet Center, http://www.macromedia.com/devnet/mx/director/articles/perlin_noise.html, 2003
6. Phelps, A., "3DISO: Adapting Isometric Scrolling to 3D Environment using Shockwave 3D", featured at the Director Online User's Group, <http://www.director-online.com>, February 2002. Six-part article series.
7. Phelps, A., "Teaching Old Turtles New Tricks: Artificial Life Simulation Using Director", featured in the Director Online User's Group, <http://www.director-online.com>, April 2001
8. Phelps, A., "LingoLand: Simple Terrain Simulation in Lingo", featured in the Director Online User's Group (DOUG), <http://www.director-online.com>, April 2001

9. Phelps, A., "Perspective Based Mazes: The Director Dungeon Crawl", featured in the Director Online User's Group, <http://www.director-online.com>, March 2001
10. Phelps, A., "Sexy Spheres and Silly Shadows: Raytracing in Lingo", featured in the Director Online User's Group, <http://www.director-online.com>, February 2001

PEER-REVIEWED PUBLICATIONS / CONTRIBUTING EDITOR

1. International Game Developers Association, 2006 Casual Games Whitepaper, http://www.igda.org/casual/IGDA_CasualGames_Whitepaper_2006.pdf, 2006
2. International Game Developers Association, 2005 Casual Games Whitepaper, http://www.igda.org/casual/IGDA_CasualGames_Whitepaper_2005.pdf, 2005
3. International Game Developers Association, 2004 Web and Downloadable Games Whitepaper, http://www.igda.org/online/IGDA_WebDL_Whitepaper_2004.pdf, 2004

PEER-REVIEWED PUBLICATIONS / CONTRIBUTING STANDARDS EDITOR

1. Co-Editor of the Virtual Reality Modeling Language, (VRML) Part2: External Authoring Interface proposal (ISO/IEC FDIS 14772-2:2001), 2000-2001

PEER-REVIEWED / EDITED CONFERENCE WORKSHOPS

1. Phelps, A., Egert, C., Bierre, K., and Parks, D., "An Open-Source CVE for Programming Education: A Case Study", *The 32nd International Conference on Computer Graphics and Interactive Techniques (SIGGRAPH)*, Los Angeles, CA, July 31-August 5, 2005
2. Phelps, A., "Introduction to the External Authoring Interface", ACM SIGGRAPH Web3D 2000, Monterey, CA, February 1999

PEER SELECTED / CLOSED CONFERENCE PANELS

1. Bogost, I., Brubaker, G., Phelps, A., White, W., Whitehead, J., and Zyda, M., "Creating and Managing an Academic Games Program", Foundations of Digital Games Conference, April 26-30, 2009
2. Fullerton, T., Roberts, S., Phelps, A., Buchanan, J., and Nitsche, M., "Successful Game Programs", Game Developer's Conference, San Francisco, CA, March 2008

3. Winn, B., Phelps, A., Yelon, J., Daley, M.,” Exploring the Technology Used in Academic Game Development Programs Panel”, Panel presented at FuturePlay 2006 International Academic Conference on the Future of Game Design and Technology, London, Ontario, Canada, October, 12, 2006

CLOSED INVITATION PROFESSIONAL VENUES

1. Phelps A., Invited attendance and participation on Games for Learning topics at the Microsoft Research Faculty Summit, July 2009
2. Phelps A., Invited attendance and participation at the Microsoft Research Social Computing Symposium, October 2008
3. Phelps A., Invited attendance and participation on Games for Learning topics at the Microsoft Research Faculty Summit, July 2008
4. Phelps A., Invited attendance and participation on Introductory Programming topics at the Microsoft Research Faculty Summit, July 2006

PEER-REVIEWED / JURIED ARTWORK & 3D MODELS

1. Computer Artist of the Month at Computer Graphics World Online (<http://www.cgw.com>). CGW is a monthly printed and online magazine focusing on the animation, visualization, and game design markets’ use of 3D graphics technology. 2001.
2. Artwork presented at the SIAM Geometric Modelling Conference in Albuquerque, New Mexico by Christen Barghiel of Side Effects Software Inc (SESI) as a demonstration of a new computer graphics modelling technique known as “surface pasting”.
3. “Fish” featured for photorealistic rendering techniques in the Side Effects Gallery, <http://www.sidefx.com/>, Summer 1999.
4. "Ancient Elf" featured in the Side Effects Gallery, <http://www.sidefx.com/>, October 1998.
5. “Dragon Tutorial” featured online at 3D-Café, www.3dcafe.com, May 1997. “Dragon Tutorial” also featured at MaxTrends® and the BoboLand® websites.
6. “Andyweb Screenshot”, “Fly3” featured in 3D Computer Graphics and Animation: From Starting Up to Standing Out, 1997, by Mark Giamb Bruno, New Riders Publishing, color insert and page 435.
7. “Sector 7G” featured in Inside 3D-Studio MAX, by Elliott and Miller, New Riders Publishing, 1996, page 412.

PROMOTIONAL & PUBLIC PRESS ARTWORK

1. GDC 2009 Promotional Artwork – Featured branding for all published work inside and outside the RIT community, leading up to the GDC conference. Artwork featured in several non-RIT press releases, 2009.
2. GDC 2008 Promotional Artwork – Featured branding for all published work inside and outside the RIT community, leading up to the GDC conference. Artwork featured in several non-RIT press releases, 2008.
3. GDC 2007 Promotional Artwork – Featured branding for all published work inside and outside the RIT community, leading up to the GDC conference. Artwork featured in several non-RIT press releases, 2007.
4. RIT BS GDD Promotional Artwork – Featured branding for published materials related to the BS GDD degree program. Artwork included materials for promotional brochures, branded booth/giveaway materials (bracelets, pens, shirts, and other materials), and critical events, 2007.
5. RIT MS GDD Promotional Artwork – Featured branding for published materials related to the MS GDD degree program. Artwork included materials for promotional brochures, branded booth/giveaway materials (bracelets, pens, shirts, and other materials), and critical events, 2006.

PRESS ARTICLES, INTERVIEWS, AND FEATURED WORK

1. Work with the Games for Learning Institute featured in the New York Times, http://www.nytimes.com/idg/IDG_852573C400693880002574DA0051B914.html?ref=technology, Fall 2008
2. Work with the Games for Learning Institute featured in the Chronicle for Higher Education, <http://chronicle.com/wiredcampus/index.php?id=3370>, Fall 2008
3. Partridge, Allen. “Creating Games for Fun & Profit.” Thomson Learning Game Development Series, Charles River Media. Interview with professor A. Phelps, RIT, on casual games. Pp. 282-288. August 2007
4. “Aliens” student game Featured in Keynote of GameFest 2007. C. Satchell, Microsoft. Game by C. Cascioli, A. Tse, C. Baker, P. Kuhn, E. Huyer, C. Doody, and H. Beecham. A. Phelps faculty advisor. Gamefest 2007, Seattle, Washington, July 2007
5. “Rocktropolis” student game Featured in Games for Windows Magazine. C. Cascioli, C. Baker, A. Tse, and P. Kuhn. Faculty advisor A. Phelps. Page 30 (top). December 2006.

6. "Older Gamers Now the Norm" by D&C staff and wire reports. Democrat and Chronicle Oct 9, 2002 (also featured on <http://www.slashdot.org>. October 2002)
7. Work in games education featured at <http://austin.bizjournals.com> Sept. 2, 2002
8. Work in games education featured at <http://dailynews.att.net> (transcript of ABC radio program "Cyber Shake") July 24, 2002
9. Interviewed for special presentation on Games Education for National Public Radio "All Thing Considered" (locally WXXI-AM), May 22, 2002, Broadcast nationally
10. Appeared on TechTV, a technical news service available in the Silicon Valley area to promote and discuss games education. May 2002.
11. "Some Colleges Take Games Seriously" by Claudia Deutsch. The New York Times. Featured my work in games education, full page in the business section, April 1, 2002
12. "Schools Grooming Game-Makers of the Future". USA Today. <http://www.usatoday.com/life/cyber/tech/review/2002/4/01/game-developers.htm> (differed slightly from in-print version listed above). (No longer online)
13. "Schools Grooming Game-Makers of the Future" Associated Press, March 31, 2002: Story on RIT's computer game program picked up nationwide.
14. Referenced in "Images of the Future" by Tyler Hamilton appearing in the Toronto Star with four quotes as a gaming and 3D expert, for the "Day in 3-D" edition. April 21st 2001. <http://www.thestar.ca>.
15. Work on games education featured in the "Voice of America", and is available for download at <http://www.voanews.com>.
16. Interviewed for German National Public Television to promote and discuss RIT's programs in games education. This interview was rebroadcast in Germany, Switzerland, and Australia.
17. Work on Games Education featured in the following papers (includes article placements by The New York Times and USA Today): News (Birmingham, AL), Daily Herald (Arlington, IL), Daily News (McKeesport, PA), Frederick (MD), News-Post, Island Packet (Hilton Head Island, SC), Journal and Courier (Lafayette, IN), Kentucky.

ADDITIONAL PRESS AND PUBLIC APPEARANCES

News Era (Hopkinsville), Knoxville (TN), News, Sentinel, Lodi (CA), News-Sentinel, Metro (Philadelphia), Metro West Daily News (Farmington, MA), Montgomery (AL) Advertiser, Porterville (CA), Recorder, Record Search Light (Redding, CA), San Francisco Examiner, Santa Cruz (CA), Sentinel, Santa Maria (CA), Times, Signal (Santa Clarita, CA), South Bend (IN), Tribune, Springfield (OH), News-Sun, Tahoe Daily Tribune (South Lake Tahoe, CA), Times Observer (Warren, PA),

Berkshire Eagle (Pittsfield, MA), Herald News (Fall River, MA), Leader (Corning), Register-Guard (Eugene, OR), Citizen (Auburn), News and Observer (Raleigh, NC), Niagara Gazette (Niagara Falls), Walla Walla (WA), Union Bulletin, Daily Journal (Manassas, VA), Dispatch (Moline, IL), Montgomery Journal (Rockville, MD), News and Record (Greensboro, NC), Northern Virginia Journal (Alexandria, VA), Prince George's Journal (Lanham, MD), Rock Island (IL), Argus, Detroit News, International Herald Tribune (Paris, France), Davis (CA), Enterprise, Kalamazoo (MI), Gazette, Marin Independent Journal (Novato, CA), San Antonio (TX), Express News, Sioux City (IA), Sunday Journal, Sunday enterprise (Brockton, MA), Sunday Leader-Herald (Gloversville), Sunday News Journal (Wilmington, DE), Telegraph herald (Dubuque, IA), West Sound Sun (Bremerton, WA), Gazette (Cedar Rapids, IA), San Juan (PR), Star, Ventura County (CA), Milwaukee Journal Sentinel, Times (Hammond, IN), Vidette Times (Valparaiso IN), Edmonton (Alberta, Canada) Journal, Statesman Journal (Salem, OR), Sunday Journal (Albuquerque, NM), Sunday Times (Walnut Creek, CA), Cumberland (MD), Times News, Daily Breeze (Torrance, CA), Lubbock (TX), Avalanche-Journal , Film/Tape World, The Norman (OK), Transcript, Modesto(CA), Bee, Battle Creek (MI), Enquirer, Austin (Texas), American-Statesman, News-Capitol And Democrat (McAlester OK), IEEE Computer, The Daily News (Batavia).

RIT UNIVERSITY NEWS APPEARANCES

| | |
|------------|---|
| 03/26/2009 | President Destler becomes a 'Banjo Hero' |
| 10/23/2008 | RIT Teams with Microsoft to Help Form Games for Learning Institute |
| 09/17/2008 | RIT Students Prove They've Got Game at North America's Largest Gaming Expo |
| 10/2007 | Reporter Magazine, October 2007 "Geek Issue" |
| 09/19/2007 | RIT Joins Library of Congress Partnership to Preserve Online Games and Virtual Worlds |
| 09/06/2007 | RIT's Game Design and Development Program Wins Microsoft Research Award |
| 02/20/2007 | RIT Wins Microsoft Research Grant to Assess Use of Computer Games in Curricula |
| 02/08/2007 | RIT Brings its 'A' Game! University Offers Bachelor's in Game Design and Development |
| 02/08/2007 | RIT Podcast – Two New Degree Programs for Game Design and Development |
| 01/11/2007 | Microsoft Research supports 'game play' in the classroom |
| 11/26/2006 | RIT Symposium Will Explore Advertising in the Digital Age |
| 11/16/2006 | RIT's Computing College Offering Three New Master of Science Degrees |
| 03/12/2006 | RIT Students Put Their Game Faces On |
| 02/24/2002 | RIT Creates One-of-a-Kind Courses in Computer-Game Programming |

GRANT AWARDS AND ADDITIONAL FUNDING

1. Games for Learning Institute. G4LI Partner. A consortium of schools exploring using games for middle-school STEM education. One of three principal presenters to Microsoft Research, along with K. Perlin, and J. Plass, NYU. Winner of international award process for selection of center location, funded by Microsoft Research, Fall 2008. (\$3 million USD total award for all partners)
2. Preserving Virtual Worlds. Co-Principal Investigator. A project on preserving virtual worlds with the University of Illinois at Urbana-Champaign, Stanford University, Maryland University, the Rochester Institute of Technology, and Linden Labs (Second Life). Funded by the Library of Congress Preserving Creative America NDIP, 2007. (\$590,000 USD + Match \$1.2 million USD total funding across all partners)
3. Principal Investigator on “Assessing Games in Introductory Computing Curricula using MUPPETS and RAPT”. A Phelps & J Bayliss. Funded through Microsoft Research, Microsoft Corporation, Redmond, Washington, 2006. (\$80,000 USD)
4. Principal Investigator on “MUPPETS: Proposal for C# and DirectX Support for MS Enabled Curricula”. Funded through Microsoft Research, Microsoft Corporation, Redmond, Washington, 2004. (\$86,000 USD)
5. Co-Principal Investigator on “MUPPETS: Multi-User Programming Pedagogy for Enhancing Traditional Study”. This work was funded through the RIT Provost’s Learning Initiative Grant (PLIG) program. (\$12,500 USD Plus donations of software, accounts, and materials to the Game Design & Development Laboratory at RIT)
6. Co-Principal Investigator on “Development of Speech Recognition and Computer Communications as a Support for Deaf and Hard of Hearing Students” an NTID based grant that is exploring the use of wireless technology in the classroom. This grant is funded through the Department of Education. May 2000. (amount withheld, sub-contract award)
7. Co-Principal Investigator on “Jumping Genes” – a project involving the use of virtual worlds to aid high school science education. This project is in conjunction with the Cornell Theory Center, Cornell University (Ithaca, New York). 2002. Funding was through the CTC, from the National Science Foundation. (amount withheld, sub-contract award)
8. Administrative Oversight of GDD Lab Construction (Salary Negotiation)
9. Creation of the Bachelors of Science in Game Design and Development Bachelor’s Degree Program (additional funding to support summer activity)
10. Creation of the Masters of Science in Game Design and Development Bachelor’s Degree Program (additional funding to support summer activity)

RESEARCH PROJECTS

| Date | Research Project |
|--------------|---|
| 2008-present | <p>Game-based Rendering in Adobe Flex and Pixel Bender <i>Collaboration with Christopher Egert</i> Exploration of advanced rendering techniques as related to casual game tools such as Flash, with an emphasis on recreating traditional hardware accelerated techniques in low-performance environments (i.e. Pixel Bender and similar style software-based solutions). Work to be presented at the Adobe MAX 2009 conference (forthcoming).</p> |
| 2008-present | <p>Preserving Virtual Worlds <i>Lab for Game Design and Development, Rochester Institute of Technology</i> <i>Collaboration with Christopher Egert and Elizabeth Lawley</i> This research project aims to explore the issue of digital preservation of virtual worlds and their surrounding cultural experience. As a part of this work, schemes will be proposed and tested through sample implementations on best practices for preserving what has become a true art form in just the past half-century. The Preserving Virtual Worlds project will explore methods for preserving digital games and interactive fiction. Major activities will include developing basic standards for metadata, content representation, and conducting a series of archiving case studies for early video games, electronic literature and Second Life, an interactive multiplayer game. Second Life content participants include Life to the Second Power, Democracy Island and the International Spaceflight Museum.</p> |
| 2007 | <p>Aliens Game Industry Promo Preparation <i>Collaboration with Chris Cascioli, Ada Tse, Ed Huyer and Colin Doody</i> Supervision of student team to prepare Aliens game for promotional use at the Microsoft GameFest 2008 conference, and subsequent submission to XBOX administrative team.</p> |
| 2006-present | <p>DF3DI Project <i>Interactive Media Group, Rochester Institute of Technology</i> <i>Collaboration with Christopher Egert</i> Designed and implemented a system by which students can create and manipulate 3D objects using Adobe Flash's ActionScript 2.0 / 3.0 language. The system leverages the Adobe Director accelerated 3D environment to create compelling, interactive graphics. By fusing the qualities of Flash and Director, students receive the benefits of both platforms: an object-oriented robust language from Flash as well as a web-deliverable, robust graphics engine within Director. The development process has included the development of Flash/Director bridge technology such that high-speed communication can occur between the two platforms.</p> |

| Date | Research Project |
|--------------|--|
| 2005-present | <p>M.U.P.P.E.T.S. Research Group (Principal Investigator) <i>Interactive Media Group, Rochester Institute of Technology</i> <i>Collaboration with Christopher Egert, Jessica Bayliss and Kevin Bierre</i></p> <p>The Multi-User Programming Pedagogy for Enhancing Traditional Study (M.U.P.P.E.T.S.) is a virtual world environment in which students can learn programming through the creation of compelling graphical, interactive content. The M.U.P.P.E.T.S. engine has been developed using state-of-the-art practices from the Entertainment Technology sector, boasting such features as OpenGL/DirectX accelerated multipass rendering solutions, octree systems, support for model formats, advanced lighting and shading, and much more. Along with graphics support, the engine supports networking, user interface creation and layout, persistence mechanisms, and audio. These features are also combined with support for Sun Microsystems' Java and Microsoft's C# programming languages. Involvement with this project has included the development of project materials to support objects-first pedagogy for introductory programmers. In addition, involvement has included the supervision, instruction, and co-development with students attempting to solve difficult problems within M.U.P.P.E.T.S., including managed/unmanaged code interoperability, thread management, and debugging for multi-processor systems.</p> |
| 2005 | <p>Lingo Lightmapper <i>Laboratory for Graphical Simulation, Visualization & Virtual Worlds</i></p> <p>"Lightmapping" refers to the concept of pre-rendering a light/shadow map into the texture of an object, and then using this texture instead of, or in addition to, the normal scene lighting. Typically, these maps are done to display shadows, which are notoriously expensive on all but the latest graphics cards (and even then, the typical methods of stencil shadow volumes are exceedingly more expensive than a simple texture map). While the generation of a lightmap can take hours, the performance of the end-user is not affected at all, beyond the slight penalty of additional graphics memory overhead.</p> <p>This technique has been a staple of the games industry for quite some time, and has been extensively documented. In addition to shadows, lightmapping can simulate a number of other lighting effects, all of which can be prebaked into the object's texture map. The rule of thumb is that if a given technique is non-view-dependant (diffuse lighting, standard bump-mapping, etc), then it can be adapted to the lightmapping algorithm. Effects that rely on the user's view orientation (specular lighting, mirror reflection, etc.) cannot be easily simulated in this fashion. This particular project was unique in its use of these techniques within a casual game-development authoring tool (Director) and in implementing a pre-baked technique for BRDF playback via lightmaps.</p> |

| Date | Research Project |
|-----------|--|
| 2005 | <p>Molecular Visualization using M.U.P.P.E.T.S. <i>Collaboration with Ed Huyer, Paul Craig, and Richard Doolittle</i> Exploration of the use of M.U.P.P.E.T.S. engine as a core technology for interactive molecular visualization. Work with student team to develop prototype in consultation with College of Science.</p> |
| 2005 | <p>M.U.P.P.E.T.S. as a platform for Virtual Theatre <i>Collaboration with Joe Giegel</i> Integration of M.U.P.P.E.T.S. engine with model import and motion capture system as a core platform for support of the first offering of the Virtual Theatre course from the department of Computer Science.</p> |
| 2004-2005 | <p>Project Broadsword <i>Collaboration with Aaron Clouter</i> Project Broadsword is a demonstration implementation of a complete 2D game engine in Shockwave 3D. The primary purpose of using S3D in this fashion is to gain access to hardware-accelerated low-level drawing routines, as opposed to using Flash or Director's standard sprite engine. By using the 3D engine, the demo also gains access to lighting, additive texture blending and integrated 3D models in much the same way as more traditional sprite based engines. This work was presented as a part of the demonstration pack at Macromedia MAX 2005, and formed the core work that was later the basis for Aaron's Master's thesis.</p> |
| 2003-2004 | <p>Wings of Megaira (Faculty Lead) <i>Collaboration with Alex Cutting, Eli Tayrien, Michael P. Clark, and Andrew Lorino</i> Wings of Megaira was a promotional game that was developed to highlight work in the Game Design & Development area with internal funding for 3 students over the summer of 2003 and stretching into 2004. Technology developed for the game includes a real-time spring simulation system, custom lightmap generation tools, an advanced collision detection system, and other such advanced topics implementations. The game was showcased for several years at the Game Developer's Conference, and the students involved went on to careers at Microsoft Games Studios (Eli and Alex), Volition (Michael), and Sony Computer Entertainment of America (Andrew). A version of the game was later reworked and gifted to B. Thomas Golisano in honor of the 5th anniversary of the B. Thomas Golisano College of Computing & Information Sciences.</p> |

RESEARCH SUPERVISION

Supervised Research Students funded from Grants and/or External Sources

| Student | Description |
|-----------------------|--|
| Arbiter, Heather | Preserving Virtual Worlds Grant Documentation of Virtual Machines and Emulators for Preservation across Multiple Hardware and Software Platforms Fall 20081 through Spring 20093 |
| Cascioli, Christopher | XNA Award Exploration of graphical techniques and simulations in XNA, development of curricular strategies for XNA course materials. Spring 20073 |
| Clark, Michael | M.U.P.P.E.T.S. / Wings of Megaira Exploration of model formats, texturing, and animation techniques within custom game engines. Summer 20024 |
| Cutting, Alex | M.U.P.P.E.T.S. / Wings of Megaira Exploration of custom game engines and game development, production of demonstration title, creation of level editing and lightmapping tools. Summer 20024 |
| Davis, Sela | Preserving Virtual Worlds Grant Exploration and analysis of Virtual Machines and Emulators for Preservation across Multiple Hardware and Software Platforms Summer 20084 |
| Kuhn, Peter | M.U.P.P.E.T.S. Exploration of massively multi-player systems architecture, graphical clients, and rendering systems. Fall 20051 through Summer 20064 |
| Lorino, Andrew | M.U.P.P.E.T.S. / Wings of Megaira Exploration of massively multi-player systems architecture, graphical clients, and rendering systems. Summer 20024 |
| Moreau, Eric | Preserving Virtual Worlds Exploration of Virtual Machines and Emulators for Preservation across Multiple Hardware and Software Platforms Summer 20084 |

| Student | Description |
|--------------------|--|
| Parks, David | M.U.P.P.E.T.S. Exploration of massively multi-player systems architecture, graphical clients, and rendering systems. Fall 20031 through Summer 20044 |
| Ramirez, Louis | M.U.P.P.E.T.S. Exploration of massively multi-player systems architecture, graphical clients, and rendering systems. Summer 20054 through Winter 20062 |
| Tayrien, Eli | M.U.P.P.E.T.S. / Wings of Megaira Exploration of custom game engines and game development, production of demonstration title, creation of level editing and lightmapping tools. Summer 20024 |
| Tse, Ada Yung Ngar | XNA Award Exploration of graphical techniques and simulations in XNA, development of curricular strategies for XNA course materials. Spring 20073 |
| Vasquez, Albert | M.U.P.P.E.T.S. Exploration of massively multi-player systems architecture, graphical clients, and rendering systems. Summer 20054 through Winter 20062 |
| Wilson, Joshua | Preserving Virtual Worlds Documentation of Virtual Machines and Emulators for Preservation across Multiple Hardware and Software Platforms Hardware and Software Platforms Summer 20084 |

TEACHING

**Completed Game Design and Development Capstone Students Supervised - Chair
Rochester Institute of Technology (Fall 2006 – present)**

| Student Team | Supervised Capstone Project |
|---|--|
| Bozarth, Matthew Doody, Colin Galante, Andrew Gilpatrick, Joshua Korn, Nicholas | Tank Frenzy <i>(Design Course Winter 20082)</i> <i>(Development Course Spring 20083)</i> <i>(MS Completed Spring 20083)</i> |

**Completed Game Design and Development Capstone Students Supervised – Reader/Second
Rochester Institute of Technology (Fall 2006 – present)**

| Student Team | Supervised Capstone Project |
|--|--|
| Baker, Christopher Cascioli, Christopher Huyer, Edward Tse, Ada | Dimension Break <i>(Design Course Winter 20072)</i> <i>(Development Course Spring 20073)</i> <i>(MS Completed Fall 20081)</i> |

**Completed Information Technology Capstone Students Supervised - Chair
Rochester Institute of Technology (Fall 1991 – present)**

| Student | Supervised Research or Project |
|--------------------|--|
| Alexander, Douglas | The Cultural Relevance of Computer Games |
| Brown, Donald | Web Photo Web Log Internet Application |
| Chong, Yu-Ting | Principles of 3-D Computer Graphics: An Interactive Tutorial |
| Cloutier, Aaron | Broadsword |
| Gamin, Michael | Gaming Multi User Flash Basic Game Communities |
| Jefferson, Anthony | A two-tier client/server Java application |
| Lu, Louis | Gaming Design & Implementation of a Cross Platform DirectX 3D Game Engine |
| Milizia, Peter | gaming Event Based Memory & Reputation in Games |
| Murtha, Scott | Director Version of Samurai Swords |
| Ramirez, Luis | Gaming Introducing the C# Programming Language into the M.U.P.P.E.T.S. Virtual Environments |
| Reich, Bryan | db Demonstration of Dirty java Database Back ends to a 3D Graphically Intensive RPG |
| Shi, Meihua | Applications of Tile sets & Material Effects |
| Wray, Jeffrey | Animals Across the World |
| Yang, Ping | The Design & Implementation of a client-server system with Java RMI - Bldg. A flight booking system. |

**Completed Information Technology Capstone Students Supervised - Reader
Rochester Institute of Technology (Fall 1991 – present)**

| Student | Supervised Research or Project |
|--------------------|---|
| Allgyer, Justin | Real-Time Ray Tracing using CUDA |
| Cary, David | Gaming A Generational System for Exploring Player-Driven Evolution |
| Costino, Carlo | Gaming/MM Game Engine Architecture for Time-Based Media Authoring Platforms |
| DeFalco, Mark | A Framework for Agent and Multi-Agent Planning |
| Krisch, Raun | Real-Time Based Tone Reproductions |
| Labuhn, Ryan | DB/MM/Website Design Children's Learning & Development Website |
| Mathew, Maya | Middleware |
| Shulga, Eric | gaming Video Games: Changing the Way We Think of Home Entertainment |
| Vitkus, Jr., James | Three-Tier Worldwide Web Base Architecture for the Gadget boy Gazette |

| Student | Supervised Research or Project |
|------------------|---|
| Wang, Xin | Inventory Tracking System |
| Whitcomb, Robert | M2MIMUD |
| Wilson, Angelia | User Interface Design: Porting Game Technology Concepts to Applications HCl/Games |

**Active Information Technology Capstone Students Supervised – Chair /Reader
Rochester Institute of Technology (Fall 19991 – present)**

| Student | Supervised Research or Project |
|------------------|--|
| Parker, Joseph | WWW access to Info supported in a Relational Database Mgt. System |
| May, Stacey | MM/Website design Abacus (a web-based distance learning application) |
| So, Gabriel | gaming/MM Multi-User 3D with the Flash Com Server |
| Revello, Michael | Gaming Generating Illuminated Textures Using Photon Mapping |
| Vazquez, Albert | Apply/Dev/Gaming/Software Dev. M.U.P.E.T.S. Design, Development & Integration of a DirectX 9.0 Render Pipeline |

**Supervised Graduate Independent Study Students
Rochester Institute of Technology (Winter 20002 – present)**

| Student | Supervised Research or Project | Quarter |
|----------------------|---|----------------|
| Baker, Christopher | Shading and Effects Processing for Games | 20071 |
| Barton, Robert | Independent Study (description unavailable) | 20002 |
| Boyle, Sean | Professional Development/ VRML & Audio | 20001 |
| Boyle, Sean | Programming/FLASH | 20002 |
| Belanger, Jonathan | Advanced Elective/ AI | 20012 |
| Cascioli, Chris | Shading and Effects Processing for Games | 20071 |
| Casioli, Christopher | Real-Time Highlighting | 20072 |
| Cloutier, Aaron | Independent Study (description unavailable) | 20023 |
| Crews, Christian | Telecommunication Network Protocols | 20033 |
| Davis, Timothy | Advanced Animation Techniques | 20041 |
| Huyer III, Edward | Intro to Artificial Life Equivalent | 20062 |
| Huyer III, Edward | Sound Engine Design and Integration | 20062 |
| Huynh, David | Global Illumination in XNA 3.0 | 20082 |
| Huynh, David | Study of Global Illumination | 20083 |
| Johnstone, Brian | Global Illumination in XNA 3.0 | 20082 |
| Johnstone, Brian | Study of Global Illumination | 20083 |
| Locke, Michael | Telecommunication Network Protocols | 20033 |
| Lupiani, Patrick | Game Engine Design for Silver light | 20062 |
| Moreau, Eric | Advanced Concepts; Game Special Effects | 20091 |
| Rawat, Kapish | Computer Animation; Algorithms & Techniques | 20091 |
| Tse, Ada Yung Ngar | Shading and Effects Processing for Games | 20071 |
| Tse, Ada Yung Ngar | Real-Time Highlighting | 20072 |

| Student | Supervised Research or Project | Quarter |
|------------------|--|----------------|
| Vazquez, Albert | Advanced DirectX Engine Development | 20052 |
| Vazquez, Albert | Advanced topic;3D Game Engine Implementation | 20053 |
| Wellman, Lisa | History of Electronic Games | 20031 |
| Wijaya, Rossiani | Telecommunication Network Protocols | 20041 |

**Supervised Undergraduate Independent Study Students
Rochester Institute of Technology (Spring 1993 – present)**

| Student | Supervised Research or Project | Quarter |
|--------------------|---|----------------|
| Anderson, Matthew | MUPPETS Networking | 20032 |
| Barfchin, Heewa | Resource Streaming in Real-Time | 20063 |
| Black, Jesse | FX Games Courses; Exploratory | 20072 |
| Catalano, Gustavo | FX Games Courses; Exploratory | 20072 |
| Clark, Michael | Application of 3D Modeling & Texturing | 20034 |
| Clark, Michael | Application of Real-Time 3D Animation | 20034 |
| DiCamillo, James | Implementation of Java Swing in the M.U.P.P.E.T.S. Project | 20032 |
| Dziedzic, Nicholas | FX Games Courses; Exploratory | 20072 |
| Dziedzic, Nicholas | Agent/ Game Design | 20073 |
| Frey, Gwendolyn | Agent/ Game Design | 20073 |
| Fuss, Melissa | FX Games Courses; Exploratory | 20072 |
| Fuss, Melissa | Agent/ Game Design | 20073 |
| Gabruk, Mark | Web Server Tech (PHP) | 20061 |
| General, Shannon | FX Games Courses; Exploratory | 20072 |
| General, Shannon | Agent/ Game Design | 20073 |
| Haines, Corry | Game Logic | 20073 |
| Hartman, Gregory | Secure Communications in Multiuser Entertainment Technology | 20044 |
| Hazlewood, Mark | Special Effect & Particle Engines | 20044 |
| Huynh, David | FX Games Courses; Exploratory | 20072 |
| Huynh, David | Agent/ Game Design | 20073 |
| Ijeoma, Bryan | Naturalistic Approach to Information Visual | 20032 |
| Kane, Andrew | FX Games Courses; Exploratory | 20072 |
| Kidder, Richard | Concentration/Database | 20001 |
| Kidder, Richard | Needs Assessment replacement (0602-455) | 20002 |
| Kraft, Jason | Agent/ Game Design | 20073 |
| Lorino, Andrew | Advanced Animation Techniques | 20041 |
| Lorino, Andrew | Multi-User Game Spaces | 20051 |
| Marra, Joel | Java Programming | 20001 |
| Monti, Christopher | FX Games Courses; Exploratory | 20072 |
| Monti, Christopher | Agent/ Game Design | 20073 |
| Nikolich, Kyle | Graphics Programming | 20071 |
| Parks, David | Rendering and Lighting for Game Engines | 20023 |

| Student | Supervised Research or Project | Quarter |
|----------------------|--|----------------|
| Parks, David | Implementation of Java Swing in the M.U.P.P.E.T.S. Project | 20032 |
| Parks, David | Hardware Accelerated GUI Research | 20043 |
| Parmar, Rajiv | History of Electronic Games | 20031 |
| Petrovich, Alexander | Artist for 2D Programming | 20052 |
| Petrovich, Alexander | Art; Animation | 20053 |
| Preble, Adam | History of Electronic Games | 20031 |
| Sawzin, Samuel | Agent/ Game Design | 20073 |
| Severtson, Scott | Computer Digital Audio | 19993 |
| Silverstein, Jesse | Cross-Product Interface Programming w/FLASH | 20042 |
| Sternberg, Jesse | Independent Study (desc. unavailable) | 20002 |
| Willemsen, Daniel | Real-Time Global Illumination | 20081 |
| Williams, Andrew | FX Games Courses; Exploratory | 20072 |
| Williams, Andrew | Agent/ Game Design | 20073 |
| Winnebeck, Jason | History of Electronic Games | 20031 |
| Wunderlich, Max | FX Games Courses; Exploratory | 20072 |
| Wunderlich, Max | Agent/ Game Design | 20073 |
| Zapetis, Nicholas | FX Games Courses; Exploratory | 20072 |
| Zerby, Jack | Independent Study (desc. unavailable) | 20002 |

**Undergraduate Courses Taught
Rochester Institute of Technology (Fall 1991 – present)**

| Course number | Course name | Quarters Taught |
|------------------------------|--|---|
| 4002-320 (formerly 0602-320) | Intro to Multimedia/ Lab | 19991 |
| 4002-409 (formerly 0602-409) | Web Site Design and Implementation | 19992, 19993, 20001, 20002 |
| 4002-426 (formerly 0602-426) | Interface Design | 20001, 20002 |
| 4002-485 (formerly 0602-485) | Database Client/ Server Implementation | 19983 |
| 4002-529 (formerly 0602-529) | Introduction to VRML | 19992 |
| 4002-539 (formerly 0602-539) | Programming for WWW | 20001 |
| 4080-201 (formerly 4002-201) | Freshman Seminar for Information Tech | 20031, 20071, 20081, 20091 |
| 4002-219 | Programming for Information Tech III | 20013 |
| 4080-231 (formerly 4002-231) | Programming II for New Media | 20032 |
| 4002-330 | Interactive Digital Media | 20021, 20022 |
| 4080-309 (formerly 4002-409) | Web Site Design and Implementation | 20011 |
| 4080-434 (formerly 4002-434) | Programming for Digital Media | 20011, 20031, 20033, 20041, 20043, 20051, 20061 |
| 4080-501 (formerly 4002-501) | Foundations of 2D Graphics Programming | 20032, 20042, 20052, 20062, 20072, 20082 |
| 4080-502 (formerly 4002-501) | Foundations of 3D Graphics Programming | 20023, 20033, 20043, 20053, 20063, 20073 |

**Graduate Courses Taught
Rochester Institute of Technology (Fall 19991 – present)**

| Course number | Course name | Quarters Taught |
|------------------------------|--|--|
| 4004-729 (formerly 0604-729) | Introduction to VRML | 19992 |
| 4004-737 (formerly 0604-737) | Web Site Design and Implementation | 20002 |
| 4004-739 (formerly 0604-739) | Programming for WWW | 20001 |
| 4004-741 (formerly 0604-741) | Fundamentals of Interactive Multimedia | 19991 |
| 4004-745 (formerly 0604-745) | Theories in Interactive Comp. | 19991, 19992 |
| 4004-746 (formerly 0604-746) | Programming for Interactive Multimedia | 19993, 20023, 20043 |
| 4002-718 | Current Themes in Info Tech | 20013, 20021, 20031 |
| 4085-834 (formerly 4002-734) | Foundations of 2D Graphics Programming | 20012, 20032, 20042, 20052, 20062 |
| 4085-835 (formerly 4002-735) | Foundations of 3D Graphics Programming | 20013, 20023, 20033, 20043, 20053, 20063, 20081, 20091 |
| 4085-746 (formerly 4004-746) | Programming for Interactive Multimedia | 20023, 20043 |
| 4085-836 (formerly 4002-836) | Game Engine Design & Development | 20051 |
| 4085-887 (formerly 4002-887) | Capstone Design in GDD | 20063, 20082 |
| 4085-888 (formerly 4002-888) | Capstone Development in GDD | 20063, 20073, 20081 |
| 4002-890 | Seminar; History of Elective Games | 20032 |
| 4004-737 | Web Site Design and Technology | 20011 |

CURRICULAR DEVELOPMENT

- 2008 Developer of the Minor in Game Design targeted for students outside GCCIS. Presented at RIT Institute Curriculum Committee and to the Provost.
- 2007 Developer of the Minor in Game Design and Development targeted for students inside GCCIS and other students with appropriate technical depth and experience. Presented at the RIT Institute Curriculum Committee and to the Provost.
- 2007 Founder and Director of the RIT Bachelors in Game Design & Development, approved Jan 2007 by NYS Dept. of Education. First author of the degree proposal, along with C. Egert, S. Jacobs, J. Bayliss, J. Giegel, S. Kurtz and N. Doubleday. Presented to the RIT Institute Curriculum Committee, Academic Senate, Provost and President.
- 2006 Founder and Director of the RIT Masters in Game Design & Development, approved by the New York State Department of Education and accredited by Middle-States. First author of the degree proposal, along with C. Egert, S. Jacobs, J. Bayliss, J. Giegel, and N. Schaller. Presented to the RIT Graduate Council, Academic Senate, Provost and President.

- 2002-2003 Co-Developed Introduction to the Virtual Reality Modeling Language (VRML) – Co-Listed Graduate and Undergraduate course that introduced students to 3D content on the web. Students produced a simple multi-user world using VRML, JAVA and the External Authoring Interface.
- 2003-2004 Developed and proposed a Master’s Concentration in Game Programming, developed curriculum for 2D and 3D Graphics Programming, new graduate courses in the Information Technology curriculum using hardware accelerated graphics to produce game and virtual systems engines. These courses consist of 2D and 3D Graphics Programming (4002-734 and 4002-735) as well as Game Engine Architecture and Design (4002-836). These courses were so successful that an undergraduate version has been developed (4002-501/502), and partnerships with the Software Engineering department have made these available to students in that program as well (prior to 20072).
- 2001 Co-Developed a Seminar on Artificial Life with Prof. Steve Kurtz, which focused on using genetic algorithms as a basis for world simulation and sprite-based character behavior. This work, which has since garnered a lot of academic attention, was made publicly available through Digital Biota Working Group via publication and was referenced and re-used in course work at Columbia University.
- 1998-2000 Co-designed course and lab materials for a database programming class at the Rochester Institute of Technology, and co-taught the pilot with Dr. William Stratton. Materials centered on use of Java-based networked environments with Oracle database back-ends.

Rochester Institute of Technology Course Proposals and Development

| Course Number | Course Title | Course Description |
|---------------|--|--|
| 4002-484 | Fundamentals of Database Client Server | Students will investigate strategies for client-server and server-server communication against single or multiple database servers. Specifically, students will configure, test, and demonstrate successful communication between multiple database servers and multiple clients. Similarities and differences between commercially available connectivity packages, and issues impacting performance will be explored. |
| 4002-486 | Implied Three-tier DBMS Applications | Students will implement a three-tier DBMS application. Using a standard DBMS product, students will design and implement a database backend. Students will construct a web server and implement client/web server connectivity. Tools to monitor and measure such an implementation will be developed. Client-side, database server-side, and web server issues associated with such a three-tier implementation will be investigated. Programming assignments are required. |

| Course Number | Course Title | Course Description |
|---------------------------------|---|--|
| 4002-784 | Fundamentals of Database Client Server | Students will investigate strategies for client-server and server-server communication against single or multiple database servers. Specifically, students will configure, test, and demonstrate successful communication between multiple database servers and multiple clients. Similarities and differences between commercially available connectivity packages, and issues impacting performance will be explored. |
| 4080-201 (formerly 4002-201) | Freshman Seminar in Game Design and Development | This course provides first year Game Design and Development students with an appropriate orientation for their program. Students will explore the academic, research, and industry connections within their field of choice. |
| 4080-221 (formerly 4003-231) | Game Software Development I | The goal of this course is to introduce students within the domain of game design and development to computing. Students will begin mastering fundamental problem solving skills and will learn about the basic elements of game software development, including problem decomposition, the design and implementation of games, and testing/debugging. Programming assignments are an integral part of the course. |
| 4080-222 (formerly 4003-232) | Game Software Development II | This course furthers the development of fundamental problem solving skills introduced in Game Software Development I. Topics such as graphical user interfaces (GUIs), exception handling, files/streams, linear data structures, threads, and event-driven programming will be covered with an emphasis on their use in game development. Games will be developed through using existing components and appropriate software design patterns will be used. Programming projects are an integral part of the course. |
| 4080-223 (formerly 4003-233) | Game Software Development III | This course builds upon the fundamental problem solving skills presented in Game Software Development II. Students will learn the more advanced data structures and algorithms commonly used in game development. In order to demonstrate knowledge of such techniques within the realm of game development, students will work in teams on a quarter long game development projects. |

| Course Number | Course Title | Course Description |
|---------------------------------|--|--|
| 4080-387 (formerly 4002-387) | Data Structures and Algorithms for Game Programmers I | This course focuses upon the application of data structures, algorithms, and fundamental Newtonian physics to the development of video game applications, entertainment software titles, and simulations. Topics covered include trigonometric functions in game systems, 2D coordinate systems, 3D coordinate systems, geometric primitives, geometric tests, vectors, matrices, principles of transformation, and inclusion tests. In addition, traditional data structures and manipulation techniques will be applied to the context of game and entertainment software. Furthermore, Newtonian principles such as speed, acceleration, force, work, momentum, and motion will be examined in the context of developing game and entertainment software. Programming assignments are a required part of this course. |
| 4080-417 (formerly 4002-417) | Visual C++ for Programmers | This course covers the basics of C++ development in the Windows environment. Topics covered include the use of an integrated development environment, basic C++ syntax, pointers, and Windows specific programming techniques. Emphasis is placed on the development of problem solving skills. Large programming assignments are required. Prior programming experience is required. |
| 4080-487 (formerly 4002-487) | Data Structures and Algorithms for Game Programmers II | This course continues the investigation into the application of data structures, algorithms, and fundamental Newtonian physics required for the development of video game applications, simulations, and entertainment software titles. Topics covered include techniques for 3D orientation, angular displacement, Euler angles, quaternion representations and operations, barycentric coordinates, classifiers, recursion, clipping, culling, and advanced partitioning techniques. In addition, advanced data structures such as trees and graphs will be investigated from the context of game application and entertainment software development. Furthermore, the course will examine advanced Newtonian principles used in games and simulations. Programming assignments are a requirement for this course. |
| 4080-501 (formerly 4002-501) | Foundations of 2D Graphics Programming | Students will explore use of an advanced graphics API to access hardware-accelerated graphics. The course will involve discussion of scene graphs, optimizations, and integration with the API object structure. Students will also explore the advanced use of the API calls in production code, to construct environments capable of real-time performance |

| Course Number | Course Title | Course Description |
|---------------------------------|--|---|
| 4080-502 (formerly 4002-502) | Foundations of 3D Graphics Programming | Students will explore use of a graphics API to access hardware-accelerated graphics. The course will involve discussion of the API scene graph, 3D optimizations, and integration between the 2D graphics mode and a 3D immediate mode implementation. This course builds upon students' previous work and extends it in the construction of a fully functional 3D Engine, with library construction for game development. |
| 4085-792 (formerly 4002-792) | Development Processes in the Game Industry | This course examines the individual and group roles of the development process model within the game design and development industry. Students will transform design document specifications into software and hardware needs for developers, testers, and end users. Students will examine team dynamics and processes for programming, content development, testing, deployment, and maintenance. Students will explore design process through the deconstruction of the game industry's software lifecycle model. |
| 4085-793 (formerly 4002-793) | Business and Legal Aspects of Game Development | This course will provide students with a practical background in business and legal practices specific to the video games industry. Students will be introduced to entrepreneurship in the video games industry, confidentiality rules, game developer rights and responsibilities, the developer/publisher/retailer relationship, contract development, intellectual property rules and regulations, royalties, licensing, and legal responsibilities for content and consumer impact. Projects may include individual and group research, examination of case studies, and written and oral reports on current industry practice. |
| 4085-834 (formerly 4002-734) | 2D Graphics Programming | Students explore the use of an advanced graphics API to access hardware-accelerated graphics. Course discussion will include the use of scene graphs, optimizations, and integration with the API object structure. Students will explore advanced use of the API calls in production code, to construct environments capable of real-time performance. |
| 4085-835 (formerly 4002-735) | 3D Graphics Programming | Students will explore the use of an advanced graphics API to access hardware accelerated graphics. This course will include discussion of scene graphs, optimizations, and integration with the API object structure. Students will explore advanced use of the API calls in production code, to construct environments capable of real-time performance. |

| Course Number | Course Title | Course Description |
|---------------------------------|---|---|
| 4085-836 (formerly 4002-836) | Game Engine Design and Development | This course will provide students with theory and practical skills in game engine design topic areas such as understanding the graphics pipeline as it influences engine design, hardware principles and the relationship to game engine construction, mathematical principles, scene graph construction and maintenance, advanced scene graph manipulation, textures, materials, lighting, collision systems, physics, particle systems, and control systems. Furthermore, this course will examine software and toolsets that assist game engine designers in their tasks. Students will be expected to design and implement a game engine in teams as well as properly document their design and development strategy. |
| 4085-887 (formerly 4002-887) | Capstone Design – MS Game Design and Development | This course allows students within the Game Design and Development program to develop a capstone proposal and design document. The capstone design document specifies the scope and depth of the capstone project. In addition, it defines the group and individual responsibilities for the cohort capstone project experience. |
| 4085-888 (formerly 4002-888) | Capstone Development – MS Game Design and Development | This course provides Master of Science in Game Design and Development students with capstone project experiences. Students are expected to work in cohorts towards the implementation of a game system that properly illustrates proficiency in the application of theory and practice towards a large-scale project. For each student, individual responsibilities for the group project will be defined in consultation with both the group and the faculty. Students must successfully complete the Capstone Design course and present a satisfactory capstone project proposal to the faculty before enrolling in this course. |
| 4085-891 (formerly 4002-791) | Advanced AI: Evolutionary Computing | This course will provide students with theory and practical skills in Evolutionary Computing. Topic areas include the history and evolution of Artificial Life, Evolutionary Computing, and biologically inspired AI applied to the domain of video game AI. Students will be expected to design and implement a game in teams as well as properly document their design and development strategy. |

Rochester Institute of Technology Course Modifications

| Course Number | Course Title | Course Description |
|------------------------------|---|--|
| 4002-529 | Introduction to VRML | This course will focus on basic and advanced concepts of 3D environment creation and implementation within the Virtual Reality Markup Language (VRML) implemented on the World Wide Web. Students will work individually and in groups to create VRML environments on their own home pages and in a larger scale group environment. |
| 4080-201(formerly 4002-201) | Freshman Seminar in Game Design and Development | This course provides first year Game Design and Development students with an appropriate orientation for their program. Students will explore the academic, research, and industry connections within their field of choice. |
| 4080-501 (formerly 4002-501) | Foundations of 2D Graphics Programming | Students will explore use of an advanced graphics API to access hardware-accelerated graphics. The course will involve discussion of scene graphs, optimizations, and integration with the API object structure. Students will also explore the advanced use of the API calls in production code, to construct environments capable of real-time performance |
| 4080-502 (formerly 4002-502) | Foundations of 3D Graphics Programming | Students will explore use of a graphics API to access hardware-accelerated graphics. The course will involve discussion of the API scene graph, 3D optimizations, and integration between the 2D graphics mode and a 3D immediate mode implementation. This course builds upon students' previous work and extends it in the construction of a fully functional 3D Engine, with library construction for game development. |

PROFESSIONAL SERVICE and SUPPORT OF ACADEMIC FIELD

Advisory Committees

- 2009 Adobe Educational Leader. Invited to serve as one of roughly 200 K-12 and higher education professionals world wide that advise Adobe on the use of their products as educational, serve as role models for the use of Adobe products in education, and are recognized for their contributions to the field.
- 2009 Adobe Developer Partner. Invited to serve as one of roughly 50 developer partner AELs as a member of the “developer partner” group, and indentified as the point of collaboration for recognition of the RIT IGM Department as an institutional Developer Partner.
- 2009 Lynda.com Educational Advisory Board. Invited to serve as one of 24 members of the first annual Educational Advisory Board for Lynda.com. Lynda.com is a resource and training website for software professionals in both technical and design related fields.
- 2009 Nominated as a finalist to the Adobe Partners by Design Advisory Board. Nomination process is ongoing, with final appointments to be ratified in November / December 2009.
- 2006-2007 Member – IEEE Task Force, Gaming Executive Committee
- 2005-2007 Member of the Advisory Committee - International Association for Game Education and Research (IAGER)
- 2005-2007 Member of the Scientific Advisory Board - Masters in Science in E-Sport and Competitive Gaming, as proposed by Danube-University in Krems, Austria. Other members of the board are Prof. Dr. Henry Jenkins III, Director of the Comparative Media Studies Program, MIT, Prof. Dr. Espen Aarseth, Director of the Center for Computer Games Research, IT University of Copenhagen and Prof. Dr. Gerhard M. Buurman, Director of the Center for Interaction Design, University of Arts, and Zürich.
- 2004-2006 Member of the Advisory Committee - FuturePlay 2005 conference on the Intersection of Academia and Games Technology, <http://www.futureplay.org>
- 2000-2003 Elected member of the V-Learn Board of Directors. V-Learn was a non-profit organization sponsored by the Contact Consortium and several academic institutions including Cornell, HIT Lab, Harvard, and many others, which is responsible for investigating the use of 3D Web-based technologies for educational purposes.
- 2001-2002 Elected and served on the National Curriculum Committee under the Society for Information Technology Education (SITE), which would later become the ACM Special Interest Group for Information Technology Education (SIGITE).
- 2000-2001 Elected and served as a Co-Chair of the External Authoring Interface (EAI) Working Group for the Web 3D Consortium (formerly the VRML Consortium). <http://www.web3d.org/>. May 1999 –May 2001.

Conference Organization and Program Committees

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|--------------|---|
| 2009 | Program Committee Member - IEEE Games Innovation Conference ICE-GIC, London, England. http://ice-gic.ieee-cesoc.org/ |
| 2009-present | Program Chair - Games and Computing Education Track, Foundation of Digital Games 2010 Conference |
| 2008-2009 | Member of Planning and Program Committee – Foundation of Digital Games 2009 Conference |
| 2007-2008 | Program Committee Member –Meaningful Play 2008 http://meaningfulplay.msu.edu/proceedings2008/ |
| 2007-2008 | Member of Planning and Program Committee – Microsoft Academic Days for Gaming 2008 |
| 2006-2007 | Member of Planning and Review Committee - Microsoft Academic Days for Gaming 2007 (February Event) |
| 2006-2007 | Member of the Planning Committee - Microsoft Academic Days for Gaming (Event hosted by Microsoft Research), Spring 2007 |

Faculty External Reviewer for Tenure and/or Promotion

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| 2008 | External reviewer for Full Professor -Worcester Polytechnic Institute, Department of Interactive Media & Game Development. http://imgd.wpi.edu/ |
| 2007 | External reviewer for Tenure - Michigan State University, department of Telecommunications, Information Studies and Media, College of Communication Arts & Sciences (Serious Games Program) |

Grant Reviewer

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| Summer 2005 | Reviewer - Star Schools Program, US Department of Education. \$22M USD funding across all awards from program cycle. |
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Journal Article Reviews

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|--------------|---|
| 2007 | Reviewer – Journal of Graphics Tools, A. K. Peters |
| 2007-present | Member of the editorial board (and Active reviewer) and Games & Culture: A Journal of Interactive Media, SAGE Publications. Journal description online: http://www.sagepub.com/journalsProdDesc.nav?prodId=Journal201757 |

Academic Program Reviewer

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|-----------|---|
| Fall 2008 | Reviewer - Reviewer for the New York State Education Department, (NYSED) on programs pertaining to games education, including two at the community college level (details of reviews as well as compensation and length and time of service are confidential between reviewer and the NYSED). |
|-----------|---|

2005 Post-Secondary Education Review Board, Served as a reviewer for the Algoma University College Masters in Game Design proposal, working for the PSERB of the Ontario Ministry. This is roughly analogous to an ABET style accreditation visit in the USA.

International/National Conference Paper Reviewer and Curator of Interactive Works

2008 Judge – INDIECADE 2008 International Festival of Independent Games. Finalists and reviewed work presented at the 2008 Electronic Entertainment Expo (E3).
2008 Paper Reviewer – ACM SIGGRAPH Sandbox Symposium.
2008 Judge – Independent Games Festival (IGF). Finalists presented at the Game Developer’s Conference 2009.
2002 Paper Reviewer - Member of the Paper Review Panel, Web3D 2002 Conference; sponsored by SIGGRAPH and SIGCHI.

Closed/Invited Beta Review for Academic Software

2006 Special Invite to participate, Adobe Director 2008 Beta Team (codename “Sayles”). This is a closed beta available by invitation only to recognized expert users of the Director Product line. (Invited by Adobe Developer Relations)
2004 Special Invite to participate, Macromedia Director MX 2004 Beta Team (codename “Woody”). This is a closed beta available by invitation only to recognized expert users of the Director Product line. (Invited by Macromedia Developer Relations)
2002 Special Invite to participate, Macromedia Director MX Beta Team (codename “Foster”). This is a closed beta available by invitation only to recognized expert users of the Director product line. (Invited by Macromedia Developer Relations)

Elected Positions in Standards Committees or National Organizations

2001-2002 National Curriculum Committee - The Society for Information Technology Education (SITE)
2000-2003 V-Learn Board of Directors - V-Learn is a non-profit organization sponsored by the Contact Consortium and several academic institutions including Cornell, HIT Lab, Harvard, and many others, which is responsible for investigating the use of 3D Web-based technologies for educational purposes.
1999-2001 Co-Chair (Elected) - External Authoring Interface (EAI) Working Group for the Web 3D Consortium (formerly the VRML Consortium). <http://www.web3d.org>

Section Editor for Academic and Trade Publications

2005-present Director Section Editor - MX Developer’s Journal; now the Adobe Web Developer’s & Designer’s Journal), SYS-CON Media

SERVICE TO THE ROCHESTER INSTITUTE OF TECHNOLOGY

Rochester Institute of Technology – Institute Service

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|-----------|---|
| 2009 | Member – Provost’s Academic Technologies Taskforce |
| 2008-2009 | External College Faculty – RIT Tenure Committee College of Science |
| 2002-2003 | Member – Taskforce on Directions for the Laboratory of Applied Computing |
| 2002-2003 | Member – Taskforce on Rewrite of Guidelines for Degree Proposals (Joint Subcommittee with Graduate Council/Institute Curriculum Committee) |
| 2001-2004 | GCCIS Representatives – Graduate Council |

Rochester Institute of Technology – GCCIS College Service

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|----------------|---|
| 9/2005-6/2007 | Member – GCCIS Tenure Committee (2 Terms) |
| 6/2008-10/2008 | Member – Leadership and Vision Group (Deans and Chairs Group) |
| 7/2008-8/2008 | Presenter – College and Careers Day(s) |
| 7/2007-8/2007 | Presenter – College and Careers Day(s) |
| 10/2006-8/2008 | Member – Dean’s Student Outreach Task Force (Eydie Lawson – Chair) |
| 7/2006-8/2006 | Presenter – College and Careers Day(s) |
| 9/2001-6/2004 | Member – College Curriculum Committee |
| 9/2001-6/2003 | Member – Taskforce on Liaisons with Information Technology Services |
| 2001-2002 | Member – GCCIS Dean’s Search Committee |

Rochester Institute of Technology – IGM Departmental Service

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|----------------|---|
| 7/2009-present | Presenter and Tour Leader – RIT Open House and Related Events |
| 7/2009-present | Member – GDD Graduate Student Admissions Group |
| 7/2009-present | Participant – Freshman Orientation Week Activities |

Rochester Institute of Technology – IT Departmental Service

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|---------------|---|
| 9/2007-6/2009 | Member – Search Committee (non-voting with pending Department Chair) |
| 6/2007-6/2009 | Member – Facilities Advisory Group |
| 2006-2008 | GD&D Program Director |
| 9/2004-6/2007 | Co-Presenter – Brick City Festival at RIT (presentation with Chris Egert) |
| 6/2004-6/2006 | Member – Graduate Curriculum Committee |
| 9/2001-6/2002 | Member – Facilities Committee |
| 9/2001-6/2003 | Chair – Graduate Curriculum Committee |
| 9/2000-9/2001 | Member – MS/IT Committee |
| 9/2000-6/2009 | Participant – IAB functions |
| 9/2000-6/2009 | Participant – Capstones and Cookies Events |
| 9/2000-6/2009 | Participant – Freshman Orientation Week Activities |
| 9/2000-6/2009 | Participant – Commencement and Graduation Activities |

Rochester Institute of Technology – Game Design & Development Program Service

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|---------------|---|
| 7/2006-6/2009 | Member – Game Design and Development Administrative Committee |
| 7/2006-6/2009 | Member – Game Design and Development Admissions Subgroup |
| 7/2006-6/2009 | Member – Game Design and Development Assessment Subgroup |
| 7/2006-6/2009 | Member – Game Design and Development Scheduling Subgroup |
| 7/2006-6/2009 | Member – Game Design and Development Curriculum Futuring Subgroup |
| 7/2006-6/2009 | Member – Game Design and Development Hospitality Subgroup |
| 7/2006-6/2009 | Member – Game Design and Development Recruitment Subgroup |
| 7/2006-6/2009 | Member – Game Design and Development IAB Recruitment Subgroup |
| 4/2006-8/2006 | Co-Organizer – “Save This City” Game Design Contest |

OUTREACH ACTIVITIES

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| 2008 | Speaker/Presenter – Pittsford HS Math and Games |
| 2008 | Speaker/Presenter – Monroe Community College – Careers in the Games Industry |
| 2007 | Speaker/Presenter – Rochester Museum and Science Center “Science of Games” Exhibit |
| 2007 | Demonstration Leader – Project Lead The Way at RIT |
| 2007 | Producer – GDD Project Demonstration Video for Outreach Efforts |
| 2005 | Speaker/Presenter - BOCES Lois E. Bird School 5 th Grade Career Project (GDD) |

PROFESSIONAL MEMBERSHIPS & AFFILIATIONS

1. Currently an active member in the Independent Game Developers Association (IGDA) and a participant in the organizational work related to academic leadership in games education.
2. ACM Special Interest Group for IT Education (SIGITE) – a group concerned with and working towards a national accreditation standard for Information Technology.
3. Association for Computing Machinery (ACM), and Special Interest Group in Computer Graphics and Interactive Techniques (SIGGRAPH).
4. Lifetime member, Phi Kappa Phi National Honors Society, inducted in fall of 2000.
5. Lifetime member, Golden Key National Honors Society, inducted in fall of 1996.