

Abbreviated Resume
J. Michael Moshell
University of Central Florida
August 2007

Education

1971-1975: Ph.D, Computer Science, Ohio State University
1964-1968: B. S. Physics, Georgia Institute of Technology

Employment

At the University of Central Florida (Orlando, Florida)

2005: Co-founder, *Digital Asset Management Laboratory*
2005: Academic Coordinator, *Florida Interactive Entertainment Academy*
2004: Interim Director, *Florida Interactive Entertainment Academy*
2004-2005: Head, *Digital Media Division, School of Film and Digital Media*
2000-2003: *Founder & Director, Digital Media Program (Arts & Sciences)*
2000-present: Professor, Digital Media, College of Arts & Sciences
1996-present: Professor, Computer Science
1990-1997: *Founder and Chief Scientist, Visual Systems Laboratory*
UCF Institute for Simulation & Training
1984-1996: Associate Professor, Computer Science

At the University of Tennessee (Knoxville, Tennessee)

1981-1984: Associate Professor, Computer Science
1975-1984: Assistant Professor, Computer Science

In the United States Peace Corps

1968-1970: High School Teacher, Kolej Tunku Kurshiah, Seremban, Malaysia

Professional Activity

President, *International Digital Media and Arts Association (iDMAA)*, 2005-6.

Chair, iDMAA Conference, March 16-18 2005, Orlando, Florida.

Chair, iDMAA Conference, March 14-16 2004, Orlando, Florida.

Member, National Research Council Panel on Virtual Reality 1992-1994. Produced *Virtual Reality: Scientific and Technological Challenges*. Washington, DC. September 1994.

Research Funding

Grants and contracts from U. S. Army, U. S. Navy, DARPA, National Science Foundation, National Institutes of Health: \$4.8 million, 1975-2000.

XINET Corporation (Berkeley, CA): Software donation for Digital Asset Laboratory: FullPress, Webnative, Webnative Venture, Webnative Portal. Commercial value \$70,000. January, 2007.

Academic Funding

State of Florida: *Florida Interactive Entertainment Academy*. \$4.2 million startup funds, \$1 million/year recurring funds. June 2004.

Recent Refereed Publications and Presentations

Moshell, J. Michael. "Shall we make the Everglades Holy?" Invited presentation, SIGGRAPH 2007 Art Gallery Panel., San Diego, California. Association for Computing Machinery: Special Interest Group on Computer Graphics and Interactive Applications. 9 August 2007.

Moshell, J. Michael; McDaniel, Rudy; Makwana, Alpesh P. and Wei, Li . "Managing Actors in Serious Games". Proceedings: GAMEON North America Conference, Gainesville, FL 11-13 Sept 07. Available as Technical Report UCF-DM-2007.3.

Moshell, J. Michael. "Principles and Meta-Principles for Digital Media as an Academic Discipline." Presented at the iDMAa Conference 2006 (International Digital Media and Arts Association), San Diego, California, November 9-11, 2006. Available as Technical Report UCF-SFDM-2006.3.

Gibson, Ian and **Moshell, J. Michael.** "Digital Asset Management Systems in Academia". Presented at the iDMAa Conference 2006 (International Digital Media and Arts Association), San Diego, California, November 9-11, 2006. Available as Technical Report UCF-SFDM-2006.4.

Wirth, Jeff; Ingraham, K. and **Moshell, J. Michael.** "Digital Media and Environmental Interactive Performance". Presented at the iDMAa+IMS Conference 2006 (International Digital Media and Arts Association), Oxford, OH, April 6-8, 2006. Available as Technical Report UCF-SFDM-2006.2.

Hughes, Darin E., Thropp, Jennifer; Holmquist, John, and **Moshell, J. Michael.** "Spatial perception and expectations: factors in acoustical awareness for MOUT training.". Army Science Conference 2004, Orlando, Florida, November 28-December 2, 2004.

Micikivicius, P., Hughes, C. E., **Moshell, J. M.**, Sims, V. K. and Smith, H. "Perceptual Evaluation of an Interactive Forest Walk-Through". *VR Usability Workshop: Designing and Evaluating VR Systems*, Nottingham, England, January 22-23, 2004.

Stapleton, C. B., Hughes, C. E. and **Moshell, J. M.** "Mixed Fantasy." *Second ACM and IEEE International Symposium on Mixed and Augmented Reality (ISMAR)* Tokyo. October 8-10, 2003.

Hughes, C. E., Stapleton, C. B., **Moshell, J. M.**, Micikevicius, P., Garrity, P. and Dumanoir, P. "Challenges and Opportunities Simulating Future Combat Systems via Mixed Reality." *23rd Army Science Conference (ASC 2002)*, Orlando, FL, December 2-5, 2002.

Stapleton, C. B., Hughes, C. E., **Moshell, J. M.**, Micikevicius, P. and Altman, M. "Applying Mixed Reality to Entertainment." *IEEE Computer* 35(12), pp. 122-124, December 2002.

Sims, V. K. **Moshell, J. M.**, Hughes, C. E., Cotton, J. E. and Xiao, J. "Recognition of Computer-Generated Trees". Proceedings of the Human Factors and Ergonomics Society, 46, Baltimore, MD, Sept. 30-Oct. 4, 2002.

Hughes, C. E., Burnett, J., **Moshell, J. M.**, Stapleton, C. B. and Mauer, B. "Space-based Middleware for Loosely-Coupled Distributed Systems." *Proceedings of SPIE*, Volume 4862, pp. 70-79; presented at *ITCOM2002: Multimedia Networks and Management Systems*, Boston, 29 July-2 August 2002.

Hughes, C. E.; **Moshell, J. M.**; Reed, Dean; "Internet-Based Virtual Environments" in *Handbook of Virtual Environments: Design, Implementation, and Applications* (K. M. Stanney, Ed.) Lawrence Erlbaum Associates, 2001.

Moshell, J. M. and Hughes, C. E. "Virtual Environments as a Tool for Academic Learning" in *Handbook of Virtual Environments: Design, Implementation, and Applications* (K. M. Stanney, Ed.) Lawrence Erlbaum Associates, 2001

Hughes, C. E.; **Moshell, J. M.**; Reed, Dean; Chase, Diane; and Chase, Arlen. "The Caracol Time Travel Project," Visual 2000: 3rd International Conference on Visual Computing, Mexico City, 18-22 September 2000. appeared in *Journal of Visualization & Computer Animation* 12(4) 203-214 (2001).

Hughes, C. E.; **Moshell, J. M.**; Sims, Valerie and Yu, QingYi. "Dynamic Computation of Levels of Detail in Complex Outdoor Environments," Visual 2000: 3rd International Conference on Visual Computing, Mexico City, 18-22 September 2000.

Moshell, J. M.; Hughes, C. E.; Reed, Dean; Chase, Diane; and Chase, Arlen. "Virtual Drama as a Learning Medium: The Caracol Time Travel Project," IEEE VR2000 (Poster Session), New Brunswick, NJ, 18-22 March 2000.

Morelos-Borja, H.; Wang, A.; **Moshell, J. Michael** and Hughes, C. E. "Agents for the Matching of Peer Tutors with Distance Learners." AACE-WebNet 98 Conference Proceedings, Orlando, FL. Nov. 1998.

Hughes, C. E.; **Moshell, J. Michael** and Pullen, M. "Two dimensional Shared Virtual Worlds in Middle and Elementary Schools: Lessons Learned," Virtual Worlds and Simulation Conference, pp. 139-144, San Diego, January, 1998.

Chen, J. X., Lobo, N., Hughes, C. E., and **Moshell, J. M.** "Real-time Fluid Simulation in a Networked Virtual Environment." *IEEE Computer Graphics and Applications* 17(3), pp. 52-61, May-June 1997.

Hughes, Charles E. and **Moshell, J. Michael.** "Shared Virtual Worlds for Education: The ExploreNet Experiment." *ACM Multimedia* 5(2), pp.145-154, March 1997.

Moshell, J. Michael and Hughes, Charles E. "The Virtual Academy: A Simulated Environment for Constructionist Learning." *International Journal of Human-Computer Interaction* 8(1), pp. 95-110, 1996.

Companion, Michael A.; Tarr, Ronald W.; Jacobs, John W.; and **Moshell, J. Michael.** "Collaborative Learning: Migration of distributed interactive simulation to educational applications." *Proceedings of SPIE '95* Orlando, FL. April 1995.

Chen, J. X., Lobo, N., Hughes, C. E. and **Moshell, J. M.** "Simulation and Synchronization of Fluids in a DIS." *First Workshop on Simulation and Interaction in Virtual Environments (SIVE)*, University of Iowa, Iowa City, Iowa, July 13-15, 1995.

Li, Xin; Hua, Kien A. and **Moshell, J. Michael.** "Distributed Database Designs and Computation Strategies for Networked Interactive Simulations. *Journal of Parallel and Distributed Computing* **25**, 72-90. 1995.

Mapes, Daniel P; and **Moshell, J. Michael.** "A Two Handed Interface for Object Manipulation in Virtual Environments." *PRESENCE: The Journal of Teleoperators and Virtual Environments.* **4:4**, Fall 1995, pp. 403-416.

Moshell, J. Michael, Cortes, Art; Clark, Tom; Abel, Kimberly C.; Kilby, Mark; Lisle, Curtis R.; Mapes, Daniel P. and Morie, Jacquelyn Ford. "Research in Virtual Environments and Simulation at the Institute for Simulation and Training of the University of Central Florida." *PRESENCE* **4:2**, Spring 1995. 209-217.

Durlach, Nathaniel I. and Mavor, Anne S. (Editors). Bryson, Steve; Hackerman, Norman; Hollerbach, John; Lackner, James ; **Moshell, J. Michael** ; Pausch, Randy ; Pew, Richard ; Robinett, Warren; Rosen, Joseph; Srinivasan, Mandayam ; Thomas, James ; van Dam, Andries ; Wenzel, Elizabeth ; Winget, James ; Witkin, Andrew ; Wong, Eugene; and Zyda, Michael. *Virtual Reality: Scientific and Technological Challenges*. A Report of the National Research Council, Washington, DC. September 1994.

Lampton, Donald R, Knerr, Bruce W., Goldberg, Steven L., Bliss, James P., **Moshell, J. Michael**, Blau, Brian S. "The Virtual Environment Performance Assessment Battery (VEPAB): Development and Evaluation." *PRESENCE: The Journal of Teleoperators and Virtual Environments*. V3 #2. Summer 1994.

Li, Xin and **Moshell, J. Michael**. "Realtime Graphical Simulation of Soil Slippage". *The Transactions of the Society for Computer Simulation* V11, #3. October 1994. pp.195-220.

Knerr, Bruce W.; Goldberg, Stephen L.; Lampton, Donald R.; Witmer, Bob G.; Bliss, James P.; **Moshell, J. Michael**; and Blau, Brian S. "Research in the Use of Virtual Environment Technology to Train Dismounted Soldiers." in *Journal of Interactive Instruction Development*. 6:4, Spring 1994. pp. 9 20.

Moshell, J. Michael and Hughes, Charles E. "The Virtual Academy: Networked Simulation and the Future of Education." in *Proceedings of the IMAGINA Conference*, 6-18 February 1994, Monaco.

Chen J. X., **J. M. Moshell**, C. E. Hughes, B. Blau, Xin Li. "Distributed Virtual Environment Real-Time Simulation Network." in *Advances in Modeling and Analysis, B*, Vol. 31, No. 1, 1994, pp. 1-7. Summer 1994. Proceedings of the Annual Conference of the Organization and Association for the Advancement of Modeling and Simulation Techniques in Enterprises, Tassin-la-Demi-Lune, France.

Hughes, Charles E. and **Moshell, J. Michael**. "ExploreNet" in *Virtual Reality Casebook* (C. E. Loeffler and Tim Anderson, ed.) Van Nostrand Reinhold, New York, pp. 118-122, 1994.

Moshell, J. Michael; Blau, Brian; Li, Xin, and Lisle, Curtis. "Dynamic Terrain." *SIMULATION* 62:1. January 1994.

Li, Xin and **Moshell, J. Michael**. "Modeling Soil: Realtime Dynamic Models of Soil Slippage and Soil Manipulation." in *Computer Graphics* 24:4 (*Proceedings of the Siggraph 93 Conference* , appearing as an issue of the journal *Computer Graphics*), August 1993.

Lisle, Curtis R. and **Moshell, J. Michael**. "Object Oriented Physical Modeling." in *Journal of Systems Engineering* , 3:191-201. 1993.

Moshell, J. Michael and Dunn-Roberts, Richard. "Virtual Environments: Research in North America." in *Virtual Reality: An International Directory of Research Projects*. Jeremy Thompson, ed. Meckler Inc., Westport, Conn. 1993.

Pausch, Randy R.; Curtis, Pavel; and **Moshell, J. Michael**. "Virtual Reality: Three Views." *IEEE Computer* 36.2, February 1993.

Moshell, J. Michael, Blau, Brian S., Knerr, Bruce; Lampton, Donald and Bliss, James P. "A Research Testbed for Virtual Environment Training Applications". *Proceedings of the VRAIS '93 Conference* (Seattle, WA. September 1993).

Blau, Brian; **Moshell, J. Michael**, and McDonald, Bruce. "The DIS (Distributed Interactive Simulation) Protocols and their Application to Virtual Environments. in *Proceedings of the Fourth Annual Virtual Reality Conference and Exposition*, San Jose, CA. 19-21 May 1993. Meckler Inc., Westport, Conn

Hughes, Charles E. and **Moshell, J. Michael** "ExploreNet" in *Virtual Reality: Anthology of Industry and Culture* (C. E. Loeffler, ed.) Gijutsu Hyoron Sha, Tokyo, 1993.

Moshell, J. Michael and Hughes, Charles E. "Shared Virtual Worlds for Education", *Virtual World Review* 1.2, Nov./Dec. 1993.

+ 42 prior journal and proceedings papers and 3 software products.