Educational History:

Ph.D.: Humanities – Aesthetic Studies, University of Texas, Dallas. May, 2007.

<u>Dissertation Title</u>: Emergent Pedagogical Agents as Assistive Technology in Creative, Collaborative and Expansive Projects. Dissertation advisor: Thomas E. Linehan, Ph.D.

Masters in Management: International Business, secondary emphasis in corporate finance. University of Dallas; Irving, TX; 1993.

MBA: University of Texas; Arlington, TX; 1980.

BS: Journalism; University of Illinois; Champaign, IL; 1977.

Employment History – Faculty and University Administrative Appointments:

Associate Director – Institute for Interactive Arts and Engineering – Arts and Technology Program: University of Texas at Dallas, January 2011 to current.

Assistant Professor – Arts and Technology: *University of Texas at Dallas.* January 2008 to Current.

Visiting Assistant Professor – Arts and Technology: *University of Texas at Dallas.* August 2007 to December 2007.

Research Associate -- Arts and Technology: *University of Texas at Dallas.* June 2007 to August 2007.

Graduate Teaching/Research Assistant: *University of Texas at Dallas.* January 2004 to May 2007.

Online Teaching Experience:

Texas A&M University – Commerce. Online Faculty. 2007 to 2009. Courses Taught: Internet Marketing, Ecommerce Strategy, Principles of Marketing(MBA)

Keller Online -- Senior Faculty Member and Curriculum Architect. 2003 to 2009.

Curriculum Architect: Marketing

<u>Courses Taught</u>: E-Commerce Strategy, E-Marketing, E-Commerce Technology, E-Commerce Operations, Marketing Research and New Product Development.

Online Teaching Experience (continued):

Ellis University -- Online Faculty. 2004-2007.

<u>Courses Taught</u>: Principles of Marketing, Introduction to being an online student.

University of Illinois, Chicago -- Online Faculty. 2004. Courses Taught: Principles of Marketing.

University of Dallas -- Online Faculty. 2000 to 2002. Courses Taught: Graduate-level E-Commerce/E-Marketing:

Employment History -- Corporate:

•	Greyhound Lines, Inc. Project Manager: E-commerce	1999-2003
•	Nortel Networks E-commerce Project Consultant	1998-1999
•	America Online - Digital City Dallas-Fort Worth Content and Business Development Manager	1996-1998
•	KUVN – Channel 23 (Univision) , Dallas-Fort Worth Marketing Research Manager	1994-1996
•	Technology and media related management positions	1993-1980

Professional Recognition and Honors:

- Deputy Chairman, Policy Committee, National Modeling and Simulation Coalition, (NMSC), February 2013 to present.
- Incoming Vice President, Education, Society for Modeling and Simulation International (SCS), August 2013.
- Co-Chair, Business Policy Committee, NMSC, February 2012 to present.
- Honorable Mention Game (Second Place), February 2013:
 "NursingAP.com." Society for Simulation in Healthcare (IMSH), Site Principal Investigator.
- First Place (Tie) Demonstration, February 2012: "NursingAP.com." Eighth Annual Innovations in Health Science Education Conference, Site Principal Investigator.
- First Place, Government Category, Serious Game Competition,
 December, 2011: "First Person Cultural Trainer." Interservice, Industry
 Training, Simulation and Education Conference (IITSEC), Principal
 Investigator.

Professional Recognition and Honors (continued):

- First Place, Department of Defense, March 2011: "First Person Cultural Trainer." Gametech. Principal Investigator.
- First Place Emerging and Innovative Technologies & Methods, January 2011: "Can Game Play Teach Student Nurses How to Save Lives -- An Undergraduate Training Proposal for Student Nurses in Pediatric Respiratory Diseases with a Living World Gaming Construct." 11th International Meeting on Simulation in Healthcare. Site Principal Investigator.
- Cross Function Development Award, January 2010: "The First Person Cultural Trainer." National Training and Simulation Association (NTSA), Principal Investigator.
- Honorable Mention Poster (Third Place), January 2010: "Pediatric Respiratory Distress." Society for Simulation in Healthcare (IMSH), Site Principal Investigator.
- Top-ten Finalist, Governors Cup, December, 2009: "The First Person Cultural Trainer." Interservice, Industry Training, Simulation and Education Conference (IITSEC), Principal Investigator.
- Human-Robotic Interaction Conference, 2006: Young Researchers Scholarship and invitation to present paper.
- Graduate Research/Teaching Assistantship, 2004-2007: Arts and Technology Department, University of Texas at Dallas

Achievements in Original Investigation:

Articles in Refereed Journals

Zielke, M., Roome, T., Krueger, A. "A Composite Adult Learning Model for Virtual World Residents with Disabilities: A Case Study of the Virtual ability Second Life® Island." *Journal of Virtual World Research* 2(1): 3-21, 2009.

Zielke, M., Evans, M., Dufour, F., et al. "Serious Games for Immersive Cultural Training: Creating a Living World." *IEEE, Computer Graphics and Applications* 29(2): 49-60, 2009.

LeFlore, J., Thomas, P., Zielke, M., et al., "Educating Neonatal Nurse Practitioners in the 21st Century," *Journal of Perinatal & Neonatal Nursing*, 25(2), 200-205, 2011.

LeFlore, J., Anderson, M., Zielke, M., et al., "Can a Virtual Patient Trainer Teach Student Nurses How to Save Lives – Teaching Nursing Students About Pediatric Respiratory Diseases," *Simulation in Healthcare*, 6(6), Forthcoming December 2011.

Invited Talks/Peer-reviewed Conference Proceedings

- Zielke, M., Gonzales, G., Hardee, G. "Combining Constructive Models with a 3D Game for Enhanced Immersion." IITSEC (Interservice, Industry Training, Simulation and Education Conference) Conference Proceedings, Orlando, Florida. December, 2012.
- Zielke, M., LeFlore, J., Broderick, V., Zeigler, R. "A model for creating simulated medical equipment in a situational gameplay context: The virtual ventilator." Meaningful Play Conference Proceedings, Lansing, Michigan. December, 2012.
- Zielke, M., "Creating Micro-expressions and Nuanced Nonverbal Communication in Game-Based Simulations for Urban Operations." ITEC 2012 (Defense Training, Simulation, Training) London. May, 2012.
- Zielke, M., Dufour, F., Hardee G. "Creating Micro-expressions and Nuanced Nonverbal Communication in Synthetic Cultural Characters and Environments." IITSEC (Interservice, Industry Training, Simulation and Education Conference) Conference Proceedings, Orlando, Florida. Forthcoming, December, 2011.
- Zielke, M., "The First Person Cultural Trainer." iFest (Department of Defense), Invited Talk, August 2011.
- Zielke, M., "Emergent Virtualism: Human Enhancement through Game-based Simulation." Exploring Human Enhancement: A Symposium. April, 2011
- Zielke, M., Linehan, T., "Developing a Platform-flexible Game-based Simulation for Cultural Training." IITSEC (Interservice, Industry Training, Simulation and Education Conference), Orlando, Florida. December, 2010.
- Zielke, M., LeFlore, J., Dufour, F., Hardee, G., "Game-Based Virtual Patients --Educational Opportunities and Design Challenges." IITSEC (Interservice, Industry Training, Simulation and Education Conference), Orlando, Florida. December, 2010.
- Zielke, M., Dufour, F., Friedman, B., et al. "Using Conscript™ to Train Cross-Cultural Decision-Making within a Serious Game." Applied Human Factors and Engineering combined with First International Conference on Cross-Cultural Decision-Making; conference Proceedings and Book Publication. July, 2010.

Invited Talks/Peer-reviewed Conference Proceedings (continued):

- Zielke, M., Linehan, T., "The First Person Cultural Trainer." IITSEC (Interservice, Industry Training, Simulation and Education Conference), Orlando, Florida. December, 2009.
- Zielke, M., "Cultural Training with Serious Game Design." Presentation, ITEC 2009 (Defense Training, Simulation, Training) Brussels. May, 2009.
- LeFlore, J., Zielke, M. et al. "Virtual Infant Patients, Families and Staff Collaboration: Simulating Situational Medical Outcomes with the 3-D Asymmetric Domain Analysis and Training Model." Roundtable Talk on Gaming Technology; 2nd International Paediatric Simulation Symposium; Florence, Italy. April, 2009.
- Linehan, T. ,Zielke, M., "Joint HUMINT War-Gaming Trainer."
 Office of Deputy Under Secretary of Defense for Readiness and USD. Daniel E. Garner, Director of Readiness and Training, Alexandria, VA. November, 2008.
- Zielke, M. "Socio-Cultural Training through Behavior Modeling in Interactive Games." Military Modeling Support Activity." INFORMS, San Diego, CA. October, 2009.
- Zielke, M., Linehan, T. "First Person Cultural Trainer." Urban Operations Modeling and Simulation Summit IX, Lockheed Martin Center for Innovation, Suffolk, VA. April, 2009.
- Zielke, M., Linehan, T. "First Person Cultural Trainer." Urban Operations Modeling and Simulation Summit VIII, Naval Postgraduate School, Monterrey, CA. October, 2008.
- Zielke, M., "A Presumption of Reality: Exploring Virtual Behavior as a Predictive Mechanism for Real-Life Outcomes." Learning with Games Conference, Sophia Antipoles, France, Proceedings. September, 2007.

Poster Presentations

 LeFlore, J., Zielke, M. et al. "Virtual Infant Patients, Families and Staff Collaboration: simulating situational Medical Outcomes with the 3-D Asymmetric Domain Analysis and Training Model," (Poster Presentation) University of Texas system, Innovations in Health Science Education, Austin, Texas. February 2009.

Poster Presentations (continued):

 Zielke, M., Evans, M., "Teaching Cultural Awareness with Serious Games," Serious Games Conference on Meaningful Play, Michigan State University. October 2008.

Grants/Contracts Awarded:

Army Training and Doctrine (TRADOC): The First Person Cultural Trainer,
 \$2.8 million, 2008 to current, principal investigator.

The focus of the First Person Cultural Trainer is to provide high-fidelity emotive virtual characters that reflect behavioral/psychological/cultural parameters of a society. The project integrates models from governmental sources that reflect populace mood and other behavioral constructs.

 AHRQ (subcontract through UT Arlington College of Nursing): Simulation training of inter-professional communication skills for critical situations, \$350,000, 2011-2014, site principal investigator.

A virtual simulator to improve communication between doctors and nurses with the goal of improving patient safety.

 University of Texas Transforming Undergraduate Education Grant (subcontract through UT Arlington): An Undergraduate Training Proposal for Student Nurses in Pediatric Respirator Dieses with a Living World Gaming, 2009-2011, \$150,000, site principal investigator.

This project explored creating virtual infant patients and virtual hospital staff to allow nursing students to learn processes for treating patients with respiratory distress. Student groups were compared on their performance in a clinical setting between those who received this training in a traditional lecture format and those who received the training through a virtual serious game.

Grants/Contracts Awarded (continued):

• Children's Medical Center Grant (subcontract through UT Arlington): Serious Game on the Care and Treatment of Neonatal patients, \$80,000, 2009-2011, site principal investigator.

This project rates novice through experienced nurses on their ability to effectively follow procedures in treating virtual infant patients on respiratory conditions. Backend data is provided to collect data on an ongoing basis.

 Human Resources and Services Administration (subcontract through UT Arlington College of Nursing): Neonatal Nurse Practitioner MSN Program, \$300,000, 2009-2012.

site principal investigator.

This project provides online curriculum for a neonatal nurse practitioner program. The online curriculum includes complex interactive on hospital equipment, instructional videos, interactive lectures and immersive training environments as well as research on student navigation of these materials.

• **U.S. Joint Forces Command**: HUMINT – War Gaming Trainer, \$220,000, 2007-2008, project manager.

The focus of the HUMINT – War Gaming Trainer is to provide high-fidelity emotive virtual characters that reflect behavioral/psychological/cultural parameters of a society. Focus of the virtual environments created is urban Afghanistan.

Teaching:

Classroom Teaching

- 2013, Spring, ATEC 4340, Managing and Implementing Interactive Media Projects, Undergraduate, ATEC.
- 2012, Fall, ATEC 4340, Managing and Implementing Interactive Media Projects, Undergraduate, ATEC.
- 2012, Spring, ATEC 4340, Managing and Implementing Interactive Media Projects, Undergraduate, ATEC.
- Spring 2012, Designing Transformative Technology, Graduate Seminar, Arts and Technology (ATEC).
- 2011 Fall, Virtual Humans and Synthetic Societies, Graduate Seminar, ATEC.
- 2010, Spring, ATEC 4340, Managing and Implementing Interactive Media Projects (online and classroom), Undergraduate, ATEC.

Teaching (continued)

- 2010, Fall, Management and Teaching of ATEC 4340 Online Curriculum: Managing and implementing interactive media projects, Emarketing Design, Transformational Technology, Undergraduate, ATEC.
- 2009, Spring, Cyberpsychology as a Design Construct in Interactive Media Design, ATEC
- 2008, Spring, Cyberpsychology as a Design Construct in Interactive Media Design, ATEC.
- 2008, Fall, Ebusiness Environment Design, ATEC

University Service:

- Undergraduate Steering Committee, University of Texas at Dallas, Fall 2012 to present
- EMAC Graduate Committee, University of Texas at Dallas, Fall 2012 to present
- Distance Education Committee, University of Texas at Dallas, Fall 2011 to present
- Faculty Advisor: ATEC Website, Fall 2009 to Fall 2011
- Graduate Studies Committee: University of Texas at Dallas, School of Arts and Humanities, Fall 2009 to Fall 2011
- Executive Committee and Advisory Board: Institute for Innovation and Entrepreneurship (IIE), University of Texas at Dallas, School of Management, January 2008 to August 2009