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James M. Laffey

Education

1981 **University of Chicago** Chicago, IL
Ph.D. School of Education

1971 **University of Notre Dame** Notre Dame IN
Bachelor of Arts, Psychology

Professional experience

University of Missouri-Columbia

Professor 9/94 to present
Teach and advise graduate students in the School of Information Science and Learning Technology.

- Developed graduate seminars on Interaction Design, Electronic Performance Support Systems, Computer-based Collaborative Learning Systems, Computer-based Cooperative Work Systems, Social Computing and Networked Learning Systems.
- Awarded tenure in 1998
- Developed the University of Missouri Mission Enhancement Initiative in Networked Learning Systems, which included funding for 4 new faculty positions, collaboration with Computer Science, and a new curriculum focus in the Master's degree program in Learning Technology.
- Co-founded with Dale Musser & John Wedman the Center for Technology Innovations in Education (CTIE) so as to improve education through the invention and innovative application of new technologies.
- Founded THERE (2009) an informal center at MU for envisioning, designing, developing and studying the advance of new 3D and network technology to improve how we learn, work and play together.

Founder & Co-Director: Center for Technology Innovations in Education (1995 – 2002)

The Center operated by building teams of researchers, software designers and developers, and educators to take on challenging problems of learning and technology development. Although CTIE is a relatively young organization it has already achieved national recognition for its work. For example, it was selected as one of the featured R&D Centers in the

Educational Media and Technology Yearbook 2000.

CTIE is located in 8000 square feet of space renovated for its R&D mission and has approximately 45 staff members. Through participation in a grant for connection to the vBNS, CTIE has access to both the traditional Internet as well as Internet 2.

While co-director CTIE generated over $4.5 million in external support for projects from NSF, the US Department of Education, SBC Foundation, Motorola, Verizon and other sources.

In 2006 CTIE was included in a reorganization that now houses it in the Allen Institute.

Visiting Associate Professor 9/93 to 8/94

Taught and advised graduate students in the Department of Curriculum and Instruction.

Developed and taught two new graduate seminars: Facilitating Authentic Learning and Trends in Instructional Technology

Taught foundations course for students in Educational Psychology

Apple Computer, Inc.

Interactive Technology Scientist 5/87 to 8/93

Strengthened customer support programs through user studies and development of new interface strategies and performance support tools. 1991-1993

- Conducted customer analysis and user studies for Swami, an innovative information service for support professionals.
- Project leader for the LIMB project. Conducted analysis and design and provided leadership through development and implementation of a system enabling Apple Customer Support Representatives access to tools and resources.

Coordinated research and technology development of innovative learning and performance support systems. 1990-1992

- Project leader for Role'm, a research and demonstration project for an intelligent/hypermedia role-playing simulator.
- Project leader for NNAble, a research and demonstration project for a networked performance support system.

Produced innovative, technology-based learning systems. Initiated and led efforts to use technology effectively in training. 1987-1991

- Produced Macintosh Fundamentals and Beyond, a CINDY Gold Medal award winning program which was the first major implementation of interactive learning systems in Apple Training Support. CINDY is an international awards competition of the Association of Visual Communicators (AVC). A gold medal is the highest award in the

competition.

- Produced the HyperCard/Interactive Video Toolkit. This is a product distributed by APDA and used by interactive media course developers around the world.
- Produced the first video programs and interactive video program using HyperCard for Apple Training Support.

San Francisco State University

Program Coordinator and Associate Professor of Educational Technology. 1982 - 1987.

- Awarded tenure in 1987.
- Designed, developed and offered a new graduate curriculum in instructional computing.
- Served as Associate Director and faculty for the Institute for School Improvement, funded by the San Francisco Foundation to bring about school improvement and staff development in San Francisco Public Schools. The project included community and school cadres, coaching of teachers, and school restructuring.
- Rated number one faculty for positive and effective teaching each year.
- Served on the Policy Board of the Region V Teacher Education and Computer Center, a state funded regional center for supporting teacher in-service education
- Served on the Advisory Committee on Instructional Computing to the State of California Commission on Teacher Credentialing

University of Washington

Project Director 5/1979 to 12/1981

Principal Investigator of an NSF $150,000 grant to develop interactive video programs for math and science preparation, 1981.

Director of $300,000 grant to conduct research and development of computer managed education for community colleges, 1980.

Roosevelt University

Research Associate 5/1976 to 5/1979
Wrote grants, conducted evaluations and participated as a team member on a Teacher Corps Project to improve schools in the inner city of Chicago, 1976- 1979.

Westside Academy Chicago, IL.

Teacher *9/1974 to 5/1976*
Taught basic skills and provided counseling to high school dropouts. The Academy was a storefront alternative school for inner city youth, 1974 – 1976

St Joseph H.S. Westchester, IL.

Teacher 9/1971 to 6/1974

Taught Social Studies grades 9-12 and coached football and wrestling, 1971 – 1974.

Honors

Keynote presentation at the International Open Forum on the Development of e-Textbook and e-Schoolbag Standards and Applications. Shanghai, China. 2013.

Invited to be a Founding Board member of the Open Wonderland Foundation, a non-profit devoted to providing a free and open-source platform for virtual worlds based on Project Wonderland. 2010.

Appointed Honorary Professor by the President of East China Normal University in Shanghai China in recognition of teaching, consultation and advising with faculty and students at ECNU.

Invited Keynote Address (w/ Linda Espinosa) at the Meeting of the Young Children and Learning Technologies (2003). Sponsored by International Federation for Information Processing. Sydney, Australia. Presentation entitled: Young Children and technology: How Research Can Influence Public policy. Sydney, Australia.

Listed in Who's Who in Instructional Technology identifying the 100 most acclaimed contributors in the field of Instructional Technology.
http://hagar.up.ac.za/catts/learner/m1g1/whointro.html

High Flyers Teaching Award, College of Education, University of Missouri-Columbia. 1994-95, 1999-2000, 2001-02, 2004-2006.

Technology Services Steering Committee for the St Louis Public School District, 2000 to 2002.

Invited review panelist for NSF proposal reviews
- 2004 – Human Computer Interaction, CISE
- 1999 - Research on Learning in Education, EHR
- 1998 - Network Infrastructure in Education, EHR

Invited presenter to NSF Research on Education, Policy and Practice Principal Investigator meeting, WA., D.C. June, 1999.

Invited presenter to Consortium for Technology in the Preparation of Teachers Advisory Meeting, November, 1997.

Advisory Board member of Kit and Kaboodle project funded by NSF. Atlanta, GA, 1995-1998.

Invited participant in the NSF Educational Technology Workshop Setting a Research Agenda for Computer Science in Educational Technology. Research Associates, Washington, D.C., October, 1995.

Authored "Dynamism in performance support systems. " Reprinted in the tenth anniversary special edition of Performance Improvement Quarterly, (10 (1), 183-198) as one of the seminal articles in the field of performance improvement.

Awarded a Gold CINDY in the international awards competition of the Association of Visual Communicators (AVC). MFB won AVC's highest award (a gold medal) for interactive learning using media in the 29th annual CINDY competition,1989.

Invited keynote presentation at the 31st International Conference of the Association for the Development of Computer-based Instructional Systems (ADCIS), Presentation entitled Macintosh Fundamentals and Beyond: Innovation in Learning Technology.

Washington, DC., 1989.

Awarded a Special Achievement CINDY in the international awards competition of the Association of Visual Communicators (AVC). The Language Learning Disc won a special achievement award in the 28th annual CINDY competition. 1988.

Funded Grants

iWater: preliminary work for a science education virtual system. (9/1/13 – 6/29/14). University of Missouri-Research Council. Develop design documents and a mockup of a prototype 3D VLE for distance science education. Role: PI. $7,000. Percentage of time devoted to project: 5% academic, 0% summer. Collaborators: Troy Sadler & Sean Goggins.

iSocial: implementation grant. (7/1/11-6/29/12). Missouri Department of Elementary and Secondary Education. Implement and test iSocial in 2 Missouri School Districts. Role: Co-PI. $268,453. Percentage of time devoted to project: 20% academic, 33% summer.

iPhySci: 3D-VLE for use in online physical science education**.** (7/1/11 – 6/29/12). University of Missouri-Research Board. Develop a prototype 3D VLE for distance science education. Role: PI. $29,400. Percentage of time devoted to project: 20% academic, 33% summer.

VLE-STAR: Virtual Learning Environment for Scientific Thinking in AstRonomy. Awarded $149,832 from the National Science Foundation. VLE-STAR will develop two "proof of concept" learning units to demonstrate the potential of implementing an integrated VLE comprising a 3D virtual science exploration, a collaborative system for social networking and class management, and a notification system for facilitating work process and social learning. Co-author with Angela Speck. August 1, 2009 – June 31, 2011.

iSocial: Developing a 3D-based virtual learning environment for use in schools to enhance the social competence of youth with an Autism Spectrum Disorder. Awarded $1,491,073.42 the Institute of Education Sciences, US Department of Education. Co-author with Janine Stichter. July 1, 2009 – June 30, 2012.

Evaluating a 3D VLE for Developing Social Competence. Awarded $198,509 by AutismSpeaks. The pilot project aims to implement an evaluation plan to inform the use of 3D VLE systems for youth with ASD and to test the efficacy of design and implementation choices as a proof of concept. Co-author with Janine Stichter. October 1, 2008 – September 30, 2010.

A 3D environment for developing social competence for youth with ASD. Awarded $22,800 by the University of Research Board. The specific objectives of the Research Board project is to research and develop a first implementation of the 3D VLE. Co-author with Janine Stichter, June 15, 2008- June 15, 2009.

An Efficacy Study for Using a 3D VLE for Developing Social Competence for Youth with ASD. Awarded $48,578.00 by the Thompson Center for Autism and Neurodevelopmental Disorders, Scholars Awards Program, University of Missouri-Columbia. The project work includes design, development and usability testing of a 3D VLE system for implementing the curriculum, and an efficacy study using a single–subject multiple baseline design across three participants. Co-author with Janine Stichter, June 1, 2008- December 31, 2008.

The Context Awareness and Notification System. Awarded $559,474 by the US

Department of Education, Fund for the Improvement of Post Secondary Education. The project is to develop a software system for context awareness that is integrated with the Sakai course management system. Co-author with Chris Amelung. 1-07 to 12-09.

The Vashon Education Compact Youth Leadership and Technology Program. Awarded $80,000 by the Vashon Education Compact**.** An innovative after school program to develop leadership and technology skills for middle school youth of the Vashon Education Compact schools. The youth will use an innovative internet-based collaboration tool called Shadow netWorkspace™ (SNS). 8/02 to 7/04.

Early Learning and Technology for At-Risk Children. Awarded $99,313 from the National Science Foundation (IERI) as a planning grant to develop a research and development plan for the use of technology in the reform of inner city education for at-risk children. Co-author with Linda Espinosa and Tim Lewis. 9/01 to 8/02.

Connection to Literacy awarded $100,000 from Verizon Corporation for the development of a networked based innovative systems to support literacy development. Primary author. 9/01 to 8/02.

I2-K20: Shadow netWorkspace awarded $200,000 from MOREnet and the UM System for the development of a networked based learning systems for the next generation Internet. Collaborator with Dale Musser and John Wedman. 2/01 to 7/02.

CISE Educational Innovation: Integrating Agent Technology into CISE Curriculum Using Lecturelets awarded $215,259 from NSF-00-33 for the development of a set of "smart" instructional components based on agent technology. Collaborator with Su-Shing Chen, Yi Shang, and Hongchi Shi. 9/00 to 8/03.

Event-Driven Computing Projects for Software Engineering Education awarded $63,000 from NSF-CCLI-EMD for a proof of concept project to test the feasibility of using projects to teach event driven programming. Co-PI with Marge Skubic. 9/00 to 6/02.

Early Learning and Technology awarded $39,980 from MU Research Board for a pilot study of children rated as behavior problems using technology in an urban school setting. Co-author with Linda Espinosa. 1/00 to 9/00.

Preparing Tomorrow's Teachers to Use Technology awarded (approximately) $1,500,000 from the US Department of Education to improve the preparation of preservice teachers to use technology in their teaching. Primary author. 9-99 to 8-02.

A Staff Development Plan for the Reforrn of Jefferson Elementary School awarded $250,000 from the Danforth Foundation. Co-author with Linda Espinosa and Ann Meese. 6-99 to 5-00.

Development of Graphical Software Educational Material for Thermodynamic Coursework awarded $75,000 from NSF-CCLI-EMD for a proof of concept project to test the feasibility of a graphical software system for pedagogy.. Co-PI with Patrick Tebbe, Stephen Lombardo, William Miller and Chris Weisbrook. 6/99 to 9/00.

Networked Learning Systems awarded $300,000 (approximately) enhancement funding to a collaborative research project with Computer Engineering/Computer Science and the School of Information Science and Learning Technologies. Primary author with Dale Musser, John Wedman & Su-Shing Chen. 1999 to present

MUExpedition awarded $55,080 from Motorola, Inc. to research and develop a

collaborative space for team problem solving. 12/98 to 12/99.

Technology Infrastructure in Teacher Education study awarded $800,200 from the National Science Foundation, REPP. Principal Investigator and Primary-Author with Peter Hall, Peggy Placier, and Dale Musser. 9/97 to 8/00.

Program Support for the Center for Technology Innovation in Education. Awarded $500,000 from the SBC Foundation in a competitive submission. Co-Principal Investigator and Co-Author with Dale Musser. 9/97 to 8/01.

Supporting Educational Reform at the Jefferson School. Awarded $77,300 from the SBC Foundation. Co-Principal Investigator and Co-Author with Dale Musser. 10/97 to 9/98.

Cross-Platform Interactive Shared Journal System development project awarded $25,000 from the University of Missouri, Institute for Instructional Development. .Principal Investigator and Author. 8/97 to 6/98

Challenge Grant for Project Whistlestop systemic reform effort. Awarded $1,900,000 from the U.S. Department of Education to a School/University/Library consortium in a competitive submission.. Contributing Author. 10/96 to 9/01

Implementation Grant for the NIE MOST (Missouri Supporting Teachers) Electronic Support System to Promote Problem-Based Learning Using a Computational Science Model. Awarded $863,865 from NSF in a competitive submission.. Principal Investigator and Primary Author. 10/95 to 9/98

Instructional Technology Endeavor Project for Cooper County C-4. Awarded $25,000 from the Missouri Department of Elementary and Secondary Education (MODESE) in a competitive submission. . Primary Author. 9/95 to 8/96

Success Leads to Success Program - Computational Science. Awarded $49,952 from MODESE in a competitive submission. Principal Investigator and Primary Author. 6/95 to 9/95.

Performance Support of Field-Based Learning. Awarded $100,000 from Institute for Instructional Development in a competitive submission. Co-Principal Investigator and Co-Author with Dale Musser. 6/95 to 5/96

Planning Grant for the Development of the NIE MOST (Missouri Supporting Teachers) Electronic Support System to Promote Problem-Based Learning Using a Computational Science Model. Awarded $96,020 by NSF in a competitive submission. Principal Investigator and Primary Author. 9/94 to 9/95.

The Guide to Project-Based Learning in Math and Science. Awarded $25,000 by Oracle Corporation in a competitive submission. Principal Investigator and Primary Author. 2/95 to 5/95.

The Design of an Electronic Infrastructure for Performance Support as part of the Regional Professional Development Center, UMC. Awarded $15,000 by MO-DESE in a competitive submission. Contributing Author. 2/95 to 7/95.

FIPSE Grant for Instructional Systems to Improve the Learning Strategies of Foreign-Born Americans. Awarded $378,000 by the Department of Education. Co-Principal Investigator and Co-Author with Rubin, J. 9/85 to 8/88

Planning grant to implement a Center for Teacher Education Research. Awarded $50,000 from the National Institute of Education Awarded $50,000 and led to a

proposal which was a finalist in the full grant competition.

Grant to Develop the Interactive Videodisc Program Math in Biology. Awarded $150,000 by the National Science Foundation. Principal Investigator and Primary Author. 9/80-8/81

Teacher Corps Project with the Chicago Public Schools. Submission by Roosevelt University. Awarded $1,000,000 by the Department of Education.. Contributing Author. 9/77-8/79.

Journal Articles

Refereed process unless n
by * indicating peer revie

Laffey, J. M. (2014). 3D Virtual Learning Systems and Educational Gaming: Possibilities for e-Textbook 2.0. *Journal of East China Normal University (Natural Science), 2*, 87-97.

Stichter, J., Laffey, J., Galyen, K. & Herzog, M. (2013). iSocial: Delivering the Social Competence Intervention for Adolescents (SCI-A) in a 3D Virtual Learning Environment for Youth with High Functioning Autism. Journal of Autism and Developmental Disorders, 43(7). (DOI) 10.1007/s10803-013-1881-0.

Tsai, I.-C., Galyen, K., Xie, X., & Laffey, J. (2013). Using Activity Theory to Examine Social Interaction of Online Learning. *Open Education Research, 18(5), 49-57. (CSSCI)*

Schmidt, M. Galyen, K., Laffey, J., Babiuch, R., & Schmidt, C. (2013). Open source software and design-based research symbiosis in developing 3D virtual learning environments for individuals with autism: Examples from the iSocial project. *The Journal of Interactive Learning Research. Vol 25(1).*

Kwon, K., Hong, R-Y. & Laffey, J. (2013). The educational impact of metacognitive group coordination in computer-supported collaborative learning, Computers in Human Behavior. Vol. 29, pp. 1271-1281.

Tsai, I.-C., Tong, Y.-P., & Laffey, J. (2013). Exploring how students' self-regulated learning influences the social nature of online learning. International Journal of Learning Technology.

Laffey, J., Galyen, K & Babiuch, R. (2012). Guidance in Game-Based Virtual Learning: Lessons from Developing iSocial. Journal of Immersive Education. Vol 1(1).

Galyen, K., Tsai, I.-C., & Laffey, J. (2012). The relationship between learning satisfaction and social ability in completely online learning courses. *Open Education Research, 18(6), 50-54. (CSSCI)*

Laffey, J., Schmidt, M., Galyen, K. & Stichter, J. (2012). Smart 3D collaborative virtual learning environments: A preliminary framework. Journal of Ambient Intelligence and Smart Environments. vol 4, number 1, pp. 49-66.

Gu, X., Zha, C., Li, S. & Laffey, J. (2012). Design, Sharing and Co-construction of learning resources: A case of lifelong learning communities in Shanghai. Australasian

Journal of Educational Technology. Vol. 27 n2, pp. 204-220.

Schmidt, M., Laffey, J., Schmidt, C., Wang, X. & Stichter, J. (2012). Developing methods for understanding social behavior in a 3D virtual learning environment, Computers in Human Behavior. Vol. 28 issue 2, pp. 405-413.

Goggins, S., Laffey, J. & Gallagher, M. (2011). Completely Online Group Formation and Development: A Case Illustrating the Co-evolution of Higher Education and Digital Culture. Information Technology and People. 24.2. pps 104 – 133.

Gu, X., Gu, F. and Laffey, J. (2011), Designing a mobile system for lifelong learning on the move. Journal of Computer Assisted Learning, Vol. 27 n3, pp. 204-215. no. doi: 10.1111/j. 1365-2729.2010.00391.x

Laffey, J. & Tsai, I.-C. (2010). Design research for context awareness. Open Education Research, 16(6), 60-67. (CSSCI)

Remidez, H., Stam, A. & Laffey, J. (2010). Scaffolding Solutions to Business Problems: Trust Development as a Learning Process. *International Journal of e-Collaboration .* Vol. 6, No. 4. 12-32.

Schmidt, M., Galyen, K., Laffey, J., Ding, N., & Wang, X. (2010). Leveraging open source software and design based research principles for development of a 3D virtual learning environment. *SIGCAS Comput. Soc.*, *40*, 45-53. doi:10.1145/1929609.1929614

Laffey, J., Schmidt, M. & Amelung, C. (2010). Open for Social: How Open Source Software for E-Learning can take a turn to the Social. International Journal of Open Source Software & Processes (pp. 49-64). DOI: 10.4018/ijossp.20100101

Laffey, J., Tsai, I.-C., Amelung, C., Hong, R-Y., Galyen, K. & Goggins, S. (2010). The Role of Social Information for Social Ability, Sense of Community and Satisfaction in Online Learning. Journal of Open and Distance Education Research. Vol. 16, No. 3, pp. 136-143.

Tsai, I.-C., Laffey, J., & Hanuscin, D. (2010). Effectiveness of an online community of practice for learning to teach elementary science. Journal of Educational Computing Research. 43(2), 225-258. (SSCI)

Cho, M-H., Shen, D. & Laffey, J. (2010) Relationships Between Self-Regulation and Social Experiences in Asynchronous Online Learning Environments. Journal of Interactive Learning Research. 21(3), 297-316.

Laffey, J., Amelung, C. & Goggins, S. (2009). A Context Awareness System for Online Learning: Design Based Research. International Journal on E-Learning, 8*(3),* 313-330.

Shen, D., Nuankhieo, P., Huang, X. & Amelung, C., Laffey, J. (2008). Using Social Network Analysis to Understand Sense of Community in an Online Learning Environment. Journal of Educational Computing Research, 39(1), 17-36. (SSCI)

Schmidt, M., Laffey, J., Stichter, J., Goggins, S., and Schmidt, C. (2008). The design of iSocial: A three-dimensional, multiuser, virtual learning environment for individuals with autism spectrum disorder to learn social skills. The International Journal of Technology, Knowledge and Society. Volume 4, Issue 2, pp.29-38.

Tsai, I.-C., Kim, B., Liu, P. J., Kumalasari, C., Goggins, S. P., & Laffey, J. M. (2008). Building a Model Explaining the Social Nature of Online Learning. Journal of Educational Technology and Society. Volume 11, Issue 3, 2008. http://www.ifets.info/issues.php?id=40

Lin, Y., Lin, G & Laffey, J. (2008) Building a Social and Motivational Framework for Understanding Satisfaction in Online Learning. Journal of Educational Computing and Research. 38(1), 1-27. (SSCI)

Yoon, S.Y., Laffey, J. & Oh, H. (2007). Understanding usability and user experience of Web-based 3D graphics technology. *International Journal of Human-Computer Interaction.* Ref.: Ms. No. IJHC-D-06-00050R1

Ai, J. & Laffey, J., (2007). Web Mining as a Tool for Understanding Online Learning. Journal of Online Learning and Teaching. Vol. 3, No. 2. http://jolt.merlot.org/vol3no2/ai.htm

Laffey, J., Espinosa, L., & Wang, M. J. (2007). Social computing as a design perspective for E-Learning. *Journal of Distance Education in China, 2007*(4). Beijing , P. R. China. Retrieved June 1, 2007 from http://www1.open.edu.cn/ycjy/luntan.php?id=256

Remidez, H., Stam, A. & Laffey, J. (2007) Web-Based Template-Driven Communication Support Systems: Using Shadow netWorkspace to Support Trust Development in Virtual Teams. International Journal of E-Collaboration. 3(1). 65-83.

Shen, D., Laffey, J. Lin, Y., & Huang, X. (2006). Social Influence and Perceived Ease of Use and Usefulness of Course Delivery Systems. Journal of Interactive Online Learning, 5(3), pp 270-282.

Yang, C., Tsai, I., Kim, B., Cho, M. & Laffey, J. (2006). Exploring the Relationships between Students' Academic Motivation and Social Ability in Online Learning Environments. The Internet and Higher Education. 9(4).

Lin, Y. & Laffey, J. (2006). Exploring the Relationship between Mediating Tools and Student Perception of Interdependence in a CSCL Environment. Journal of Interactive Learning Research. 17(4) 385-400.

Espinosa, L., Laffey, J., Whittaker, T. & Sheng, Y. (2006) "Technology in the Home and the Achievement of Young Children: Findings from the Early Childhood Longitudinal Study Early Education and Development: Technology Special Issue. 17(3).

Laffey, J. & Musser, D. (2006). Shadow netWorkspace: An Open Source Intranet for Learning Communities. Canadian Journal of Learning and Technology. 32(1).

Laffey, J., Lin, G., & Lin, Y. (2006). Assessing Social Ability in Online Learning Environments. Journal of Interactive Learning Research. 17 (2), pp.163-177.

Laffey, J. (2004). Appropriation, Mastery and Resistance to Technology in Early Childhood Preservice Teacher Education." Journal of Research on Technology in Education. 36(4), 361-382.

Espinosa, L. & Laffey, J. (2003). Urban primary teacher perceptions and student performance: Congruent or divergent? Journal of Children and Poverty. 9(2), 23-40.

Laffey, J., Espinosa, L., Moore, J. & Lodree, A. (2003). Supporting learning and behavior of young children: Computers in urban education." Journal of Research on Technology in Education. 35(4), 423-440.

Laffey, J., Musser, D., Remidez, H. & Gottdenker, J. (2003). Networked systems for schools that learn. Communications of the Association of Computer Machinery. 46, 9 (virtual extension), 192-200.

Moore, J., Laffey, J., Espinosa, L. & Lodree, A. (2002). Bridging the Digital Divide for At-Risk Students: Lessons Learned. Tech Trends.

Remidez, H., Laffey, J. & Musser, D. (2001). "Open Source and the Diffusion of Teacher Education Software." Technology and Teacher Education Annual. 3, 2774-2778.

Jones, N. & Laffey, J. (2001). The diffusion of collaborative technologies into a college classroom. Performance Improvement Quarterly, 13 (4), 29-46.

Wang, M., Laffey, J. & Poole, M. (2001). The construction of shared knowledge in an Internet-based shared environment for expeditions (iExpeditions)." International Journal of Education Technology.

* Kochtanek, T., Laffey, J., Borwick, J. & Kim, S. (2000). Project Whistlestop: A digital collection of images, text and sound in support of project-based learning. Interactive Learning and Information Systems Collaboratory Review Board, University of Missouri-Columbia

Reeves, T. C., & Laffey, J. M. (1999). Design, assessment, and evaluation of a problem-based learning environment in undergraduate engineering. Higher Education Research and Development Journal, 18(2), 219-232.

Laffey, J. & Musser, D., (1998). Attitudes of preservice teachers about using technology in teaching. Journal of Technology and Teacher Education, 6 (4), 223-243.

Laffey, J. & Musser, D., (1998). Software and learning systems design for field-based experience." Journal of Technology and Teacher Education, 6 (2/3), 193-204.

Wedman, J. M., Espinosa, L. & Laffey, J. , (1998). A process for understanding how a field-based course influences teachers' beliefs and practices. Teacher Educator, 34(3), 189-214.

Laffey, J. & Singer, J. (1997). "Using mapping for cognitive assessment in project based science." Journal of Interactive Learning Research, 8 (3/4), 363-387.

Laffey, J., Musser, D. & Tupper, T., & Wedman, J. (1998). A computer-mediated support system for project based learning. Educational Technology Research and Development, 46(1), 73-86.

Howland, J. , Laffey, J. & Espinosa, L. (1997). A computing experience to motivate young children to complex performances." Journal of Computing in Childhood Education, 8(4) , 291-312.

Laffey, J. (1995). Dynamism in performance support systems. Performance Improvement Quarterly, 8(1), 31-46.

Laffey, J. (1982). The assessment of involvement with school work among urban high school students. Journal of Educational Psychology, 74.

Cichon, D., Koff, R., Laffey, J. & Olson, G. (1981). Stress and teaching: A comparative study. Stress, 2.

Koff, R, Olson, G., Laffey, J. & Cichon, D. (1981). Executive stress and the school

administrator. NASSP Bulletin, 65(449).

Laffey, J. & Helt, S. (1981). Managing diversity: An application of computer management in developmental education." Journal of Developmental and Remedial Education,

Koff, R, Olson, G., Laffey, J. & Cichon, D., (1979-80) Stress and the school administrator. Administrator's Notebook, XXVIII(9).

Creative Works

iSocial

iSocial is an internet-based 3D-Virtual Learning Environment (VLE) to support social and behavioral outcomes for youth with Autism Spectrum Disorders (ASD). The purpose of developing this system is to expand access to specialized training for developing social competence. iSocial seeks to adapt and implement in a 3D-VLE a clinic-based curriculum with demonstrated impact for improving social competence. It is being developed using the Open Wonderland virtual world toolkit (http://openwonderland.org/). Wonderland provides tools for building multi-user virtual environments (MUVEs). http://isocial.rnet.missouri.edu/

Funding: iSocial began as a conversation between myself and Dr. Janine Stichter to leverage her work in developing social competence for youth with ASD and my work in systems design and research for social computing. We wrote a series of four funding proposals that were all denied, but also began working in small steps to test our ideas. Finally a proposal to the Thompson Center was funded, followed by one to the MU Research Board. Then a $200K award was made by AutismSpeaks and then an award of $1.5 million in 2009 was made by IES of the US Department of Education.

Usage: iSocial is in the test and development stages. Several usage tests have been undertaken and several more are scheduled in 2011 with field tests scheduled for 2011 and 2012.

Academic Review and Reports:

Four national presentations, 5 conference proceeding, 3 chapters and 3 journal articles describing iSocial and or its use and implications of use have been published through peer review processes

Context-aware Activity Notification System (CANS)

CANS monitors online collaborative systems, such as course management system, so as to provide activity notification to participants in the system. CANS is licensed under the Educational Community License (version 1.0) open-source license. CANS captures activity information by establishing a vocabulary of tools and action events, maintains a history of activity, makes notifications available based on the context of use and allows users to configure their notification preferences. CANS works by observing activity in an online system, such as when a member logs in, reads a discussion board item, uploads a document, or enters a chat message. http://cansaware.com/

Funding: CANS started as a side project within the Shadow NetWorkspace project, which then led to dissertation work by my advisee Chris Amelung. Funding of $559,474 for a 3-year project was awarded in 2007 by the US Department of Education, Fund for the Improvement of Post Secondary Education. The award enables further research and development so as to test the impact of activity awareness and make CANS broadly available to institutions of higher education using the Sakai CMS.

Usage: CANS is being used at the University of Missouri for online learning across several programs and in support of several project groups. In addition

CANS will be pilot tested at the University of Michigan and Rice University in 2010.

Academic Review and Reports:

Over 15 national presentations, 9 conference papers, 8 proceedings, 2 chapters and 9 journal articles describing CANS and or its use and implications of use have been published through peer review processes.

Shadow netWorkspace (SNS) Learning System

Shadow netWorkspace is an Internet-based workspace designed for the processes of learning and schooling. SNS is licensed to users as an Open Source application and forms the basis for developing a community of developers to extend and further a vision of schools supported by internet services. Shadow netWorkspace was designed and developed in collaboration with Dale Musser.

Funding: The development of the system is partially supported by gifts from the SBC and Verizon foundations and an award from the US Department of Education. MOREnet also provided a contract to further develop SNS for use in eMINTS and special projects, based on the success of early development efforts.

Usage: SNS is being used in school districts, in afterschool programs and by faculty of UMC. Additionally, over 1000 users, including many international sites, have downloaded SNS for examination and use.

Academic Review and Reports:

Ten presentations, 7 conference proceedings and 2 journal articles describing the system and or its use and implications of use have been published through peer review processes.

Whistlestop.org

This Internet-based digital library represents the archives of the Truman Presidential Library and instructional approaches developed by four school districts in the Kansas City area. I was a primary contributor to the conceptualization and design of the system in its early stages, since that time Tom Kochtanek has had the primary responsibility for design and development work

Funding: The development of Whistlestop.org was supported by a Challenge Grant award from the US Department of Education. The project is being sustained by support from the Truman Presidential Library.

Usage: Whistlestop.org has been used extensively by teachers from the four partner school districts. The site contains well over 10,000 pages of information and over 350 photos and averages 500 visitors per day. Whistlestop.org has received numerous awards for its innovative and valuable representation of content, including: USA Today Hot Site Award, Yahoo Pick of the Day Award, Internet Scout Award, Britannica Internet Guide Award, and Study Web Academic Excellence Award. The site contents are now hosted at www.trumanlibrary.com

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Academic Review and Reports:

Three papers describing the system and implications of its usage have been accepted for national and international presentation and publication in conference proceedings through peer review processes.

Whistlestop.org has also been reviewed by the Interactive Learning and Information Systems Collaboratory Review Board, University of Missouri and given the highest ranking through a peer review process.

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iExpeditions.org

This is an Internet-based workspace designed for group problem-solving processes of Motorola University and adapted for use by children of Motorola employees. It was designed and developed in collaboration with Tom Tupper, Paul Wangemann, and Minjuan Wang.

Funding: Development of the system was supported by a contract with Motorola, Inc.

Usage: Approximately 100 youth and mentors used iExpeditions for two pilot studies testing the feasibility of implementing an Internet solution to group problem solving among youth.

Academic Review and Reports:

Five presentations and one journal article describing the system and or its use and implications of use have been accepted through peer review processes.

The Interactive Sh Journal System

This is an Internet-based system for keeping and sharing multi-media journals among a community of learners. It was designed and developed in collaboration with Dale Musser.

Funding: Development of the system was partially supported by a $100,000 award from the Institute for Instructional Development (IID), University of Missouri. 9/95 to 8/96. Support has also been provided by a followup award of $25,000 from IID and as part of funded work in Project MOST and Project Whistlestop.

Usage: The system is being used by 600 preservice teachers and faculty in the Undergraduate Teacher Development Center, COE, UMC. Additionally, teachers and students participating in Project MOST and Project Whistlestop will use the system in 97-98 (approximately 500 users).

Academic Review and Reports:

Five presentations, 5 conference proceedings and 1 journal article describing the system and or its use and implications of use have been published through peer review processes. One paper was awarded best of conference paper in the instructional design category.

NNAble.

NNAble is a research prototype of a networked performance support system that demonstrated the concept of dynamic organizational memory. I provided project leadership and system design.

Funding: Internal funding of $500,000 as a collaboration between Apple Training Support and the Apple Technology Group for two years of research and development.

Usage: Pilot study usage by Apple Support Coordinators contributing to the development of an innovative Apple Customer Service Program, a focus on performance support for business learning, and an agenda focused on learning communities in the Apple Technology Group.

Academic Review and Reports:

Three papers describing the system and implications of its usage were accepted for national and international presentation and publication in conference proceedings through peer review processes.

Macintosh Fundamentals and Beyond

This was the first major implementation of interactive learning systems in Apple Training Support, 1990. I designed and produced the interactive learning system, as well as building the technology infrastructure throughout Apple Computer to implement interactive videodisc training.

Funding: Internal funding of $1.5 million by Apple Training Support over a two-year period.

Usage: Over ten thousand sales representatives, support technicians and customers trained in the first year of implementation.

Academic Review and Reports:

Awarded a Gold CINDY in the international awards competition of the Association of Visual Communicators (AVC). MFB won AVC's highest award (a gold medal) for interactive learning using media in the 29th annual CINDY competition. 1989.

Three papers describing the system and implications of its usage have been accepted for national and international presentation and publication in conference proceedings through peer review processes.

The Language Learning Disc

The Language Learning Disc uses innovative interactive approaches to teach students language learning strategies for developing competency in a foreign language. I provided software design and development for an interactive video program to support foreign language development.

Funding: Joan Rubin, an internationally recognized leader in foreign language learning, was awarded $300,000 by the Department of Defense to produce interactive video training to represent her approaches to language learning. I collaborated with her in developing the educational

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technology design and in producing the software elements of the program.

Usage: Used by a varietyof defense department language training institutions including the Defense Language Institute in Monterey, California and the United States Air Force Academy.

Academic Review and Reports:

* Awarded a Special Achievement CINDY in the international awards competition of the Association of Visual Communicators (AVC). The Language Learning Disc won a special achievement award in the 28th annual CINDY competition. 1988.

One paper describing the system was accepted for an international conference through a peer review process. The conference presentation was ranked 15th highest across all presentations, and rated 2nd highest in the Computer Applications track.

Math in Biology

This was one of the first Level 3 interactive videodisc programs to demonstrate the benefits of media-based interactivity for academic subjects, 1982. I was principal investigator for the NSF award, as well as, leading the design and development effort and producing all aspects of the interactive media.

Funding: The development of the system was partially supported by a $150,000 award in a competitive submission from the National Science Foundation to the University of Washington. 9/80 to 8/81.

Usage: Used for five years in the developmental mathematics programs of the University of Washington to support the development of basic math skills for women and minorities interested in the health professions.

Academic Review and Reports:

Two papers describing the system and implications of its usage were accepted for national and international presentation and publication in conference proceedings through peer review processes.

Proceedings based on papers accepted through a refereed process.

Laffey, J., Stichter, J. Galyen, K, Wang, X., Ding, N., Babiuch, R. & Griffin, J. (2013). iSocial: Collaborative Distance Education for Special Needs. Proceedings of CSCL 2013, Madison, WI. 299-300.

Laffey, J., Stichter, J. Babiuch, R., Griffin, J., & Galyen, K. (2013). iSocial Demo: A 3D Collaborative Virtual Learning Environment. Proceedings of CSCL 2013, Madison, WI. 404-407.

Goggins, S. & Laffey, J. (2013). Measuring Performance Across Space & Time in Online Learning: Identifying Structural Patterns to Promote Scalability. Proceedings of CSCL 2013, Madison, WI. 259-260.

Laffey, J., Galyen, K & Babiuch, R. (2012). Guidance in Game-Based Virtual Learning: Lessons from Developing iSocial. Paper presented at Immersive Education Initiative Summit. Boston.

Schmidt, M., Laffey, J. & Stichter, J. (2011). Virtual Social Competence Instruction for Individuals with Autism Spectrum Disorders: Beyond the Single-User Experience. Proceedings of CSCL 2011, Hong Kong, China.

Goggins, S., Gallagher, M., Laffey, J. (2011). Context Aware CSCL: Moving Toward Contextualized Analysis. Proceedings of CSCL 2011, Hong Kong, China.

Laffey, J., Reid, D., Hong, R-Y., Galyen, K., Xie, X. & Keuker, D. (2011). Activity Notification: Enhancing the Social Nature of Online Learning. 2011 Annual Conference of ED-MEDIA, Lisbon, Portugal.

Schmidt, M., Laffey, J., Galyen, K & Babiuch & Stichter, J. (2011). Building iSocial: Lessons learned from 3D Virtual Learning Environment research and development. Paper presented at Immersive Education Initiative Summit. Boston.

Goggins, S., Gallagher, M., Laffey, J. & Amelung, C. (2010). "Social Intelligence in Completely Online Groups - Toward Social Prosthetics from Log Data Analysis and Transformation," socialcom, pp.500-507, 2010 IEEE Second International Conference on Social Computing.

Goggins, S., Galyen, K., and Laffey, J. 2010. Network Analysis of Trace Data for the Support of Group Work: Activity Patterns in a Completely Online Course. ACM Group 2010. 107-116.

Tsai, I.-C., Galyen, K., Xie, X., & Laffey, J. (2010). Using Activity Theory to Examine Social Interaction of Online Learning. Proceedings of the 2010 Annual Conference of ED-MEDIA, Toronto, Canada.

Galyen, K., Tsai, I.-C., & Laffey, J. (2010). The relationship between learning satisfaction and social ability in completely online learning courses. Proceedings of the 2010 Annual Conference of ED-MEDIA, Toronto, Canada.

Laffey, J., Reid, D., Galyen, K., Hong, R-Y., Xie, X., Amelung, C., Gu, X. & Guo, Y. (2010). A Turn to the Social: Design Research to Build Understanding, Tools and Practices for the Social Nature of Online Learning. Proceedings of Educational Design Research: Local Change and Global Impact, 2010, Athens, GA.

Goggins, S., Laffey, J., and Galyen, K. 2009. Social Ability in Online Groups: Representing the Quality of Interactions in Social Computing Environments. Proceedings of IEEE 2009 Conference on Computer

Science and Engineering.

Laffey, J., Schmidt, M., Stichter, J., Schmidt, C. & Goggins, S. (2009). iSocial: A 3D VLE for Youth with Autism. Proceedings of CSCL 2009, Rhodes, Greece.

Laffey, J., Hong, R-Y., Galyen, K. & Goggins, S. (2009). Context-aware Activity Notification System: Supporting CSCL. Proceedings of CSCL 2009, Rhodes, Greece.

Liu, P. J., Laffey, J., & Cox, K. R. (2008). Operationalization of Technology Use and Cooperation in CSCW. Proceedings of CSCW 2008, San Diego, CA

Liu, P. J., Laffey, J., & Cox, K. (2007, July). Enabling Organizational Learning through Event Reporting: A Case Study in a Health Care Context. Proceedings of the Computer Support for Collaborative Learning. New Brunswick, NJ.

Amelung, C., Laffey, J., & Turner, P. (2007, July). Supporting Collaborative Learning in Online Higher Education through Activity Awareness. Proceedings of the Computer Support for Collaborative Learning. New Brunswick, New Jersey.

Lin, G., Laffey, M. J., & Buss, K. (2007, July). *Studying the effects of scripts and technology on cooperative learning*. . Proceedings of the Computer Support for Collaborative Learning. Rutgers, New Jersey.

Lin, G., Laffey, J., & Buss, K. (2007, June). *Effects of cooperation scripts and technology on social ability.* Proceedings of AACE World Conference on Education Multimedia and Hypermedia. Vancouver, Canada.

Laffey, J., & Amelung, C. (2007, June). Cues and Mechanisms for Improving the Social Nature of Online Learning . Proceedings of AACE World Conference on Education Multimedia and Hypermedia. Vancouver, Canada.

SCRG. (2006). Social Nature of Online Learning in Sakai. Proceedings of AACE World Conference on Education Multimedia and Hypermedia. Orlando, Fl.

Laffey, J. and Social Computing Study Group (2005). Understanding Computer Mediated Social Experience: Implications for CSCL. Proceedings of the Computer Support for Collaborative Learning. (pp. 550-551). Taiwan. Lawrence Erlbaum Associates. Hillsdale NJ.

Laffey, J., Musser, D. & Espinosa, L. (2004). Shadow netWorkspace: A Project Report on an Open Source, Intranet for Learning Communities. Proceedings of AACE World Conference on Education Multimedia and Hypermedia. Lugano Switzerland.

Laffey, J. & Espinosa, L. (2003). Appropriation, mastery, and resistance to technology in early childhood preservice teacher education: Case studies. In Young Children and Learning Technologies. (pp. 77-82). Selected papers from the International Federation for Information

Processing Working group 3.5 Open Conference. Sydney, Australia.

Laffey, J., Musser, D., & Espinosa, L., (2003). Social Computing as a Design Perspective for E-Learning. Proceedings of the Second International Conference on Multimedia and Information and Communications Technology. (pp. 234-248). Badajoz, Spain. Infodex.

Laffey, J., Musser, D., Espinosa, L., Remidez, H., Gottdenker, J., Hong, R., & Amelung, C. (2002). CSCL for Schools that Learn. Proceedings of the Computer Support for Collaborative Learning. (pp. 111-118). Boulder, CO. Lawrence Erlbaum Associates. Hillsdale NJ.

Remidez, H., Gottdenker, J., Laffey, J., Musser, D., Hong, R., Espinosa, L., & Amelung, C. (2002). Networked Learning Systems. Proceedings of the Computer Support for Collaborative Learning. (pp. 550-551). Boulder, CO. Lawrence Erlbaum Associates. Hillsdale NJ.

Remidez, H., Gottdenker, J., Laffey, J., Musser, D., Hong, R., Espinosa, L., & Amelung, C. (2002). Developing a Shared Language for Discussing Networked Learning Systems. Proceedings of the Computer Support for Collaborative Learning. (pp. 697-698). Boulder, CO. Lawrence Erlbaum Associates. Hillsdale NJ.

Gottdenker, J., Remidez, H., Hong, R., Yoon, S-Y, Amelung, C., Musser, D., & Laffey, J. M.,. (2002). Introduction to the Shadow netWorkspace. Proceedings of the Computer Support for Collaborative Learning. (pp. 527-528). Boulder, CO. Lawrence Erlbaum Associates. Hillsdale NJ.

Laffey, J. , Musser, D. & Espinosa, L. (2000). Shadow netWorkspace learning systems project. Proceedings of the International Workshop on Advanced Learning Technologies. (pp. 188-189). Palmerstown North, New Zealand. IEEE Computer Society.

Kochtanek, T. Laffey, J. , Borwick, J. & Kim, S. (1999). "Project Whistlestop: An investigation of visitations to a digital library site." In: M. Willimas (Ed.), Proceedings of the Twentieth National Online Meeting, (pp. 263-274). New Jersey: Information Today, Inc.

Laffey, J. , Musser, D. & Tupper, T. (1998). An Internet-based journal for professional development. Proceedings of AACE World Conference of the Society for Information Technology & Teacher Education.

Kochtanek, T. & Laffey, J. (1998). "Project Whistlestop: Design considerations for information retrieval performance in an image database." Proceedings of the Nineteenth National Online Meeting, New York, N.Y. , May.

Kochtanek, T., Laffey, J., Tunender, H., Ervin, J., & Borwick, J. (1998). "Project Whistlestop: An evaluation of search engines on the web." Proceedings of the Seventeenth Integrated Online Library Systems Meeting, New York, N.Y.

Laffey, J. , Musser, D. & Wedman, J. (1998). A technology

infrastructure for teacher education. Proceedings of AACE World Conference of the Society for Information Technology & Teacher Education.

Laffey, J. & Gibney, T., (1996). "Understanding the value of students doing projects." Proceedings of the Second International Conference on the Learning Sciences, 204-210.

Laffey, J. & Musser, D. (1996). Building Internet-based electronic performance support for teaching and learning. Proceedings of AACE World Conference of the Web Society?

Laffey, J. & Musser, D. (1996). Supporting learning from field experience in teacher education. Proceedings of AACE World Conference on Education Multimedia and Hypermedia.

Laffey, J. & Musser, D. (1996). Designing a journal system for learning from field experience in teacher education. Technology and Teacher Education Annual, 649-653, 1996. Awarded best of conference paper award in instructional design category.

Laffey, J. (1995) "Project MOST: Building a new educational community to support project-based learning using the Internet. " Proceedings of AACE World Conference on Education Multimedia and Hypermedia, Distributed on CD-ROM.

Laffey, J. (1992). Integrated support and learning for troubleshooting: A role for case-based reasoning. Proceedings of IEEE Workshop on AI for Customer Service and Support, 116-125.

Laffey, J. , Machiraju, R. & Chandhok, R. (1991). Integrated support and learning systems for augmenting knowledge eorkers: A focus on case based retrieval. Proceedings of World Congress on Expert Systems.

Laffey, J. , Machiraju, R. & Chandhok, R. (1991). Organizational memory as a support for learning and performance: Prototypes and issues. Proceedings of the International Conference on the Learning Sciences.

Spohrer, J.C., James, A., Abbott, K.A., Czora, G.J., Laffey, J., Miller, M.L. (1991) A role playing simulator for needs analysis consultations. Proceeding of the World Congress on Expert Systems, Pergamon Press, pp. 2829-2839.

Laffey, J. (1989). Implementation and assessment of multimedia training environments for Apple Macintosh Sales Support. Proceedings of Istituto Dalle Molle di Studio sull'Intelligenza Artificiale, 3rd International Conference, Switzerland.

Laffey, J. (1988). Interactive learning in a business environment, Proceedings of Gottlieb Duttweiler Institut International Conference, Switzerland.

Laffey, J. (1983). Classroom applications of interactive video. Proceedings of the Western Educational Computing Conference, San Francisco, CA.

Laffey, J. (1982). Math in biology: An application of microcomputer/videodisc instruction. Proceedings of the Western Educational Computing Conference, San Diego, CA.

Book Chapters and other publications

* refereed
** invited

- Laffey, J., Schmidt, M. & Galyen, K. (2013). Virtual gaming and learning environments as experience-tools for learning through problem solving. In Spector, M, Lockee, B., Smaldino, S. & Herring, M. (Eds.), Learning, Problem Solving, and Mindtools: Essays in Honor of David H. Jonassen (pp. 105-125). New York, N.Y., Routledge.

- Laffey, J., Schmidt, M. & Amelung, C. (2011). Open for Social: How Open Source Software for E-Learning can take a turn to the Social. In Ozkhan, B. (Ed.), Free and Open Source Software for E-Learning: Issues, Successes and Challenges (pp. 187-202). Hershey, PA: Information Science Reference.

- Laffey, J., Stichter, J. & Schmidt, M. (2010 - April). Social Orthotics for Youth with ASD to Learn in a Collaborative 3D VLE. In Seok, S., Dacosta, B., & Meyen, E. L. (Eds.), Handbook of research on human cognition and assistive technology: Design, accessibility and transdisciplinary perspectives (pp. 76-95). New York: Idea Group.

- Laffey, J., & Amelung, C. (2010). Using Notification Systems to Create Social Places for Online Learning. In T. Dumova and R.Fiordo (Eds.), *Handbook of Research on Social Interaction Technologies and Collaboration Software: Concepts and Trends*. (pp.170-180). Hershey, PA: Information Science Reference.

* Laffey, J., Schmidt, M., Stichter, J., Schmidt, C., Oprean, D., Herzog, M. & Babiuch, R. (2009). Designing for social interaction and social competence in a 3D-VLE. In D. Russell (Ed.), Cases on Collaboration in Virtual Learning Environments: Processes and Interactions (pp. 154-169). Hershey, PA: Information Science Reference.

* Remidez, H., Stam, A. & Laffey, J. (2007) Web-Based Template-Driven Communication Support Systems: Using Shadow netWorkspace to Support Trust Development in Virtual Teams. In N. Protogeros (Ed.), *Agent and Web Service Technologies in Virtual Enterprises. (pp. 310-326).* Hershey, PA: Information Science Reference.

** Jonassen, D. H., Lee, C. B., Yang, C.-C., Laffey, J. M. (2005). The collaboration principle in multimedia learning. In R. E. Mayer (Ed.),Cambridge Handbook of Multimedia Learning (pp.247-270).Cambridge University Press.

** Jones, N. B. & Laffey, J. (2001). How to facilitate e-collaboration and e-learning in organizations. In A. Rossett, (Ed.) The E-Learning Yearbook: McGraw-Hill.

* * Musser, D., Laffey, J. & Lawrence, B. (2000). Center for Technology

Innovation in Education, University of Missouri-Columbia. In R. Branch and M. A. Fitzgerald (Eds.) Educational Media and Technology Yearbook. (Volume 25, pp. 89-95). Engelwood, CO, Libraries Unlimited, Inc.

** Laffey, J. , Musser, D. & Tupper, T. (1998). "An Internet-based journal system for enabling a learning community." Learning Technology Review, 2,. 4-13.

* Biggerstaff, J., Laffey, J. & Nazworthy, J. (1997) Computational science at Lee's Summit High School. In Z. Berge and M. Collins (Eds.) _Wired Together: Computer-Mediated Communication in the K-12 Classroom. (Volume 2: Case Studies, pp. 107-117) Cresskill NJ: Hampton Press.

* Laffey, J. & Singer, J. (1997). Using Internet-based video conferencing tools to support assessment. In B. Khan (Ed.) Web Based Instruction (pp. 357-361). Englewood Cliffs, NJ., Educational Technology Publications.

Laffey, J. (1978). Analyzing the Change Process: A Case Study of Institutionalization. In Laffey, et al. (Eds.) Educational Decision Makers in Teacher Corps Temporary Systems. Chicago, IL. Midwest Teacher Corps Network.

Monographs and Technical Reports * refereed

Laffey, J., Goggins, S., Galyen, K., Tawfik, A., Keuker, D. & Xie, X. (2010). uCern-MU Enterprise Social Networking Analysis Study. Technical Report to Cerner Corporation.

Laffey, J. (1995). *Cognitive assessment in engineering education*. Colorado Springs, CO: United States Air Force Academy.

Laffey, J. (1994). *The Rip Van Winkle Syndrome*. Show Me Education.

Laffey, J. (1993). *Supporting technology use in Missouri schools*. Columbia, MO: Missouri School Boards Association.

Laffey, J. (1993). *Growing and improving the educational satellite network*. Columbia, MO: Missouri School Boards Association.

Laffey, J. (1992). *Electronic performance support Systems: An introduction*. Technical Report, No. 062892-CSPS Apple Computer, Inc.

Laffey, J. (1992). Growing the performance support capabilities of Swami" Technical Report, No. 062792-CSPS, Apple Computer, Inc.

Laffey, J., Machiraju, R. & Chandhok, R. (1990*). NNable: A strategy for learning and performance support*. Internal document No. 102390-T&A-AU, Apple Computer, Inc.

Laffey, J. & Shearer, M. (1984). Cost/gain study of programs for preschool handicapped children in ESD 121 school districts. Technical Report submitted to the Supt. of Public Instruction, State of

Washington, Feb.

With Melnick, C., Olson, G. & Schwartz, H. Educational decision makers in Teacher Corps temporary systems. Chicago, IL. Midwest Teacher Corps Network, 1978.

Johansen, L. & Laffey, J. (1978). Two cadre case studies: Diverse approaches to group development.

Workshops and Presentations

* refereed acceptanc process

** invited

**Laffey, J. (2013). 3D Virtual Learning Systems and Educational Gaming: Possibilities for e_Textbook 2.0. Keynote presentation at the International Open Forum on the Development of e-Textbook and e-Schoolbag Standards and Applications. Shanghai, China.

* Laffey, J., Stichter, J., Galyen, K (2013). Distance Learning for Students with Special Needs through 3D Virtual Learning. Paper presented at the annual meeting of the American Educational Research Association, San Francisco. (SIG –ARVEL).

*Schmidt, M. & Laffey, J. (2012). Visualizing Behavioral Data from a 3D Virtual Learning Environment: A Preliminary Study. Hawaii International Conference on System Sciences. Kauai, HI.

* Schmidt, M., Laffey, J., Galyen, K,, Babiuch & Wang, X. (2011). Designing and Evaluating Software Supports for Individuals with Autism Spectrum Disorders in a 3D Virtual Learning Environment. Paper presented at Annual meeting of E-Learn. Honolulu, Hawaii.

* Laffey, J. & Stichter, J., Schmidt, M. & Galyen, (2011). Development and Research of a technology implementation of a curriculum to enhance social competence. Annual Meeting of the Association for Pyschological Science,Washington, D.C.,May.

* Laffey, J., Schmidt, M., Stichter, J., Wang, X., Schmidt, C. & Ding, N. (2011). Examining the Impact of Social Orthotics on Behavior in a 3D VLE for Youth with Autism Spectrum Disorders. Poster presented at the annual meeting of the American Educational Research Association, New Orleans. (SIG –Advanced Technology in Learning).

* Ruzhitskaya, L., Speck, A. & Laffey, J. (2010). Virtual Jupiter - Real Learning. American Astronomical Society, AAS Meeting #215, #466.06; Bulletin of the American Astronomical Society, Vol. 42, p.506. abstract at: http://adsabs.harvard.edu//abs/2010AAS...21546606R.

* Xie, X., Huang, Y., Goggins, S. & Laffey, J. (2010). Exploring the Relationships between Learning Activities and Social Experience in Online Learning Environments. Paper presented at Annual meeting of E-Learn. Orlando, FL.

* Laffey, J., Reid, D., Amelung, C. Hong, R_Y. & Galyen, K. (2010). Activity awareness in Sakai: Improving the social nature of learning. Sakai Annual Conference, Denver, CO.

* Teasley, S., Solomon, T., Krumm, A., Lonn, S., Makara, K., Perpich, D.

& Laffey, J. (2010). Are We Managing Learning with Learning Management Systems? International Conference of the Learning Sciences. Chicago.

* Laffey, J., Schmidt, M., Ding, N. & Galyen, K. (2010). A Design Research Approach to Innovation in 3D Virtual Learning Environments. Paper included in proceedings of Educational Design Research: Local Change and Global Impact, Athens, GA.

* Laffey, J., Schmidt, M., Henry, H., Wang, X. & Stichter, J. (2010). Examining Interaction in 3D VLE: A Case Study of an Analytic Approach. Paper presented at the annual meeting of the American Educational Research Association, Denver, CO. (SIG –Advanced Technology in Learning).

* Schmidt, M., Laffey, J., Henry, H., Wang, X. & Stichter, J. (2010). Interpreting Conditions and Characteristics of Desirable Interaction in a Three-dimensional Virtual Learning Environment. Poster presented at the annual meeting of the American Educational Research Association, Denver, CO. (Division C-Learning and Instruction -> Section 7: Technology Research).

* Tsai, I.-C., Tong, Y.-P., & Laffey, J.(2009). Exploring the impact of students' motivation and self-regulation on the social nature of online learning experiences. Paper presented at the 2009 Annual Conference of Association for Psychological Science, San Francisco, California.

* Tsai, I-C., Laffey, J. & Hanuschin, D. (2009). Effectiveness of an OnlineCommunity of Practice for Learning to Teach ElementaryScience. Paper presented at the annual meeting of the American Educational Research Association, San Diego, CA. (Division K-Teaching and Teacher Education -> Section 3: The Use of Technology and New Media in Pre-K-12 Classroom Settings and Teacher Education Classrooms)

* Tsai, I-C., Laffey, J. & Hanuschin, D. (2009). Understanding the Social Nature of an Online Community of Practice for Learning to Teach. Paper presented at the annual meeting of the American Educational Research Association, San Diego, CA. (Division C-Learning and Instruction -> Section 7: Technology Research)

* Laffey, J., Tsai, I-C., Amelung, C., Hong, R-Y., Galyen, K. & Goggins, S. (2009). The Role of Social Information for Social Ability, Sense of Community and Satisfaction in Online Learning. Paper presented at the annual meeting of the American Educational Research Association, San Diego, CA. (Division C-Learning and Instruction -> Section 6: Cognitive, Social, and Motivational Processes)

* Hong, R-Y., Galyen, K., Laffey, J. & Tsai, I-C. (2009). Social Comparison Visualization for Fostering Participation in Online Learning. Paper presented at the annual meeting of the American Educational Research Association, San Diego, CA. (SIG-Advanced Technologies for Learning -> Individual Paper Discussion)

* Laffey, J., Reid, D., Amelung, C., Hong. R-Y. & Galyen, K. (2008). Activity awareness in Sakai: Improving the social nature of learning.

Sakai Conference, Blacksburg, VA, November.

* Remidez, H., Laffey, J. & Stam, A. (2008). A Qualitative Investigation of Emotional Statements Related to Trust Development. International Conference of the Global Business Development Institute. Las Vegas, NV.

* Lin, G., Laffey, J. & Buss, K. (2008). Goal orientation and scripted cooperation in face-to-face versus computer-mediated learning. Paper presented at the annual meeting of the American Educational Research Association, New York, New York.

* Lin, G., Shen, D. Laffey, J. & Cho, M. (2008). Effects of social ability and self-regulation on sense of community and participation behaviors in online learning contexts. Paper presented at the annual meeting of the American Educational Research Association, New York, New York.

* Tsai, I.-C., Tong, Y.-P., & Laffey, J. (2008, April). Exploring how students' self-regulated learning influences the social nature of online learning. Paper presented at the 2008 Annual Conference of American Educational Research Association, New York, USA.

* Tsai, I.-C., Yang, C.-C., & Laffey, J. (2008, April). Differences in student-instructor and student-peers social interactions in explaining satisfaction in online learning. Paper presented at the 2008 Annual Conference of American Educational Research Association, New York, USA.

* Cho, M., Shen, D., & Laffey, J. (2008). Exploring the relationships between self-regulation and social presence in online learning environments. Paper presented at American Educational Research Association (AERA), New York, NY.

* Goggins, S., Guajardo, J., Schmidt, M., Moore, J. L., Christ, S., & Laffey, J. (2008). *Utilizing an Eye Tracking Device to Design Virtual Environments for Individuals with Autism Spectrum Disorder*. Paper presented at the AERA, 2008, New York, NY

* Goggins, S., Laffey, J., & Tsai, I.-C. (2007). *Cooperation and Groupness: Community Formation in Small online Collaborative Groups*. Paper presented at the ACM Group '07

* Lin, G., Laffey, J., Buss, K., & Huang, X. (2007, April). The effects of cooperation scripts and technology on cooperative learning. Paper presented at the annual meeting of the American Educational Research Association, Chicago, Illinois.

* Lin, Y., Lin, G., Huang, X., Liu, P., Shen, D., & Laffey, J. (2006, April). Building a social and motivational framework for understanding satisfaction in online learning. Paper presented at the annual meeting of the American Educational Research Association, San Francisco, California.

* Nuankhieo, P., Tsai, I.-C., Goggins, S., & Laffey, J. (2007, Dec). Comparing the social interaction pattern of online one-on-one peer and

small group collaboration activities. Paper presented at the IEEE International Symposium on Multimedia (ISM2007) Conference, Taichung, Taiwan, ROC.

* Goggins, S., Laffey, J., & Tsai, I.-C. (2007, Dec). Cooperation and groupness: Community formation in small online collaborative groups. Paper presented at the GROUP'07 Conference of Association for Computing Machinery (ACM), Sanibel Island, Florida, USA.

* Tsai, I.-C., Kim, B., Liu, P. J., Kumalasari, C., Goggins, S. P., Laffey, J. M., & Amelung, C. (2007, April). Building a Model Explaining the Social Nature of Online Learning. Paper presented at the Annual Conference of American Educational Research Association, Chicago, MI, USA.

* Shen, D., Nuankhieo, P., Huang, X. & Amelung, C., Laffey, J. (2007). Using Social Network Analysis to Understand Sense of Community in an Online Learning Environment. Paper presented at the annual conference of American Educational Research Association in Chicago.

* Lin, G., Laffey, M. J., Buss, K., & Huang, X. (2007, April). *The effects of cooperation scripts and technology on cooperative learning*. Paper presented at the annual meeting of the American Educational Research Association, Chicago, Illinois.

* Tsai, I., Kim, B., Liu, P., Kumalasari, C., Goggins, S., Laffey, J., & Amelung, C. (2007, April). *Building a model explaining the social nature of online learning.* Paper presented at the Annual Conference of American Educational Research Association, Chicago.

* Turner, P., Laffey, J. & Chancellor, E. (2007). Improving the Social Nature of Online Learning. Presented at EDUCAUSE Southwest Regional Conference. Austin, TX.

* Turner, P., Laffey, J. & Reid, D. (2006). Visualizing student activity in Sakai: What do instructors want to see? Sakai Conference, Atlanta, December

* Smarr, K., Chokkalingam, S., Johnson, R., Donovan-Hanson, K., Musser, D., Laffey, J. & Parker, J. (2006). Collaborative Care Health Management System: The RAHelp.org Online Patient-centered Approach. Paper presented at the annual meeting of Association of Rheumatology Health Professionals. Washington, D.C.

* Laffey, J., Espinosa, L., Whittaker, T. & Sheng, Y. (2006). Technology and School Achievement for Young Language-Minority Children. Presented at Annual Meeting of the AERA, San Francisco, CA.

* Lin, Y., Laffey, J. & SCRG Research Group (2006). Building a Social and Motivational Framework for Understanding Satisfaction in Online Learning. Presented at Annual Meeting of the AERA, San Francisco, CA.

* Tsai, I., Laffey, J. & SCRG Research Group (2006). Exploring the Relationships Between Students' Academic Motivation and Social Ability in Online Learning Environments. Presented at Annual Meeting of the AERA, San Francisco, CA.

* Shen, D., Lin, Y., Laffey, J. & Huang, X. (2006). Social Influence and Perceived Ease of Use and Usefulness of Course Delivery Systems Presented at Annual Meeting of the AERA, San Francisco, CA.

** Espinosa, L., Laffey, J., Whittaker, T. & Sheng, Y. "Technology in the Home and the Achievement of Young Children: Findings from the Early Childhood Longitudinal Study Language-Minority Children Conference, Sponsored by CRESST, Sacramento, CA January, 2006.

* Stam, A., Remidez, H. & Laffey, J. (2005). Relationship Between Systems Design and Virtual Team Trust Development. Group Decision and Negotiation Annual Conference, Vienna, Austria.

* Remidez, H., Stam, A., Laffey, J. (2005, August). A Template-Driven Messaging System for Supporting Online Communication. Paper presented at the Academy of Management 65th Annual Meeting. Honolulu, Hawaii.

* Remidez, H., Stam, A., Laffey, J. (2005, August). Relationship Between Systems Design and Virtual Team Trust Development. Symposium Presented at the Academy of Management 65th Annual Meeting. Honolulu, Hawaii.

* Laffey, J., Lin, Y., Lin, G., Liu, P., Shen, D. & Espinosa L (2005). Assessing Social Ability in Online Learning Environments. Presented at Annual Meeting of the AERA, Montreal, Canada.

* Lin, Y., Laffey, J., Lin, G., Liu, P., Shen, D. & Espinosa L (2005). Exploration of Gender Differences in Technology Appropriation and Learning Satisfaction in Asynchronous Distance Education (UMTA model). Presented at Annual Meeting of the AERA, Montreal, Canada.

* Lin, Y., Laffey, J., Shen, D. & Espinosa L (2005). Gender Differences in Student Technology Appropriation and Learning Satisfaction in Asynchronous Distance Education. Presented at Annual Meeting of the AERA, Montreal, Canada.

* Yang, C., Turner, P. & Laffey, J. (2005). An Exploratory Study of Adopting Interactive Webcasts in Distance Education. Presented at Annual Meeting of the AERA, Montreal, Canada.

* Russell, D., Hui, D., Sheniderheinze, A., Laffey, J., Polman, J. (2005). A Holistic Approach to Evaluating Educational Reform Utilizing Multiple Perspectives and Collaborative Analysis. Panel Presentation at Annual Meeting of the AERA, Montreal, Canada.

* Lin, G., & Laffey, J. (2004). Effects of different activity types and time on online social presence. Paper presented to the World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education, Washington, DC, November, 2004.

* Lin, G., & Laffey, J. (2004). Social presence questionnaire of online collaborative learning: Development and validity. Paper presented to the annual meeting of the Association for Educational Communications and Technology, Chicago, Illinois, October, 2004.

* Lin, Y., Laffey, J., & Yang, C. (2004, October). *Exploring the relationship between mediated tools and student perception of interdependence in a CSCL environment.* Paper presented at AECT annual meeting of Association for Educational Communications and Technology,

Chicago, IL.

* Yang, C., Laffey, J., & Lin, Y. (2004, October). *How the requirements of an assignment influence use of social mechanisms in networked learning.* Paper presented at AECT annual meeting of Association for Educational Communications and Technology, Chicago, IL.

* Lin, Y., Lin, G. & Laffey, J. (2004, April). Investigating the Process of Group Interaction and Students Cognitive Skills in Online Small Group Activities. Paper presented at Annual Meeting of the AERA, San Diego, CA.

* Laffey, J. & Espinosa, L. (2003, December). Influence of task requirements and prior experience on the use of e-Learning functions Paper presented at the Second International Conference on Multimedia and ICTs in Education. Badajoz, Spain.

* Lin, Y., Lin, G., Peng, H., & Laffey, J. (2003, October). *Exploring small group interactions in computer mediated communication.* Paper was presented at AECT annual meeting of Association for Educational Communications and Technology, Anaheim, CA.

* Ai, J. & Laffey, J. (2003). The Usability Test of an Online Learning Environment. Paper accepted for presentation at the E-Learn 2003--World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education. AACE. Phoenix, AZ.

** Espinosa, L. & Laffey, J. (2003). Young Children and Technology: How Research Can Influence Public policy. Sydney, Australia. Paper presented at the Meeting of the Young Children and Learning Technologies. Sponsored by International Federation for Information Processing. Sydney, Australia.

* Laffey, J., & Espinosa, L. (2003). Appropriation, Mastery and Resistance to Technology in Early Childhood Preservice Teacher Education: Case Studies. Paper presented at the Meeting of the Young Children and Learning Technologies. Sponsored by International Federation for Information Processing. Sydney, Australia.

* Espinosa, L. & Laffey, J. (2003). Using Technology to Support the Learning and Social Development of Young Children. Paper presented at the Meeting of the Young Children and Learning Technologies. Sponsored by International Federation for Information Processing. Sydney, Australia.

* Laffey, J. (2003, April). *Appropriation Mastery and Resistance in Early Childhood Preservice Teacher Education.* Paper presented at Annual Meeting of the AERA, Chicago, IL.

* Russell, D., Schneiderheinze, A., & Laffey, J. (2003, April). *Inquiry into Mediated Action: The Adoption and Implementation of an Innovation Cluster.* Paper presented at Annual Meeting of the American Educational Research Association, Chicago, IL.

* Laffey, J. & Espinosa, L. (2002, April). *Technology in Urban Primary Education: Supporting Learning and Behavior of Young Children.* Paper presented at Annual Meeting of the American Educational Research Association, New Orleans, LA.

* Espinosa, L. & Laffey, J. (2002, April). *Teacher Perceptions and Student Performance in an Urban, Challenging Context.* Paper presented at Annual Meeting of the American Educational Research Association,

New Orleans, LA.

* Lin, Y., Poole, M. & Laffey, J. (2002, April). *The Pedagogical Beliefs and Technology Practices of Preservice Teachers.* Paper presented at Annual Meeting of the American Educational Research Association, New Orleans, LA.

* Musser, D., Laffey, J., Remidez, H., Amelung, C. & Gottdenker, J. (2002, April). *Shadow netWorkspace™: Technology for Learning Community Implementation and Research.* Paper presented at Annual Meeting of the American Educational Research Association, New Orleans, LA.

* Placier, P., Laffey, J., Wing, B., Fitzgerald, K., Poole, M. & Patterson, C. (2001, April). *Infusing diversity and technology in teacher education: Resistance, mastery and appropriation*. Paper presented at Annual Meeting of the American Educational Research Association, Seattle, WA.

* Placier, P., Laffey, J., & Hall, P. (2001, April). *Professional socialization in a context of program reform and technological change: A longitudinal study of teacher education*. Symposium presented at Annual Meeting of the American Educational Research Association, Seattle, WA.

* Poole, M., Laffey, J., & Lin, Y. (2001, April). *Appropriation, mastery and resistance to technology in preservice teacher education: Differences that make a difference*. Paper presented at Annual Meeting of the American Educational Research Association, Seattle, WA.

* Wang, M., Laffey, J., & Poole, M. (2001, April). *The construction of shared knowledge in an Internet-based shared environment for expeditions*. Paper presented at Annual Meeting of the American Educational Research Association, Seattle, WA.

* Laffey, J., Musser, D. & Remidez, H. (2001, March*). Shadow netWorkspace for learning*. Presented at the 2001 HELIX Annual Conference, Osage Beach, MO.

* Musser, D. & Laffey, J. (2001, June). *The Shadow netWorkspace*. Paper presented at ED-MEDIA World Conference on Educational Multimedia, Hypermedia & Telecommunications, Finland.

Laffey, J., (2000, October*). Teaching with technology award winners*. Presented at the 2000 Missouri Educational Technology Conference. Annual Meeting, Osage Beach, MO.

* Wang, M. & Laffey, J. (2001, April). *Facilitating learning and performance in an Internet-based shared environment for expeditions.* Paper presented at the International Society for Performance Improvement (ISPI) Annual Meeting. San Francisco, CA

* Laffey, J., & Wang, M. (2000, April). *A preliminary model of participants' experience with project-based learning in the Internet-based Shared Environment for Expeditions (iExpeditions).* Paper presented at the American Educational Research Association (AERA) Annual Meeting, New Orleans, Louisiana.

* Poole, M. & Laffey, J. (2000, April). *Appropriating technology in teacher education to build collaborative communities of practice*. Paper presented at Annual Meeting of the American Educational Research Association, New Orleans, LA.

* Wang, M., Laffey, J., Harris, C., Wangemann, P., & Tupper, T. (1999, December). *How youth and mentors experience project-based learning in the Internet-based Shared Environment for Expeditions (iExpeditions).* Paper presented at the Third International Conference on Computer Support for Collaborative Learning (CSCL), Stanford University.

* Laffey, J. Musser, D., Tupper, T., & Wang, M. (1999, August*). A prototype for distributed learning in a networked system*. Paper presented at the Cognitive Technologies Annual Conference, San Francisco, CA.

* Musser, D., Laffey, J., Huyler D., Laffey, M., & Trujillo, J. (1999, October). *A Web-based homework notification system*. Paper presented at WebNet 99 World Conference on the WWW and Internet, Honolulu, HI.

* Musser, D., Laffey, J., & Tupper, T. (1999, October). *A Web-based interactive shared journal system*. Paper presented at WebNet 99 World Conference on the WWW and Internet, Honolulu, HI.

* Laffey, J. , Espinosa, L. & Musser, D. (1999). *Technology and urban, elementary school reform*. Paper presented at the AACE World Conference on Educational Multimedia and Hypermedia and on Educational Telecommunications. Seattle, WA.

* Laffey, J. & Tupper, T., & Wangemann, P. (1999, May). *Internet-based shared expedition environmen*t. Paper presented at the Annual conference of the Center for Innovative Learning Technologies. San Jose, CA.

* Laffey, J., Poole, M., & Wang, M. (1999, April). *The appropriation of technology in a reforming teacher education program*. Paper presented at the American Educational Research Association (AERA) Annual Meeting, Montreal, Canada.

* Poole, M. & Laffey, J. (1999, April). *The role of the technology infrastructure in the socialization of reflective, inquiring professionals*. Paper presented at Annual Meeting of the American Educational Research Association, Montreal, Canada.

* Tupper, T. & Laffey, J. (1999, April). *Understanding student perceptions, effort and learning in a project-based technology rich environment*. Paper presented at Annual Meeting of the American Educational Research Association, Montreal, Canada.

* Gibney, T. & Laffey, J. (1999, April). *Technology and project-based learning*. Paper presented at Annual Meeting of the American Educational Research Association, Montreal, Canada.

* Laffey, J. , Musser, D. & Tupper, T. (1998, June). *A technology infrastructure for enabling a learning community*. Paper presented at the AACE World Conference on Educational Multimedia and Hypermedia and on Educational Telecommunications.

* Laffey, J. Reeves, T. & Singer, J. (1998, April). *Evaluation and assessment for advancement, adoption, and achievement with project-based learning in a technology rich environment*. Paper presented at Annual Meeting of the American Educational Research Association, San Diego, CA

* Diggs, L. & Laffey, J. (1998, April). *Student science attitude,*

achievement and perceptions in a problem-based learning educational environment. Table discussion presented at Annual Meeting of the American Educational Research Association, San Diego, CA

* Gibney, T. , Laffey, J. & Placier, P. (1998, April). *Expanding the perspective on project-based learning : The student experience.* Table discussion presented at Annual Meeting of the American Educational Research Association, San Diego, CA

* Laffey, J., & Musser, D. (1998, February). *Building Internet-based electronic performance support for teaching and learning*. Presented at the Annual Conference of the AECT, St. Louis, MO.

* Laffey, J., Tupper, T., & Musser, D. (1998, February). *Performance support for learners in a project-based curriculum*. Paper presented at the Annual Conference of the AECT, St. Louis, MO.

* Wedman, J., Espinosa, L., & Laffey, J. (1997, December*). The process for understanding how a field-based literacy course influences teachers' beliefs and practices*. Paper accepted for presentation at the National Reading Conference, Scottsdale, AZ.

* Laffey, J., Tupper, T., & Musser, D. (1997, August). *Performance support for learners in a project-based curriculum*. Poster session presented at the Annual Conference of the International Conference of Human-Computer Interaction, San Francisco, CA.

* Reeves, T. C., Laffey, J. M., & Marlino, M. R. (1996, November). *The challenge of cognitive assessment in project-based learning environments*. Paper presented at the Annual Conference of the American EvaluationAssociation, Atlanta, GA.

* * Laffey, J. (1996, Colorado Springs). *Teaching methods in an era of advancing technology*. Invited presentation at the United States Air Force Academy Conference on Education in the Information Age. Place?

* Laffey, J., Gibney, T. & Diggs, L. (1996, April). *The role of research issues in project-based learning classrooms*. Paper presented at Annual Meeting of the AERA, New York, NY.

* Reeves, T. C., Laffey, J. M., & Marlino, M. R. (1996, April). *New approaches to cognitive assessment in engineering education*. Paper presented at the Annual Meeting of the American Educational Research Association, New York, NY.

* Laffey, J. & Musser, D. (1996). *A journal system for field experience in teacher education*. Demonstration presented at the Second International Conference on the Learning Sciences, Chicago.

* Laffey, J. & Musser, D. (1996, March). *Designing a journal system for learning from field experience in teacher education*. Paper presented at the Society for Information Technology in Teacher Education Annual Conference. Was awarded best of conference paper award in instructional design category.

* Laffey, J. & Nazworthy, J. (1996, February). *Project MOST: Extending the computational science model eeveloped at Lee's Summit High School.* Presentation at Interface, Osage Beach, MO.

Laffey, J. (1995, March). *EPSS at the University*. Presentation at Fifth Annual Teaching Renewal Conference, UMC.

* * Laffey, J. M., Jury, T., & Reeves, T. C. (1995, February). *Electronic performance support systems (EPSS) for instructional designers*. Workshop conducted at Annual Conference of the Association for Educational Communications and Technology, Anaheim, CA.

* Laffey, J., Jury, T., & Reeves, T. C. (1994, February). *Electronic performance support systems (EPSS) for developers of information and training products*. Workshop conducted at Annual Conference of the Association for Educational Communications and Technology, Nashville, TN.

* * Laffey, J. (1994, July). *Assessing cognitive outcomes in a technologically rich environment*. Invited presentation to the USAFA, Place?

* * Laffey, J. (1994, November). *Learning in a connected world*. Presentation as part of a 2-way video teleconference of DownLinks for Excellence, University of Missouri-Columbia

Laffey, J. (1994, March). *Computers for learning: Where do they fit in?* Presentation at Fourth Annual Teaching Renewal Conference, University of Missouri-Columbia.

Laffey, J. (1994, February). *Authentic learning and assessment*. Presentation at the Reading Conference, University of Missouri-Columbia

* Gustafson, K. L., Reeves, T. C., & Laffey, J. M. (1990, April). *The experience and outcomes of interactive videodisc orientation training for sales personnel*. Paper presented at Annual Meeting of the American Educational Research Association, Boston, MA.

* * Laffey, J. (1987, November). *Advancing technologies for learning*. Invited keynote presentation at the 29th International Conference of the Association for the Development of Computer-based Instructional Systems, Oakland, CA.

* Rubin, J., Laffey, J. & Sorensen, W. (1986). *Interactive video for improving cognitive strategies of language learning*. Paper presented at the Annual meeting of the National Society for Performance Improvement. Conference presentation was ranked 15th highest across all presentations, and rated 2nd highest in the Computer Applications track.

Other Creative Works

The Guide to Project-Based Learning in Math and Science . Designed and developed in collaboration with Dale Musser. A CD-ROM prototype of an interactive system for supporting project based learning. Oracle Corporation.

Project MOST Video. Designed, wrote, and produced a 20-minute video communicating key benefits of project-based learning and

introducing a system for supporting new forms of teaching and learning. February, 1995.

LIMB System. Coordinated system and software design and project leadership for a prototype system enabling Apple Customer Support Representatives access to large amounts of dynamic tools and resources. 1993.

Role'm Simulator. Provided project leadership and educational design for a research prototype of an intelligent/hypermedia role playing simulator. 1993.

Role'm Demo Video. Designed, wrote and produced a 9-minute video illustrating key concepts of role playing simulator learning systems. The program was used to develop support for research in simulators at Apple Computer, Inc. 1992.

NNable Demo Video. Designed, wrote and produced a 5-minute video illustrating key concepts of integrated learning and support systems. The program was used to develop support for research in performance support at Apple Computer, Inc. 1992.

On-Demand Learning. Designed, wrote and produced a 6-minute video illustrating key concepts of on-demand learning systems. The program was used to develop support for research in performance support at Apple Computer, Inc. 1991.

Hypercard/Interactive Video Toolkit. Designed and produced this product which is distributed by APDA and used by interactive media course developers around the world. 1989. The Toolkit consists of a 60- minute video that explains how to develop interactive video using Hypercard stacks, and includes software examples, sample code, and drivers for controlling videodisc players from a Macintosh Computer.

Hypercard Solutions. Designed, wrote and produced a 20-minute video illustrating key concepts of the Apple product Hypercard. The program was used to train sales and support staff of Apple Computer and resellers of Apple products. 1987.

Apple Product Seminar. Designed, wrote and produced a 60-minute video illustrating key concepts of selected Apple products, including printers and a fax modem. The program was used to train sales and support staff of Apple Computer and resellers of Apple products. 1986

Macintosh II: The Solution. Designed, wrote and produced a 20-minute video illustrating key concepts of the Apple product Macintosh II. The program was used to train sales and support staff of Apple Computer and resellers of Apple products. 1986.

The Right Fit. Produced the first interactive video program using HyperCard for Apple Training Support. 1986.

Exploring Student Services Interactive videotape. Produced and programmed an interactive videotape enabling decision making for using support services. SCCC. 1981.

Service

Science Advisory Board member, LifeSpan Behavioral Technologies, Inc. Atlanta, GA.

Principal Member of the Mathematics and Science Panel of IES's Education Research Scientific Review Panels, 2014-16.

Ad hoc Member of the Social and Behavioral Panel of IES's Education Research Scientific Review Panels, 2014-16.

Principal Member of the Social and Behavioral Panel of IES's Education Research Scientific Review Panels, 2013-14.

Founding member of Board of Directors of Open Wonderland Foundation.

Editorial Board for International Journal of Interactive Communication Systems and Technologies (IJICST). An Official Publication of the Information Resources Management Association

Manuscript review for the Journal of Educational Computing Research, 2007 - present

Reviewer for CSCL 2009 conference.

Program Committee Member the theme-based sub-conference "Advanced Learning Technologies, Open Contents, and Standards" of the International Conference on Computers in Education (ICCE), 2008 - present.

Serve as consultant for technology systems to support the mission of the Thompson Center for Autism and Neurodevelopmental Disorders (2006 to present).

Serve as consultant to the development of an online support system (RA-Help) for the Missouri Arthritis Rehabilitation Research and Training center (2003 to 2008)

Serve on Graduate Education Committee, College of Education. 1997-2002; 2005-present.

Serve on Academic Personnel Committee, SISLT. 2000-2003, 2005 to present.

Served on Search Committee for SISLT Faculty Positions. 1998, 2003, 2005, 2006

Reviewer for E-Learning Conference, Bangkok Thailand, 2006

Reviewer for AERA annual conference 1994-present

Served on HRT Committee, College of Education. 2003-2005.

Reviewer for SIGCHI-CSCW 2004 conference papers.

International Scientific Advisory Committee for the Second International Conference on Multimedia and Information and Communications Technology. Badajoz, Spain.

Served as Co-Director of the Center for Technology Innovation in Education, College of Education. 1994 to 2002.

Technology Services Steering Committee for the St Louis Public School District, 2000 to 2002.

Served as Program Leader for NLS Track in SISLT M.Ed. Program. 2002 to 2003.

Presented at the MOREnet/DESE 2000 Missouri Educational Technology Conference. 2000.

Served on Program Committee for World Conference on Educational Multimedia and Hypermedia & World Conference on Educational Telecommunications, 1996 to 2000. Organized by the Association for the Advancement of Computing in Education.

Served on Program Committee for the International Conference on the Learning Sciences, June, 2000. Ann Arbor, Michigan.

Served on Leading the Transition to the Global Information Age by Applying Research and New Technologies to Missouri's Needs, MU Committee on Mission Enhancement. 1998 to 2000.

Served on task force for the renovation of Townsend Hall. 1998

Served on Search Committee for Science Education Position. 1998

Provide technical review for the University of Missouri System Office of Patents & Licensing.

Served on task force to plan the integration of the School of Library and Information Science and Educational Technology. 1997.

Presented at the MOREnet/DESE 1996 Missouri Educational Technology Conference. 1996.

Participated in planning conference for Missouri 4-H Youth Development Programs. (1996)

Presented at the Fifth Annual Teaching Renewal Conference, Program for Excellence in Teaching. 1995.

Presented at the MOREnet/DESE 2000 Missouri Educational Technology Conference. 2000.

Served on University Academic Computing Council for 1993-94.

Served on Transition Program Team to develop a summer program to support the success of minority students entering the University. Developed and taught a summer course on using technology for this group of students. 1994.

Participated in the design and development of new technology resources for COE. 1994.

Advising Graduate Students

Doctoral Committee Chair or Co-Chair

*Jon Singer, *Terresa Gibney, *Carol Schell, *Laura Hardin, *Laura

*** completed**

Diggs, *Minjuan Wang, *Nory Jones, *Art Schneiderheinze, *Donna Russell, *Herbert Remidez, *Bonnie Humphrey, *Yimei Lin, *Melissa Poole, *Chris Amelung, Josh Gottdenker, *Antony Gould, *So Yeon Yoon, Ran Young Hong, *Jiye Ai, *Guan Yu Lin, *Chia-Chi Yang, Paul Turner, *Pei-Ju Liu, Xinxin Huang, David Reid, *Sean Goggins, Nan Ding, Xianhui Wang, Krista Galyen, Xiaolin Xie, *I-Chun Tsai, *Piyanan Nuankhieo & *Lanika Ruzhitskaya.

Doctoral Committee Member

Over 25

Master's Advisees

Over 75