

**CURRICULUM VITAE****Min Liu, Ed. D.**

The University of Texas at Austin  
 Department of Curriculum and Instruction  
 Austin, TX 78712

Web: <https://sites.edb.utexas.edu/minliu/>  
 Email: [MLiu@austin.utexas.edu](mailto:MLiu@austin.utexas.edu)  
 Work: (512) 232-6248

Citation: <http://tinyurl.com/MinLiu-GoogleScholar>

**Academic Degrees**

<b>1992</b>	<b>Ed. D.</b> Instructional Technology West Virginia University
<b>1990</b>	<b>M.A.</b> Instructional Technology West Virginia University
<b>1986</b>	<b>M.A.</b> Linguistics East China Normal University, Shanghai, China
<b>1982</b>	<b>B.A.</b> English East China Normal University, Shanghai, China

**Professional Appointments**

<b>Program Coordinator &amp; Graduate Advisor</b> Learning Technologies Program Department of Curriculum & Instruction The university of Texas at Austin	<b><i>August 1, 2002 – present</i></b>
<b>Full Professor</b> Learning Technologies Program Department of Curriculum & Instruction The University of Texas at Austin	<b><i>Sept. 1, 2006 – present</i></b>
<b>Associate Professor</b> Instructional Technology Program Department of Curriculum & Instruction The University of Texas at Austin	<b><i>Sept. 1, 1999 – Aug. 31, 2006</i></b>
<b>Assistant Professor</b> Instructional Technology Program Department of Curriculum & Instruction The University of Texas at Austin	<b><i>Sept. 1, 1993 - Aug. 31, 1999</i></b>
<b>Assistant Director</b> College of Human Resources &	<b><i>Feb. 1, 1990 – June 30, 1993</i></b>

Education Learning Technology Center  
West Virginia University

**Co-Director (interim)**

College of Human Resources &  
Education Learning Technology Center  
West Virginia University

*Feb. 1, 1992 – June 30, 1992*

**Research Assistant**

Research and Training Center  
West Virginia University

*Sept. 1, 1987 - Feb. 1990*

**Computer Consultant**

College of Human Resources &  
Education Learning Technology Center  
West Virginia University

*Aug., 1986 - Feb., 1990*

**Lecturer**

East China Normal University  
Shanghai, China

*Feb., 1982 - Aug., 1986*

**Co-editor**

*Foreign Language Teaching Abroad*  
East China Normal University  
Shanghai, China

*1983 - 1985*

## Publications

**(*italic indicates co-authors are current students OR current students at the time and since graduated*)**

**Refereed Journal Articles**

(1<sup>st</sup> author= 51; 2<sup>nd</sup> author= 17; other authorship= 6)

1. **Liu, M., Zou, W., Shi, Y., Pan, Z. & Li, C.** (2019). What Do Participants Think of Today's MOOCs: An Updated Look at the Benefits and Challenges of MOOCs Designed for Working Professionals. *Journal of Computing in Higher Education*, <https://doi.org/10.1007/s12528-019-09234-x>
2. **Liu, M., Li, C., Pan, Z., & Pan, X.** (2019). Mining big data to help make informed decisions for designing effective digital educational games. *Journal of Interactive Learning Environments*, <https://doi.org/10.1080/10494820.2019.1639061>
3. **Naul, E. & Liu, M.** (2019). Why story matters: A review of narrative in serious games. *Journal of Educational Computing Research*, <https://doi.org/10.1177/0735633119859904>
4. **Liu, M., Liu, S., Pan, Z., Zou, W. & Li, C.** (2019). Examining Science Learning and Attitudes by At-Risk Students After They Used a Multimedia-Enriched Problem-Based Learning Environment. *Interdisciplinary Journal of Problem-Based Learning*.13(1).

5. Shu, L. Y. & Liu, M. (2019). Student Engagement in Game-Based Learning: A Literature Review from 2008 to 2018. *Journal of Educational Hypermedia and Multimedia*, 28(2).
6. Liu, M., Ko, Y., Willmann, A., & Fickert, C. (2018). Examining the Role of Professional Development in a Large School District's iPad Initiative. *Journal of Research on Technology in Education*. 50(1), 48-69. DOI: 10.1080/15391523.2017.1387743
7. Liu, M., McKelroy, Corliss, S., & Carrigan, J. (2017). Investigating The Effect of An Adaptive Learning Intervention on Students' Learning. *Educational Technology Research & Development (ETRD) journal*. 65(6), 1605–1625. <https://doi.org/10.1007/s11423-017-9542-1>
8. Liu, M., Kang, J., Zou, W., Lee, H., Pan, Z., & Corliss, S. (2017). Using Data to Understand How to Better Design Adaptive Learning. *The Technology, Knowledge and Learning journal*, 22(3), 271-298. <https://doi.org/10.1007/s10758-017-9326-z>
9. Kang, J., Liu, M., Qu, W. (2017). Using Gameplay Data to Examine Learning Behavior Patterns in a Serious Game. *Computers in Human Behavior*, 72, 757-770. <https://doi.org/10.1016/j.chb.2016.09.062>
10. Liu, M., Navarrete, C., Scordino, R., Kang, J. Ko, Y. J., and Lim, M. H. (2016). Examining Teachers' Use of iPads: Comfort Level, Perception, and Use. *Journal of Research on Technology in Education*, 48(3), 159-180.
11. Liu, M., McKelroy, E., Kang, J. Harron, J., & Liu, S. (2016). Examining the Use of Facebook and Twitter as an additional social space in a MOOC. *The American Journal of Distance Education*, 30(1), 14-26. DOI: 10.1080/08923647.2016.1120584
12. Liu, M., Lee, J., Kang, & Liu, S. (2016). What We Can Learn From The Data: A Multiple-Case Study Examining Behavior Patterns By Students With Different Characteristics In Using a Serious Game. *The Technology, Knowledge and Learning journal*. 21(1), 33-57. DOI: 10.1007/s10758-015-9263-7
13. Liu, M., Abe, K., Cao, M., Liu, S., Ok, D., Park, J., Parrish, C., & Sardegna, V. (2015). An analysis of social network websites for language learning: Implications for teaching and learning English as a Second Language. *CALICO Journal*, 32(1). Retrieved 21 February, 2015, from <http://www.equinoxpub.com/journals/index.php/CALICO/article/view/25963>
14. Liu, M., Kang, J. & McKelroy, E. (2015). Examining Learners' Perspective of Taking a MOOC: Reasons, Excitement, and Perception of Usefulness. *Educational Media International Journal*, 52(2), 129-146. DOI:10.1080/09523987.2015.1053289
15. Liu, M., Scordino, R., Geurtz, R, Navarrete, C., Ko, Y. J., and Lim, M. H. (2014). A Look at Research on Mobile Learning in K-12 Education From 2007 to Present. *Journal of Research on Technology in Education*, 46(4), 325-372. DOI:10.1080/15391523.2014.925681

16. **Liu, M., Kang, J., Cao, M. W., Lim, M. H., Ko, Y. J., Myers, R., & Schmitz Weiss, A. S.** (2014). Understanding MOOCs as an Emerging Online Learning Tool: Perspectives From the Students. *American Journal of Distance Education*, 28(3), 147-159. DOI: 10.1080/08923647.2014.926145
17. **Liu, M., Horton, L., Lee, J., Kang, J., Rosenblum, J., O'Hair, M. & Lu, C. W.** (2014). Creating a Multimedia Enhanced Problem-Based Learning Environment for Middle School Science: Voices from the Developers. *Interdisciplinary Journal of Problem-Based Learning*, 8(1). Available at: <http://dx.doi.org/10.7771/1541-5015.1422>
18. **Liu, M., Navarrete, C. C., and Wivagg, J.** (2014). Potentials of Mobile Technology for K-12 Education: An Investigation of iPod touch Use for English Language Learners in the United States. *Journal of Educational Technology & Society*, 17(2), 115-126.
19. **Liu, M., Rosenblum, J., Horton, L., & Kang, J.** (2014). Designing Science Learning with Game-Based Approaches. *Computers in the School*, 31(1/2), 84-102. DOI:10.1080/07380569.2014.879776
20. **Liu, M.** (2014). Motivating Students to Learn Using A Game-Based Learning Approach. *Texas Education Review*, 2(1), 117-128. Available online at [www.txedrev.org](http://www.txedrev.org)
21. **Liu, M., Navarrete, C. C., Maradiegue, E., and Wivagg, J.** (2014). Mobile Learning and English Language Learners: A Case Study of Using iPod Touch As a Teaching and Learning Tool. *Journal of Interactive Learning Research*, 25(3), 373-403.
22. **Liu, M., Horton, L., Kang, J., Kimmons, R. and Lee, J.** (2013). Using a Ludic Simulation to Make Learning of Middle School Space Science Fun. *The International Journal of Gaming and Computer-Mediated Simulations*, 5(1). 66-86. DOI: 10.4018/jgcms.2013010105
23. **Liu, M., Yuen, T. T., Horton, L., Lee, J., Toprac, P. and Bogard, T.** (2013). Designing Technology-Enriched Cognitive Tools To Support Young Learners' Problem Solving. *The International Journal of Cognitive Technology*, 18(1), 14-21.
24. **Bogard, T., Liu, M., & Chiang, Y. H.** (2013). Thresholds of Knowledge Development in Complex Problem Solving: A Multiple-Case Study of Advanced Learners' Cognitive Processes. *Educational Technology Research and Development*, 61(3), 465-503. DOI DOI 10.1007/s11423-013-9295-4
25. **Liu, M., Wivagg, J., Geurtz, R., Lee, S. T. & Chang, M.** (2012). Examining How Middle School Science Teachers Implement A Technology Enriched Problem-Based Learning Environment. *Interdisciplinary Journal of Problem-Based Learning*, 6(2), 46-84.
26. **Liu, M., Kalk, D., Kinney, L., & Orr, G.** (2012). Web 2.0 and Its Use in Higher Education from 2007-2009: A Review of Literature. *International Journal on E-Learning (IJEL)*, 11(2), 153-179.

27. *Kimmons, R., Liu, M., Kang, J. & Santana, L. (2011-2012). Attitude, Achievement, and Gender in a Middle School Science-based Ludic Simulation for Learning. Journal of Educational Technology Systems, 40(4), 341-370.*
28. *Liu, M., Horton, L., Olmanson, J. & Toprac, P. (2011). A Study of Learning and Motivation in A New Media Enriched Environment For Middle School Science, Educational Technology Research and Development (ETR&D), 59(2), 249-266. doi:10.1007/s11423-011-9192-7.*
29. *Wang, P. Y, Vaughn, B. K., & Liu, M. (2011) The impact of animation interactivity on novices' learning of introductory Statistics, Computers & Education, 56(1), 300-311.*
30. *Yuen, T., & Liu, M. (2010). A cognitive model of how interactive multimedia authoring facilitates conceptual understanding of object-oriented programming in novices. Journal of Interactive Learning Research, 22(3), 329-356.*
31. *Stevenson, M. P. & Liu, M. (2010). Learning a Language with Web 2.0: Exploring the Use of Social Networking Features of Foreign Language Learning Web sites. CALICO Journal, 27(2), 233-259.*
32. *Liu, M., Horton, L., Corliss, S. B., Svinicki, M. D., Bogard, T., Kim, J., & Chang, M. (2009). Students' problem-solving as mediated by their cognitive tool use: A study of tool use patterns, Journal of Educational Computing Research, 40(1), 111-139.*
33. *Liu, M., Horton, L., Olmanson, J. & Wang, P. Y. (2008). An Exploration of Mashups and Their Potential Educational Uses. Computers in the School, 25 (3/4), 243-258.*
34. *Liu, M., Traphagan, T., Huh, J., Koh, Y. I., & Choi, G., & McGregor, A. (2008). Designing Web sites for ESL learners: A usability testing study. CALICO Journal, 25(2), 207-240.*
35. *Shih, Y. H. & Liu, M. (2008). The importance of Emotional Usability. Journal of Educational Technology System. 36(2), 203-218.*
36. *Hsieh, P. H., Cho, Y., Liu, M., & Schallert, D. L. (2008). Examining the interplay between middle school students' achievement goals and self-efficacy in a technology-enhanced learning environment. American Secondary Education Journal, 36(3), 33-50.*
37. *Li, R. & Liu, M. (2007). Understanding the effects of databases as cognitive tools in a problem-based multimedia learning environment. Journal of Interactive Learning Research, 18(3), 345-363.*
38. *Liu, M., Hsieh, P., Cho, Y. J. & Schallert, D. L. (2006). Middle school students' self-efficacy, attitudes, and achievement in a computer-enhanced problem-based learning environment. Journal of Interactive Learning Research. 17(3). 225-242.*

39. Bera, S. & Liu, M. (2006). Cognitive tools, individual differences, and group processing as mediating factors in a hypermedia environment. *Computers in Human Behavior*, 22(2), 295-319.
40. Hao, Y. W. & Liu, M. (2006). Students' Attitudes toward online interaction. *Academic Exchange Quarterly*, 10(4), 74-79.
41. Liu, M (2005). The effect of a hypermedia learning environment on middle school students' motivation, attitude, and science knowledge. *Computers in the Schools*, 22(3/4), 159-171.
42. Liu, M, & Bera, S. (2005). An analysis of cognitive tool use patterns in a hypermedia learning environment. *Educational Technology Research and Development*, 53(1), 5-21.
43. Liu, M., Bera, S., Corliss, S., Svinicki, M., & Beth, A. (2004). Understanding the connection between cognitive tool use and cognitive processes as used by sixth graders in a problem-based hypermedia learning environment. *Journal of Educational Computing Research*, 31(3), 309-334.
44. Liu, M. (2004). Examining the performance and attitudes of sixth graders during their use of a problem-based hypermedia learning environment. *Computers in Human Behavior*, 20 (3), 357-379.
45. Liu, M. (2003). Enhancing learners' cognitive skills through multimedia design. *Interactive Learning Environments*, 11(1), 23-39.
46. Pedersen, S. & Liu, M. (2003). Teachers' beliefs about issues in the implementation of a student-centered learning environment. *Educational Technology Research and Development*, 51(2), 57-76.
47. Liu, M. & Y. P. Hsiao. (2002). Middle school students as multimedia designers: A project-based learning approach. *Journal of Interactive Learning Research*, 13(4), 311-337.
48. Liu, M., Gibby, S., Quiros, O., & Demps, E. (2002). Challenges of being an instructional designer for new media development: A view from the practitioners. *Journal of Educational Hypermedia and Multimedia*, 11(3), 195-219.
49. Liu, M., Moore, Z., Graham, L., & Lee, S. (2002). A look at the research on computer-based technology use in second language learning: review of literature from 1990-2000. *Journal of Research on Technology in Education*, 34(3), 250-273.
50. Liu, M, Williams, D., & Pedersen, S. (2002). Alien Rescue: A problem-based hypermedia learning environment for middle school science. *Journal of Educational Technology Systems*, 30(3), 255-270.

51. *Pedersen, S. & Liu, M. (2002). The transfer of problem-solving skills from a problem-based learning environment: the effect of modeling an expert's cognitive processes. Journal of Research on Technology in Education. 35(2), 303-320.*
52. *Pedersen, S. & Liu, M. (2002). The effects of modeling expert cognitive strategies during problem-based learning. Journal of Educational Computing Research. 26(4), 353-380.*
53. *Liu, M., Papathanasiou, E., & Hao, Y. (2001). Exploring the use of multimedia examinations in teaching and learning for undergraduate education: results from fielding testing. Computers in Human Behavior. 17(3), 225-248.*
54. *Liu, M., & Pedersen, S. (1998). The effect of being hypermedia designers on elementary school students' learning of design knowledge. Journal of Interactive Learning Research. 9(2), 155-182.*
55. *Williams, D, Pedersen, S., & Liu, M. (1998). An evaluation of the use of problem-based learning software by middle school students. Journal for Universal Computer Science, 4(4), 466-483.*
56. *Liu, M. (1998). The effect of hypermedia authoring on elementary school students' creative thinking skills. Journal of Educational Computing Research. 19(1), 27-51.*
57. *Liu, M. (1998). A Study of Engaging High School Students as Multimedia Designers in Cognitive Apprenticeship-Style Learning Environment. Computers in Human Behavior. 14 (3), 387-415.*
58. *Liu, M, Jones, C., & Hemstreet, S. (1998). A study of the multimedia design and production process by the practitioners. Journal of Research on Computing in Education. 30(3), 254-280.*
59. *Liu, M. (1997/1998). Interactive multimedia in an informal setting: The use of a multimedia information kiosk by university students. Journal of Educational Technology Systems, 26(1), 35-53.*
60. *Liu, M. & Rutledge, K. (1997). The effect of a "learner as multimedia designer" environment on at-risk high school students' motivation and learning of design knowledge. Journal of Educational Computing Research, 16(2), 145-177.*
61. *Liu, M. (1997). The effects of HyperCard programming on teacher education students' problem-solving ability and computer anxiety. Journal of Research on Computing in Education, 29(3), 248-262.*
62. *Jones, M. & Liu, M. (1997). Introducing interactive multimedia young children: A case study of how two-year-olds interact with the technology. Journal of Computing in Childhood Education, 8(4), 313-343.*

63. **Liu, M.** (1996). An exploratory study of how pre-kindergarten children use the interactive multimedia technology: Implications for multimedia software design. *Journal of Computing in Childhood Education*, 7 (1/2), 71-92.
64. *McDaniel, K. & Liu, M.* (1996). A study of project management techniques for developing interactive multimedia programs: A practitioner's perspective. *Journal of Research on Computing in Education*, 29(1), 29-48.
65. Reed, W. M., Ayersman, D. J., & **Liu, M.** (1996). The effect of students' computer-based prior experiences and instructional exposures on the application of hypermedia-related mental models. *Journal of Educational Computing Research*, 14(2), 175-197.
66. **Liu, M.** (1995). Contextual enrichment through hypermedia technology: Implications for second language learning. *Computers in Human Behavior*, 11(3/4), 439-450.
67. **Liu, M.** & Reed, W. M. (1995). The effect of Hypermedia-assisted-instruction on second language learning. *Journal of Educational Computing Research*. 12(2), 159-175.
68. **Liu, M.**, Ayersman, D. J., & Reed, W. M. (1995). Perceptions of a hypermedia environment. *Computers in Human Behavior*, 11(3/4), 411-428.
69. Reed, W. M., Ayersman, D. J., & **Liu, M.** (1995). The effects of three different hypermedia courses on students' attitudes. *Computers in Human Behavior*, 11(3/4), 495-510.
70. Reed, W. M., Ayersman, D. J., & **Liu, M.** (1995). The effect of hypermedia instruction on stages of concern of students with varying authoring language and hypermedia prior experience. *Journal of Research on Computing in Education*. 27(3), 297-317.
71. **Liu, M.** & Reed, W. M. (1994). The relationship between the learning strategies and learning styles in a Hypermedia environment. *Computers in Human Behavior*, 10 (4), 419-434.
72. **Liu, M.** (1994). Hypermedia-assisted-instruction and second language learning: A semantic-network-based approach. *Computers in the Schools*, 10(3/4), 293-312.
73. Reed, W. M. & **Liu, M.** (1994). The comparative effects of BASIC programming versus HyperCard programming on problem-solving, computer anxiety and performance. *Computers in the Schools*, 10(1/2), 27-46.
74. **Liu, M.**, Reed, W. M., & Phillips, P. D. (1992). Teacher education students and computers: Gender, major, use, occurrence, and anxiety. *Journal of Research on Computing in Education*, 24(4), 457-467.

### **Refereed Book Chapters**

(1<sup>st</sup> author= 15; 2<sup>nd</sup> author= 2, 3<sup>rd</sup> author =1)

1. **Liu, M.**, Zou, W., Li, C., Shi, Y. Pan, Z. & Pan, X (2019). Using learning analytics to examine relationships between learners' usage data with their profiles and perceptions: A

- case study of a mooc designed for working professionals, In D. Ifenthaler, D. Mah, and J. Y. Yau (Eds.) *Utilizing Learning Analytics to Support Study Success* (pp. 275-294). New York: Springer International Publishing.
2. **Liu, M., Pan, Z., Pan, X, An, D, Zou, W., Li, C., & Shi, Y.** (2019). The use of analytics for educational purposes: A review of literature from 2015 to present. In M. S. Khine, (Ed.) *Emerging trends in learning analytics: Leveraging the power of educational data* (pp. 26-44). Boston: Brill Sense.
  3. **Liu, M., Horton, L., Li, C., & Pan, Z.** (2019). Alien Rescue. In K. Schrier (Ed.) *Learning, Education, & Games: 100 Games to Use in the Classroom and Beyond* (Vol. III, pp. 23-27) Pittsburgh, PA: ETC Press (Carnegie Mellon).
  4. **Liu, M., Kang, J., Liu, S., Zou, W., & Hodson, J.** (2017). Learning Analytics as an Assessment Tool in Serious Game: A Review of Literature. In M. Ma & A. Oikonomou (Eds). *Serious Games and Edutainment Applications* (Vol. II.) (pp. 537-563). New York: Springer. DOI: 10.1007/978-3-319-51645-5
  5. **Lee & Liu** (2017). Design of Fantasy and Their effect on Learning and Engagement. In R. Zheng and M. Gardner (Eds.) *Handbook of Research on Serious Games for Educational Applications* (pp. 200-219), Hershey, PA: IGI Global. DOI: 10.4018/978-1-5225-0513-6.ch009
  6. **Liu, M., Horton, L., Kang, J., Kimmons, R. and Lee, J.** (2017). Making Learning Fun: An Investigation of Using a Ludic Simulation for Middle School Space Science. In B. Dubbels (Ed.) *Transforming Gaming and Computer Simulation Technologies across Industries* (pp. 130-152), Hershey, PA: IGI Global.
  7. **Liu, M., Su, S. Liu, S., Harron, J., Fickert, C., and Sherman, B.** (2016). Exploring 3D Immersive and Interactive Technology for Designing Educational Learning Experiences, In F. M., Neto, R. de Souza, & A.S. Gome, (Eds.) *Handbook of Research on 3-D Virtual Environments and Hypermedia for Ubiquitous Learning* (pp. 243-261). Hershey, PA: IGI Global.
  8. **Liu, M., Kang, J., McKelroy, E., Harron, J., and Liu, S.** (2016). Investigating Students' Interactions with Discussion Forums, Facebook, and Twitter in a MOOC and Their Perceptions. In B. Khan, (Ed.) *Revolutionizing Modern Education through Meaningful E-Learning Implementation* (pp. 118-41), Hershey, PA: IGI Global.
  9. **Kang, J., Liu, S., & Liu, M.** (2017). Tracking Students' Activities in Serious Games, In F. Q. Lai & J. D. Lehman (Eds.) *Learning and Knowledge Analytics in Open Education* (pp. 125-137). Switzerland: Springer International Publishing. Retrieved from [http://link.springer.com/chapter/10.1007/978-3-319-38956-1\\_10](http://link.springer.com/chapter/10.1007/978-3-319-38956-1_10)
  10. **Liu, M., Kang, J., Lee, J, Winzeler, E., & Liu, S.** (2015). Examining through visualization what tools learners access as they play a serious game for middle school science. In C. S. Loh, Y. Sheng, & D. Ifenthaler (Eds.) *Serious Games Analytics: Methodologies for*

*Performance Measurement, Assessment, and Improvement* (pp. 181-208), Switzerland: Springer, DOI 10.1007/978-3-319-05834-4.

11. **Liu, M., Navarrete, C. C., Maradiegue, E., and Wivagg, J.** (2014). A Multiple-Case Study Examining Teachers' Use of iPod Touches in Their Pedagogical Practices for English Language Learners, In D. McConatha, C. Penny, J. Schugar & D. L. Bolton (Eds.) *Mobile Pedagogy and Perspectives on Teaching and Learning* (pp. 165-185), IGI-Global Publishing. DOI: 10.4018/978-1-4666-4333-8.ch010
12. **Liu, M., Evans, M., Horwitz, E., Lee, S., McCrory, M., J. Park, and Parrish C.** (2013), A Study of the Use of Social Network Sites for Language Learning By University ESL Students. In M. Lamy & K. Zourou (Eds.) *Social networking for language education* (pp. 137-157), NY, NY: Palgrave Macmillan.
13. **Liu, M., Geurtz, R., Karam, A., Navarrete, C. and Scordino, R.** (2013), Research on Mobile Learning in Adult Education. In W. Kinuthia & S. Marshall (Eds.) *On the Move: Mobile Learning for Development*, Charlotte, NC: Information Age Publishing.
14. **Liu, M., Wivagg, J., Maradiegue, E., and Navarrete, C. C.** (2013). Affordances and Challenges of Using iPods to Support Learning by English Language Learners at the Middle School Level, In P. M. Pumilia-Gnarini, E. Favaron, E. Pacetti, J. Bishop & L. Guerra (Eds.), *Handbook of Research on Didactic Strategies and Technologies for Education: Incorporating Advancements* (pp. 275-288), IGI-Global. DOI: 10.4018/978-1-4666-2122-0.ch023.
15. **Liu, M., Horton, L., Toprac, P. & Yuen, T.** (2011). Examining the Design of Media Rich Cognitive Tools as Scaffolds in a Multimedia Problem-Based Learning Environment, In M. Orey, S. A. Jones, & R. M. Branch (Eds.), *Educational Media and Technology Yearbook (EMTY)*, 36. DOI 10.1007/978-1-4614-1305-9\_10. New York: Springer.
16. **Liu, M., Toprac, P., & Yuen, T.** (2009). What factors make a multimedia learning environment engaging: A case study. In R. Zheng, (Ed.) *Cognitive Effects of Multimedia Learning* (pp. 173-192). Hershey, PA: Idea Group Inc.
17. **Li, R. & Liu, M.** (2008). The Effects of Using A Computer Database Tool on Middle School Students' Cognitive Skill Acquisition in A Multimedia Learning Environment. In R. Kobayashi, (Ed.) *New Educational Technology* (pp.67-88). Hauppauge, NY: Nova Science Publishers, Inc.
18. **Liu, M., Kishi, C., & Rhoads, S.** (2007). Strategies & heuristics for novice instructional designers as they work with faculty content experts in a university setting. In M. Keppell, (Ed.) *Instructional Design: Case Studies in Communities of Practice* (pp.36-67). Hershey, PA: Idea Group Inc.

**Other Publications (Invited/Non-Refereed)**

Hughes+, J. E., **Liu**, M., & Resta, P. (2015). ICT Research into K-16 Teaching and Learning Practices, In M. Orey & R. M. Branch (Eds.), *Educational Media and Technology Yearbook (EMTY)*, 39 (pp. 69-82), New York: Springer. DOI 10.1007/978-3-319-14188-6.

+Authors are listed in the alphabetical order

**Liu**, M., Burton, J., & Bonk, C. J. (2010). Reflective Addendum: Mike's Life, to W. Michael Reed: At the Beginnings Using Computers in Education for Higher-Order Learning by Min **Liu** and John Burton. In M. Orey, S. A. Jones, & R. M. Branch (Eds.), *Educational Media and Technology Yearbook (EMTY)*, 35.

Pedersen, S., **Liu**, M. & Williams, D. (2002). Alien Rescue: Designing for student-centered learning. *Educational Technology*. 42(5), 11-14.

Manuel, M., & **Liu**, M. (1994). The use of interactive videodisc in early childhood education: An example. *Hypermedia and Multimedia Studies*, 6(1/2), 6-10.

### **Edited Book/ Journal Special Issue**

Reed, W. M., Ayersman, D., & **Liu**, M. (Eds.) (1995). Hypermedia: Theory, Research and Application. [Special issue]. *Computers in Human Behavior*, 11(3/4).

Reed, W. M., Burton, J. K. & **Liu**, M. (Eds.). (1994). *Multimedia and Megachange: New Roles for Educational Computing*, New York: Haworth Press.

### **Refereed Conference Proceeding Papers (Competitively selected)**

(1<sup>st</sup> author= 39; 2<sup>nd</sup> author= 15; other authorship= 6)

1. **Liu**, S., **Liu**, M. **Pan**, Z., **Zou**, W., & **Li**, C. (2019). Examining Science Learning by At-Risk Middle School Students in a Multimedia-Enriched Problem-Based Learning Environment? *Proceedings of 9th International Conference on Learning Analytics & Knowledge (LAK19)*. Tempe, AZ.
2. **Kang**, J., **An**, D., **Yan**, L. & **Liu**, M. (2019). Collaborative problem-solving process in a science serious game: Exploring Group Action Similarity Trajectory. *Proceedings of International conference on Educational Data Mining* (pp. 336-341).
3. **Liu**, M., **Pan**, Z., **Pan**, X., **An**, D., **Zou**, W., **Li**, C. & **Shi**, Y. (2018). The Use of Analytics for Educational Purposes: A Review of Literature From 2015 to Present. In *Proceedings of E-Learn: World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education* (pp. 372-381). Las Vegas, NV, United States: Association for the Advancement of Computing in Education (AACE). Retrieved October 27, 2018 from <https://www.learntechlib.org/primary/p/185002/>.
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53. **Liu, M. & Rutledge, K.** (1996). Engaging High School Students in Multimedia Development. In P. Carlson & F. Makedon (Eds.), *Educational Multimedia and Hypermedia 1996* (pp. 395-400). Proceedings for the World Conference on Educational Multimedia and Hypermedia, 1996.
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58. **Liu, M.** (1994). Contextual Enrichment Through Hypermedia Technology: Implications for Second Language Learning. In M. Thomas, T. Sechrest, & N. Estes (Eds.) *Deciding Our Future: Technological Imperatives for Education* (pp. 465-467). Proceedings for International Conference on Technology and Education (ICTE).

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### Courses Taught & Individualized Instruction

#### Graduate level

- *EDC 390 Instructional Systems Design (taught both f-to-f and blended course versions)*
- *EDC 385G Designs and Strategies for New Media (taught both f-to-f and blended versions)*
- *EDC 385G Interactive Multimedia: Design and Production (taught both f-to-f and blended versions)*
- *EDC 385G Multimedia Authoring*
- *EDC 385G Analysis of Research in Instructional Technology*
- *EDC 396 Instructional Technology Doctoral Seminar*
- *EDC 380R Educational Research and Design*
- *EDC 385G Interactive Multimedia Research*
- *EDC 384P Computer-Assisted-Instruction: Design and Development*
- *EDC 385G HyperCard for Instruction*

#### Undergraduate level

- *UGS 302 Live, Play, Communicate, and Learn with Digital Media Technologies*
- *EDC 344 Digital Literacy for Teaching and Learning (was EDC 371 Computing Tools for Educators)*

#### Before UT

- *Advanced Software Development: Authorware*
- *Hypermedia in Education*
- *Computer Applications in Education*
- *Software Development using HyperCard*
- *Computer Awareness Module*

#### Individualized Instruction

##### 2018-2019:

Directed Research:	18 hours (6 students)
Independent Study:	9 hours (3 students)
Graduate Internship:	9 hours (3 students)

##### 2017-2018:

Directed Research:	12 hours (4 students)
Independent Study:	24 hours (6 students)

Graduate Internship:	12 hours (4 students)
Supervision Teaching:	3 hours (1 student)

*2016-2017:*

Directed Research:	6 hours (2 students)
Independent Study:	12 hours (4 students)
Graduate Internship:	21 hours (7 students)
Supervision Teaching:	3 hours (1 student)

*2015-2016:*Graduate level

Directed Research:	21 hours (7 students)
Independent Study:	30 hours (10 students)

Undergraduate level:

Undergraduate Connecting Rsrch Experience:	3 hours (1 student)
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*2014-2015:*Graduate level

Directed Research:	18 hours (6 students)
Independent Study:	15 hours (5 students)
Graduate Internship:	15 hours (4 students)

Undergraduate level:

Undergraduate Research:	3 hours (1 student)
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*2013-2014:*Graduate level

Directed Research:	21 hours (7 students)
Independent Study:	3 hours (1 student)
Graduate Internship:	6 hours (2 students)

Undergraduate level:

Undergraduate Internship:	3 hours (1 student)
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*2012-2013:*

Directed Research:	21 hours (7 students)
Independent Study:	18 hours (6 students)
Graduate Internship:	6 hours (2 students)

*2011-2012:*

Directed Research:	30 hours (10 students)
Independent Study:	22 hours (8 students)

*2010-2011:*

Directed Research:	27 hours (9 students)
Independent Study:	14 hours (6 students)

<i>2009-2010:</i>	
Directed Research:	16 hours (6 students)
Independent Study:	25 hours (9 students)
<i>2008-2009:</i>	
Directed Research:	3 hours (1 students)
Independent Study:	16 hours (6 students)
Graduate Internship:	3 hours (1 student)
<i>2007-2008:</i>	
Directed Research:	30 hours (10 students)
Independent Study:	39 hours (13 students)
Graduate Internship:	3 hours (1 student)
<i>2006-2007:</i>	
Directed Research:	15 hours (5 students)
Independent Study:	24 hours (8 students)
Graduate Internship:	3 hours (1 student)
<i>2005-2006:</i>	
Directed Research:	27 hours (9 students)
Independent Study:	24 hours (8 students)
Graduate Internship:	3 hours (1 students)
<i>2004-2005:</i>	
Directed Research:	6 hours (2 students)
Independent Study:	22 hours (8 students)
<i>2003-2004:</i>	
Directed Research:	6 hours (2 students)
Independent Study:	13 hours (5 students)
<i>2002-2003:</i>	
Directed Research:	15 hours (5 students)
Independent Study:	16 hours (6 students)
Graduate Internship:	3 hours (1 students)
<i>2001-2002:</i>	
Directed Research:	9 hours (3 students)
Independent Study:	20 hours (8 students)
<i>2000-2001:</i>	
Directed Research:	21 hours (7 students)
Independent Study:	12 hours (4 students)
Graduate Internship:	12 hours (4 students)
<i>1999-2000:</i>	
Directed Research:	3 hours (1 students)

Independent Study:	8 hours (4 students)
Graduate Internship:	9 hours (3 students)

### Short Courses and Workshops Offered

#### *For K-12 Teachers*

- *Technology, Pedagogy, and Problem-based learning: classroom Implementation Issues.* Workshop offered to middle school teachers in the Texas area, Spring 2012.
- *Supporting teachers to use a problem-based learning environment: Establishing a community of learners,* Workshop offered to middle school teachers in the Texas area, Spring 2009.
- *Using a technology-enhanced problem-based learning environment, Alien Rescue,* Workshop offered to middle school teachers in the Texas area, Fall 2002; Fall 2003.
- *Supporting the development of problem-solving skills through a technology enhanced approach,* Workshop offered to middle school teachers in the Texas area, Fall 2001; Spring 2002.
- *Using Problem-Based Learning in the Classrooms,* Workshop offered to middle school teachers in the Texas area, Fall 2000; Spring 2001.
- *Students as Multimedia Designers: What and How,* Workshop offered to teachers participating For Apple Summer Institute, July 2001.
- *Alien Rescue: An Interactive Problem-Based Learning Environment for Middle School Students,* Workshop offered to middle school teachers in the Texas area, Fall 2000; Spring 2001.
- *Educational Uses of Multimedia: An Example,* Presented to teachers attending the first UT Interactive, March 1999.
- *Creating Multimedia Presentations using PowerPoint,* Presented to teachers attending Texas State Technology conference (TCEA 98), Feb. 1998
- *Creating Course Materials for the World Wide Web,* Presented to teachers attending the Sixth International Conference on Telecommunications and Multimedia in Education (Tel Ed 97), Nov. 1997.
- *Creating Multimedia Presentations using Persuasion,* Presented to teachers attending Texas State Technology conference (TCEA 97), Feb. 1997.
- *Technology for Classroom of the Future,* Presented to the KLRU National Teacher Training Institute for Math, Science and Technology, Austin, TX, Feb., 1996

- *Creating Multimedia Presentation using Aldus Persuasion*, Presented to teachers attending Texas State Technology conference (TCEA 96), Feb. 1996.
- *Creating Dynamic Presentations Through Multimedia Technology: A Hands-on Experience*, Presented at the 6th annual national conference of Society of Information Technology & Teacher Education (SITE). San Antonio, TX. March 1995.
- *Integrating Interactive Multimedia into Curriculum*, Presented to teachers at Centers for Professional Development & Technology Language Minorities Institute sponsored by Texas Education Agency, Houston, TX, Feb. 1995.
- *Use of Multimedia in Education*, Presented to the KLRU National Teacher Training Institute for Math, Science and Technology, Austin, TX, Feb., 1995.
- *Evaluating Educational Software*, Presented to inservice teachers participating in the Texas Immersion Project, University of Texas at Austin, July, 1995.
- *Instructional Design Process for Teachers*, Presented to inservice teachers participating in the Texas Immersion Project, University of Texas at Austin, July, 1995
- *Multimedia through Macromedia Director*, Presented to faculty in the Science Academy of Austin, University of Texas at Austin, June, 1994.

### ***For College Faculty***

- *Creating Course Materials for the World Wide Web: Authoring and Designing*, NSF sponsored Chautauqua short courses for college teachers, May 2002.
- *Creating Course Materials for the World Wide Web: Tools and Technique*, NSF sponsored Chautauqua short courses for college teachers, May 2001.
- *Creating Course Materials for the World Wide Web: Authoring and Designing*, NSF sponsored Chautauqua short courses for college teachers, May 2001.
- *Creating Course Materials for the World Wide Web-Level I*, NSF sponsored Chautauqua short courses for college teachers, May 2000.
- *Creating Course Materials for the World Wide Web-Level II*, NSF sponsored Chautauqua short courses for college teachers, May 2000.
- *Creating Course Materials for the World Wide Web*, sponsored Chautauqua short courses for college teachers, May 1999.
- *Creating Course Materials for the World Wide Web*, NSF sponsored Chautauqua short courses for college teachers, May 1998.
- *Using PowerPoint for Creating Multimedia Materials (Intro level)*, presented to the faculty during the College technology fair, Dec. 1997.

- *Using PowerPoint for Creating Multimedia Materials (Advance level)*, presented to the faculty during the College technology fair, Dec. 1997.
- *Developing Courses for the World Wide Web*, workshop offered at the Syllabus National Workshops & Seminars 97, Dallas TX, April, 1997
- *Presentations and Multimedia in the Classroom*, workshop offered at the Syllabus National Workshops & Seminars 97, Dallas TX, April, 1997

### Supervision of Graduate Students

#### ***Chair/Co-Chair, Dissertation Committee @UT -- Completed (Chair=24; Co-Chair=4)***

1. Sa Liu, Learning Technologies	2018	Chair
2. Jina Kang Learning Technologies	2017	Chair
3. Cesar Navarrete, Learning Technologies	2015	Chair
4. Jaejin Lee, Learning Technologies	2015	Chair
5. Lance Kinney, Learning Technologies	2015	Chair
6. Lucas Horton, Learning Technologies	2014	Chair
7. Jennifer Wivagg, Learning Technologies	2013	Chair
8. Justin Olmanson, Instructional Technology	2011	Chair
9. Minh Pham, Instructional Technology	2010	Chair
10. PeiYu Wang, Instructional Technology	2010	Chair
11. Shih-Ting Lee, Instructional Technology	2009	Chair
12. Haley Steele, Instructional Technology	2009	Chair
13. Tim Yuen, Instructional Technology	2008	Chair
14. Paul Toprac, Instructional Technology	2008	Chair
15. Vicki De La Garza, Instructional Technology	2006	Chair
16. Sharla Jones, Instructional Technology	2006	Co-Chair
17. Yu-Ping Hsiao, Instructional Technology	2005	Chair
18. Rui Li, Instructional Technology	2005	Chair
19. Yungwei Hao, Instructional Technology	2004	Chair
20. Stephan Bera, Educational Psychology	2004	Co-Chair
21. Heather Katz, Instructional Technology	2001	Chair
22. Colleen Jones, Instructional Technology	2000	Chair
23. Susan Pedersen, Instructional Technology	2000	Chair
24. June Wilson, Instructional Technology	1999	Chair
25. Doug Williams, Instructional Technology	1999	Chair
26. Noelle Sweany, Educational Psychology	1999	Co-Chair
27. Thomas McManus, Instructional Technology	1998	Chair
28. Helen Guillory, French & Italian Department	1998	Co-Chair

#### **Current Employment of Doctoral Graduates Under My Supervision**

Sa Liu	Assistant professor	Harrisburg University of Science & Technology
Jina Kang	Assistant professor	Utah State University

Jaejin Lee	Associate Research Fellow	Korea Institute for Curriculum and Evaluation (KICE). Korea
Lance Kinney	Executive Director	Texas Board of Professional Engineers, TX
Lucas Horton	Manager	Office of Instructional Innovation, COE, UT-Austin
Jennifer Wivagg	Technology Integration Specialist	Keystone School, San Antonio, TX
Justin Olmanson	Assistant Professor	Univ. of Nebraska at Lincoln
Minh Pham	Manager	Chevron
Shih-Ting Lee	Instructional Designer	Austin Community College
Tim Yuen	Associate Professor	Univ. of Texas – San Antonio
Paul Toprac	Associate Director & Senior Lecturer	Game Development Program, UT-Austin
Rui Li	Executive Director	Distance Education & Instructional Design, West Chester University of Pennsylvania
Pei Yu Wang	Associate Professor	National Chiayi University, Taiwan
Yungwei Hao	Professor	National Taiwan Normal University
Susan Pedersen	Associate Professor	Texas A&M
Doug Williams	Professor	University of Louisiana at Lafayette
Noelle Sweany	Clinical Asso. Prof.	Texas A&M
Thomas McManus	Director of Learning Technologies and Professional Development	Harrisburg University of Science and Technology

***Member, Dissertation Committee @UT -- Completed***

1. Rob Scordino, Learning Technologies
2. Rulan Shangguan, Physical Education Teacher Education
3. Yujung Ko, Learning Technologies
4. Abe, Kana, Foreign Language Education
5. Renata Guertz, Learning Technologies
6. Marcie Belfi, Special Education
7. Angela Karam, Learning Technologies
8. Jason Rosenblum, Learning Technologies
9. Gregg Orr, Learning Technologies
10. Ji Hyun Park, School of Information
11. Hugh Clevenger Wiese, Rhetorical and Writing
12. PARK, JEONG-BIN, Foreign Language Education
13. MIKYUNG, Shin, Ph.D., Special Education
14. Benjaporn Wattanawaha, Instructional Technology
15. Jeong Won Woo, Instructional Technology
16. Min Gui, Foreign Language Education
17. Filip Zachoval, Slavic Languages
18. Yangjoo Park, Instructional Technology
19. Yueh-hui Chiang, Instructional Technology
20. Homgming Liaw, Instructional Technology
21. Hyeseung Chang, Instructional Technology
22. HaeKyung Lee, Instructional Technology

23. Joe Rowland, Instructional Technology
24. Cathy Thomas, Special Education
25. Gilok Choi, School of Information
26. Seo, You-Jin, Special Education
27. Scott Gibby, Instructional Technology
28. Young Ihn Koh, Foreign Language Education
29. Ondrea Quiros, Instructional Technology
30. Jennifer Dix, Special Education
31. Leah Graham, Foreign Language Education
32. Stephanie Corliss, Educational Psychology
33. Janrathip Changwatchai, Instructional Technology
34. Dongjoo Lee, Instructional Technology
35. Marie Kaylor, Special Education
36. Kathleen Winston, Music Education
37. Carol Bell, Math Education
38. Greg Jones, Instructional Technology
39. Gail Carmack, Instructional Technology
40. Tim Collins, Foreign Language Education
41. Alan Veach, Curriculum & Instruction
42. Louise Stoher, Germanic Languages
43. Kyung-Sun Kim, School of Library Information Sciences
44. Rebecca Herman, Foreign Language Education
45. Mengping Tsuei, Science Education
46. Yong Suk Kim, Foreign Language Education
47. Lynda Cleveland, Instructional Technology
48. Takashi Suzuki, Foreign Language Education
49. Yoshi Omura, Foreign Language Education
50. Meta Mousseau, Instructional Technology
51. Jay Kunz, Germanic Languages Department
52. Christopher McCormick, Foreign Language Education
53. Dennis Maxey, Instructional Technology
54. Daniel Andersen, English Department
55. Homer Hayes, Instructional Technology
56. Daphne Lin-Hsiao, Instructional Technology

**Dissertation Committee**                      **--In Progress**

- |   |        |
|---|--------|
| 1. Wenting Zou, Learning Technologies   | chair  |
| 2. Amenda Willmann, Learning Technologies   | member |
| 3. Jihoon Kim, Physical Education Teacher Education/Health<br>Behavior & Health Education | member |
| 4. Ashley Phelps, Physical Education Teacher Education                                    | member |
| 5. Jason Harron, Learning Technologies  | member |
| 6. Laise Santana, Learning Technologies   | member |
| 7. Anita Harvin, Learning Technologies  | member |
| 8. Claire Parrish, Foreign Language Education   | member |

***Serving on Doctoral Qualifying Examination Committee Only @UT --Completed***

Anna Bergstrom, Instructional Technology  
 Karen French, Instructional Technology  
 Mark Luetzelschwab, Instructional Technology  
 Courtney Glazer, Instructional Technology  
 Laurie Williams, Instructional Technology  
 Linda Abbot, Instructional Technology  
 Mary Lu Manchachu, Instructional Technology  
 Candace Figg, Instructional Technology  
 Mark Christal, Instructional Technology  
 Jim Jurica, Instructional Technology  
 Patricia Ross, Instructional Technology  
 Karen Ferneding, Instructional Technology  
 David Orshalic, Instructional Technology

***Master Thesis/Report @UT -- Completed (Chair=52)***

1. I-Hui Liou, Learning Technologies	2019	Chair
2. Emily Naul, Learning Technologies	2018	Chair
3. Liuyi Shu, Learning Technologies	2018	Chair
4. Chenglu Li, Learning Technologies	2017	Chair
5. Sukayna Moudgalya, Learning Technologies	2017	Chair
6. Siqi Yi, Learning Technologies	2017	Chair
7. Sara Stamets, Learning Technologies	2016	Chair
8. Caroline Cancelosi, Learning Technologies	2016	Chair
9. Yajun Qiu, Learning Technologies	2016	Chair
10. Peishan Xu, Learning Technologies	2016	Chair
11. Elena Winzeler, Learning Technologies	2016	Chair
12. Mengwen Cao, Learning Technologies	2014	Chair
13. Yiran Li, Learning Technologies	2013	Chair
14. Michael Andersen, Learning Technologies	2012	Chair
15. Jina Kang, Learning Technologies	2012	Chair
16. Erin Maradiegue, Learning Technologies	2012	Chair
17. Janice Rios, Learning Technologies	2012	Chair
18. Yonghan Zhou, Learning Technologies	2012	Chair
19. Yin Li, Instructional Technology	2011	Chair
20. Woonhee Sung, Instructional Technology	2011	Chair
21. Joel Floyd, Foreign Languages Education	2011	Chair
22. Yu-Chi Wen, Instructional Technology	2009	Chair
23. Megan Stevenson, Instructional Technology	2008	Chair
24. Aaron Smith, Instructional Technology	2008	Chair
25. Pete Elam, Instructional Technology	2008	Chair
26. Jeff Peek, Instructional Technology	2008	Chair
27. Blake Grugett, Instructional Technology	2007	Chair
28. Youngjai Lee, Instructional Technology	2007	Chair
29. Yu-Ju Lin, Instructional Technology	2006	Chair
30. Siribang-orn Puttitwong, Instructional Technology	2006	Chair
31. Sheena Y. H. Shih, Instructional Technology	2005	Chair

32. Younyoung Kim, Instructional Technology	2005	Chair
33. Lucas Horton, Instructional Technology	2005	Chair
34. Treavor Bogard, Instructional Technology	2005	Chair
35. Linglingay D. Padolina, Instructional Technology	2004	Chair
36. Adrienne Schmerbeck, Instructional Technology	2002	Chair
37. Anjana Singhal, Instructional Technology	2002	Chair
38. Elaine Bell, Instructional Technology	2002	Chair
39. Myongsu Park, Foreign Languages Education	2001	Chair
40. Tom Ellis, Instructional Technology	2000	Chair
41. Han-Yun Hsiao, Curriculum Studies	2000	Chair
42. Yookyung Bae, Curriculum Studies	2000	Chair
43. Mindy Jackson, Instructional Technology	1999	Chair
44. Erini Papathanasiou, Instructional Technology	1999	Chair
45. Karyn Turnbull, Instructional Technology	1998	Chair
46. Suzanne Rhodes, Instructional Technology	1998	Chair
47. Cheryl Silverstone, Instructional Technology		Chair
48. Barbara Sanchez, Foreign Language Education		Chair
49. Margie Jones, Instructional Technology		Chair
50. Kathy McDaniel, Instructional Technology		Chair
51. Heidi Whitus, Foreign Language Education		Chair
52. Monique Manuel, Instructional Technology		Chair
Ying Ma, Learning Technologies	2019	Member
Alexia Mercado, Learning Technologies	2018	Member
Amy Maxwell, Learning Technologies	2015	Member
John Johnson, Learning Technologies	2015	Member
Hemangini Dutt Majumder, Instructional Technology		Member

### Creative Products

Summer 2015- present: Supervising and directing the redesign, development, and research of **Alien Rescue Web-based (re-designed using emerging technologies such as HTML, CSS, JavaScript, WebGL)**, an immersive 3D problem-based learning environment: <http://alienrescue.edb.utexas.edu>

Fall 2010- Spring 2015: Supervised and directed the redesign, development, and research of **Alien Rescue** (created in the *Unity* game engine), an immersive Web-based problem-based learning environment: <http://alienrescue.edb.utexas.edu>

Fall 2012, the latest version of Alien Rescue was selected as the **Winner** of the **2012 Interactive Learning Award**, sponsored by the Multimedia Production Division of *Association for Educational Communications and Technology (AECT)*, a major national IT professional organization

Fall 2013, Alien Rescue was the recipient of **2013 Outstanding Practice Award** for its design and development model, sponsored by the Design & Development Division of

*Association for Educational Communications and Technology (AECT)*, a major international IT professional organization.

Spring 2010-present: Supervising the creation of **Salamander Rescue**, a 3D PBL learning game.

In summer 2010, the prototype was selected as a **Finalist** of a national Learning Challenge Competition sponsored by Disney Research:

The Disney Learning Challenge is a "serious game" design competition, and, per its description, "is designed to show that sophisticated concepts can be conveyed via entertaining interactions on computers that will impart Active Knowledge of Learning Concepts. The challenge is to develop an engaging Learning Widget that will delight, inspire, and reveal key learning concepts for children ages 7-11."

This is a highly competitive contest with entries from higher education and the corporate world and has extremely high production levels.

2005 – summer 2010: Supervised and directed the redesign, development, and research of Alien Rescue 3.2 (created using the Torque Game Engine), a technology enriched PBL gaming environment.

1999-2005: Supervised the design, production, and research of the award-winning multimedia CD Alien Rescue 2.1 (created in Director and delivered on CD Rom)

*Alien Rescue* received the **First Prize** in the 2001 Learning Software Design Competition sponsored by the University of Minnesota. This is a national competition held annually with entries from both industry and higher educational institutions. Awarded on April 25, 2001.

*Alien Rescue* received an **Honorable Mention** for ingenuity in the Best Educational Application category of Macromedia eLearning Innovation Award Program. Awarded on May 16, 2001.

Directed the design and production of *College of Education Information Kiosk*, 1995-97

*Multimedia at the University of Texas: Why, Who and How* (received the best Web site for the open category from NSF sponsored NorthWest Center for Emerging Technologies), 1997

### Honors/Awards

2017-2018: Fellow, Oscar and Anne Mauzy Regents Professorship in Educational Research and Development

2016: **Best Paper Award** from Applied Research in Immersive Environments for Learning SIG of *American Educational Research Association (AERA)* for the paper "A Multiple-Case Study Examining Behavior Patterns By Students With Different Characteristics In a Serious Game"

- 2016: **Outstanding Research Paper Award** from the *World Conference on Educational Media and Technology* for the paper "A Multimedia Enriched Problem-Based Learning Environment: Our Research and Development Experiences"
- 2015-17: Fellow in the H. E. Hartfelder/The Southland Corporation Regents Chair
- 2014-15: Fellow, Judith Spence Tate Fellowship in Excellence.
- 2014: **Outstanding Research Paper Award** from the *World Conference on Educational Media and Technology* (Edmedia 2014) for the paper "Using a Game-Based Approach to Design a Rich Media Learning Environment," June.
- 2013-14: Selected as **Professors of Excellence** at The university of Texas at Austin. [Six Professors of Excellence are selected as part of the university effort, promoting academics through Athletics. Each Professor of Excellence spotlight introduces the faculty member and explains how their work and research is impacting communities on a local, national and global scale. The spotlights run on the stadium scoreboard at one of the six longhorn home games. The professors are selected by a committee of faculty from the Faculty Council.]
- 2013-14: Fellow in Lawrence and Stel Marie Lowman College of Education Excellence Fund.
- 2013 (Oct.): Recipient of **2013 Outstanding Practice Award** for the design and development model of Alien Rescue project, sponsored by the Design & Development Division of *Association for Educational Communications and Technology (AECT)*, a major international IT professional organization (also mentioned in Creative Products).
- 2013: **Outstanding Research Paper Award** from the *World Conference on Educational Media and Technology* (Edmedia 2013) for the paper "Making Learning Fun Through a Ludic Simulation," June.
- 2012: **Winner of 2012 Interactive Learning Award** for the Web-based version of Alien Rescue, sponsored by the Multimedia Production Division of *Association for Educational Communications and Technology (AECT)*, a major international IT professional organization (also mentioned in Creative Products).
- 2010: **Finalist** of a national Learning Challenge Competition sponsored by Disney Research for *Salamander Rescue*, a 3D PBL learning game, 2010 (also mentioned in Creative Products).
- 2007: Recipient of an **Outstanding Research Paper Award** from the World Conference on Educational Multimedia and Hypermedia for the paper "*Students' Problem Solving as Mediated by Their Cognitive Tool Use: A Study of Tool Use Patterns.*"
- 2002-07: Recipient of Judith Spence Tate Fellowship in Excellence.
- 2001: **First Prize** in the 2001 Learning Software Design Competition sponsored by the University of Minnesota for *Alien Rescue*. Awarded on April 25, 2001, (also mentioned in Creative Products).
- 2001: **Honorable mention for ingenuity** in the Best Educational Application category of Macromedia eLearning Innovation Award Program for *Alien Rescue*. Awarded on May 16, 2001, (also mentioned in Creative Products).
- 1999: **Innovative Instructional Technology Honorable Mention** for developing an interactive multimedia Web site "ThermoNet" to teach thermodynamics to undergraduate engineering students (in collaboration with faculty in department of mechanical engineering).
- 1998: Recipient of **Technology Integration Into Learning and Teaching Award**.
- 1998: Faculty fellow for the Center of Instructional Technology.
- 1997: Dean's Fellowship for conducting research in educational uses of interactive multimedia and hypermedia, Fall.

- 1997: **Innovative Instructional Technology Award** for developing an interactive multimedia approach to teaching and learning, 2<sup>nd</sup> place at the university level.
- 1997: Recipient of **Best Web Site Award** from NSF sponsored NorthWest Center for Emerging, Technologies for the Web site on multimedia learning, (also mentioned in Creative Products).
- 1993: **Research Award** from Eastern Educational Research Association for the paper entitled “*The Effect of Hypermedia Assisted Instruction on Second Language Learning Through a Semantic Network Based Approach.*”
- 1993: **Outstanding Student Research Award** from Phi Delta Kappa, Summer.

## Grants

**Principal Investigator.** (Jan. 1, 2018- Aug. 31, 2019). *Examining Middle School Students’ Navigation Patterns in Connection to Their Learning Performances as They Use a Problem-Based Learning Game.* COE Small Research Grant, \$9,462.50.

**Principal Investigator.** (June. 1, 2017- Aug. 31, 2018). *Alien Rescue: Support Teachers to Use Technology-Enhanced Materials.* KDK-Harman Foundation, \$50,000.

**Principal Investigator,** (Sept. 2016- Aug. 2017). *Examining Teachers’ and Students’ Use of An Immersive Technological Environment Through Learning Analytics,* UT Research Institute grant, \$750.

**Principal Investigator.** (Sept. 1, 2015- Aug. 31, 2017). *To Inspire, Engage, & Educate Today’s Youth Through Technology –Enhanced Space Science Teaching Materials.* Texas Space Grant Consortium, \$10,000.

**Principal Investigator,** (Sept. 2015- Aug., 2016). *Examining Behavior Patterns By Students With Different Learning Characteristics In Using a Serious Game Through Visualization,* University Research Institute grant for the project, \$750.

**Principal Investigator,** (Sept. 2014- Aug., 2015). *Examining the Effects of a 3D Immersive Digital Game Environment on Middle School Students’ Learning of Science and Motivation,* University Research Institute grant for the project, \$750.

**Faculty Mentor,** (2014-2015) Diversity Mentoring Fellowship to help bring outstanding new graduate students to campus, \$36,000.

**Principal Investigator.** (Spring 2014). *Examining the Impact of Using Emerging Technologies in Teaching and Learning.* UT Faculty Research Assignment, one semester teaching duty release (equivalent as sabbatical for UT).

**Principal Investigator.** (2013-2014). *Salamander Rescue: A learning game.* Ludus Project, \$11,000.

**Co-Principal Investigator** (2013-2014). *Curriculum Innovation in Pharmacy: Exploration of Best Practices to Support Active Learning in a Synchronous Multi-Site Learning Environment,* UT Austin, \$38,975.

**Principal Investigator.** (May 1, 2012- Aug. 31, 2014). *Preparing Teachers and Students for the 21<sup>st</sup> Century Through Emerging Technology –Based Professional Development.* Texas Space Grant Consortium, \$15,000.

**Principal Investigator.** (2013). *Alien Rescue: Using a Gaming Approach to Engage Today's Youth in Learning Science.* ESA Foundation, \$50,000.

**Principal Investigator.** (Sept., 2010- Aug. 31, 2012). *Supporting Teachers to Integrate Multimedia Technology in Teaching Space Science.* Texas Space Grant Consortium, \$15,000.

**Principal Investigator,** (2011-2012). *Alien Rescue: Preparing Youth for the 21<sup>st</sup> Century,* Dell Foundation, \$10,000.

**Principal Investigator,** (2011-2012). Diversity Mentoring Fellowship to help bring outstanding new graduate students to campus, \$24,668.

**Principal Investigator,** (Sept. 2011- Aug., 2012). *Exploring Using Games to Teach Science for Middle School Students,* University Research Institute grant for the project, \$750.

**Principal Investigator,** (2010-2011). *Promote Problem-Solving Skills with New Media,* Dell Foundation, \$5,000.

**Principal Investigator,** (Sept. 2010- Aug., 2011). *Studying Students' Motivation in New Media Environment,* University Research Institute grant for the project, \$749.

**Principal Investigator,** (Sept. 2008- Feb., 2010). *Making An Engaging New Media Enriched Space Program Accessible to All Middle School Students.* Texas Space Grant Consortium, \$14,571.

**Principal Investigator,** (Sept. 2009- Aug., 2010). *Understanding How Middle School Teachers Implement A Multimedia Enriched Problem-Based Learning Environment in Science,* University Research Institute grant for the project, \$750.

**Principal Investigator,** (2010). *Exploring the potential to deliver instruction via mobile devices,* COE Vision Award program.

Project Director, (2009-2010). *Emergent Technologies for Curriculum Enhancement,* UT Faculty and Student Teams for Technology (FAST-Tex) program, student support in the amount of \$3000.

**Principal Investigator,** *Training Teachers to Use An Inquiry-Based Innovative Educational Program, Alien Rescue.* (\$3,000). Dell Foundation, 2009.

**Principal Investigator,** *Making Technology Innovations Accessible to All Students* (\$3,000). Dell Foundation, 2008.

**Principal Investigator** for *Motivating Middle School Students to Learn Science and Assist them in Developing Problem-Solving Skills Through An Engaging New Media Enriched Space Program* (\$14,725). Texas Space Grant Consortium, Sept. 2006- Dec. 2008.

Project Director of 2008 COE Vision Award program for the project *Using New Media to Make Technology Innovations Accessible to All Students*.

**Principal Investigator** of University Research Institute grant for the project *Examining how middle school science teachers implement a technology enhanced problem-based learning environment in their classrooms* (\$750). Sept. 2006 - Aug. 2007.

Project Director of UT Faculty and Student Teams for Technology (FAST-Tex) program for the project *Creating Multimedia Games: A First Step* (student support in the amount of \$2000). The University of Texas at Austin, 2006.

Project Director of 2006 COE Vision Award program for the project *Creating Engaging Educational Games to Motivate Middle School Students to Learn Science* (student and software support in the amount of \$3800), 2006.

**Principal Investigator** of University Research Institute grant for the project *Using Digital Games to Motivate Middle School Students* (\$750). Sept. 2005 - Aug. 2006.

Project Director of UT Faculty and Student Teams for Technology (FAST Tex) program for the project *Developing Design Learning Activities* (student support in the amount of \$2000), 2005.

**Principal Investigator** of University Research Institute grant for the project *Examining the use of cognitive tools by experienced learners in a technology enhanced problem-based learning environment* (\$750), Sept. 2004 - Aug. 2005.

**Principal Investigator** for *Implementing and Disseminating an Innovative Hypermedia Problem-Based Learning Environment for Middle School Science: Alien Rescue* (\$43,000). American Honda Foundation, Aug. 2001- Aug. 2004.

Project Director of UT Faculty and Student Teams for Technology (FAST Tex) program for the project *Creating Web Based Database Applications to Support Teaching* (student support in the amount of \$1000), 2003.

**Principal Investigator** for *Promoting Middle School Students' Problem-Solving Skills Through An Innovative Multimedia Astronomy Program: Alien Rescue* (\$5000). Tyco Electronics Foundation, 2002.

Project Director of UT Faculty and Student Teams for Technology (FAST Tex) program for the project *Creating A Web Based Database Tutorial to Support Teaching* (student support in the amount of \$1300), 2002.

**Principal Investigator** for *Developing an Innovative Hypermedia Problem-Based Learning Environment for 6<sup>th</sup> Graders in Space Science* (\$2500). Verizon Foundation, 2000.

**Principal Investigator** of University Research Institute grant for the project *The Use of Cognitive tools to Support Learning in an Interactive Multimedia Environment* (\$750), Sept. 2000 - Aug. 2001.

**Co-Principal Investigator** (with Drs. Mary Kay Hemenway at the McDonald Observatory and Susan Pedersen at the Texas A&M University) for *Developing Astronomy Support for the Hypermedia Based Product Alien Rescue and Providing Teacher Training* (\$26,203). NASA Space Telescope Science Institute, 1999-2001.

**Principal Investigator** of a strategic partnership grant between Dell Computer Cooperation and the University of Texas at Austin for the project *A Collaborative Effort by UT and Dell to Design and Produce Multimedia Training Materials for Use at Dell* (\$33,160). Dell Computer Cooperation, June 1999 - August 2000.

**Principal Investigator** for *Developing an Innovative Hypermedia Problem-Based Learning Environment for 6<sup>th</sup> Graders in Space Science* (\$2500). Dell Foundation, 2000.

**Principal Investigator** for *Developing an Innovative Hypermedia Problem-Based Learning Environment for 6<sup>th</sup> Graders in Space Science* (\$2500). GTE Foundation, 2000.

**Principal Investigator**, *Alien Rescue: A Multimedia Supported Problem-Based Learning Environment for 6<sup>th</sup> Graders* (\$15,000). Charles Dana Center at UT-Austin, Sept. 99- May 2000.

Project Director of UT Faculty and Student Teams for Technology (FAST Tex) program for the project *Theoretical, Practical and Technical Perspectives of Interactive Multimedia Technology: A Web Site Development* (student support in the amount of \$2500). The University of Texas at Austin, 2000.

Project Director of UT Faculty and Student Teams for Technology (FAST Tex) program for the project *Developing Hypermedia based Interactive Program in Space Education: Alien Rescue* (student support for \$2500), Spring, 1999.

**Principal Investigator** (with Ms. Sandi Preston, Director of Public Information at McDonald Observatory, and Dr. John Slatin, Director for Institute for Technology and Learning as co-PIs) of the Motorola Grant for the project *Enhancing Middle School Students' Higher Order Thinking Skills Through Problem-Based Learning* (\$3000). Motorola Cooperation, Jan. 98 - Dec. 98.

**Co-Principal Investigator** (with Drs. Philip Schmidt and Ofodike Ezekoye, Department of Mechanical Engineering) of the grant *ThermoNet: Internet and Interactive Multimedia Resources for Introductory Thermodynamics* (\$102,000), National Science Foundation, Jan. 1997 - Dec. 1999.

**Principal Investigator** of University Research Institute grant for the project *The use of Multimedia exams both as an assessment tool and as a learning tool* (\$500). The University of Texas at Austin, Sept. 1998 - Aug. 1999.

**Co-Principal Investigator** (with Dr. Marilla Svinicki, Center for Teaching Effectiveness, and Dr. George Culp, Center for Instructional Technology) of the grant *Identifying Best Practices for Using Multimedia at the University of Texas System* (\$15,000), The University of Texas System, Sept. 97- Aug. 1998.

**Principal Investigator** of Project Quest Award for conducting the project *Use Interactive Multimedia to Enhance Students' Higher Order Thinking Skills* (\$2000), 1998.

**Principal Investigator** of University Research Institute grant for the project of *Examining the Effect of Engaging Elementary Students in Hypermedia Authoring on Their Creative Thinking* (\$500), Dec. 1997 - Aug. 1998.

**Principal Investigator** of the Motorola Grant for the project *Motivation, Creativity, and Interactive Multimedia Technology* (\$1900). Motorola Cooperation, Jan. 97 - Dec. 97.

**Principal Investigator** of University Research Institute grant for the project of *Engaging Elementary School Students as Knowledge Designers* (\$750), Nov. 1996 - Aug. 1997.

**Principal Investigator**, Summer Research Award for the project *Designing Effective Multimedia Instruction: Study of Information Accessing Strategies Using Multimedia Kiosks*, (two months' salary), 1996.

NATO Award (\$1200) and National Science Foundation Award (\$1000) to attend the NATO Advanced Studies Institute on *Supporting Computer Environment* at Heriot-Watt University, Edinburgh Scotland. Sixty people around the world have been selected, August 14 - August 24, 1994.

**Principal Investigator** of Faculty Research grant from the Center for Applied Research and Development in Education at University of Texas to conduct research on designing effective multimedia based kiosks (\$750), Nov. 1994.

**Principal Investigator** of University Research Institute grant for the project of *Exploring the Cognitive Factors of the Hypermedia Technology*, (\$500), Jan. 1994 - July 1994.

## Conference Presentations

**(*italic* indicates co-authors are current students OR current students at the time and since graduated)**

### **International/National Conferences (Competitively Selected)**

2018-2019

**Liu, M., Pan, Z., Pan, X. An, D., Zou, W., Li, C., & Shi, Y.** (2018). *The Use of Analytics for Educational Purposes: A Review of Literature From 2015 to Present*. Presented at World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education (eLearn), Las Vegas, NV, October.

**Liu, M., Liu, S., Pan, Z. & Zou, W.** (2018). *Promoting Self-Efficacy and Science Learning for All Middle School Students Using A Technology-Enhanced Problem-Based Environment*. Presented at the Association for Educational Communications and Technology (AECT) Convention. Kansas City, MO, October.

**Liu, M., Zou, W., Shi, Y., Pan, Z., & Li, C.** (2019). *What Do Participants Think of Today's MOOCs Designed for Working Professionals*. Presented at annual meeting of American Educational Research Association (AERA), Toronto, CA, April.

**Shu, L. & Liu, M.** (2019). *Student Engagement in Game-Based Learning: A Literature Review from 2008 to 2018*. Presented at annual meeting of American Educational Research Association (AERA), Toronto, CA, April.

**Zou, W., Liu, M., & Pan, Z.** (2019). *Understanding the behavioral patterns of learners with different levels of prior knowledge in adaptive learning*. Presented at annual meeting of American Educational Research Association (AERA), Toronto, CA, April.

**Kang, J., An, D., Yan, L. & Liu, M.** (2019). *Collaborative problem-solving process in a science serious game: Exploring Group Action Similarity Trajectory*. Presented at International conference on Educational Data Mining, Montréal, Canada, July.

**Liu, S., Liu, M., Pan, Z., Zou, W., & Li, C.** (2019). *Examining Science Learning by At-Risk Middle School Students in a Multimedia-Enriched Problem-Based Learning Environment? Proceedings of 9th International Conference on Learning Analytics & Knowledge (LAK19)*. Tempe, AZ, March.

#### 2017-2018

**Liu, M., Kang, J., Zou, W., Lee, H., Pan, Z., & Corliss, S.** (2018). *Using Data to Understand How to Better Design Adaptive Learning*. Presented at annual meeting of American Educational Research Association (AERA), NYC, NY, April.

**Kang, J. & Liu, M.** (2018). *Examining Scientific Inquiry Behaviors and Learner Performance in a Serious Game*. Presented at annual meeting of American Educational Research Association (AERA), NYC, NY, April.

**Liu, M., Li, C. & Pan, Z.** (2018). *Alien Rescue: A 3D Problem-Based Learning Game*. Presented at *World Conference on Educational Media and Technology (EdMedia)*, Amsterdam, Netherlands, June.

**Liu, S. & Liu, M.** (2018). *Using Log Data and Similarity Measure in Analyzing Learner Problem-solving Behaviors in a Serious Game: An Exploratory Study*. Presented at the annual conference by [Society for Information Technology and Teacher Education \(SITE\)](#), Washington DC, March.

**Liu, M., Kang, J., Pan, Z., Zou, W. & Lee, H.** (2017). *Exploring Data Visualization as an Emerging Analytic Technique*. Presented at *E-Learn: World Conference on E-Learning in*

*Corporate, Government, Healthcare, and Higher Education*. Vancouver, British Columbia, Canada, October.

#### 2016-2017

**Liu, M., McKelroy, Corliss, S., & Carrigan, J.** (2017). *Investigating The Effect of An Adaptive Learning Intervention on Students' Learning*. Presented at annual meeting of American Educational Research Association (AERA), San Antonio, TX, April.

**Liu, M., Ko, Y., Fickert, C., & Willmann, A.** (2017). *Understanding Teachers' Use of iPads in Instruction: Examining The Role of Professional Development*. Presented at annual meeting of American Educational Research Association (AERA), San Antonio, TX, April.

**Kang, J., Liu, M., & Qu, W.** (2017). *Using Gameplay Data to Examine Learning Behavior Patterns in a Serious Game*. Presented at annual meeting of American Educational Research Association (AERA), San Antonio, TX, April.

**Liu, M., Pan, Z. & Lee, H.** (2017). *Using iPads in Instruction: A Case Study*. Presented at *EdMedia: World Conference on Educational Media and Technology* (EdMedia), Washington DC, June.

**Liu, M., Willmann, A., Fickert, C. & Ko, Y.** (2017). *Examining Teachers' Use of iPads in Instruction*. Presented at the annual conference by Society for Information Technology & Teacher Education International Conference (SITE). Austin, TX. March.

**Liu, M., Kang, J., Liu, S., Zou, W., & Hodson, J.** (2016). *Learning Analytics as an Assessment Tool in Serious Games: A Review of Literature*. Presented at the annual conference of World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education (E-Learn). Washington DC, Oct.

#### 2015-2016

**Liu, M., Lee, J., Kang, J., & Liu, S.** (2016). *A Multiple-Case Study Examining Behavior Patterns By Students With Different Characteristics In a Serious Game*. Presented at annual meeting of American Educational Research Association (AERA), Washington DC, April.

**Liu, M., Kang, J., McKelroy, E., Harron, J., & Liu, S.** (2016). *Investigating Students' Interactions with Discussion Forums, Facebook, and Twitter in a MOOC and Their Perceptions*. Presented at annual meeting of American Educational Research Association (AERA), Washington DC, April.

**Kang, J., & Liu, M.** (2016). *Examining Students' Learning Behaviors during the Problem Solving Process in A Serious Game: A Prediction Study*. Presented at annual meeting of American Educational Research Association (AERA), Washington DC, April.

**Liu, M., McKelroy, E., Adams, D., Davis, P., Ziai, K. & Burkett, D.** (2015). *Using Technology to Support Active Learning and Group Collaboration in a Multi-Campus*

*Environment*. Presented at the annual conference of World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education (E-Learn). Kona, HI, Oct.

Horton, L., **Liu**, M., Liu, S., Kang, J., Hodson, J. & Zou, W. (2016). A Multimedia Enriched Problem-Based Learning Environment: Our Research and Development Experiences. Presented at the annual conference of *World Conference on Educational Media and Technology (EdMedia)*, Vancouver, Canada, June.

**Liu**, M., McKelroy, E., Kang, J. Harron, J., & Liu, S. (2015). *Examining the Use of Facebook and Twitter as an additional social space in a MOOC*. Presented at the annual conference of Association for Educational Communication and Technology (AECT), Indianapolis, IN, November.

Davis, P., Long, P., Adams, D., Corliss, S., **Liu**, M., McKelroy, E., Tothero, K., Walker, J., and Ziai, K. (2016). *Use of Adaptive Learning to Prepare First-Year Pharmacy Students: Our Experience*. Presented at the 16th IEEE International Conference on Advanced Learning Technologies - ICALT2016, Austin, TX, July.

(Note: 3<sup>rd</sup> to 7<sup>th</sup> authors are listed alphabetically.)

#### 2014-2015

**Liu**, M., Kang, J., Lee, J., Winzeler, E., & Liu, S. (2015). Exploring How Learners Use a Serious Game for Middle School Science Through Visualization. Presented at annual meeting of *American Educational Research Association (AERA)*, Chicago, IL, April.

**Liu**, M., Horton, L., Lee, J., Kang, J., Liu, S., Myers, R. & Maxwell, A. (2015). Designing a New Media Enhanced Learning Environment: Our Development Model. Presented at *EdMedia: World Conference on Educational Media and Technology*, Montreal, Quebec, Canada, June.

**Liu**, M., Myers, R., Harron, J. (2015). Motivating Students to Learn Science Using A Game-Based Learning Approach. Presented at *the annual conference of isteconference.org*, Philadelphia, PA, June.

Kang, J., **Liu**, S., & Liu, M. (2014). Tracking Students' Activities in Serious Games Presented at the *Learning and Knowledge Analytics in Open Education (LKAOE)* conference sponsored by *Association for Educational Communication and Technology (AECT)*, Shanghai, China, June.

**Liu**, M., McKelroy, E., Winzeler, E. Adams, D., Davis, P., Ziai, K., & Roberts, R. (2014). Exploration of Best Practices to Support Active Learning in a Synchronous Multi-Site Learning Environment. Presented at *World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education (eLearn)*, New Orleans, LA, October.

**Liu**, M., Kang, J., Cao, M., Lim, M., Myers, R. & Ko, Y. (2014). Understanding Learners' Perspective of Taking a MOOC. Presented at the annual conference of *Association for Educational Communication and Technology (AECT)*, Jacksonville, FL, November.

## 2013-2014

Liu, M., Scordino, R., Geurtz, R., Navarrete, C., Ko, Y. and Lim, M. (2014). A Look at Research on Mobile Learning in K-12 Education From 2007 to Present. Presented at annual meeting of *American Educational Research Association (AERA)*, Philadelphia, PA, April.

Liu, M., Navarrete, C., Scordino, R., Kang, J., Ko, Y. and Lim, M. (2014). Examining Teachers' Use of iPads: Comfort Level, Perception, and Use. Presented at annual meeting of *American Educational Research Association (AERA)*, Philadelphia, PA, April.

Liu, M., Rosenblum, J. A., Horton, L., & Kang, J. (2014). Using a Game-Based Approach to Design a Rich Media Learning Environment. Presented at *the World Conference on Media and Technology (EdMedia)*, Tampere, Finland, June.

Liu, M., Navarrete, C., Maradiegue, E., and Wivagg, J. (2014). Examining How Teachers Use Mobile Devices in Their Teaching: A Multiple-Case Study. Presented at *the World Conference on Media and Technology (EdMedia)*, Tampere, Finland, June.

Liu, M., Kang, J., Cao, M. W., Lim, M., Ko, Y., & Schmitz Weiss, A. (2013). *Understanding MOOCs as an Emerging Online Learning Tool: Perspectives From the Students*. Presented at World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education (eLearn), Las Vegas, October.

Bogard, T., Liu, M., Chiang, Y. (2013). Thresholds of knowledge development in complex problem solving: a multiple-case study of advanced learners' cognitive processes. Presented at the annual conference of *Association for Educational Communication and Technology (AECT)*, Anaheim, CA, October.

Horton, L., Liu, M., and Lee, J. (2013). *Alien Rescue: Its Development model*. Presented at the annual meeting of the AECT International Convention, Anaheim, CA, October.

## 2012-2013

Liu, M., Geurtz, R., Karam, A., Navarrete, C. and Scordino, R. (2013). Research on Mobile Learning in Adult Education: A Literature Review From 2005 to the Present. Presented at annual meeting of *American Educational Research Association (AERA)*, San Francisco, CA, April.

Liu, M., Horton, L., Kang, J., Kimmons, R. and Lee, J. (2013). Making Learning Fun Through a Ludic Simulation. Presented at *the World Conference on Educational Multimedia, Hypermedia and Telecommunications (EdMedia)*, Victoria, BC, Canada.

Liu, M., Parrish, C., Park, J. B., Abe, K., Cao, M. W., Liu, S. & UsLu, D. (2013). An Analysis of Social Networking Language Learning Websites: Implications for ESL Teaching and Learning. Presented at the annual conference by *Computer-Assisted Language Instruction Consortium (CALICO)*, Honolulu, Hawaii. May.

**Liu, M., Park, J. B., Parrish, C., Evans, M., Lee, S., and McCrory, M.** (2013). Examining Social Networking Language Learning Websites for College ESL Students. Presented at *2013 TESOL International Convention & English Language Expo*, Dallas, TX.

**Navarrete, C. C., Liu, M., Maradiegue, E., and Wivagg, J.** (2013) iPod Use for English Language Learning: A Multiple-Case Study. Presented at annual meeting of *American Educational Research Association (AERA)*, San Francisco, CA, April.

**Horton L., Liu, M., Lee, J., O'Hair, M., Kang, J., Rosenblum, J., and Lu, C. W.** (2012). Alien Rescue: A Multimedia Problem-Based Learning Program For Middle School Science. Presented at the annual conference of *Association for Educational Communication and Technology (AECT)*, Louisville, KY, October.

**Navarrete, C. C., Liu, M., Maradiegue, E., & Wivagg, J.** (2012) iPod Touch and English Language Learners: A Case Study of Using iPod Touch Devices. Presented at the annual conference of *Association for Educational Communication and Technology (AECT)*, Louisville, KY, October.

**Kang, J., & Liu, M.** (2013). Attributes and Motivation in Game-Based Learning: A Review of the Literature. Presented at *the World Conference on Educational Multimedia, Hypermedia and Telecommunications (EdMedia)*, Victoria, BC, Canada.

#### 2011-2012

**Liu, M. & Harvin, A.** (2012). Web 2.0 Use in College Teaching: Undergraduate Students' Levels of Awareness. Presented at *the World Conference on Educational Multimedia, Hypermedia and Telecommunications (EdMedia)*, Denver, June.

**Bogard, T., Chiang, Y. H & Liu, M.** (2012). Examining Learners' Cognitive Processes as They Interact With Cognitive Tools in a Technology Enhanced Learning Environment. Presented at annual meeting of *American Educational Research Association (AERA)*, Vancouver, CA, April.

**Liu, M. Wivagg, J. Maradiegue, E., and Navarrete, C. C.** (2012). Affordances and Challenges of Using iPods to Support Learning by English Language Learners at the Middle School Level: Perspectives from Researchers, Teachers, and Instructional Technologist. Presented at the annual conference by *Society for Information Technology and Teacher Education (SITE)*, Austin, March.

**Navarrete, C. C., Liu, M., Maradiegue, E., & Wivagg, J.** (2012) iPod Touch and English Language Learners: A Case Study of Using iPod Touch Devices. Presented at the annual conference of *Association for Educational Communication and Technology (AECT)*, Louisville, KY, October.

**Geurtz, R., Liu, M., Wivagg, J., Lee, S. T., & Chang, M.** (2012). Comparison of Four Implementation Techniques Using the Same Educational Game. Presented at *the annual conference by Society for Information Technology and Teacher Education (SITE)*, Austin, March.

*Kimmons, R., Liu, M., Kang, J. & Santana, L. (2012). Attitude, Achievement, and Gender in a Middle School Science-based Ludic Simulation for Learning. Presented at the annual conference by Society for Information Technology and Teacher Education (SITE), Austin, March.*

*Navarrete, C. C., Liu, M., Maradiegue, E., & Wivagg, J. (2012). Using iPods for Learning with middle school ELL students: Lessons learned for Mobile Learning Forum. Presented at International Society for Technology in Education (ISTE) 2012 Conference, San Diego, CA, June.*

*Park, J. H. & Liu, M. (2012). Multitasking in e-Learning Environments: Users' Multitasking Strategies and Design Implications. Presented at The ACM SIGCHI Conference on Human Factors in Computing Systems, a premier international conference on human-computer interaction, May.*

*Kinney, L., Liu, M. & Thorton, M. (2012). Faculty and Student Perceptions Of Online Learning in Engineering Education. Presented at Annual Conference of American Society for Engineering Education (ASEE), San Antonio, TX, June.*

#### 2010-2011

*Liu, M., Horton, L., Olmanson, J. & Toprac, P. (2011). Motivational Multimedia: Examining Students' Learning and Motivation as They Use a Multimedia Enriched Learning Environment. Presented at annual meeting of American Educational Research Association (AERA), New Orleans, LA.*

*Horton, L., Liu, M., Olmanson, J. & Toprac, P. (2011). Engaging Learners through Interactive Media: Findings and Implications from a Technology Enhanced Problem-based Learning Environment. Presented at annual meeting of American Educational Research Association (AERA), New Orleans, LA.*

*Liu, M., Olmanson, J., Anderson, M., & Horton, L. (2011). Web 2.0 in Higher Education: Levels of Awareness and Patterns of Use. Presented at the World Conference on Educational Multimedia, Hypermedia and Telecommunications, Lisbon, June.*

*Liu, M. (2011). Quantitative research, qualitative research, and mixed methods: Which one to use? Presented for the Graduate students Stream at the World Conference on Educational Multimedia, Hypermedia and Telecommunications, Lisbon, June.*

*Liu, M. (2011). Avoid possible pitfalls and be successful in your dissertation journey. Presented for the Graduate students Stream at the World Conference on Educational Multimedia, Hypermedia and Telecommunications, Lisbon, June.*

*Santana, L. & Liu, M. (2011). Supporting Teachers' Technology Integration: A Case Study. Presented at the World Conference on Educational Multimedia, Hypermedia and Telecommunications, Lisbon, June.*

*Yuen, T., & Liu, M. (2010). How interactive multimedia authoring transforms object-oriented thinking Paper presented at the The 41st ACM Technical Symposium on*

Computer Science Education, Milwaukee, WI.

2009-2010

**Liu, M., Kalk, D., Kinney, L., Orr, G. & Reid, M.** (2009). Web 2.0 and Its Use in Higher Education: A Review of Literature. Presented at *World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education*, Vancouver, October.

**Liu, M., Horton, L., Kimmons, R., Anderson, M., Lee, J., Rosenblum, J., Toprac, P., Li, Y. & Sung, W.** (2010). The Design and Development of a Media Rich Learning Environment: A Learners-as-Designers model. Presented at *the World Conference on Educational Multimedia, Hypermedia and Telecommunications*, Toronto, June.

**Liu, M. Hamilton, K. & Wivagg, J.** (2010). *Facilitating Pre-Service Teachers' Understanding of Technology Use With Instructional Activities*, Presented at the annual conference by Society for Information Technology and Teacher Education (SITE), San Diego, March.

**Olmanson, J., Liu, M., Wivagg, J., & Hamilton, K.** (2010). Launched into outer space yet tethered to earth: PBL science curriculum within middle school milieus. *Understanding Complex Ecologies in a Changing World*. Presented at the 2010 Annual Meeting, Denver, CO: American Educational Research Association, Denver, CO

**Horton, L., Liu, M., Kimmons, R., Rosenblum, J., Anderson, M., Toprac, P. & Lee, J.** (2010). An Enabling Architecture for Conducting Design-Based Research. Presented at *the World Conference on Educational Multimedia, Hypermedia and Telecommunications*, Toronto, June.

**Yuen, T. & Liu, M.** (2010). *How interactive multimedia authoring transforms object-oriented thinking*. Presented at the 41st ACM Technical Symposium on Computer Science Education (SIGCSE), Milwaukee, WI, March.

2008-2009

**Liu, M., Kalk, D., Kinney, L., Orr, G. & Reid, M.** (2009). Web 2.0 and Its Use in Higher Education: A Review of Literature. Presented at *World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education*, Vancouver, October.

**Lee, S. T. & Liu, M.** (2009). Examining the Relationship of Metacognitive Tasks with High School Students' Development of Critical Thinking in An Online Learning Community. . Presented at the annual National Educational Computing Conference (NECC 08), Washington, D.C. June.

**Kalk, D. & Liu, M.** (2008). *Designing an Online Certification Assessment Program to Evaluate Complex Software Engineering Skills*. Presented at World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education, Las Vegas, November.

Wang, P. & Liu, M. (2008). *Supporting Online Knowledge Sharing with an Open-Source Tool in a Graduate Level Course*. Presented at World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education, Las Vegas, November.

#### 2007-2008

Liu, M., Toprac, P., & Yuen, T. (2008). *What factors make a multimedia learning environment engaging: A case study*. Presented at The Annual Conference of American Educational Research Association (AERA), New York City, April.

Liu, M., & Horton, L. (2008). *Using Log Data To Study Cognitive Tool Use Patterns: What Can They Tell Us?*. Presented at The Annual Conference of American Educational Research Association (AERA), New York City, April.

Liu, M., Wivagg, J. Geurtz, R., Lee, S. T. & Chang, M. (2008). *Examining How Teachers Implement A Multimedia Enriched Problem-Based Learning Environment*. Presented at the annual National Educational Computing Conference (NECC 08), San Antonio, TX, June

#### 2006-2007

Liu, M., Horton, L., Corliss, S. B., Svinicki, M. D., Bogard, T., Kim, J., & Chang, M. (2007). *Students' Problem Solving as Mediated by Their Cognitive Tool Use: A Study of Tool Use Patterns*. Presented at the World Conference on Educational Multimedia and Hypermedia (Edmedia 07). Vancouver, Canada.

Lee, S. T., Liu, M. & Chang, M. (2007). *Designing Web Sites for Chinese as a Second Language Learners: A Usability Testing Study*. Presented at the World Conference on Educational Multimedia and Hypermedia (Edmedia 07). Vancouver, Canada.

Liaw, L., Wang, P. Y., Liu, M. Chang, H. S., Lee, S. T., Horton, L., & Traphagan, T. (2007). *Not Just Sushi: Web-Based Inquiry in Middle School Social Studies*, Presented at the annual National Educational Computing Conference (NECC 07), Atlanta, GA, June.

#### 2005-2006

Liu, M., Traphagan, T., Huh, J., Koh, Y. I., & Choi, G., & McGregor, A. (2006). *Designing Web Sites for ESL Learners: A Usability Testing Study*. Presented at the annual meeting of CALICO (the Computer Assisted Language Instruction Consortium), Honolulu, HI, May.

Liu, M., Lee, S. T., Chang, H. S., Traphagan, T., & Horton, L. (2006). *Using a Web Enhanced, Inquiry-Based Learning Module to Increase Cultural Awareness Among Middle School Students*. Presented at the World Conference on Educational Multimedia and Hypermedia (ED-Media), Orlando, FL, June.

Shih, Y. H. & Liu, M. (2006). *The Importance of Emotional Usability*. Presented at the World Conference on Educational Multimedia and Hypermedia (ED-Media), Orlando, FL, June.

*Anselm, Y. P. & Liu, M. (2006). Engaging Middle School Students as Multimedia Designers: Examining Students' Project Design Skills.* Presented at the World Conference on Educational Multimedia and Hypermedia (ED-Media), Orlando, FL, June.

*Horton, L. Liu, M., Brockmann, D., Chang, H.S., Gibbs, I., Lee, S. T., & Traphagan, T. (2006). Designing Interactive Multimedia to Promote Cultural Awareness Among Middle School Social Studies Students.* Presented at the World Conference on Educational Multimedia and Hypermedia (ED-Media), Orlando, FL, June.

*Ma, Y., Williams, D. Richard, C., Prejean, L. & Liu, M. (2006). Integrating Video Games with Problem-Based Learning: A Conceptual Model.* Presented at the World Conference on Educational Multimedia and Hypermedia (ED-Media), Orlando, FL, June.

#### 2004-2005

**Liu, M.** (2005). *Motivating Students Through Problem-based Learning.* Presented at the annual National Educational Computing Conference (NECC), Philadelphia, PA, June.

**Liu, M., Hsieh P. H., Cho, Y., & Schallert, D. L.** (2005). *Middle School Students' Self-Efficacy, Attitudes, and Achievement in a Problem-Based Learning Hypermedia Environment.* Presented at The Annual Conference of American Educational Research Association (AERA), Montreal, Canada, April.

*Chew, J. & Liu, M* (2005). *Distance Education: The Promise of A Shrinking World,* Presented at the International Conference on Education, Natural Science, Humanities and Social Science, Lanzhou, China, July.

*Hsieh, P. H., Cho. Y., Liu, M., & Schallert, D. L. (2005). The relationship of middle school students' goal orientation, self-efficacy, and performance.* Presented at The Annual Conference of American Educational Research Association (AERA), Montreal, Canada, April.

#### 2003-2004

**Liu, M., Bera, S., Corliss, S., & Svinicki, M.** (2004). *The Connection Between Cognitive Tool Use and Cognitive Processes In a Problem-Based Hypermedia Learning Environment.* Presented at the World Conference on Educational Multimedia & Hypermedia (Ed Media), Lugano, Switzerland, June.

*Bera, S. & Liu, M.* (2004). *Cognitive Tools and collaboration as mediating factors in a problem-based hypermedia lesson: The role of context.* Presented at The Annual Conference of American Educational Research Association (AERA), San Diego, CA, April.

#### 2002-2003

**Liu, M.** (2003). *The Effect of A Problem-Based Hypermedia Learning Environment On Sixth Graders' Performance and Attitudes.* Presented at the World Conference on Educational Multimedia & Hypermedia (Ed Media), Honolulu, HI, June.

**Liu, M. & Bera, S. (2003).** *Understanding the Role of Cognitive Tools Built in a Problem-Based Hypermedia Learning Environment.* Presented at the World Conference on Educational Multimedia & Hypermedia (Ed Media), Honolulu, HI, June.

#### 2001-2002

**Liu, M. (2002, invited Speech).** *Designing Interactive Multimedia Learning Environments to Support Cognitive Skills Development.* Presented at the World Conference on Educational Multimedia & Hypermedia (Ed Media), Denver, CO, June.

**Liu, M., Gibby, S., Quiros, O., & Demps, E. (2002).** *The Challenge of Being an Instructional Designer for New Media Development: A View From the Practitioners.* Presented at the World Conference on Educational Multimedia & Hypermedia (Ed Media), Denver, CO, June.

**Liu, M. (2002).** *Designing Technology Enhanced Environments to Support Learning of All Students.* Invited panel presentation at The Annual Conference of American Educational Research Association (AERA), New Orleans, LA, April.

**Liu, M. (2002).** *Supporting Learners' Cognitive Skills Acquisition Through Multimedia Design.* Presented at The Annual Conference of American Educational Research Association (AERA), New Orleans, LA, April.

**Pedersen, S. & Liu, M. (2002).** *Teachers' beliefs about student centered learning: Identifying key issues.* Paper presented at the annual meeting of the Association for Educational Communications and Technology (AECT), Dallas, Texas, November.

#### 2000-2001

**Liu, M., & Hsiao, Y. P. (2001).** *Middle School Students as Multimedia Designers: A Project-Based Learning Approach.* Presented at the annual National Educational Computing Conference (NECC), Chicago, IL, June.

**Liu, M., & Hsiao, Y. P. (2001).** *Middle School Students as Multimedia Designers: A look at their cognitive skills development.* Presented at the World Conference on Educational Multimedia & Hypermedia (Ed Media 2001), Tempara, Finland, June.

**Pedersen, S., & Liu, M. (2001).** *The Effects of Computer (use hypermedia/)-Based Expert Modeling During Problem-Based Learning.* Presented at the annual conference of American Educational Research Association (AERA), Seattle, WA, April.

**Jones, C. & Liu, M. (2001).** *Web-Based Instruction: The Effect of Design Considerations on Learner Perceptions and Achievement.* Presented at the World Conference on Educational Multimedia & Hypermedia (Ed Media 2001), Tempara, Finland, June.

**Williams, D., Liu, M. & Denton, D. (2001).** *Analysis of Navigation in a Problem-based Learning Environment.* Presented at the World Conference on Educational Multimedia & Hypermedia (Ed Media 2001), Tempara, Finland, June.

#### 2000

**Liu, M., Papathanasiou, E., Hao, Y., & Kappelman, J. (2000).** *Exploring the Use of Virtual Multimedia Examinations in Teaching and Learning: Results from the Fielding Testing.* Presented at the World Conference on Educational Multimedia & Hypermedia (Ed Media 2000), Montreal, Canada, June.

Baker, D., Ezekoye, O., Schmidt, P., Jones, C. & **Liu, M. (2000).** *ThermoNet:: A Web-Based Learning Resource for Engineering Thermodynamics.* Presented at the Annual Conference of American Society for Engineering Education (ASEE) 2000, St. Louis, MI, June.

#### 1999

**Liu, M., Williams, D., & Pedersen, S. (1999).** *The Design and Development of A Hypermedia-Supported Problem-Based Learning Environment.* Presented at the World Conference on Educational Multimedia and Hypermedia (Ed Media 99), Seattle, WA, June.

**Pedersen, S., Williams, D., & Liu, M. (1999).** *The Effect of Hypermedia Delivered Modeling on Learners' Self-Directed Study During Problem-Based Learning.* Presented at the World Conference on Educational Multimedia and Hypermedia (Ed Media 99), Seattle, WA, June.

**Jones, C., Liu, M., Culp, G., & Svinicki, M. (1999).** *Multimedia Best Practices for the University-wide System.* Presented at the World Conference on Educational Multimedia and Hypermedia (Ed Media 99), Seattle, WA, June.

**Jones, C., Liu, M., Schmidt, P., & Ezekoye, O. (1999).** *Development of Mechanical Engineering Web-based Instruction.* Presented at the World Conference on Educational Multimedia and Hypermedia (Ed Media 99), Seattle, WA, June.

**Williams, D., Pedersen, S., & Liu, M. (1999).** *A hypermedia supported problem-based learning environment: Alien Rescue.* Presented at the International Conference on Mathematics/Science Education and Technology (MSET 99), San Antonio, TX, March.

#### 1998

**Liu, M. (1998).** *Applying cognitive apprenticeship model in engaging at-risk high school students as multimedia designers.* Presented at the annual conference of American Educational Research Association (AERA), San Diego, April.

**Liu, M. (1998).** *Effects of learning by designing multimedia projects on at-risk high-school students' motivation.* Presented at the annual conference of American Educational Research Association (AERA), San Diego, April.

**Liu, M. (1998).** *Examining Teaching and Learning Aspects of A Web Design Experience.* Presented at World Conference on Educational Multimedia and Hypermedia (Ed Media 98), Freiberg, Germany, June.

**Liu, M. & Pedersen, S. (1998).** *The Effect of Being Hypermedia Designers on Elementary School Students' Learning of Design Knowledge.* Presented at World

Conference on Educational Multimedia and Hypermedia (Ed Media 98), Freiberg, Germany, June.

*Williams, D. C., Hemstreet, S., Liu, M., & Smith, V.D. (1998). Examining How Middle School Students Use Problem-Based Learning Software.* Presented at World Conference on Educational Multimedia and Hypermedia (Ed Media 98), Freiberg, Germany, June.

#### 1997

**Liu, Min.** (1997). *A collaborative learning environment with interactive networked multimedia.* Presented at Sixth International Conference on Telecommunications and Multimedia in Education, Austin, TX, November.

**Liu, M., Hemstreet, S., Rutledge, K., Ascue, C., Turner, M. & Schaub A.** (1997). *Students as multimedia designers? Perspectives from students, teachers, and researchers.* Presented at Sixth International Conference on Telecommunications and Multimedia in Education, Austin, TX, November.

**Liu, M., Jones, C., & Hemstreet, S.** (1997). *A study of the multimedia design and production process by the practitioners.* Presented at the World Conference on Educational Multimedia and Hypermedia (Ed Media 97), Calgary Canada, June.

**Liu, M.** (1997). *Evaluating the Use of a Multimedia-Based Information Kiosk by University Students.* Presented at the annual conference of World Conference on Educational Multimedia and Hypermedia (ED-Media 97), Calgary, Canada, June.

**Liu, M.** (1997). *High School Students as Multimedia Designers: An Experience.* Presented at the annual conference of World Conference on Educational Multimedia and Hypermedia (ED-Media 97), Calgary, Canada, June.

**Liu, M.** (1997). *How to prepare students for the 21st century: An experience.* Presented at the Educational Technology at Work 97 Conference. Seattle, WA. May.

#### 1996

**Liu, M.** (1996). *Collaborative Learning in Multimedia.* Presented at the World Conference on Educational Multimedia and Hypermedia (Ed Media 96), Boston, MA, June.

**Liu, M. & Rutledge, K.** (1996). *Engaging High School Students in Multimedia Development.* Presented at World Conference on Educational Multimedia and Hypermedia (Ed Media 96), Boston, MA, June.

**Liu, M. & Rutledge, K.** (1996). *A study of high school students as multimedia designers.* Presented at American Educational Research Association (AERA), New York, NY, April.

**Jones, M. & Liu, Min** (1996). *The design and implementation of a multimedia program for 2-3 year olds.* Presented at International Conference on Technology and Education (ICTE 96), New Orleans, LA, March.

## 1995

**Liu, M. & Wheat, J.** (1995). *Designing Effective Multimedia Kiosks*. Presented at the World Conference on Educational Multimedia and Hypermedia (ED-Media), Graz, Austria. June.

**Liu, M.** (1995). *Teaching Multimedia by Providing a Real Life Experience to the Students*. Presented at the annual meeting of International Conference on Technology and Education (ICTE), Orlando, FL. February-March.

**Liu, M.** (1995). *Multimedia and Kids: A study of the Impact of Technology on the Younger Generation*. Presented at the annual meeting of International Conference on Technology and Education (ICTE), Orlando, FL. February-March.

**Liu, M.** (1995). *Designing and Producing College of Education Kiosk: An Experience*. Presented at the national kiosk developers conference. Austin, TX. June.

**Manuel, M. & Liu, M.** (1995). *Use of Videodisc Technology in Early Childhood Education: Implications for Teacher Training*. Presented at the 6th annual conference of Society of Information Technology & Teacher Education (SITE). San Antonio, TX. March.

## 1994

**Reed, W. M., Ayersman, D. J., & Liu, M.** (1994). *Learner Characteristics, Context-Based Exposures, and Hypermedia Theoretical Frameworks*. Presented at the World Conference on Educational Multimedia and Hypermedia (ED-Media), Vancouver, Canada, June, 1994.

**Liu, M.** (1994). *Contextual Enrichment Through Hypermedia Technology: Implications for Second Language Learning*. Presented at the annual meeting of International Conference on Technology and Education (ICTE), London, March .

**Liu, M.** (1994). *A Study of the Learning Strategies by FD/FI Learning Style Groups in a Hypermedia Environment*. Presented at the 35th international conference of Association for the Development of Computer-Based Instructional Systems (ADCIS), Nashville, TN, February.

## 1993

**Reed, W. M., Ayersman, D. J., & Liu, M.** (1993). *The effect of hypermedia-based instruction on students' stages of concern*. Presented at the World Conference on Educational Multimedia and Hypermedia (ED-Media), Orlando, FL.

**Liu, M.** (1993). *Using available materials for developing multimedia training system*. Presented at the 1993 Rehabilitation Technology Association's Training Symposium, Washington, D.C.

## 1992

**Liu, M.** (1992). *An application of Hypermedia-Assisted-Instruction (HAI) in second language learning*. Presented at the Interactive Multimedia '92, Arlington, VA.

**Liu, M.** (1992). *The application of research-based instructional design principles in developing a Hypermedia-Assisted-Instructional courseware for second language learning*. Presented at 34th international conference of Association for the Development of Computer-Based Instructional Systems (ADCIS), Norfolk, VA.

1990

**Liu, M.,** Reed, W. M., & Phillips, Perry D. (1990). *Teacher education students and computers: Gender, major, use, occurrence, and anxiety*. Presented at the annual conference of American Educational Research Association (AERA), Boston, MA.

### **Regional/State/Local Conferences**

2019

**Liu, M.** (2019). *Supporting Teachers to Integrate Technologies in their Classrooms*. Presented at College of Education Inaugural Collaborative Research Forum, UT-Austin

2015-2016

Harron, J., **Liu, M,** Liu, S. and & Myers, R. (2016). *Alien Rescue: An Immersive 3D Game-Based Approach for Teaching Middle School Science*. Presented at annual meeting of Texas Computer Education Association (TCEA), Feb.

2012-2013

Navarrete, C.C., **Liu, M.,** Wivagg, J. (2013). *Mobile Learning Potential: Investigating iPod Touch Use With English Language Learners*. Presented at the annual conference of TexFLEC, February, Austin.

Park, H., Parrish, C., UsLu, D. Liu, S., Abe, K., Cao, M. & **Liu, M.** (2013). *Examining Social Networking Websites from a Language Teaching Perspective*, Presented at the annual conference of TexFLEC, February, Austin.

Abe, K., Cao, M., D. Liu, Parrish, C., Park, H., UsLu, S., & **Liu, M.** *Examining Four Language Learning Social Networking Websites Through A Usability Testing*. Presented at the annual conference of TexFLEC, February, Austin.

2011-2012

**Liu, M.** Meadows, C. Park, H. Lee, S., Evans, M., & McCrory, M. (2012). *Exploring social networking language websites: Perspectives from students, teachers, and researchers*, Presented at the annual conference of TexFLEC, February, Austin.

2009-2010

**Liu, M.,** Horton, L. Toprac, P. & Yuen, T. T. (2010). *Examining the Design of Media Rich Cognitive Tools as Scaffolds in a Multimedia Problem-Based Learning Environment*. Presented at annual meeting of Eastern Educational Research Association (EERA), Savannah, GA, February.

Plass, J. L., **Liu**, M., Orey, M., & Lockee, B. (2010). *Multimedia Learning—Research and Theory: A Symposium in Memory of W. Michael Reed*. Eastern Educational Research Association, Savannah, GA

2006

*Bogard, T., & Liu, M. (2006). Advanced Learners' Use of Cognitive Tools in a Hypermedia Problem Based Learning Environment.* Presented at annual meeting of Southwestern Educational Research Association (SERA), Austin, TX, February.

2005

*Cho, Y. J., Hsieh, P., & Liu, M. (2005). The Impact of Problem-Based Learning Environment on Students' Goal Orientation, Self-Efficacy, and Achievement in Science Learning.* Presented at annual meeting of Southwestern Educational Research Association (SERA), New Orleans, LA, February.

2004

*Hsieh, P. & Liu, M. (2004). Examining Middle School Students' Self-Efficacy and Attitudes in a Hypermedia Problem-Based Learning Environment.* Presented at annual meeting of Southwestern Educational Research Association (SERA), Dallas, TX, February.

*Pedersen, S. & Liu, M. (2004). Alien Rescue: Teachers' Experiences with Problem-Based Learning Software for Middle School Science.* Presented at annual conference of Texas Computer Education Association (TCEA), Austin, February.

2003

**Liu, M. & Bera, S. (2003). The Role of Cognitive Support Built in a Hypermedia Enhanced Problem-Based Learning Environment for Sixth Graders: An Analysis of Tool Use Patterns.** Presented at annual meeting of Southwestern Educational Research Association (SERA), San Antonio, TX, February.

*Pallais-Downing, D. M. & Liu, M. (2003). Teacher's Use of Direction and Structure and the Development of Self-Directing Skills in Middle-School Students.* Presented at annual meeting of Southwestern Educational Research Association (SERA), San Antonio, TX, February.

2002

**Liu, M., Hsiao, Y. P., Turpin, K. & Jetton, M. (2002). Empowering Middle School Students to be Multimedia Designers Through A Project-Based Learning Approach.** Presented at annual conference of Texas Computer Education Association (TCEA), Austin, February.

1998

**Liu, Min. (1998). Examining the Effect of Hypermedia Authoring on Students' Creative Thinking Skills.** Presented at annual conference of Southwestern Educational Research Association (SERA), Houston, TX, January.

**Liu, M., Hemstreet, S. & Rutledge, K. (1998).** *High school and elementary school students as multimedia designers.* Presented at 18th annual conference of Texas Computer Education Association (TCEA), Austin, February.

1997

**Liu, Min. (1997).** *Motivating high school students with multimedia.* Presented at annual conference of Southwestern Educational Research Association (SERA), Austin, TX, January.

**Liu, M., Rutledge, K. & Turner, M. (1997).** *Empowering high school students to be multimedia designers.* Presented at 17th annual conference of Texas Computer Education Association (TCEA), Austin, February.

1996

**Liu, M. (1996).** Learning by doing: An experience. Presented at the 16th annual conference of Texas Computer Education Association (TCEA), Austin, February.

1995

**Liu, M. (1995).** *Enrich Second Language Learning through Hypermedia Technology.* Presented at the annual meeting of Southwestern Educational Research Association (SERA), Dallas, TX, January.

**Liu, M. (1995).** *Getting Educated in Multimedia,* an invited panel discussion at second annual South by Southwest Multimedia Conference, Austin, TX, March.

**Liu, M. (1995).** *Teaching Courses on Interactive Multimedia: A Challenge.* Presented at the 15th annual conference of Texas Computer Education Association (TCEA), Austin, February.

1994

**Liu, M., Ayersman, D., & Reed, W. M. (1994).** *Students' Perceptions of a Hypermedia Environment.* Presented at the annual meeting of Eastern Educational Research Association (EERA), Sarasota, FL, February.

**Reed, W. M., Ayersman, D., & Liu, M. (1994).** *The Effects of Three Computer-Based Courses on Students' Attitudes.* Presented as a symposium at the annual meeting of Eastern Educational Research Association (EERA), Sarasota, FL, February.

**Liu, M. (1994).** *Learning Styles and Hypermedia-Assisted-Instruction.* Presented at the 14th annual conference of Texas Computer Education Association (TCEA), Austin, February.

**Liu, M. (1994).** *Hypermedia and Teacher Education Students.* Presented at the annual Texas Center for Educational Technology (TCET) conference, April.

1993

**Liu, M.** (1993). *The effect of Hypermedia-assisted-instruction on second language learning through a semantic-network-based approach*. Presented at the annual conference of Eastern Educational Research Association, Clear Water, FL, February.

1992

**Liu, M.** (1992). *Hypermedia-assisted-instruction and second language learning: A semantic-network-based approach*. Presented at the annual conference of Eastern Educational Research Association, Hilton Head, SC.

## Professional Service

### **International & National**

#### ***External P&T Reviewer for the Following Universities***

- Indiana University (from assoc to full), 2019
- Syracuse University (from assoc to full), 2017
- University of North Carolina (from assoc to full), 2017
- George State University (from associate to full), 2016
- Hunter College, NYC (assistant to associate), 2016
- University of Tennessee (from associate to full), 2014
- University of Minnesota-Twin Cities (assistant to associate), 2014
- University of St. Thomas, 2014
- The Chinese University of Hong Kong (2013, different faculty member)
- The Chinese University of Hong Kong (2011, different faculty member)
- NC State University, 2010
- Virginia Tech (from assistant to associate, different faculty member), 2010
- University at Albany, State University of New York, 2009
- Syracuse University (from assistant to associate), 2009
- University of New Mexico, 2008
- Old Dominion University, 2008
- Virginia Tech (from associate to full, different faculty member), 2007
- The University of Texas at San Antonio, 2005
- University of Louisiana at Lafayette, 2004
- University of Missouri-Columbia, 2003
- New York University, 2002

#### ***Invited External Reviewer Internationally***

##### **External Ph.D. Dissertation Reviewer**

Invited by the University of Notre Dame **Australia** to serve as an external reviewer for the dissertation, "The Design and Development of E-textbooks to Support Problem Based Learning in Secondary School Science Classrooms" by Nigel Stewart and prepared a written report, June 2018

##### **External MA Thesis Reviewer**

Invited to review a master thesis "A study on the instructional relationships in a multimedia mediated learning environment" from Institute for Postgraduate Studies,

Multimedia University, Malaysia, summer 2013

### ***Invited External Reviewer for International Grant Proposals***

- Invited to review for the Czech Science Foundation (its equivalent of NSF) for grant proposal, *19-02532S EduGames4K: Designing educational games for kids*, Sept. 2018

### ***Editorial***

- Associate Editor, *Computers in Human Behavior*, January 1, 2016 - 2019.
- Consulting editor for the *Interdisciplinary Journal of Problem-based Learning (iJPBL)*, 2012 – present.
- Consulting editors for research section for *Educational Technology Research and Development (ETR&D)*, 2008 – present.
- Member of scientific board, *Computers in Human Behavior (CHB)*, 2013 - present.
- Editorial Board member, *Journal of Research on Technology in Education (JRTE)*, 2004 -present.
- Manuscript Review Board member, *Journal of Educational Computing Research (JEER)*, Fall 2000 - present.
- Editorial Board member, *Computers in Human Behavior*, 1998 – 2013
- Elected Research Board Member for *Educational Technology Research and Development (ETR&D)*, 2008 – 2011 (3 –year term).
- Editorial Board member, *Journal of Research on Computing in Education*, 1995 – 2001 (completed two terms of service).
- Editorial Review Board member, *Journal of Computing in Childhood Education*, 95 - 98.
- Ad hoc reviewer, *Computers & Education*, 2010-2011, 2016, 2017, 2018
- Ad hoc reviewer, *American Journal of Distance Education (AJDE)*, Spring 2015, Spring 2016, Fall 2016. 2017, 2018
- Ad hoc reviewer, *Learning and Individual Differences* journal, Fall 2016
- Ad hoc reviewer, *Instructional Science*, 2010-2011, Spring 2016, Fall 2016-2019
- Ad hoc reviewer, *Journal of Computer Assisted Learning*, 2017
- Ad hoc reviewer, *Australasian Journal of Educational Technology*, 2018
- Ad hoc reviewer, *British Journal of Educational Technology*, 2017, 2019
- Ad hoc reviewer, *International Journal of Human-Computer Interaction*, Fall 2015
- Ad hoc reviewer, *Interactive Learning Environments*, Spring 2016
- Ad hoc reviewer, *Language Learning & Technology*, 2012-2013
- Ad hoc reviewer, *International Journal of Interactive Learning Environments*, 2010-2011
- Ad hoc reviewer, *Learning, Media and Technology*, 2010-2011
- Ad hoc reviewer, *International Journal of Qualitative Studies in Education*, 2006 - 2007.
- Ad hoc reviewer, *Language Learning & Technology*, 2004 - 2005.
- Ad hoc reviewer, *Electronic Commerce Research Journal*, 2003.
- Ad hoc reviewer, *Journal of Educational Computing Research*, 1996 - 1997.

### ***International Professional Organization Committee***

- Invited to serve on international advisory committee for the 4th International Conference on Distance Education and Learning (ICDEL 2019). Shanghai, China, 2019.

- Elected treasurer for AERA SIG Online Teaching and Learning (OTL), April 2016- April 2019, 3-year term.
- Invited member of the program committee of Technology Enhanced Language Learning of the Global Chinese Conference on Computers in Education (GCCCE 2019), 2019.
- Invited member of the program committee of Technology Enhanced Language Learning of the Global Chinese Conference on Computers in Education (GCCCE 2017), 2017.
- Invited to be Program Committee for 2017 International Conference on Computer Science and Information Communication CSICT2017.
- Invited PC member to International Conference on Internet of Things and Machine Learning (IML 2017) conference/ Venue: Liverpool John Moores University, United Kingdom.
- Invited Program Committee member for Second International Conference on Advanced Wireless Information and Communication Technologies (AWICT 2017) held at Université de Paris-Saclay, Paris, France.  
Member of the program committee (Track 18) of the 16th IEEE International Conference on Advanced Learning Technologies (ICALT2016), 2016.
- Member of the program committee of the 20th Global Chinese Conference on Computers in Education (GCCCE 2016), 2016.
- Member of the program committee of the 19th Global Chinese Conference on Computers in Education (GCCCE 2015), 2015.
- Executive Committee member for the *World Conference on Educational Multimedia and Hypermedia* (EdMedia), 2010 - 2013.
- Member of the Program Committee for the *World Conference on Educational Multimedia and Hypermedia* (Ed Media), 1999 - 2015.
- Member of the International Program Committee (IPC) for the IASTED *International Conference on Internet and Multimedia Systems and Applications* (EuroIMSA), 2005, 2006 & 2007.
- Member of the Program Committee for *the Sixth International Conference on Computers in Education*, 1998.

#### **Grant/Conference/Book Reviewer** (Selected)

- Proposal reviewer, *American Educational Research Association* (AERA), Online Teaching and Learning SIG, Instructional Technology SIG, Aug. 2016, 2017, 2018, 2019
- Proposal reviewer, Global Chinese Conference on Computers in Education (GCCCE 2019), 2019.
- Proposal reviewer, Global Chinese Conference on Computers in Education (GCCCE 2018), 2018.
- Proposal reviewer, Global Chinese Conference on Computers in Education (GCCCE 2017), 2017.
- Proposal reviewer, *World Conference on Educational Multimedia and Hypermedia* (Ed Media), Spring 2017.
- Proposal reviewer, 20th Global Chinese Conference on Computers in Education (GCCCE 2016), Feb. 2016.
- Proposal reviewer, *American Educational Research Association* (AERA), Computer and Internet Applications SIG 2014, 2015.
- Proposal reviewer, *American Educational Research Association* (AERA), Division C, Section 3b (Technology-Based Learning Environments, 2013).

- Proposal reviewer, *World Conference on Educational Multimedia and Hypermedia* (Ed Media), 1999 - present.
- Proposal reviewer, *American Educational Research Association* (AERA), Division C, Learning Environments, 2011.
- Reviewer, annual Young Scholar Competition sponsored by *Association for Educational Communications and Technology* (AECT), 2008- 2011.
- Proposal reviewer, *American Educational Research Association* (AERA), Technology, Instruction, Cognition and Learning SIG, 2008-2010.
- Proposal reviewer, *American Educational Research Association* (AERA), Division C section 7 (technology research), 1997, 2000 - 2009.
- Proposal reviewer, *American Educational Research Association* (AERA), Division C section 5 (Learning Environments), 2007-2009.
- Proposal reviewer, *American Educational Research Association* (AERA), Technology, Instruction, Cognition & Learning SIG, 2007-2009.
- Reviewer, *Handbook of Research for Educational Communications and Technology*, 3<sup>rd</sup> ed., sponsored by *Association for Educational Communications and Technology* (AECT), Spring, 2009.
- Proposal reviewer, Conference on *Internet and Multimedia Systems and Applications* (EuroIMSA), 2008.
- Proposal reviewer, *American Educational Research Association* (AERA), Division C section 6 (Cognitive, Social, and Motivational Processes), 2007.
- Proposal reviewer, *American Educational Research Association* (AERA), Motivation in Education SIG, 2004.
- Proposal reviewer, *American Educational Research Association* (AERA), Instructional Technology SIG, 2001, 2004, 2005.
- Proposal reviewer, *American Educational Research Association* (AERA), Design and Technology SIG, 2003.
- Reviewer, Cooperative Grants Program from *U.S. Civilian Research & Development Foundation*, 2003-2004.
- Proposal reviewer, Conference on *Internet and Multimedia Systems and Applications* (EuroIMSA), 2004-2005.
- Proposal reviewer, *American Educational Research Association* (AERA), Division C section 4a (school based learning environments), 2000-2001.
- Proposal reviewer, *American Educational Research Association* (AERA), Computer Applications in Education SIG, 1994-95, 2000-01.
- Proposal reviewer, National Science Foundation, Undergraduate Division, 1998.
- Proposal reviewer, *Sixth International Conference on Telecommunications and Multimedia in Education*, 1997.
- Book proposal reviewer, *New Media for Integrated Media Group*, Wadsworth Publishing Company, 1996.

#### ***Other Service*** (Selected)

- As an executive committee member, I offered a session on “Quantitative research, qualitative research, and mixed methods: Which one to use?” as part of the Graduate students Stream at *the World Conference on Educational Multimedia, Hypermedia and Telecommunications*, Victoria, BC, Canada, June, 2013

- As an executive committee member, I offered a session on “Avoid possible pitfalls and be successful in your dissertation journey” as part of the Graduate students Stream at *the World Conference on Educational Multimedia, Hypermedia and Telecommunications*, Victoria, BC, Canada, June, 2013
- As an executive committee member, I offered a session on “Quantitative research, qualitative research, and mixed methods: Which one to use?” as part of the Graduate students Stream at *the World Conference on Educational Multimedia, Hypermedia and Telecommunications*, Denver, June, 2012
- As an executive committee member, I offered a session on “Avoid possible pitfalls and be successful in your dissertation journey” as part of the Graduate students Stream at *the World Conference on Educational Multimedia, Hypermedia and Telecommunications*, Denver, June, 2012
- Consulted on *Criteria on Ranking Journal Publications* by The Hong Kong Institute of Education (HKIED), Feb. 2011
- Member of National Advisory Board for Restructuring Instruction in Special Ed. (RISE) Project, funded by Office of Special Programs, 2008-2009.
- Consulted with KDH Research & Communication (KDHRC), an institution that constructs and evaluates public programs to improve the health and well-being of the nation's youth, families, and communities, 2009.

#### ***Invited Presentations*** (Selected)

- Keynote speaker for the *4th International Conference on Distance Education and Learning (ICDEL 2019)* sponsored by Asia Society of Research (ASR). Shanghai, China, May 2019.
- Invite panel speaker for “*Shaken, Not Stirred: Recipes for Supporting Blended Learning*” at the 2015 annual meeting of the Educational Media & Technologies Section of the Medical Library Association, May 2015.
- Invited to present on “*Adventures in Alien Rescue*” at the College of Education Advisory Council Teaching Showcase, Oct., 2014
- Invited presentation, *Using Technology to Support Space Education*, for Texas Space Grant Consortium annual board meeting, April, 2011.
- Keynote, *Designing An Interactive New Media Enriched Learning Environment for Middle School Science: A Design-Based Research Approach*, 3<sup>rd</sup> annual Technology & Learning Symposium, New York University, 2007.
- Invited speaker, *Designing Interactive Multimedia Learning Environments to Support Cognitive Skills Development*, World Conference on Educational Multimedia & Hypermedia (Ed Media 02), Denver, CO. 2002.
- Invited speaker, *Enhancing Students’ Problem-solving Skills Through A hypermedia-Supported Problem-Based Learning Approach*, New York University, 2000.
- Invited speaker, *Issues and Challenges in Designing Interactive Multimedia Learning Environments*. Invited presentation at New York University, 2000.
- Invited speaker, *Issues to Consider When Designing Web Based Instruction*, 7<sup>th</sup> National Teaching Academy for Pharmacy, University of Texas, 2000.
- Invited speaker, *Design Consideration for Web Based Instruction*, 6<sup>th</sup> National Teaching Academy for Pharmacy, University of Texas, 1999.
- Invited speaker, *Teaching and Researching with Technology*, National Undergraduate Research Conference, University of Texas, 1997.

- Invited presentation, *Multimedia and Instructional Design*, Faculty Technology seminar, University of Texas-Austin, 1997.
- Invited speaker, *Multimedia and Instructional Technology Program*, International Interactive Communications Society Austin chapter, 1996.
- Invited speaker, *Multimedia and Instruction*, College of Natural Sciences, 1994.
- Invited presentations at University of Jyväskylä in Finland and University of Gothenburg in Sweden on the *application of Hypermedia technology in education: its theoretical assumptions and practical applications*, Oct. 3 - Oct. 20, 1992.

### ***Working with Schools***

From 2010 - to present, I have been working with **16** middle schools in Central Texas and schools in at least **30 states** (AZ, CA, CO, CT, FL, GA, HI, IA, IL, IN, KS, MA, MD, MI, MN, MO, MS, NC, NM, NJ, NY, OH, OR, PA, SC, TN, UT, VA, WA, WI) and **four countries** (Australia, Canada, China, S. Korea) to implement a problem-based learning environment, *Alien Rescue*, in the 5<sup>th</sup>- 9<sup>th</sup> grade classrooms.

Worked with two middle schools in Central TX to pilot an inquiry-based Web unit to enhance cultural awareness through Japanese food, in collaboration with UT Center for East Asian Studies.

Worked with one middle school in Central TX on engaging students as multimedia designers using a project-based learning approach.

Worked with two high schools, one middle school, and two elementary schools in Central Texas on designing and producing multimedia projects using a cognitive apprenticeship model.

### **State & Local** (Selected)

- Worked with Texas Space Grant Consortium in developing instructional materials using technology to support Space science curriculum
- Consulted with visiting Portuguese researchers for the UT/Portugal International Collaboratory for Emerging Technologies CoLab to discuss their efforts on certification in game-based learning, Aug. 2015
- Consulted on evaluating technology tools for classroom use with Director of Educational Technology, Teacher Preparation, Support and Development, *Teach For America*, Nov. 2014
- Consulted with graduates from McCombs MBA, MSTC Class of 2013 on their concept of developing a technology product for education, June 2013
- Community Advisory Board for KLRU, 1997 - 1998
- Committee for Software Preview Center Collaborative among Austin Independent School District and Regional Educational Center & UT, 1994-1995
- Committee for Alternative Delivery Methods, Texas Real Estate Commission Education Department, 1994-1995
- Evaluator of the project “Professional Development School Distance Education Initiative” by University of Louisiana at Lafayette, 2002.

- Advisor, Teleconference on “Improving multimedia and online courses with instructional design” by Dallas TeleLearning in conjunction with PBS, 2002.
- Invited participant for discussion of the multimedia design process at an Austin multimedia company, Human Code, 2000
- Invited discussant on technology use in education for K-12 students by Holt, Reinhart & Winston company, 2000.

## **University & College**

### ***Serving on College/University/Interdepartmental Committees*** (Selected)

- Member, University Outstanding Dissertation Committee: Reviewed nominated dissertations for recommending outstanding University dissertation awards, Spring 2017; Spring 2018
- COE *campus visit*, representing the Program Area, meeting with newly admitted students and addressing their questions, 2/26/2018, 2/25/2019
- Met with a delegation from *National Taipei University of Education* (its president, deans, directors, managers, and faculty) to discuss the technology use in education - Students centered learning, 10/9/2017
- COE Office of Instructional Innovation Advisory Committee, 2016-present
- COE campus visit, representing the department, meeting with newly admitted students and addressing their questions, 3/6/2017
- Member of a Working Group consisting of staff in Center for Teaching & Learning and faculty from differently colleges to look at using learning analytics in Canvas on campus, Summer 15– Spring 2016
- Member of Working Group with staff in Center for Teaching & Learning and faculty in the College of Pharmacy on their adaptive technology project for Pharm D curriculum and evaluated LeaP system, Fall 2015 - Spring 2016
- Member of Working Group with staff in Center for Teaching & Learning and faculty in the College of Pharmacy on their multi-site distance learning project for Pharm D curriculum, Fall 2014 - Summer 2015
- COE campus visit, representing the department, meeting with newly admitted students and addressing their questions, 3/7/2016
- COE campus visit, representing the department, meeting with newly admitted students and addressing their questions, 3/5/2015
- Invited to present on “*Adventures in Alien Rescue*” at the College of Education Advisory Council Teaching Showcase, Oct., 2014
- Member of College Faculty Research Assignment (FRA) and Summer Research Assignment (SRA) review committee, *Fall 2013*
- College of Education Gender Equity council, *2010 - 2013*
- Provost’s University Technology Enhanced Learning committee, *2003-2004*
- College Teacher Education Committee, *2002-2003*
- Provost’s University Multimedia Instruction Committee, *1994-1997*
- Provost’s ad-hoc committee on Using Technology, *1995-1996*
- University Rethinking Dissertation Format Committee, *1995-1996*
- Faculty advisory committee for University of Texas Kiosk, *1994-1996*
- Planning committee for annual National Teaching Academy on Computer-Based Teaching Technology for the College of Pharmacy, *1993-1996*
- University Multimedia Classroom Planning Committee, *1994-1995*

***Other Service***

- Instructional Technologist for “MainStep” project, funded by US Department of Education to Department of Special Education, to create video-based anchored instruction for training teachers to help students with learning difficulties, 2003-2005.
- One of the 7 Judges for the Innovative Instructional Technology Awards Program (IITAP), sponsored by Center of Instructional Technology and Provost Office, UT-Austin, 2004.
- Member of a University Utopia project of “Talking over Books” (with N. Roser), 2004.
- Presentation on “Enhancing Learning with New Media Technology” to parents of freshmen, during College’s Parents Week, Oct. 2004.
- Shared research with undergraduates in “Emerging Scholars Program,” UT-Austin, 2004.
- Consultant, Seakeeping Cognitive Readiness and Decision-Making Skills using problem-based learning, Summer 2003-Dec. 2003.

**Department*****Serving on Departmental Committees*** (Selected)

- Member, Departmental Executive Committee (EC), 2006 – *Present*
- Chair, Departmental Executive Committee, Merit Review Teaching subcommittee, 2017 - 2019
- Member, EC sub-committee on Merit Review Criteria, Fall 2018
- Member, Travel Awards Committee, Fall 2017 – Spring 2019
- Coordinator & Graduate Advisor, Learning Technologies Program, 2002 - present
- Member, Departmental standing committee on admission, 2002 – *present*
- Member, Departmental GPAC Committee, 2002 – *present*
- Member, Graduate Studies Committee, 1993 - *Present*
- Member, Departmental Executive sub-committee to perform 6-yr post-tenure review of a colleague, *Spring 2013, Fall 2013, Spring 2015, Spring 2016, Spring 2017, Spring 2019*
- Member, Departmental committee to perform 1-yr tenure-track review of two colleagues, *Spring 2016, 2017*
- Member, Departmental Executive Committee, Merit Review Scholarship subcommittee, 2009 – 2012; 2015 - 2017
- Member, Departmental Executive Committee, Merit Review Service subcommittee, 2012 - 2015
- Member, Departmental Executive Committee, Merit Review Teaching subcommittee, 2008 -2009
- Chair, Departmental Programs and Courses Committee, 2016 - 2017
- Co-Chair, Departmental Programs and Courses Committee, 2015 - 2016
- Chair, Departmental Programs and Courses Committee, 2014 - 2015
- Member, Departmental EC Structure Ballot Committee, *Spring 2015*
- Member, Departmental Masters Level Research Course Committee, 2013 - 2017
- Member, Departmental Website Redesign and Usability Ad hoc Committee, Fall 2012
- Member, Departmental Executive Committee, Scholarship subcommittee, 2009 - 2012
- Member, Departmental Executive Committee, Teaching subcommittee, 2008 - 2009
- Member, Departmental Foundations, Research, and Common Course Committee (masters level research course), 2012 - 2013
- Member, Foreign Language Education Graduate Studies Committee, 1993 – 2015

- Member, Departmental Human Subjects Review Committee, 1998 - 2009
- Chair, Departmental standing committee on admission, 2005 - 2006
- Member, Ad Hoc Committee on Core Foundations: Teaching/Instruction, 2008-2009
- Member, Departmental Standing committee on awards & fellowships, 2001-2003
- Chair, IT new faculty search committee, 2002-2003
- Participated in the departmental Diversity Dialogue and (now) Social Justice Praxis, since its inception - 2019

### **Membership of Professional Organizations**

#### ***Regional Level***

Southwestern Educational Research Association (SERA, 1993 - 2008)

Eastern Educational Research Association (EERA, 2010 - 2011)

#### ***National Level*** (current member)

American Educational Research Association (AERA)

Association for the Advancement of Computing in Education (AACE)

Association for Educational Communications and Technology (AECT)

International Society for Technology in Education (ISTE)