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Associate Professor
University of Akron, Akron OH 44325-4208
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Instructional Technology
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EDUCATION

Aug. 2003 - May 2008	**School of Information Science and Learning Technologies** University of Missouri- Columbia, Missouri **Doctor of Philosophy (Ph.D.)** Major: Learning Technologies Supporting Field: Educational Psychology & Special Education Dissertation Topic: The Social Nature of Learning to Teach in an Online Community of Practice
Sep. 1998 - Jan. 2000	**Department of Educational Technology** Tamkang University, Taipei, Taiwan **Master of Arts** Major: Educational Technology Thesis Title: The Application of Case Method in Secondary Teacher Preparation: The Development of Teaching Cases
Feb. 2000 - Oct. 2000	**Extension Education in Computer Science** Public Service Center, Tamkang University, Taipei, Taiwan **Computer Science Extension Education** Major: 40 credits in computer skills and knowledge
Sept. 1995 - June 1998	**Teacher Education Program** Center for Teacher Education, Tamkang University, Taipei, Taiwan **Teaching License for Secondary Education** Major: Secondary School Education
Sept. 1994 - June 1998	**Department of Business Administration** Tamkang University, Taipei, Taiwan **Bachelor of Business Administration** Major: Business Administration

WORK EXPERIENCE

Aug. 2019 - present	**Master Program of Curriculum and Instruction,** **The LeBron James Family Foundation School of Education** **Buchtel College of Arts and Sciences,** **University of Akron (Ohio) (**http://www.uakron.edu/**)** Title: **Associate Professor** **Concentration Coordinator**
Aug. 2014 – July 2019	**Master Program of Instructional Technology,** **Dept. of Educational Foundations and Leaderships,** **University of Akron (Ohio) (**http://www.uakron.edu/**)** Title: **Associate Professor** **Program Coordinator**
Aug. 2010 – July 2014	**Master Program of Instructional Technology,**

	Dept. of Educational Foundations and Leaderships, University of Akron (Ohio) (http://www.uakron.edu/**)** Title: **Assistant Professor**
Aug. 2008 - Aug. 2010	**Master Program of Instructional Technology, Dept. of Educational Foundations and Leaderships, University of Akron (Ohio) (**http://www.uakron.edu/**)** Title: **Visiting Assistant Professor**
Aug. 2003 - Aug. 2008	**Research Assistant for Research Projects, Information Science and Learning Technology, University of Missouri- Columbia** Title: **Research Assistant** **Projects:** **FIPSE** (Fund for the Improvement of Postsecondary Education) project- CANS (Context-aware Activity Notification System) Prototype Design Project-serve as a research assistant to collect need assessment of requirements lists, usability tests, and design tools to support online learning system-Sakai. **Social computing project: SCRG (Social Computing Research Group) study-** researcher, assist with research design, implementation, and reports written. **Technologies of Special Education in KITE digital teaching case studies library-** analyzed case studies regarding to applying technologies in special education and completed a report of new innovation and history of technology usage in special education.
Feb. 2002 - Dec. 2003	**Research Assistant** for National Science Council Project: *Mathematics Education Discipline Planning* (Project Administrator: Dr. Horng, Wann-Sheng :Professor, Dept. of Mathematics of National Taiwan Normal University) - to set up the Mathematics Education Discipline Web-site; Data analysis and integration; Information seeking; organize conferences about Mathematics education
Aug.1998 - July 2000	**Research Assistant** for National Science Council Project: *A Study of Development, Application and Evaluation of Case Methods in Enhancing Professional Competencies of Pre-service Teachers (I & II)* (Project Administrator: Dr. Kao, Hsun-Fung, Dean of College of Education, Tamkang University, Taipei, Taiwan) -data analysis and integrate with SPSS; Information research ; interview those experienced and reputable teachers for their teaching experiences; investigate the results about the implementation of Case Method in Teacher Education
Jan. 1998 – Dec. 1998	**Research Assistant** for Ministry of Education Project: An investigation research in the teaching materials of Junior High School Social Studies Curriculum (Research Administrator: Dr. Chang, F.C.I., President , Tamkang University, Taipei, Taiwan) -data analysis and integrate; Information research ; hold conferences about Mathematics education; investigate the results about the implementation of the new material

TEACHING EXPERIENCE

Aug. 2020 – Present	**Associate Professor of School of Education** 5100:640 Using Research to Inform Practice 5550:619 Instructional & Management Practices 5500:308 Instructional Design & Assessment 5300:303 Global Education & Technology 5500:611 Global Education & Technology
Aug. 2014 – Aug. 2020	**Associate Professor for Master Program of Instructional Technology** 5150:631 Instructional Technology 5150:638 Integrating and Implementing Technologies 5150:633 Multimedia and Hypermedia 5150:632 Web-based Learning Systems 5150:614 Planning for Technology 5150:635 Emerging Technologies for Instruction 5150:639 Strategies for Online Teaching/Learning 5150:610 Introduction to Instructional Technology
Aug. 2008 – July 2014	**Assistant Professor for Master Program of Instructional Technology** 5150:633 Multimedia and Hypermedia 5150:632 Web-based Learning Systems 5150:614 Planning for Technology 5150:635 Emerging Technologies for Instruction 5150:639 Strategies for Online Teaching/Learning 5150:610 Introduction to Instructional Technology
Jan. 2008 – May 2008	**Co-instructor** (with Dr. James Laffey) ISLTQ9469: Designing Performance Support System (DPSS) Target Audience: Graduate Students
Jan. 2006 – Dec. 2007	**Lead Instructor** ISLT4660/7360: Introduction to Web Development Target Audience: Undergraduate & Graduate Students
June 2005 - Dec. 2005	**Assistant Instructor** ISLT4631/7631: Introduction to Digital Media Target Audience: Undergraduate & Graduate Students
Aug. 2005 - Dec. 2005	**Assistant Instructor** ISLT4364/7364: Digital Media Authoring Systems (Flash) Target Audience: Undergraduate & Graduate Students
Aug. 2005 - May 2008	**Instructor & Mentor** -Lead Instructor: teaching online course: ISLT 4360/7360: Introduction to Web Development in Summer 06, Fall 06, and Spring 07. -Assistant Instructor: teaching online courses: ISLT 7368: Digital Authoring course (Flash MX 2004) in Fall 05 & ISLT 4361/7361: Introduction to Digital Media course in Fall and Summer 05 -Mentor: assist students enroll in the online courses by answering their questions through email, phone, or course system and tutor students who visit the IT center with their learning questions.
2001 - 2002	**Teacher & Director of Instruction** in Chong-Yi Senior High School, Taipei, Taiwan -teach computer for 7-9th grades and business and database for 10-12th grades -plan, design, and teach the courses of Business and Computer; to plan and implement Administrative things of the Teaching Organization

2000	**Classroom Teacher in** Tian-Sheng Elementary School, Taipei, Taiwan. -teach 3rd grade
	Scriptwriter in InterServ International Inc., Taipei, Taiwan. - plan, analysis and design the script about the Internet courses of telephone communication skills
1998-2001	**Teacher** in National Tamshui Commercial Industrial Vocational Senior High School -teach the courses of Economics, Business, and Computer software and skills

GRANTS

May 2025	**University of Akron Women's Committee Grant $12,000** Title: Building the Future of Housekeeping with Mobile Aloha: Empowering Women in AI and Robotics"
Jan 2025	**Governor's Ohio Military Veteran Educators Fellowship Pilot Program Grant $482,389 (Co-PI)** School of Education, Buchtel College of Arts and Science, University of Akron
April 2024	**Madge W. Harrington Professorship $15,000** School of Education, Buchtel College of Arts and Science, University of Akron Title: Promoting the Integration of Artificial Intelligence (AI) Technologies in K-12 Education: A Comprehensive Needs Assessment and Development of AI Workshops for K-12 Teachers
April 2023	**SOE Faculty Research Grant $3,000** School of Education, Buchtel College of Arts and Science, University of Akron Title: Learning Experience with Artificial Intelligent in K-12: The 8th Grade AI Exploration Day Workshop
April 2019	**Faculty Research Grant $1,000** College of Education, University of Akron Title: Effectiveness of 3D Printing to Support Neural Science Education
April 2019	**Faculty Research Grant $1,000** College of Education, University of Akron Title: Impact of Motivation and Self-Regulation to Support Student Online Learning Experiences
April 2013	**Faculty Research Grant $1,990** College of Education, University of Akron Title: Teaching/Learning with Asynchronous and Synchronous Tools in Online Learning Environments: CourseCast(Panopto) v.s. Elluminate
Sept 2012- May 2013	**Martha Holden Jennings Foundation: Open Grant $15,995** Cleveland, Ohio Title: Online Learning Community for Learning to Teach (OLC-LT)
April 2012	**Faculty Research Grant $1,850** College of Education, University of Akron Title: Effectiveness of an Online Teacher Learning Community for Learning to Teach: eTRAIN (electronic Teacher Resource And Information Network)

	Community
June 2011- May 2012	**Martha Holden Jennings Foundation Grant: Open Grant $14,144.70**
	Cleveland, Ohio
	Title: Online Learning Community for Learning to Teach (OLC-LT)
April 2011	**Faculty Research Grant $2,000**
	College of Education, University of Akron
	Title: Online Teaching and Learning Experiences

PROFESSIONAL PUBLICATIONS

Refereed Journal Papers

Tsai, I.-C. (accepted). Promoting the Integration of Artificial Intelligence (AI) Technologies in K-12 Education: Needs Assessment to Address K-12 Teachers' Urgent Needs of AI Professional Development. *Ohio Journal of Teacher Education.*

Tsai, I.-C. & Dages, K. (2025). Learning Experience with Artificial Intelligent (AI) in K-12:A Case Study of A Middle School AI Exploration Day. Proceedings of SITE 2025 35th Interactional Conference. Las Vegas, NV.

Tsai, I.-C., Tong, Y.-P., & Laffey, J. (2013). Exploring the impact of students' motivation and self-regulation on the social nature of online learning experience. *Ohio Journal of Teacher Education.*

Galyen, K., Tsai, I.-C., & Laffey, J. (2012). The relationship between learning satisfaction and social ability in completely online learning courses. *Open Education Research*, 1*8*(6), 50-54. (CSSCI)

Tsai, I.-C., Galyen, K., Xie, X., & Laffey, J. (2012). Using Activity Theory to Examine Social Interaction of Online Learning. *Open Education Research, 18*(5), 49-57. (CSSCI)

Tsai, I.-C. (2012). Understanding the social nature of an online community of practice for learning to teach. *Journal of Educational Technology and Society*, *15*(2), 271-285. (SSCI)

Tsai, I.-C. (2011). Levels and patterns of participation and social interaction in an online learning community for learning to teach. *Journal of Interactive Learning Research*, *22(2),* 191-239. Chesapeake, VA: AACE. (SSCI)

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

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

Laffey, J., Tsai, I.-C., Amelung, C., Hong, R-Y., Galyen, K. & Goggins, S. (2010). The Role of Social Information for Social Ability, Sense of Community and Satisfaction in Online Learning. *Open Education Research, 16*(3), 136-143. (CSSCI)

Tsai, I.-C., Kim, B., Liu, P. J., Kumalasari, C., Goggins, S. P., & Laffey, J. M. (2008). Building a model explaining the social nature of online learning. *Journal of Educational Technology and Society, 11*(3), 198-215. (SSCI)

Yang, C.-C., Tsai, I.-C., Chou, M.-H., Kim, B., & Laffey, J., D. (2006). Exploring the relationships between students' academic motivation and social ability in online learning environments. *The Internet and Higher Education, 9*, 277-286.

Kao, H.-F. & Tsai, I.-C. (2001). The Evaluation of Case Methods in Integration Curriculum of Elementary and Junior High School. Tamkang Journal in Humanity, Tamkang University.

Refereed International Conference Presentations and Proceedings

Tsai, I.-C. (2025, September). AI Integration in K-12 Education: Comprehensive Needs Assessment of Teachers, Administrators, and Instructional Support Staff. Proceedings of AACE World Conference on E-Learning. Bangkok, Thailand.

Tsai, I.-C., & Chatterjee, P. (2025, September). Empowering Pre-Service Teachers with ChatGPT: Enhancing Instructional Planning in Educator Preparation Programs. Proceedings of AACE World Conference on E-Learning. Bangkok, Thailand.

Tsai, I.-C. (2025, March). Promoting the Integration of Artificial Intelligence (AI) Technologies in K-12 Education: Needs Assessment to Address K-12 Teachers' Urgent Needs of AI Professional Development. Proceedings of SITE 2025 36th International Conference. Orlando, FL.

Tsai, I.-C. & Dages, K. (2024, March). Learning Experience with Artificial Intelligence (AI) in K-12: A Case Study of A Middle School AI Exploration Day. Proceedings of SITE 2025 35th Interactional Conference. Las Vegas, NV.

Li, S. & Tsai, I.-C., (2023, February). Technology Use and Integration by Six Sheltered-Instruction Trained Teachers. Proceedings of 2023 EERA Annual Conference. Myrtle Beach, South Carolina.

Li, S. & Tsai, I.-C., (2023, March). A Case Study of Six Sheltered-Instruction Trained Teachers. Proceedings of SITE 2023 - Society for Information Technology & Teacher Education. New Orleans, Louisiana.

Kaufman, S. & Tsai, I.-C. (2019, May). Implementing QM at an Institution: The University of Akron. Presentation of QM Ohio Annual Member Meeting. Cleveland, OH.

Tsai, I.-C., & Waltone-Moore, S. (2013, June). How an Online Teacher Community Supports Teachers' Professional Development: eTRAIN Online Teacher Community. Proceedings of AACE World Conference on Education Multimedia and Hypermedia. Vancouver, Canada.

Waltone-Moore, S., & Tsai, I.-C. (2013, June). Using Video-based Web Conferencing to Enhance an Online Community of Teaching: Best Practices for e-Moderators. Proceedings of AACE World Conference on Education Multimedia and Hypermedia. Vancouver, Canada.

Tsai, I.-C., Galyen, K., Xie, X., & Laffey, J. (2010, June). Using Activity Theory to Examine Social Interaction of Online Learning. Proceedings of AACE World Conference on Education Multimedia and Hypermedia. Toronto, Canada.

Galyen, K., Tsai, I.-C., & Laffey, J. (2010, June). The relationship between learning satisfaction and social ability in completely online learning courses. Proceedings of AACE World Conference on Education Multimedia and Hypermedia. Toronto, Canada.

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

Tsai, I.-C., Laffey, J., & Hanuscin, D. (2009, April). Understanding the social nature of an online community of practice for learning to teach. Paper presented at the 2009 Annual Conference of American Educational Research Association, San Diego, California.

Tsai, I.-C., Laffey, J., & Hanuscin, D. (2009, April). Effectiveness of an online community of practice for learning to teach elementary science. Paper presented at the 2009 Annual Conference of American Educational Research Association, San Diego, California.

Laffey, J., Tsai, I.-C., Amelung, C., Young, R., Galyen, K., & Goggins, S. (2009, April). The role of social information for social ability, sense of community and satisfaction in online learning. Paper presented at the 2009 Annual Conference of American Educational Research Association, San Diego, California.

Hong, R., Galyen, K., Laffey, J., & Tsai, I.-C. (2009, April). Social comparison visualization for fostering participation in online learning. Paper presented at the 2009 Annual Conference of American Educational Research Association, San Diego, California.

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

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

Nuankhie, P., Tsai, I.-C., Goggins, S., & Laffey, J. (2007). Comparing the social interaction pattern of online one-on-one peer and small group collaboration activities. Paper presented at the IEEE International Symposium on Multimedia (ISM2007) Conference, Taichung, Taiwan, ROC.

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

Tsai, I.-C., & Hanuscin, D. (2007, April). Hammering a Nail with a Saw: The Constraints of "One-Size-Fits-All" Technology in Supporting Online Communities of Science Teachers. Paper presented at the Annual Conference of American Educational Research Association, Chicago, MI, USA.

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

Tsai, I.-C., Yang, C.-C., Cho, M.-H., Kim, B., Laffey, J., D. (2006, April). Exploring the relationships between students' academic motivation and social ability in online learning environments. Paper presented at the Annual Conference of American Educational Research Association, San Francisco, USA.

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

Tsai, I., Nuankhieo, P., Wu, C., & Chang, Y. (2005, October). Supports of group awareness for synchronous and asynchronous collaboration. Proceedings of AACE World Conference on E-Learning. Vancouver, C.A.

Tsai, I.-C. , & Wu, C.-H. (2005, October). Teachers' needs of an online learning community assisting professional development. Proceedings of AACE World Conference on E-Learning. Vancouver, C.A.

Shen, D., Tsai, I.-C. , & Wu, C.-H. (2005, October). Course management systems v.s. online instructors' needs. Proceedings of AACE World Conference on E-Learning. Vancouver, C.A.

Social Computing Research Group (SCRG). (2005). Understanding computer mediated social experience: implications for CSCL. Proceedings of the Annual Conference of Computer Supported Collaborative Learning. (pp. 550-551). Taipei, Taiwan. Lawrence Erlbaum Associates. Hillsdale NJ.

Kim, B., Yang, C., & Tsai, I. (2005). Review of computer-mediated collaborative concept mapping: Implication for future research. Proceedings of the Annual Conference of Computer Supported Collaborative Learning. Taipei, Taiwan.

Tsai, I.-C. , Wu, C.-H., & Kao, H.-F. (2004). Applying Case Study in Preparing to Teach Online Courses: the Development of Online Teaching Cases. Proceedings of AACE World Conference on E-Learning. Washington D.C.

Lee, C. & Tsai, I.-C. (2004). No Kidding- Exploring the Effects of Stories through the Window of Schema Theory. AECT, Chicago, Illinois.

Kao, H.-F. & Tsai, I.-C. (2000). The Application of Case Method in Teacher Education: The Development of Teaching Cases. Annual Conference for Teacher Colleges, National Shin-Chut Teacher College.

Tsai, I.-C. & Kao, H.-F. (1999). The Application of Case Methods in Teacher Education. Conference of the revolution and invention in the teaching of Elementary and Junior High School, National Kaohsiung Normal University.

Invited Presentation
- Tsai, I.-C. (2024, Nov.). AI in Action and AI Ethics. Presented at Hudson High School for the High School Emerging Technology Workshop, Ohio.
- Tsai, I.-C. (2024, May.). AI in Action and AI Ethics. Presented at Hudson Middle School for 8th graders, Ohio.
- Tsai, I.-C. (2024, Feb.). AI Ethics and AI in Action for English Teaching and Learning. Presented at Hudson School District, Ohio.
- Tsai, I.-C. (2024, Feb.). AI in Action and AI Ethics. Presented at Summit Educational Service Center, Ohio.
- Tsai, I.-C. (2023, Nov.). AI Ethics and AI in Action for English Learning & Teaching. Presented at Hudson Middle School, Ohio.
- Tsai, I.-C., & Dong, Y. (2023, Sept.). Prepare next generation for the AI era. Presented at Summit Educational Service Center (ESC), Ohio.
- Tsai, I.-C., & Dong, Y. (2023, September). Prepare next generation for the AI era. Presented at Summit Educational Service Center (ESC), Ohio.
- Tsai, I.-C., & Dong, Y. (2023, May). Prepare next generation for the AI era. Presented at Hudson Middle School, Ohio.
- Tsai, I.-C., & Dong, Y. (2023, May). Prepare next generation for the AI era. Presented at Woodridge Schools, Ohio.
- Tsai, I.-C. (2017, June). US Teaching and Learning Experience: Learning Is Based Upon Making Mistakes. Presented at the Department of Communication, National Chung Cheng University, Taiwan.
- Tsai, I.-C. (2013, Oct). Teaching and Technology Track Transformative Teaching - Reflections from the Online Educator. 2nd Annual Faculty Development Conference, Department of Computer Science, Hiram College, Ohio.
- Tsai, I.-C. (2013, Oct). Roles of Developing a Web-based Learning System. Presented at Dr. Cheng En's Data Integration class. Department of Computer Science, University of Akron.
- Tsai, I.-C. (2013, Feb). Roles of Developing a Web-based Learning System. Presented at Dr. Cheng En's Data Integration class. Department of Computer Science, University of Akron.

Partnerships
- Hudson Middle School and High School: supporting schools to develop and host AI training workshops for students and teachers.
- Summit Educational Service Center (ESC) and Northeast Ohio Network for Educational Technology (NEOnet): to design and provide AI training for K-12 educators, including administrators, instructional support staff, and teachers.

Professional Affiliations: Member & Reviewer
- Member of Advisory Council Charter, iEARN USA.
- Quality Matters (QM): Peer Review & Master Reviewer
- Society for Information Technology and Teacher Education (SITE)
- Association for Advancement of Computing in Education (AACE)
- International Society for Technology in Education (ISTE)
- American Educational Research Association (AERA)
- Association for Educational Communications and Technology (AECT)