

Anne Todd Ottenbreit-Leftwich

Indiana University
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Bloomington, IN 47405
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Education

Ph.D. 2007

Educational Technology, emphasis Teacher Education
Department of Curriculum and Instruction
Purdue University, West Lafayette, Indiana

Dissertation: Exemplary Technology-Using Teachers: Visions, Strategies, and Developmental Processes

M.A. 2003

Major: Educational Technology in Technology Coordination
Minor: Technology Applications
Department of Educational Studies
Western Michigan University, Kalamazoo, Michigan

Thesis: Effects of Computer Troubleshooting on Elementary Students' Problem Solving Skills

B.S. 2002

Major: Elementary Education, Suma Cum Laude
Minors: Science/Math, Early Childhood Education, Integrated Creative Arts
Western Michigan University, Kalamazoo, Michigan

Michigan State Teaching Certification (inactive):
Elementary Education (K-5), Science (6-8), Early Education Certification

Academic Appointments

Indiana University, Instructional Systems Technology Department

Professor and Interim Chair
Fall 2021 to present

Indiana University, Instructional Systems Technology Department

Associate Professor

Spring 2013 to present

Indiana University, Computer Science

Adjunct Associate Professor

Spring 2017 to present

Indiana University, Instructional Systems Technology Department

Assistant Professor

Spring 2007 to 2013

Purdue University, Center for Instructional Excellence

Graduate Assistant

Fall 2005 to Summer 2006

Purdue University, Curriculum and Instruction Department

Teaching Assistant & Research Assistant, Educational Technology Program

Fall 2003 to Spring 2006

Externally Funded Projects

Kwon, K., Closer, F., **Ottenbreit-Leftwich, A.**, Glazewski, K., Acharya, R., Dakilic, M. (2021-2024). AI Goes Rural. Proposal funded by the Department of Defense. \$1,400,000.

Glazewski, K., Hmelo-Silver, C., **Ottenbreit-Leftwich, A.**, & Scribner, J. (2019-2021). PrimaryAI: Integrating Artificial Intelligence into Upper Elementary Science with Immersive Problem-Based Learning. Proposal funded by the National Science Foundation: STEM+C. \$670,000.

Ottenbreit-Leftwich, A., Brush, T., DeLyser, L., Yadav, A., Simon, B., & Childs, J. (2019). National Computer Science Education Preservice Case Studies. Proposal funded by Google Computer Science Education Research Grant. \$137,447.

Ottenbreit-Leftwich, A., Brush, T., Kwon, K., Dakilic, M., & Roberts, M. (2018). Examining the impact of socially relevant problem-based learning curriculum at the elementary level: Students' CS interest/knowledge and teachers' implementation needs. Proposal funded by Google Computer Science Education Research Grant. \$101,678.

Fletcher, C., Biggers, M., DeLyser, L., **Ottenbreit-Leftwich, A.**, & Richardson, D. (2018). Expanding Computing Education Pathways (ECEP) Alliance Pathways 2.0. Proposal submitted to the National Science Foundation, ECEP. \$2,492,815.

Ottenbreit-Leftwich, A., & Biggers, M. (2017). Expanding Computing Education Pathways (ECEP) Indiana Case Studies of BPC. Proposal funded by the National Science Foundation, ECEP. \$12,369.

Pritchett, T., & **Leftwich, A. T.** (Co-PD/PI). (2017). MCCSC Summer of eLearning Grant. Proposal funded by the Indiana Department of Education (Office of eLearning). \$14,000.00.

Ottenbreit-Leftwich, A., & Biggers, M. (2016). Expanding Computing Education Pathways in Indiana: BPC Summits and CS Education Landscape Report. Proposal funded by the National Science Foundation, ECEP. \$25,000.

Brush, T., Glazewski, K., **Ottenbreit-Leftwich, A.**, Shuester, M., & Saye, J. (2010 – 2013). PBL-Tech: Using Web 2.0 Resources to Support Problem-Based Curricular Innovations in Pre-Service Teacher Education. Proposal funded by the Fund for the Improvement of Postsecondary Education (FIPSE). Approximately \$750,000.

Plucker, J., Mueller, P., Rouge, E., Brush, T., & **Ottenbreit-Leftwich, A.** (2010 – 2011). Evaluation of Indiana's Enhancing Education Through Technology (EETT) Program. Proposal funded by the Indiana Department of Education. Approximately \$325,000.

Plucker, J., Brown, C., Brush, T., **Ottenbreit-Leftwich, A.**, & Bonk, C. Leveraging technology to keep America competitive. (2007-2009). Contract awarded by the Department of Education, Office of Educational Technology. Amount awarded: Approximately \$3.1 million.

Ottenbreit-Leftwich, A. T., & Simons, K. D. (2005). Technology toolkits for preservice teachers: Enabling future teachers to work with K-12 students and technology. Proposal funded by the Michigan Association for Computer Users in Learning. \$ 1,782.

Internally Funded Projects

Leftwich, A. T., Karlin, M., Liao, J., Lu, Y. (2017). Developing an open textbook with expert contributions for W200: Computers in education. Proposal funded by the School of Education: Learning and Technology Committee, Indiana University. \$4,000.

Glazewski, K., **Ottenbreit-Leftwich, A.**, Hoey, B., Aslan, S., Sadik, O. (2013). Technology integration concerns: A dialogue between pre-service teachers and exemplary in-service

teachers. Proposal funded by the Indiana University Scholarship of Teaching and Learning (SoTL) Program. \$4,000.

Ottenbreit-Leftwich, A., & Richardson, J. (2005). Preservice technology integration simulation: Encountering technology integration problems in an open-ended learning environment. Proposal awarded by Purdue University's Multimedia Instructional Development Center. \$15,000.

Awards and Certifications

- MIT INSPIRE CS-Artificial Intelligence Fellow, 2019-2021
 - Scholarly Advancement of Teacher Education and the Field of Educational Technology Award, Association for Educational Communications and Technology, 2017
 - Outstanding Faculty Mentor-Advocate Award, Center of Excellence for Women in Technology, 2017
 - Best Paper Award, Instructional Technology SIG, American Educational Research Association, 2014
 - Faculty Fellow for Open Education Resources, Indiana University, 2013
 - AECT Design and Development Division Showcase, The PBL-Tech Project: Web 2.0 Tools to Support Problem-Based Learning in Science and Social Studies, 2013
 - The Trustee's Teaching Award, Indiana University, 2011, 2018
 - Service Learning Faculty Fellow, Indiana University, 2010-2011
 - Best Paper Award, International Society for Technology and Teacher Education, Special Interest Group Teacher Education, 2010
 - Educational Communications and Technology Foundation Young Researcher Award, 2008
 - American Educational Research Association Public Communication for Early-Career Education Researchers- Learning the Ropes, 2008
 - Teaching Academy Associate Fellow, Purdue University, 2006
 - Purdue Research Foundation Grant Recipient, 2006
 - DeBruicker Scholarship, Purdue University, 2006
 - Graduate School Outstanding Graduate Teaching Assistant Award, Purdue University, 2006
 - Purdue University Graduate School E-Portfolio Winner, 2005
 - Purdue University Ross Fellowship Recipient, 2003 – 2007
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Publications

Peer Reviewed Articles

Designations: T=Teaching, R=Research, S=Service,
SCA = Student Co-Author, TCA=Teacher Co-Author

- R
SCA Liao, Y., **Ottenbreit-Leftwich, A.T.**, Glazewski, K., & Karlin, M. (2021). Coaching to support teacher technology integration in elementary classrooms: A multiple case study. *Teaching and Teacher Education*, 104. <https://doi.org/10.1016/j.tate.2021.103384>
- R
SCA Sadik, O., **Ottenbreit-Leftwich, A.T.**, & Brush, T.A. (2020). Secondary computer science teachers' pedagogical needs. *International Journal of Computer Science Education in Schools*, 4(1), 33-52. <https://doi.org/10.21585/ijcses.v4i1.79>
- R
SCA **Ottenbreit-Leftwich, A.T.**, Liao, Y., Karlin, M., Ding, A., Guo, M., & Lu, Y. (2020). Year-long implementation of a research-based professional development technology coaching model in an elementary school. *Journal of Digital Learning in Teacher Education*, 36(4), 206-220. <https://doi.org/10.1080/21532974.2020.1804494>
- T+R
SCA Jung, J., Ding, A., Lu, Y., **Ottenbreit-Leftwich, A.**, & Glazewski, K. (2020). Is digital inequality a part of preservice teachers' reasoning about technology integration decisions? *American Behavioral Scientist*, 64(7), 994-1011. <https://doi.org/10.1177/0002764220919141>.
- R+S
SCA Brush, T., **Ottenbreit-Leftwich, A.**, Kwon, K., & Karlin, M. (2020). Implementing socially relevant problem-based computer science curriculum at the elementary level: Students' computer science knowledge and teachers' implementation needs. *Journal of Computers in Mathematics and Science Teaching*, 39(2), 109-123.
- T+S Tissenbaum, M., & **Ottenbreit-Leftwich, A.** (2020). A vision of K-12 computer science education for 2030: Goals, perspectives and challenges. *Communications of the Association for Computing Machinery Magazine*, 65(5), 42-44. <https://doi.org/10.1145/3386910>
- R
TCA Kopcha, T., Neuman, K., **Ottenbreit-Leftwich, A.**, & Pitman, E. (2020). Process over product: The next evolution of our quest for technology integration. *Educational Technology Research and Development*, 68(2), 729-749. <https://doi.org/10.1007/s11423-020-09735-y>

S SCA	Richardson, J., Brush, T., Ottenbreit-Leftwich, A. , Karlin, M., Leary, H., Shelton, B., Lowell, V., Exter, M., Strycker, J., & Shin, S. (2020). Innovations in instructional design and technology programs: A view from PIDT 2018. <i>TechTrends</i> , 64, 432-438. http://doi.org/10.1007/s11528-019-00445-8
T+R	Jung, J., & Ottenbreit-Leftwich, A. (2020). Course-level modeling of preservice teacher learning of technology integration. <i>British Journal of Educational Technology</i> , 51(2), 555-571. http://doi.org/10.1111/bjet.12840
T+R SCA	Ozogul, G., Karlin, M., Ottenbreit-Leftwich, A. , Ding, A. C. E., Liao, Y. C., & Guo, M. (2019). Instructional practices for addressing computer science standards: Using computer kits in preservice teacher education. <i>Research on Education and Media</i> , 11(1), 18-24. http://doi.org/10.2478/rem-2019-0004
R	Prestridge, S., Tondeur, J., & Ottenbreit-Leftwich, A. (2019). Insights from ICT-expert teachers about the design of educational practice: The learning opportunities of social media. <i>Technology, Pedagogy and Education</i> , 28(2), 157-172. http://doi.org/10.1080/1475939X.2019.1578685
R SCA	Kwon, K., Ottenbreit-Leftwich, A. , Sari, A., Khalif, Z., Zhu, M., Nadir, H., & Gok, F. (2019). Teacher's self-efficacy matters: Exploring the integration of mobile computing device in middle schools. <i>TechTrends</i> , 63, 682-692. http://doi.org/10.1007/s11528-019-00402-5
T+R SCA	Ding, A. Ottenbreit-Leftwich, A. , Lu, Y., & Glazewski, K. (2019). EFL teachers' pedagogical beliefs and practices with regard to using technology. <i>Journal of Digital Learning in Teacher Education</i> , 35(1), 20-39. http://doi.org/10.1080/21532974.2018.1537816
R SCA	Ottenbreit-Leftwich, A.T. , Liao, Y., Sadik, O., & Ertmer, P. (2018). The evolution of four tech-savvy beginning teachers' technology knowledge, beliefs, and practices. <i>Journal of Research on Technology in Education</i> , 50(4), 282-304. https://doi.org/10.1080/15391523.2018.1487350
T+S SCA	Ozogul, G., Karlin, M., & Ottenbreit-Leftwich, A. (2018). Evaluation of computer science preservice teacher program. <i>Journal of Technology and Teacher Education</i> , 26(3), 375-409.
T+R SCA	Karlin, M., Ottenbreit-Leftwich, A. , Ozogul, G., & Liao, Y. (2018). K-12 technology leaders: Reported practices of technology professional development planning, implementation, and evaluation. <i>Contemporary Issues in Technology and</i>

	<i>Teacher Education</i> , 18(4). Retrieved from https://www.citejournal.org/volume-18/issue-4-18/current-practice/k-12-technology-leaders-reported-practices-of-technology-professional-development-planning-implementation-and-evaluation
T+R SCA	Ottenbreit-Leftwich, A.T. , Glazewski, K., Brush, T., Aslan, S., & Zachmeier, A. (2018). Exemplary technology-using in-service teachers' expertise and modeling through electronic channels to address pre-service teachers' concerns about technology integration. <i>Australasian Journal of Educational Technology</i> , 34(4). http://doi.org/10.14742/ajet.3246
T SCA	Jia, X., Jung, J., & Ottenbreit-Leftwich, A. (2018). Learning technology integration from a service-learning project: Connecting preservice teachers to real-world problems. <i>Journal of Experiential Education</i> , 41(3), 261–276. http://doi.org/10.1177/1053825917738269
T+R SCA	Liao, Y., Ottenbreit-Leftwich, A.T. , Karlin, M., Glazewski, K., & Brush, T. (2017). Supporting change in teacher practice: Examining shifts of teachers' professional development preferences and needs for technology integration. <i>Contemporary Issues in Technology and Education</i> , 17(4). Retrieved from https://citejournal.org/volume-17/issue-4-17/general/supporting-change-in-teacher-practice-examining-shifts-of-teachers-professional-development-preferences-and-needs-for-technology-integration
T+R SCA	Lu, Y., Ottenbreit-Leftwich, A.T. , Ding, A., & Glazewski, K. (2017). Experienced iPad-using early childhood teachers' practices in the one-to-one iPad classroom. <i>Computers in the Schools</i> , 34(1-2), 9-23. http://doi.org/10.1080/07380569.2017.1287543
R SCA	Tonder, J., vanBrak, J., Ertmer, P., & Ottenbreit-Leftwich, A. (2017). Understanding the relationship between teachers' pedagogical beliefs and technology use in education: A systematic review of qualitative evidence. <i>Educational Research Technology & Development</i> , 65(2), 555-575. http://doi.org/10.1007/s11423-016-9481-2
R SCA	vanLeusen, P., Ottenbreit-Leftwich, A. , & Brush, T. (2016). Interpersonal consulting skills for instructional technology consultants: A multiple case study. <i>TechTrends</i> , 60(3), 253-259. http://doi.org/10.1007/s11528-016-0046-3
R SCA	Roman, T., & Ottenbreit-Leftwich, A. (2016). Comparison of parent and teacher perceptions of essential website features and elementary teacher website practice: Implications for teacher communication practice. <i>Journal of Digital</i>

	<i>Learning in Teacher Education</i> , 32(1), 13-25. http://doi.org/10.1080/21532974.2015.1092897
R SCA TCA	Gyabak, K., Ottenbreit-Leftwich, A. , & Ray, J. (2015). Teachers using designerly thinking in K-12 online course design. <i>Journal of Online Learning Research</i> , 1(3), 253-274.
R SCA	Sabir, N., & Ottenbreit-Leftwich, A. (2014). Expanding the classroom with educational technology: A case study of a Cuban polytechnic high school. <i>World Journal on Educational Technology</i> , 6(3), 249-264.
T+R SCA	Kopcha, T., Ottenbreit-Leftwich, A.T. , Jung, J., & Derya, K. (2014). Examining the TPACK Framework through the convergent and discriminant validity of two measures. <i>Computers and Education</i> , 78, 87-96. http://doi.org/10.1016/j.compedu.2014.05.003
R	Ertmer, P.A., & Ottenbreit-Leftwich, A.T. (2013) Removing obstacles to the pedagogical changes required by Jonassen's vision of authentic technology-enabled learning. <i>Computers and Education</i> , 64, 175-182. http://doi.org/10.1016/j.compedu.2012.10.008
T+R SCA	Ertmer, P., Ottenbreit-Leftwich, A. , Sadik, O., Sendurur, E., & Sendurur, P. (2012). Teacher beliefs and technology integration practices: A critical relationship. <i>Computers and Education</i> , 59(2), 423-435. http://doi.org/10.1016/j.compedu.2012.02.001
T+R SCA	Ottenbreit-Leftwich, A. , Brush, T., Strycker, J., Gronseth, S., Roman, T., Abaci, S., van Leusen, P., Shin, S., Easterling, W., & Plucker, J. (2012). Preparation versus practice: How do teacher education programs and practicing teachers align in their use of technology to support teaching and learning? <i>Computers and Education</i> , 59(2), 399-411. http://doi.org/10.1016/j.compedu.2012.01.014
R SCA	Tondeur, J., van Braak, J., Sang, G., Voogt, J., Fisser, P., Ottenbreit-Leftwich, A. (2012). Preparing pre-service teachers to integrate technology in education: A synthesis of qualitative evidence. <i>Computers and Education</i> , 59(1), 134-144. http://doi.org/10.1016/j.compedu.2011.10.009
T+R SCA	Gronseth, S., Brush, T., Ottenbreit-Leftwich, A. , Strycker, J., Abaci, S., Easterling, W., Roman, T., Shin, S., & van Leusen, P. (2010). Equipping the next generation of teachers: Technology preparation and practice. <i>Journal of Digital Learning in Teacher Education</i> . http://doi.org/10.1080/21532974.2010.10784654

T	Ottenbreit-Leftwich, A.T. , Glazewski, K., & Newby, T. (2010). Preservice technology integration course revision: A conceptual guide. <i>Journal of Technology and Teacher Education</i> , 18(1), 5-33.
R	Ertmer, P. A., & Ottenbreit-Leftwich, A. T. (2010). Teacher technology change: How knowledge, beliefs, and culture intersect. <i>Journal of Research on Technology in Education</i> , 42(3), 221-251. http://doi.org/10.1080/15391523.2010.10782551
T+R	Ottenbreit-Leftwich, A. T. , Glazewski, K., Newby, T., & Ertmer, P. (2010). Teacher value beliefs associated with using technology: Addressing professional and student needs. <i>Computers & Education</i> , 55(3), 1321-1335. https://doi.org/10.1016/j.compedu.2010.06.002
T	Plucker, J. P., & Ottenbreit-Leftwich, A. T. (2010). Knowledge is where you make it: A response to Ghassib. <i>Gifted and Talented International</i> , 25(1), 89-94.
T+R	Ertmer, P. A., Simons, K. D., Jones, D., Ottenbreit-Leftwich, A. , Goktas, Y., Collins, K., & Kocaman, A. (2009). Facilitating technology-enhanced PBL in the K-12 classroom: An examination of how and why teachers adapt. <i>International Journal of Learning Technology</i> . 20(1), 35-54.
T+R	Richardson, J. C., Ertmer, P., Aagard, H., Ottenbreit, A. & Yang, D. (2007). Factors influencing teachers' implementation of digital age literacy skills and strategies. <i>Teacher Education & Practice</i> , 20(3), 239-262. Retrieved from https://www.learntechlib.org/p/71509/
T+R	Ertmer, P. A., Ottenbreit-Leftwich, A. T. , & York, C. S. (2006). Exemplary technology-using teachers: Perceptions of factors influencing success. <i>Journal of Computing in Teacher Education</i> , 23(2), 55-61.
T	Ottenbreit-Leftwich, A. T. , & Cullen, T. A. (2006). Preserving the legacy of PT3 tools, strategies & resources: Knowledge capture artifacts. <i>TechTrends</i> , 50(3), 46-52. https://doi.org/10.1007/s11528-006-7603-0

Editorials

Mouza, C., Yadav, A. & **Ottenbreit-Leftwich, A.** (2018). Developing computationally literate teachers: Current perspectives and future directions for teacher preparation in computing education. *Journal of Technology and Teacher Education*, 26(3), 333-352.

Books

Designations: T=Teaching, R=Research, S=Service,
SCA = Student Co-Author, TCA=Teacher Co-Author

- R+T Mouza, C., Yadav., A., & **Ottenbreit-Leftwich, A.** (2021). Preparing inservice teachers to teach computer science: Models, practices and policies. Springer.
- R+T Mouza, C., Yadav., A., & **Ottenbreit-Leftwich, A.** (2021). Preparing preservice teachers to teach computer science: Models, practices and policies. Springer.
- T **Ottenbreit-Leftwich, A.** & Kimmons, R. (2018). *The K-12 Educational Technology Handbook*. EdTech Books [self-published]. <http://edtechbooks.org/k12handbook>
- T Newby, T.J., Stepich, D. A., Lehman, J.D., Russell, J.D., & **Ottenbreit-Leftwich, A.T.** (2010). *Instructional technology for teaching and learning: Designing instruction, integrating computers, and using media* (5th ed.). Prentice-Hall.
- T **Leftwich, A. T.**, & York, C. S. (2006). *Taskstream: The tools of engagement EDCI 270 Manual* (2nd ed.). Pearson Education, Inc.
- T Newby, T. J. & **Ottenbreit, A. T.** (2005). *Teaching and learning with Microsoft Office and FrontPage CD-Rom Tutorials* [Computer software]. Pearson Education, Inc.

Book Chapters

Designations: T=Teaching, R=Research, S=Service,
SCA = Student Co-Author, TCA=Teacher Co-Author

- T Cullen, T., & **Ottenbreit-Leftwich, A.** (2020). Revisiting preservice technology integration course content: What are the critical objectives? In Ferdig, R. E., Baumgartner, E., Hartshorne, R., Kaplan-Rakowski, R., & Mouza, C. (Eds.) *Teaching, technology, and teacher education during the covid-19 pandemic: Stories from the field*. (pp. 457-464). Association for the Advancement of Computing in Education (AACE). Available at: <https://www.learntechlib.org/primary/p/216903/>.

R	Ottenbreit-Leftwich, A., Kopcha, T., & Ertmer, P. (2018). Teacher dispositions associated with ICT. In P. Albion & J. Tonduer (Eds.), <i>International handbook of information technology in primary and secondary education</i> (pp. 1-25). Springer.
R+T	Ottenbreit-Leftwich, A., & Brush, T. (2018). Issues and trends in K-12. In R. Reiser & P. Dempsey (Eds.), <i>Trends and issues in instructional design and technology</i> (4th ed., pp. 176-182). Pearson Education.
T+R SCA	Sadik, O., Ottenbreit-Leftwich, A., & Nadiruzzaman, H. (2017). Computational thinking conceptions and misconceptions: Progression of preservice teacher thinking during computer science lesson planning. Rich, P. J., & Hodges, C. (Eds.), <i>Computational thinking: Research and practice</i> (pp. 221-238). Springer.
R	Ottenbreit-Leftwich, A., Ertmer, P., & Tonduer, J. (2015). Interpretation of research on technology integration in teacher education: Preparation and current practices. In M. Valcke (Ed.), <i>International handbook of interpretation in educational research</i> (pp. 1239-1262). Springer.
R	Ertmer, P., Ottenbreit-Leftwich, A., & Tonduer, J. (2015). Teacher beliefs and uses of technology to support 21st century teaching and learning. In H. Five & M. Gills (Eds.), <i>International handbook of research on teachers' beliefs</i> (pp. 423-453). Routledge.
T+R	Brush, T., Glazewski, K., Ottenbreit-Leftwich, A., & Baker, J. (2014). Using technology to support the unique needs of gifted learners: Promise and challenges. In J. A. Plucker & C. M. Callahan (Eds.), <i>Critical issues and practices in gifted education: What the research says</i> (2nd ed., pp. 707-722). Prufrock Press.
T+R	Ottenbreit-Leftwich, A.T. (2012). The importance of using subject-specific technology uses to teach TPACK: A case study. In D. Polly, C. Mims, & K. Perschitte (Eds.), <i>Creating technology-rich teacher education programs: Key issues</i> (pp. 152-169). IGI Global.
T+R SCA	Ottenbreit-Leftwich, A.T., Millard, M., & vanLeusen, P. (2011). Instructional technical and pedagogical design: Teaching future teachers educational technology. In A. Olofsson & O. Lindberg (Ed.), <i>Informed design of educational technologies in higher education: Enhanced learning and teaching</i> (pp. 452-473). IGI Global.

Other Publications

Moore, T., & **Ottenbreit-Leftwich, A.** (2020). *The Integration of Computational Thinking in Early Childhood and Elementary Education*. Submitted to the National Academy of Sciences.

Ottenbreit-Leftwich, A.T. & Biggers, M. (2017). *Status of K-14 computer science education in Indiana: Landscape Report*. Submitted to the NSF's ECEP Alliance, the Indiana Department of Education, Governor of Indiana, Code.org, and Indiana legislators.
<http://bit.ly/CSforINFinalReport>

Ottenbreit-Leftwich, A.T. (2009). Educational technology and teacher preparation policy within the United States. *Indire: L'Agencia Nazionale per lo Sviluppo dell'Autonomia Scolastica, Florence, Italy*.

Plucker, J. P., Bonk, C. J., Brush, T. A., & **Ottenbreit-Leftwich, A. T.** (2009). A parent's guide to the Internet (written content). *Department of Education, Office of Educational Technology*.
<http://bit.ly/USInternetGuide>

Ottenbreit-Leftwich, A. T., & Simons, K. D. (2007). Technology toolkits: An answer to integration at the preservice level. *Michigan Association for Computer Users in Learning Journal, 27(4)*, 42-44.

International Invited Presentations

Ottenbreit-Leftwich, A., & Fletcher, C. (2019, July). Google computer science educational research grants: A summary of 2018-2019 cohort projects. *Invited presentation at Grace Hopper Down Under, Brisbane, Australia*.

Ottenbreit-Leftwich, A.T. (2009, October). The role of teachers and pre-teachers to foster future learners. *Paper presented at Korea-OECD International Seminar: New Millennium Learners and Teachers, Seoul, Korea*.

Ottenbreit-Leftwich, A. T. (2008, December). US approaches to teacher education in ICT. *Presentation to European Schoolnet, Rome, Italy*.

Ottenbreit-Leftwich, A. T. (2008, December). US approaches to teacher education in ICT. *Presentation to Indire: L'Agencia Nazionale per lo Sviluppo dell'Autonomia Scolastica, Florence, Italy*.

Ottenbreit-Leftwich, A. T. (2008, October). US national study of teacher education programs and how they prepare teachers to use technology. *Presentation to the New Millennium Learners Project at the Organization for Economic Co-operation and Development's Centre for Educational Research and Innovation (CERI), Paris, France*.

National Invited/Keynote Presentations

Raspberry, M., Peterfreund, A., Oommen, B., McGowan, N., & **Ottenbreit-Leftwich, A.** (2020, June). June expert panel: Integrating computer science and computational thinking in the preK-8 grades. STEM for all multiplex. Retrieved from <https://multiplex.videohall.com/pages/june2020webinar>

Hendrickson, K., Rosato, J., **Ottenbreit-Leftwich, A.**, & Hu, H. (2019, October). Preservice teacher education certification and pathways. *Invited panel presentation at CS ED CON, Las Vegas, NV.*

Adrion, R., Brennan, K., Frye, D., **Ottenbreit-Leftwich, A.**, Stephenson, C., & Warner, J. (2019, October). A dialogue between researchers and policymakers (presented by Google). *Invited panel presentation at CS ED CON, Las Vegas, NV.*

Richardson, D., Freeman, S., Hu, H., **Ottenbreit-Leftwich, A.**, etc. (2019, October). Who's missing out? Using state landscape reports to understand and advocate for CS equity in your state. *Invited panel presentation at CS ED CON, Las Vegas, NV.*

DeLyser, L., & **Ottenbreit-Leftwich, A.** (2019, May). Finding a home for computer science in schools of education. *Invited presentation at the National Council for Women in Technology, Nashville, TN.*

Biggers, M., **Ottenbreit-Leftwich, A.**, Elder, J., Cornforth, K., & Baskin, J. (2018, July). Why do teachers matter? *Invited panel presentation at Infosys Pathfinders Conference, Bloomington, IN.*

Ottenbreit-Leftwich, A., Adrion, R., Dovi, R., & Abell, O. (2018, January). Creating real pathways to broadening computer science education. *Invited panel presentation at Expanding Computer Education Pathways Conference, Atlanta, GA.*

Englund, J., Dousay, T., Ertmer, P., & **Ottenbreit-Leftwich, A.** (2016). Alternatives to lectures. Symposium presentation at the Association for Educational Communications and Technology International Convention, Las Vegas, NV.

Polly, D., **Ottenbreit-Leftwich, A.**, Mims, C., Daniels, L., Brynteson, K., & Calandra, B. (2015). Panel discussion on professional development to support technology integration. *Symposium presentation at the Association for Educational Communications and Technology International Convention, Indianapolis, IN.*

Ottenbreit-Leftwich, A., Kale, U., Banas, J., Ball, M. (2013, October). The technology service course for teacher education: Materials and methods share. *Symposium presentation at the*

Association for Educational Communications and Technology International Convention, Anaheim, CA.

Ottenbreit-Leftwich, A. (2013, September). Preservice teacher education and educational technology courses: How can we influence future practices of novices in stand-alone courses? *Invited paper presented at Design Based Research Conference, Athens, GA.*

Kopcha, T., Rieber, L., Brush, T., Glazewski, K., Inan, F., **Ottenbreit-Leftwich, A.**, & Strycker, J. (2012, October). Crafting a dossier that effectively represents yourself and your scholarship. *Invited panel at Association for Educational Communications and Technology International Convention, Louisville, KY.*

Jung, J., **Ottenbreit-Leftwich, A.**, Kopcha, T., Ertmer, P., Brantley-Dias, L., Polly, D., & Graham, C. (2012, October). TPACK: A lively debate. *Invited panel at Association for Educational Communications and Technology International Convention, Louisville, KY.*

Brush, T., Glazewski, K., Belland, B., **Ottenbreit-Leftwich, A.**, & Leary, H. (2012, October). Problem-based learning and teacher education. *Invited panel at Association for Educational Communications and Technology International Convention, Louisville, KY.*

Cullen, T., & **Ottenbreit-Leftwich, A.T.** (2010, April). Surviving the 3rd year review. *Invited roundtable presentation at American Education Research Association Conference, Denver, CO.*

Brush, T.A., **Ottenbreit-Leftwich, A.T.**, Cullen, T.A., Hur, J.W., Kale, U., Glazewski, K. D. (2009, October). GSA: Advice for the job hunt. *Invited panel at Association for Educational Communications and Technology International Convention, Louisville, KY.*

Brush, T.A., & **Ottenbreit-Leftwich, A.T.** (2009, April). Technology and teacher preparation. *Invited presentation at the American Education Research Association Conference, San Diego, CA.*

Ertmer, P.A., & **Ottenbreit-Leftwich, A.T.** (2009, April). The four constructs of teacher change: Beliefs, knowledge, self-efficacy, and culture. *Invited paper presentation at the American Education Research Association Conference, San Diego, CA.*

Ottenbreit-Leftwich, A. T., Newby, T. J., Glazewski, K. D., & Ertmer, P. A. (2008, October). Values associated with using technology to address professional and student needs. *Young Researcher Award paper presented for the Association for Educational Communications and Technology International Convention, Orlando, FL.*

Ottenbreit-Leftwich, A. T., & Brush, T. A. (2008, October). Supporting the use of emerging technologies in schools: Research and implications of the leveraging technology to keep

America competitive project. *Invited paper presented at Association for Educational Communications and Technology International Convention, Orlando, FL.*

Brush, T. A. & **Ottenbreit-Leftwich, A. T.** (2008, March). A United States Department of Education national study of preservice technology integration programs. *Invited paper presented at the Society for International Technology and Teacher Education, Las Vegas, NV.*

State/Local Invited/Keynote Presentations

Ottenbreit-Leftwich, A. (2019, May). Indiana's K-12 computer science education journey. *Minnesota Summit for K-12 Computer Science Education, Minneapolis, MN.*

Ottenbreit-Leftwich, A.T., & Karlin, M. (2019, June). Empowering student civic engagement through computer science and technology. *Full STEAM ahead Decatur eLearning conference, Decatur, IN.*

Ottenbreit-Leftwich, A.T., & Karlin, M. (2018, October). Integrating computational thinking to address the Indiana computer science standards in ELA. *Invited presentation at Flipping the Switch, Indianapolis, IN.*

Ottenbreit-Leftwich, A.T. (2018, September). Computer science in Indiana: What's our current status? *Keynote presentation for Regional Opportunities Initiatives, Westgate, IN.*

Ottenbreit-Leftwich, A.T. (2013, October). Using technology to your advantage in the classroom. *Keynote presentation for Indiana Teachers' Leadership Development Program.*

Ottenbreit-Leftwich, A.T. (2013, August). Thinking outside the technology: Ways to use Web 2.0 tools in your classroom. *Keynote presentation for Monroe County Consolidated School Corporation.*

Ottenbreit-Leftwich, A.T. (2013, April). What's the best way to use technology in your classroom? *Keynote presentation for Indiana Teachers' Leadership Development Program.*

Ottenbreit-Leftwich, A.T. (2012, August). The changing culture of education and technology. *Keynote presentation for Monroe County Consolidated School Corporation.*

Ottenbreit-Leftwich, A.T. (2012, June). Web 2.0 and social media for the K-12 classroom. *Keynote presentation for Monroe County Consolidated School Corporation's Teacher Leadership Development Program.*

Ottenbreit-Leftwich, A.T. (2012, April). Professional development ideas for technology integration in your district. *Keynote presentation for Indiana Teachers' Leadership Development Program.*

Ottenbreit-Leftwich, A.T. (2011, April). Making technology work for you in the classroom: How to use technology to increase your efficiency and effectiveness. *Keynote presentation for Indiana Teachers' Leadership Development Program.*

Ottenbreit-Leftwich, A.T. (2010, January). 50 ways to use technology in your classroom tomorrow. *Keynote presentation for Indiana Teachers' Leadership Development Program.*

International and National Conference Presentations

Lee, S., Mott, B., **Ottenbreit-Leftwich, A.**, Scribner, A., Taylor, S., Park, K., ... & Lester, J. (2021, May). AI-Infused Collaborative Inquiry in Upper Elementary School: A Game-Based Learning Approach. In Proceedings of the AAAI Conference on Artificial Intelligence (Vol. 35, No. 17, pp. 15591-15599).

Fletcher, C. L., Dunton, S. T., Torbey, R., Goodhue, J., Biggers, M., Childs, J., **Leftwich, A.**, & Richardson, D. (2021, March). Leveraging Collective Impact to Promote Systemic Change in CS Education. In Proceedings of the 52nd ACM Technical Symposium on Computer Science Education (pp. 994-999). <https://doi-org.proxyiub.uits.iu.edu/10.1145/3408877.3432540>

Friend, M., **Leftwich, A.**, Schafer, J.B., Simon, B., & Morrison, B. (2021, March). Teaching the methods of teaching CS. In Proceedings of the 52nd ACM Technical Symposium on Computer Science Education (pp. 459-460). <https://doi-org.proxyiub.uits.iu.edu/10.1145/3408877.3432573>

Rosato, J., **Leftwich, A.**, Nadelson, L., & Friend, M. (2021, March). Using CSTA Standards for CS Teachers to Design CS Teacher Pathways. In Proceedings of the 52nd ACM Technical Symposium on Computer Science Education (pp. 1349-1349).

Jeon, M., Koressel, J., **Ottenbreit-Leftwich, A.**, Peterfreund, A., Dunton, S., Xavier, J., ... & Goodhue, J. (2021, March). Document Analysis of ECEP Longitudinal Data: A Case Study with Indiana. In Proceedings of the 52nd ACM Technical Symposium on Computer Science Education (pp. 1314-1314).

Ottenbreit-Leftwich, A., Glazewski, K., Jeon, M., Hmelo-Silver, C., Mott, B., Lee, S., & Lester, J. (2021, March). How do Elementary Students Conceptualize Artificial Intelligence?. In Proceedings of the 52nd ACM Technical Symposium on Computer Science Education (pp. 1261-1261). <https://doi-org.proxyiub.uits.iu.edu/10.1145/3408877.3439642>

Kim, J., Childs, J., **Leftwich, A.**, Edwards, K. M., Fletcher, C. L., & Hendrickson, K. (2021, March). Landscape of Computer Science Teacher Qualification Pathway. In Proceedings of the 52nd ACM Technical Symposium on Computer Science Education (pp. 1299-1299).

Guo, M., & **Ottenbreit-Leftwich, A.** (2020, October). Exploring the K-12 computer science curriculum standards in the US. In Proceedings of the 15th Workshop on Primary and Secondary Computing Education (pp. 1-6).

Standl, B., Rosato, J., **Leftwich, A.**, & Fragapane, V. (2020, April). (How) Do They Bring Computer Science to Everyone? Pre-Service Computer Science Teacher Programs in Germany and in the USA. In Society for Information Technology & Teacher Education International Conference (pp. 631-637). Association for the Advancement of Computing in Education (AACE).

Liao, Y., **Ottenbreit-Leftwich, A.**, & Glazewski, K. (2020, April). Coaching for supporting teacher technology integration in elementary classrooms: A multiple-case study [Roundtable session]. *AERA Annual Meeting, San Francisco, CA* (Conference canceled).

Zhu, M., **Leftwich, A.**, & Bonk, C. (2020, April). Integration of pedagogy, space, and technology for computer-supported collaborative learning in active learning classrooms [Paper session]. *AERA Annual Meeting, San Francisco, CA* (Conference canceled).

Kwon, K., **Ottenbreit-Leftwich, A.**, Brush, T., & Jeon, M. (2020, April). Effects of problem-based learning curriculum for computer science education in an elementary school [Paper session]. *AERA Annual Meeting, San Francisco, CA* (Conference canceled).

Ottenbreit-Leftwich, A., Kwon, K., & Brush, T. (2020, April). Teaching computational thinking with socially relevant problems at the elementary level [Roundtable session]. *AERA Annual Meeting, San Francisco, CA* (Conference canceled).

Ottenbreit-Leftwich, A., & Biggers, M. (2020, April). Progress and challenges in K-12 computer science education: Evidence from four states [Roundtable session]. *AERA Annual Meeting, San Francisco, CA* (Conference canceled).

Ottenbreit-Leftwich, A., Dunton, S., Stephenson, C., Garvin, M., & Warner, J. (2020, March). The landscape of broadening participation in computing, using state and national datasets to advocate for equity in computer science education [BoF session cancelled]. *SIGCSE Annual Meeting, Portland, OR*.

Zarch, R., Dunton, S., Childs, J., & **Leftwich, A.** (2020, March). Through the Looking Glass: Computer Science Education and the Unintended Consequences of Broadening Participation Policy Efforts. In *2020 Research on Equity and Sustained Participation in Engineering, Computing, and Technology (RESPECT)* (Vol. 1, pp. 1-4). IEEE.

Kwon, K., **Ottenbreit-Leftwich, A.**, Brush, T., Jeon, M., Zhu, M., & Gok, F. (2019, November). Exploring 6th-grade students' CT concepts and practices. *Paper presented at the Association for Educational Communications and Technology, Las Vegas, NV.*

Ottenbreit-Leftwich, A., Brush, T., Kwon, K., Karlin, M., Jeon, M., Jantaraweragul, K., Abramenka-Lachheb, V., Nadir, H., Guo, M., Zhu, M., Alghamdi, K., Yan, Y., Gates, L., Gok, F., Estell, D., Roberts, M., Dalkilic, M. (2019, November). Inspiring the next generation of learners: using socially relevant computer science (cs) problem-based learning curriculum at the 6th grade level. *Paper presented at the Association for Educational Communications and Technology, Las Vegas, NV.*

Brush, T., **Ottenbreit-Leftwich, A.**, Kwon, K., & Karlin, M. (2019, March). Implementing socially relevant problem-based computer science curriculum at the elementary level: Students' computer science knowledge and teachers' implementation needs. *Paper presented at Society for Information Technology & Teacher Education International Conference 2019, Las Vegas, NV.*

Peterfreund, A., Yongpradit, P., Zarch, R., **Ottenbreit-Leftwich, A.T.**, & Garvin, M. (2018, October). Why metrics matter in broadening participation in computing. *Presentation at Expanding Computer Education Pathways Summit, Detroit, MI.*

Guo, M., Ding, A., Karlin, M., Liao, Y., Lu, Y., & **Ottenbreit-Leftwich, A.T.** (2018, October). Implementation of a research-based professional development technology coaching model in an elementary school. *Paper presented at the Association for Educational Communications and Technology, Kansas City, MO.*

Jung, J., Glazewski, K., & **Ottenbreit-Leftwich, A.T.** (2018, October). Developing a Scale for Preservice Teacher Considerations in Technological Pedagogical Reasoning. *Paper presented at the Association for Educational Communications and Technology, Kansas City, MO.*

Ottenbreit-Leftwich, A.T., Liao, Y., & Karlin, M. (2018, June). Best research-based practices for #EdTech PD: A summary and workshop. *Paper presented at the International Society for Technology in Education, Chicago, IL.*

Ottenbreit-Leftwich, A.T. (2018, June). ISTE's New Online Professional Learning for the Digital Age: Computational thinking. *Paper presented at the International Society for Technology in Education, Chicago, IL.*

Guo, M., & **Ottenbreit-Leftwich, A.T.** (2018, June). Understand pre-service teachers' technology integration through a design lens. *Paper presented at the International Society for Technology in Education, Chicago, IL.*

Ottenbreit-Leftwich, A.T., & Yadav, A. (2018, April). Models for teacher preparation in computer science. *Paper presented at American Educational Research Association, New York, NY.*

Ding, A.C., **Leftwich, A. T.**, Lu, Y., Xu, S., Glazewski, K. D. (2017). EFL teachers' pedagogical beliefs and practices with regards to using technology. *Paper presented at American Educational Research Association, New York, NY.*

Lu, Y., **Ottenbreit-Leftwich, A.**, & Glazewski, K. (2017) A beginning elementary teacher's technology integration practice in a technology-rich school. Roundtable paper presented at the Association for Educational Communications and Technology International Convention, Las Vegas, NV.

Liao, Y., **Leftwich, A.T.**, & Hitchcock, J.H. (2017). Coaching in Teacher Professional Development for Technology Integration: Examining Effects on Teaching Practices and Teachers' Perceptions. *Paper presented at the Association for Educational Communications and Technology International Convention, Las Vegas, NV.*

Leftwich, A. T., & Ertmer, P. (2017). Teacher Dispositions and Instructional Communications Technology (ICT) Practices: Knowledge Gaps and Opportunities for Future Research. *Paper presented at the Association for Educational Communications and Technology International Convention, Las Vegas, NV.*

Lu, Y., **Ottenbreit-Leftwich, A.**, & Glazewski, K. (2016). Sink or swim: An elementary teacher's development in a technology-rich school. *Paper presented at the International Society for Technology in Education, Denver, CO.*

Lu., Y., Ding, A., **Ottenbreit-Leftwich, A.**, Glazewski, K. (2016). Exemplary early childhood teachers' instructional practices in the 1:1 iPad classroom. *Paper presented at the International Society for Technology in Education, Denver, CO.*

Karlin, M., Liao, Y., **Ottenbreit-Leftwich, A.** (2016). Designing technology-related professional learning. *Paper presented at the International Society for Technology in Education, Denver, CO.*

Liao, Y., **Ottenbreit-Leftwich, A.**, Karlin, M., Brush, T., & Glazewski, K. (2016). Supporting change in teacher technology integration: Examining shifts of teachers' professional development. *Paper presented at the International Society for Technology in Education, Denver, CO.*

Ottenbreit-Leftwich, A., Liao, Y., & Sadik, O. (2016). Evolution of teacher technology knowledge, beliefs and practices: Preservice to inservice. *Paper presented at the International Society for Technology in Education, Denver, CO.*

Lu, Y., **Ottenbreit-Leftwich, A.**, Ding, A., & Glazewski, K. (2016). Early Childhood Teachers' Developmentally Appropriate Practices in the 1:1 iPad Classroom. *Paper presented at the Association for Educational Communications and Technology International Convention, Las Vegas, NV.*

Jia, X., & **Ottenbreit-Leftwich, A.** (2016). Benefits and project management issues for service-learning in technology integration preparation: Lesson learned from instructors. *Paper presented at the Association for Educational Communications and Technology International Convention, Las Vegas, NV.*

Karlin, M., Ozogul, G., & **Ottenbreit-Leftwich, A.** (2016). In Search of a Computer Science Teacher: Expectations of Today's Job Market. *Roundtable paper presented at the Association for Educational Communications and Technology International Convention, Las Vegas, NV.*

Lu, Y., **Ottenbreit-Leftwich, A.**, & Glazewski, K. (2016) A Beginning Elementary Teacher's Technology Integration Practice in a Technology-Rich School. *Roundtable paper presented at the Association for Educational Communications and Technology International Convention, Las Vegas, NV.*

Liao, Y., & **Ottenbreit-Leftwich, A.** (2016). Examining and supporting late technology-adopting teachers' technology integration through professional development. *Roundtable paper presented at the Association for Educational Communications and Technology International Convention, Las Vegas, NV.*

Brush, T., Glazewski, K., **Ottenbreit-Leftwich, A.**, Callison, M., & Shin, S. (2015). Cultivating university-school partnerships to support research and practice: The Jacobs Educator program. *Panel presented at the Association for Educational Communications and Technology International Convention, Indianapolis, IN.*

Jia, X., & **Ottenbreit-Leftwich, A.** (2015). Design judgments in redesigning a service-learning project in a standalone educational technology course. *Paper presented at the Association for Educational Communications and Technology International Convention, Indianapolis, IN.*

Ding, A., & **Ottenbreit-Leftwich, A.** (2015). Language teachers' pedagogical beliefs behind their technology integration practices and visions. *Paper presented at the Association for Educational Communications and Technology International Convention, Indianapolis, IN.*

Liao, Y., **Ottenbreit-Leftwich, A.**, Glazewski, K., Brush, T., & Karlin, M. (2015). Supporting change in teacher practice: Examining teachers professional development for technology integration. *Poster presented at the Association for Educational Communications and Technology International Convention, Indianapolis, IN.*

Ottenbreit-Leftwich, A., Liao, Y., & Sadik, O. (2015). Longitudinal study of teachers' technology integration knowledge, beliefs, and intention/practices evolution: Preservice to induction. *Paper presented at the Association for Educational Communications and Technology International Convention, Indianapolis, IN.*

Lu, Y., Ding, A., **Ottenbreit-Leftwich A.,** & Glazewski K. (2015). Early childhood teachers instructional practices and perceptions in 1:1 iPad classrooms. *Paper presented at the 2015 Association for Educational Communication and Technology (AECT) Conference, Indianapolis, IN.*

Jung, J., Alangari, H., Brown, O., Edelberg, T., Hogaboam, P., Jia, X., Liao, Y., Lu, Y., Ozdemir, O., Glazewski, K., & **Ottenbreit-Leftwich, A.** (2015). Sources of preservice teachers' instructional decision making. *Poster presented at the American Educational Research Association Conference, Chicago, IL.*

Lu, Y., Ding, A., Glazewski K., & **Ottenbreit-Leftwich A.** (2015). Early childhood 1:1 technology initiative: An investigation of teacher practices and perceptions. *Paper presented at the 2015 American Educational Research Association (AERA) annual meeting, Chicago, IL.*

Sadik, O., Dagli, C., Ergulec, F., & **Ottenbreit-Leftwich, A.** (2014, October). Technology integration in charter schools: Examining the alignment between teachers' and principal beliefs and concerns. *Poster presented at the Association for Educational Communications and Technology International Convention, Jacksonville, FL.*

Gyabak, K., **Ottenbreit-Leftwich, A.,** & Ray, J. (2014, October). Teacher as a designer: Deconstructing the design process in K-12 online learning. *Roundtable paper presented at the Association for Educational Communications and Technology International Convention, Jacksonville, FL.*

Jia, X., Jung, J., **Ottenbreit-Leftwich, A.,** Liao, Y., & Lu, Y. (2014, October). Learning technology integration with the community: Lessons learned from a service-learning project. *Paper presented at the Association for Educational Communications and Technology International Convention, Jacksonville, FL.*

Jung, J., Liao, Y., Brown, O., Edelberg, T., Hogaboam, P., Jia, X., Lu, Y., Ozdemir, O., Glazewski, K., **Ottenbreit-Leftwich, A.** (2014, October). Exploring How Pre-Service Teachers Make Instructional Technology Decisions. *Poster presented at the Association for Educational Communications and Technology International Convention, Jacksonville, FL.*

Jung, J., Jia, X., Lu, Y., Liao, Y., & **Ottenbreit-Leftwich, A.** (2014, October). An Exploratory Comparison Between Hypothetical and Real Case-Based Learning Experiences of Pre-Service Teachers. *Poster presented at the Association for Educational Communications and Technology International Convention, Jacksonville, FL.*

Kopcha, T., & **Ottenbreit-Leftwich, A.** (2014, July). Improving preservice TPACK through case-based learning. Paper presented at International Society for Technology in Education Conference, Atlanta, GA.

Ottenbreit-Leftwich, A., Sadik, O., & Liao, Y. (2014, July). Evolution of teachers' technology knowledge, beliefs, and integration. Roundtable paper presented at International Society for Technology in Education Conference, Atlanta, GA.

Ottenbreit-Leftwich, A., & Kopcha, T. (2014, April). Applying design-based research to improve case-based learning in technology integration coursework. Paper presented at the American Educational Research Association Conference, Philadelphia, PA.

Kopcha, T., **Ottenbreit-Leftwich, A.,** Jung, J., & Baser, D. (2014, April). Convergent and discriminant validity among two technological, pedagogical, and content knowledge (TPACK) measures. Paper presented at the American Educational Research Association Conference, Philadelphia, PA.

Kopcha, T., Buxton, C., Wilson, B., Klein, J., **Ottenbreit-Leftwich, A.,** & Reeves, T. (2014, April). Questions and Solutions to Issues with Validating and Improving Instructional Theory and Practice in Design-Based Research. Symposium paper presented at the American Educational Research Association Conference, Philadelphia, PA.

Sabir, N. & **Ottenbreit-Leftwich, A.** (2014, March). Expanding the classroom with educational technology: Case study of a Cuban polytechnic high school. *Paper presented at the 58th Annual Conference of the Comparative and International Education Society, Toronto, Canada.*

Sadik, O., **Ottenbreit-Leftwich, A.,** & Liao, Y. (2013, October). Investigating Tech-savvy Pre-service Teachers' Technology Integration Knowledge, Beliefs and Intentions. *Paper presented at the Association for Educational Communications and Technology International Convention, Anaheim, CA.*

Sadik, O., Celik, S., **Ottenbreit-Leftwich, A.** (2013, October). Preparing Future Teachers for The Movement to Increase Opportunities and Technology Project Goals. *Paper presented at the Association for Educational Communications and Technology International Convention, Anaheim, CA.*

Hoey, B., Aslan, S., Zachmeier, A., Sadik, O., Glazewski, K., **Ottenbreit-Leftwich, A.,** Brush, T. (2013, October). Technology Integration Concerns: Expanding the Dialogue Between Pre-Service Teachers and Exemplary Technology-Using In-Service Teachers. *Paper presented at the Association for Educational Communications and Technology International Convention, Anaheim, CA.*

Roman, T., **Ottenbreit-Leftwich, A.**, & Abaci, S. (2013, October). Preservice Teachers Speak from Experience: An Update on Technology Preparation within Teacher Education Programs. *Paper presented at the Association for Educational Communications and Technology International Convention, Anaheim, CA.*

Brush, T., Glazewski, K., **Ottenbreit-Leftwich, A.**, Shin, S., Jung, J., Suhkyung, S., Saye, J., Kohlmeier, J., Howell, J. (2013, October). The PBL-Tech Project: Web 2.0 Tools to Support Problem-Based Learning in Science and Social Studies. Design and Development Showcase. *Poster presented at the Association for Educational Communications and Technology International Convention, Anaheim, CA.*

Lu, Y., Liao, Y., **Ottenbreit-Leftwich, A.**, & Glazewski, K. (2013, October). Examining Preservice Teachers' Reasoning Process in Analyzing Technology Integration Cases. *Poster presented at the Association for Educational Communications and Technology International Convention, Anaheim, CA.*

Kopcha, T., **Ottenbreit-Leftwich, A.**, Jung, J. (2013, April). Assessing Preservice Teachers' Technology Integration Abilities Using TPACK: Comparing Three Measures. *Paper presented at a roundtable at the American Educational Research Association, San Francisco, CA.*

Ertmer, P., & **Ottenbreit-Leftwich, A.** (2012, October). Espoused and enacted beliefs: Examining the relationship between teacher beliefs and technology integration practices. *Paper presented as Featured Research at Association for Educational Communications and Technology International Convention, Louisville, KY.*

Lee, D., Jung, J., Shin, S., **Ottenbreit-Leftwich, A.**, & Glazewski, K. (2012 October). Building a sustainable and fulfilling online community for K-12 teachers. *Paper presented at a roundtable at the Association for Educational Communications and Technology International Convention, Louisville, KY.*

Jia, X., Jung, J., Huh, Y., Min, M., Shin, S., **Ottenbreit-Leftwich, A.**, Glazewski, K., & Brush, T. (2012, October). Breaking barriers for technology integration in K-12 classrooms: Success stories from exemplary in-service teachers. *Paper presented at Association for Educational Communications and Technology International Convention, Louisville, KY.*

Roman, T., & **Ottenbreit-Leftwich, A.** (2012, April). Comparison of parent and teacher perceptions of desired website features and elementary teacher website practice. *Poster presented at American Educational Research Association, Vancouver, CA.*

Ottenbreit-Leftwich, A., & Brush, T. (2012, April). The PBL-TECH Project: Using web 2.0 tools and resources to support problem-based curricular innovations in preservice teacher education. *Paper presented at American Educational Research Association, Vancouver, CA.*

Ottenbreit-Leftwich, A., & Brush, T. (2011, March). Comparing how teachers use technology and teacher education programs prepare teachers to use technology. *Paper presented at Society for Information Technology & Teacher Education International Conference, Nashville, TN.*

Brush, T., **Ottenbreit-Leftwich, A.,** Saye, J., Glazewski, K., McCormick, T. (2011, March). PBL-TECH: Using web 2.0 tools and resources to support problem-based curricular innovations in pre-service teacher education. *Paper presented at Society for Information Technology & Teacher Education International Conference, Nashville, TN.*

Ottenbreit-Leftwich, A., Millard, M., & van Leusen, P. (2011, March). Instructional technical and pedagogical design: Teaching future teachers educational technology. *Paper presented at Society for Information Technology & Teacher Education International Conference, Nashville, TN.*

Ottenbreit-Leftwich, A.T., & Brush, T.A. (2010, October). Comparison of technology topics and experiences: A national study of teacher education programs and K-12 teachers. *Paper presented at Association for Educational Communications and Technology International Convention, Anaheim, CA.*

Roman, T.A., **Ottenbreit-Leftwich, A.T.,** Brush, T.A., & TeachTech (2010, October). How elementary and secondary teachers use technology differently: A national study of accomplished technology-using teachers. *Paper presented at Association for Educational Communications and Technology International Convention, Anaheim, CA.*

Strycker, J., Brush, T.A., & **Ottenbreit-Leftwich.** (2010, October). Comparing computer self-efficacy and technology requirements between traditional and alternative tep students at four institutions. *Paper presented at Association for Educational Communications and Technology International Convention, Anaheim, CA.*

Ottenbreit-Leftwich, A.T., Brush, T.A., & TeachTech (2010, April). A national study comparing how teacher education programs prepare teachers to use technology and how teachers use technology. *Paper presented at American Education Research Association Conference, Denver, CO.*

Ottenbreit-Leftwich, A.T., Strycker, J., van Leusen, P., Easterling, C. & Brush, T.A. (2010, April). How teachers use technology differently in varied subject areas: A national study. *Paper presented at American Education Research Association Conference, Denver, CO.*

Roman, T.A., **Ottenbreit-Leftwich, A.T.**, Abaci, S., Shin, S., & Brush, T.A. (2009, October). How teachers use technology differently in elementary and secondary education: A national study. *Paper presented at Association for Educational Communications and Technology International Convention, Louisville, KY.*

Roman, T.A., & **Ottenbreit-Leftwich, A.T.** (2009, October). How accomplished elementary teachers use technology: A national study. *Paper presented at Association for Educational Communications and Technology International Convention, Louisville, KY.*

vanLeusen, P., **Ottenbreit-Leftwich, A.T.**, & Brush, T.A. (2009, October). How accomplished technology teachers use technology in English language arts in secondary education: A national study. *Paper presented at Association for Educational Communications and Technology International Convention, Louisville, KY.*

Ottenbreit-Leftwich, A.T., Brush, T.A., & Plucker, J.P. (2009, April). National technology experiences in teacher preparation: A national study of teacher education programs and teachers. *Paper presented at American Education Research Association Conference, San Diego, CA.*

Ottenbreit-Leftwich, A.T., Roman, T., Stryker, J., vanLeusen, P. (2009, April). How teachers use technology differently in varied subject areas and grade levels: A national study. *Paper presented at Society for Information Technology in Education Conference, Charleston, SC.*

Ottenbreit-Leftwich, A. T., Newby, T. J., Simons, K. D., & Ertmer, P. A. (2008, April). Approaches in preservice technology integration courses. *Paper presented at American Educational Research Association, New York, NY.*

Ottenbreit-Leftwich, A. T., Glazewski, K. D., Newby, T. J., Ertmer, P. A., & Richardson, J. R. (2008, March). Developmental processes of expert technology-using teachers. *Paper presented at Society for International Technology and Teacher Education, Las Vegas, NV.*

Wang, Y., & **Ottenbreit-Leftwich, A. T.** (2008, March). Problem-based learning in teacher technology preparation. *Paper presented at Society for International Technology and Teacher Education, Las Vegas, NV.*

Ottenbreit-Leftwich, A. T., Glazewski, K. D., Newby, T. J., Ertmer, P. A., & Richardson, J. C. (2007, October). What are the visions, strategies, and developmental processes of expert technology-using teachers. *Paper presented at Association for Educational Communications and Technology International Convention, Anaheim, CA.*

Ertmer, P.A., Glazewski, K. D., **Ottenbreit-Leftwich, A.T.**, & Gotas, Y. (2007, October). Teachers' strategies for effectively implementing PBL in the middle school classroom. *Paper presented at Association for Educational Communications and Technology International Convention, Anaheim, CA.*

Ottenbreit-Leftwich, A. T., Newby, T. J., & Simons, K. D. (2007, April). Perspectives on technology as an agent of change. *Paper presented at American Educational Research Association, Chicago, IL.*

Ottenbreit-Leftwich, A. T., Simons, K. D. & Ertmer, P. A. (2006, October). Student strategies for succeeding in PBL environments: Experiences and perceptions of low self-regulating students. *Paper presented at Association for Educational Communications and Technology International Convention, Dallas, TX.*

Ottenbreit-Leftwich, A. T., Simons, K. D. & Ertmer, P. A. (2006, April). Student strategies for succeeding in PBL environments: Experiences and perceptions of low self-regulating students. *Paper presented at American Education Research Association Convention, San Francisco, CA.*

York, C. S., **Ottenbreit-Leftwich, A. T.**, & Ertmer, P. A. (2005, October). Exemplary technology use: Teachers' perceptions of critical factors. *Paper presented at Association for Educational Communications and Technology International Convention, Orlando, FL.*

Ottenbreit-Leftwich, A. T., York, C. S., Richardson, J. C., & Newby, T. J. (2005, October). Preservice teachers: Development of perceptions and skills pertaining to technology integration. *Paper presented at Association for Educational Communications and Technology International Convention, Orlando, FL.*

Simons, K. D., Ertmer, P. E., Haas, T., VanHorn, M., Lehman, J., **Ottenbreit-Leftwich, A. T.**, & The TKB Team (2005, October). The relationship between self-directedness and student success in technology-enhanced PBL units. *Paper presented at Association for Educational Communications and Technology International Convention, Orlando, FL.*

Ottenbreit-Leftwich, A.T., York, C.S., & Ertmer, P.A. (2005, March). Cultivating exemplary technology integration teachers: What does it take? *Michigan Association of Computer Users in Learning, Grand Rapids, MI.*

York, C.S., **Ottenbreit-Leftwich, A.T.**, Richardson, J. C., & Newby, T. J. (2005, March). Exploring options for delivery in a large technology integration lecture course for preservice teachers. *Paper presented at Society for Information Technology & Teacher Education International Convention, Phoenix, AZ.*

Simons, K.D., Ertmer, P.A., Belland, B., Blackman, J., Lee, M., **Ottenbreit-Leftwich, A.T.** & Park, S.H. (March, 2005). Middle school students in technology-enhanced problem-based learning: Experiences of high and low self-directed students. *Paper presented at Society for Information Technology & Teacher Education International Convention, Phoenix, AZ.*

Ottenbreit, A., Simons, K.D., & Poole, H. (October, 2004). Effects of computer troubleshooting on elementary students' problem-solving skills. *Roundtable presentation at the Association for Educational Communications and Technology International Convention, Chicago, IL.*

Richardson, J., Ertmer, P.A., Aagard, H., **Ottenbreit, A.T.**, & Yang, D. (October, 2004). Factors that influence teachers' implementation of digital age literacy skills and strategies. *Paper presentation at the Mid-Western Educational Research Association Convention: Columbus, OH.*

Ottenbreit, A., Poole, H., and Leneway, R. (March, 2004). Enhancing elementary curriculum with computer troubleshooting problems. *Paper presentation at the Michigan Association of Computer Users in Learning Convention: Grand Rapids, MI.*

Morgenstern, P., Hewitt, P., McCraight-Wertz, J., and **Ottenbreit, A.** (March, 2003). A job well done! MCOATT: Recognition for outstanding achievement in teaching with technology. *Panel presentation at the Michigan Association of Computer Users in Learning Convention, Detroit, MI.*

Service

University Service

Indiana University

Interim Chair, Instructional Systems Technology (2021-2022)

Member, School of Education Visionary Task Force (2021)

Member, School of Education Policy Council Agenda Committee (2020-2021)

Member, School of Education Policy Council (2020-2021)

Chair, Learning and Teaching with Technology Committee (2012-2013; 2019-current)

Member, Office of Collaborative Academic Programs, Masters of Educational Technology for Learning Committee (2017-current)

Member, Search Committee for UITS Director of Learning Technologies (2016-2017)

Chair, 3rd year review, Kyungbin Kwon (2017)

Chair, IST Merit and Awards Committee (2016-2017; 2018-2019)

Member, Indiana University Childcare Coalition (2014-2019)

Chair, Teacher Education Committee (2013-2014, 2015-2017)

Interim-Chair, Teacher Education Committee (2010)

Member, Teacher Education Committee (2009-2010, 2011-2013, 2017-2019)

Member, Learning and Teaching with Technology Committee (2010-2014)

Chair, IST Computer Education Search Committee (2012-2013)

Member, IST Search Committee (2010-2011)

Member, IST Curriculum Committee (2010 - 2013)

Member, Bloomington Faculty Council Student Academic Appointee Affairs Committee (2009 – 2010)

Member, Technology Task Force for the School of Education (2008 – 2009)

Supervisor and Coordinator, Technology Teaching Lab (2007-current)

Chair, IST Undergraduate Teacher Technology Committee (2010 – current)

Member, Instructional Systems Technology Undergraduate Teacher Technology Committee (2007 – 2010)

Member, School of Education Elementary Education Council (2007–2016)

Member, School of Education Long Range Planning Committee (2007 – 2008)

Chair, Department Awards Committee (2007 – 2010)

Program coordinator, CEL (computer educator license) Program (2008 – current)

Member, University Educational Opportunity Fellowship Selection Committee (2008)

Member, Learning Sciences Search Committees (2007-2008)

Organization Service

American Educational Research Association

- *Member and Proposal reviewer*, Instructional Technology SIG | Problem-Based Learning SIG | Technology as an Agent for Change SIG (2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2015, 2019, 2020)

Association for Educational Communications and Technology (AECT)

- *Member*, Presidential Nominating Committee (2017-2018)
- *Past-President*, Teacher Education Division (2013-2014)
- *President*, Teacher Education Division (2012-2013)
- *President-Elect*, Teacher Education Division (2011-2012)
- *Proposal reviewer*, Teacher Education Division | School, Media, and Technology Division (2005-current)
- *Co-organizer*, Podcasting Committee (2006)

Computer Science Teachers Association (CSTA)

- CSTA – School of Education Working Group (2020 – current)

Journal of Technology and Teacher Education (JTATE)

- *Special Issue Guest Editor*, Journal of Technology and Teacher Education (2018)

International Society for Technology in Education (ISTE)

- *Associate Journal Editor*, Journal of Research on Technology in Education (2016-2017)
- *Chair*, Technology in Action Awards for Teacher Education Network (2015-2018)
- *Chair*, Conference Committee - Research (2015-2018)
- *Member*, International Society of Technology in Education, Working Group for Computer Science Educator Standards revision (2017-2018)

State K-12 Service

- *Co-Lead*, EPP CS Meeting, IN Department of Education, CSforIN (2020)
- *Member*, STEM + CS License Addition Committee, Indiana Department of Education (2019-2020)
- *Co-Lead*, Indiana ECEP team (2016-current)
- *Co-Lead & Co-Founder*, CSforIN (2017-current)
- *Chair*, Planning Indiana CS Summit (2018, June)
- *Committee Member*, Middle School CS Committee, IN Department of Education (2018)
- *Curriculum Development*, Elementary School CS Materials, IN Department of Education (2018)
- *Co-Lead*, MCCSC STEM+C Committee (2018-current)

Teacher In-Services

- *Instructor*, Computer science workshop, Frankton-Lapel (2020)
- *Instructor*, Computer science workshop, Grandview Elementary (2020)
- *Instructor*, Computer science workshop, Sheridan Elementary (2020)
- *Instructor*, Computer science workshop, Evansville Vanderburgh School Corporation (2019)
- *Instructor*, Computer science workshop, JCSC (2019)
- *Instructor*, Computer science workshop, Randolph (2019)
- *Instructor*, Computer science workshop, Ball State (2019)
- *Instructor*, Computer science workshop, WestGate@Crane (2019)
- *Instructor*, Computer science workshop, HSE Administration (2019)
- *Instructor*, Computer science workshop, Hamilton Southeastern High School (2019)
- *Instructor*, SCRIPTS Workshop, Indianapolis (2018)
- *Instructor*, SCRIPTS Workshop, Westgate (2018, 2019)
- *Instructor*, Multiple computer science workshops, MCCSC (2018, 2019)
- *Instructor*, Computer science workshop, RBBSC (2018)
- *Instructor*, Computer science workshop, Hamilton Southeastern (2018)
- *Instructor*, Computer science workshop, Mt. Vernon (2018, July)
- *Instructor*, Computer science workshop, Martinsville (2018, June)

- *Instructor*, Technology integration workshop, ROI (2018)
- *Instructor*, Technology integration workshops, MCCSC (2014, 2015, 2017)
- *Instructor*, Project-based learning with technology, Attica School Corporation (2011)
- *Instructor*, Staff In-Services, Livonia, Dearborn, and Gibraltar School Districts (2002)

Professional Affiliations

- AERA - American Educational Research Association, (2005-Current)
AERA Memberships: Instructional Technology (2005-Current); K-Teaching and Teacher Education (2005 – Current); Technology as an Agent of Change for Teaching and Learning (2007 – Current)
 - AECT - Association for Educational Communications and Technology, (2004-2018; 2020-current)
AECT Memberships: Teacher Education; Research & Theory, (2004-2018)
 - ICE – Indiana Computer Educators, (2004 – Current)
 - ISTE – International Society for Technology in Education (2008 – 2019)
ISTE Membership: Teacher Education (2008 – 2019)
 - ACM – Association of Computing Machinery (2018 – current)
 - ECEP – Expanding Computer Education Pathways (2016 – current)
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Teaching

Indiana University

Graduate Courses

F500 - Technology for Teaching

R503 – Instructional Media (online)

R511 – Instructional Systems Technology Foundations (online)

R541 - Introduction to Production and Development II (online)

R685 – Topical Seminar: Teacher Technology Adoption and Open Educational Resources (online)

R695 – IST Inquiry Research Seminar

R711 – Readings in Instructional Technology (online)

R795 – Dissertation Proposal Preparation (face-to-face & online)

V594 – Business (MBA) Digital and Social Media

Undergraduate Courses

W200 – Computers and Education (Supervise 100-400 students per semester) (face-to-face & online)

W210 – Survey of Computers in Education

W220 – Computer Hardware in Education

W301 – Integrating Technology into Teaching

W310 – Computer-Based Methods

F401 – Topical Exploration in Education

W410 – Practicum in Computer-Based Education (Student Teaching) (online)

Purdue University**Graduate Courses**

EDCI 572 – Instructional Design (Teaching Assistant)

EDCI 560 – Educational Technology for Teaching and Learning (Co-Instructor)

GT2C – Graduate Teaching with Technology Certificate (Co-Instructor)

Undergraduate Courses

EDCI 270 – Introduction to Educational Technology

EDCI 270 – Introduction to Educational Technology (online)

EDCI 271 – Classroom Applications of Educational Technology

Western Michigan University**Undergraduate Courses**

EDT 347 – Technology for Elementary Education

Student PhD/EdD Dissertations

Wise, E. (2021). [Chair]. A clinical practice-based approach in alternative teacher education.

Barber, R. (2020). [Chair]. Needs analysis of communications between school administrators and teachers in an urban middle school.

Karlin, M. (2019). [Chair]. Strategies for recruiting and retaining female students in secondary computer science.

Seitz, K. (2019). [Member]. Navigating 1:1 personalized technology initiatives in Indiana K-12 public schools: Technology directors' perspectives on technology usage policies in rural school districts.

Leutchmann, A. (2019). [Member]. New teacher induction: Perspectives from participants of a new teacher mentoring program.

Liao, Y. (2018). [Co-chair]. Coaching in teacher professional development for technology integration: Examining teacher practices and perceptions.

Barnette, J. (2018). [Member]. Instructor presence in online education: An analysis of student perceptions and performance.

Sadik, O. (2017). [Co-chair]. What do secondary computer science teachers need? Examining curriculum, pedagogy, and contextual support.

Lu, Y. (2016). [Co-chair]. A beginning elementary teacher's technology integration practices.

Uzan, E. (2017). [Member]. Secondary mathematics pre-service teachers' processes of selection and integration of technology.

Hassouna, R. (2017). [Member]. Portraying the lived mentoring experiences of school of education faculty members in public research universities on their paths towards tenure: A phenomenological study.

van Leusen, P. (2013). [Director]. Interpersonal consulting skills among instructional technology consultants at an institution of higher education in the Midwest: A multiple case study.

Chang, J. (2013). [Member]. The effect of agent-based lectures on student learning and conceptual change in an online inquiry-based learning environment.

Aslan, S. (2012). [Member]. Investigating "the coolest school in America": A study of a learner-centered school and educational technology in the information age.

Strycker, J. (2011). [Member]. A comparison of technology experiences included in alternative and traditional teacher education programs.

Kim, N. (2009). [Member]. Scaffolding critical thinking in wikibook creation as a learning task.