

Justin Olmanson

Associate Professor, Innovative Learning Technologies Program
Department of Teaching, Learning, and Teacher Education
College of Education & Human Sciences
University of Nebraska Lincoln
jolmanson2@unl.edu

Scholarly Interests

Design,
Develop,
Integrate,
Explore,
Analyze: ...

Learning Experiences, Patient-Clinician Interactions ...

Python,
Pedagogy,
JavaScript,
Curriculum,
Heterogeneity,
Translanguaging,
Artificial Intelligence,
Multi-Agent Systems,
Design-Based Research,
Computational Problem Solving,

Education

IES Postdoctoral Fellowship in Literacy, Literacies, and Technology, 2011-2014

The University of Illinois Urbana Champaign, Champaign, IL

Projects: *Assess-as-You-Go*, *Scholar*, *InfoWriter*

PIs and Mentors: Bill Cope, Sarah McCarthey

PhD Curriculum and Instruction ~ Instructional Technology, 2011

The University of Texas at Austin, Austin, TX

Dissertation: *What's Going on at Zapata Elementary? People, Research, and Technology in Educational Spaces: An Experiment in Experience and Possibility*

Dissertation Chair: Min Liu

MEd Technology Innovation in Education, 2004

Harvard Graduate School of Education, Harvard University, Cambridge, MA

Graduate Advisor: Karen Price

MEd Bilingual Education ~ Curriculum and Instruction, 2001

Elementary Education Texas Teaching Licensure
University of Houston, Houston, TX

BA Spanish Linguistics & Literature, 1997

Department of Modern Languages: Scandinavian Studies Minor - Norwegian
Minnesota State University, Mankato, MN

Professional Employment

Associate Professor of Innovative Learning Technologies, 2020-Present

Department of Teaching, Learning, and Teacher Education
College of Education and Human Sciences
The University of Nebraska Lincoln, Lincoln, NE

Assistant Professor of Innovative Learning Technologies, 2014-2020

Department of Teaching, Learning, and Teacher Education
College of Education and Human Sciences
The University of Nebraska Lincoln, Lincoln, NE

Graduate Research Assistant 2008-2011

Center for Teaching and Learning
The University of Texas at Austin, Austin, TX

Senior Program Coordinator 2005-2007

Distance Education / K-16 Education Center
The University of Texas at Austin, Austin, TX

K-5 Technology Teacher 2000-2003

Manuel Crespo Elementary
Houston Independent School District, Houston, TX

3rd and 4th Grade Bilingual Teacher 1998-2000

Manuel Crespo Elementary
Houston Independent School District, Houston, TX

Spanish Language Teaching Assistant 1997-1998

Department of Modern Languages
University of Houston, Houston, TX

Community Spanish Teacher 1997

Dakota Meadows MS & East Jr. High
Mankato Area Public Schools, Mankato, MN

Scholarly Works & Creative Activity

Peer-Reviewed Journal Publications

- Olmanson, J., Larsen, G., Hassani, A., (Under Review). Building Computational Literacies in the Age of Generative AI. Submitted to: *ETR&D*.
- Montesinos Cruz, V., & Olmanson, J. (Under Review). Metallic nanoparticles and cosmetics: the role of mitochondria and premature aging. Submitted to: *WIREs Nanomedicine and Nanobiotechnology*.
- Tan, S. C., Wijekumar, K., Hong, H., Olmanson, J., Twomey, R., & Sinha, T. (2024). Guest Editorial Education in the World of ChatGPT and Generative AI. *IEEE Transactions on Learning Technologies*, 17, 2062–2064. IEEE Transactions on Learning Technologies. <https://doi.org/10.1109/TLT.2024.3451050>
- Olmanson, J., Liu, X., Heselton, C. C., Srivastava, A., & Wang, N. (2021). Chinese character recognition and literacy development via a techno-pedagogical pivot. *Educational Technology Research and Development*. <https://doi.org/10.1007/s11423-021-09976-5>
Free Read-Only Version: <https://rdcu.be/cgCGK>
- Olmanson, J., Liu, X., Wang, N., Heselton, C. (2018). [Techniques and Methods Change, Methodology Stays the Same: Web Technology Use as Cosmetic Change in CFL Classrooms](#). *Chinese Language Teaching Methodology & Technology*, 1(4) pp. 1-17.
- Olmanson, J., & Liu, X. (2017). [The Challenge of Chinese Character Acquisition: Leveraging Multimodality in Overcoming a Centuries-Old Problem](#). *Emerging Learning Design Journal*, 4(1) pp. 1-9.
- Greenstein, S., & Olmanson, J. (2017). [Reconceptualizing Pedagogical and Curricular Knowledge Development through Making](#). *Emerging Learning Design Journal*, 4(1) pp. 10-18.
- Olmanson, J. (2016). [What does Motivated Mean? Re-Presenting Learning, Technology, and Motivation in Middle Schools via New Ethnographic Writing](#). *Middle Grades Review*, 2(2).
- Olmanson, J., Kennett, K., Magnifico, A., McCarthy, S., Cope, B., Sears Smith, D., Kalantzis, M., (2016). [Visualizing Revision: Leveraging student-generated between-draft diagramming data in support of academic writing development](#). *Journal of Technology Knowledge and Learning*, Volume 21, Issue 1, pp. 99-123.
- Liu, X., & Olmanson, J. (2016). [A Technology-supported Experience to Facilitate Chinese Character Acquisition](#). *The Nebraska Educator*, 3(1), 87–107.
- Olmanson, J., Abrams, S., (2013). [Constellations of support and impediment: Understanding early implementation dynamics in the research and development of an online multimodal](#)

[writing and peer review environment](#). Journal of E-Learning and Digital Media, Volume 10, Issue 4

Magnifico, A.M., Olmanson, J., Cope, W., (2013). [New pedagogies of motivation: Reconstructing and repositioning motivational constructs in the design of learning technologies](#). Journal of E-Learning and Digital Media, Volume 10, Issue 4

Liu, M., Horton, L., Olmanson, J., & Toprac, P. (2011). [A study of learning and motivation in a new media enriched environment for middle school science](#). Educational Technology Research & Development, Volume 59, Issue 2

Liu, M., Horton, L., Olmanson, J., & Wang, P.Y. (2008). [An exploration of mashups and their potential educational uses](#). Computers in the Schools, Volume 25, Issue 3&4, October

Creative Work - Learning Application Design & Development

Olmanson, J., Hassani, A., Even, T., (2024). Trans-MAMM-CT (Version 0.1). Lincoln, NE: University of Nebraska Lincoln.

Olmanson, J., Hassani, A., (2024). intelligent Personal Learning Assistant Alex-TA (Version 0.8). Lincoln, NE: University of Nebraska Lincoln.

Olmanson, J., Bishop, S., (2024). Blood Antigen Tutor (Version 0.48). Lincoln, NE: University of Nebraska Lincoln.

Olmanson, J., (2022). [Pedagogical & Creative Coding Bot](#) (Version 0.3). Lincoln, NE: University of Nebraska Lincoln.

Olmanson, J., (2022). [Advising Helper Bot](#) (Version 0.5). Lincoln, NE: University of Nebraska Lincoln.

Olmanson, J., (2022). [TEAC 259 TA Bot](#) (Version 0.0). Lincoln, NE: University of Nebraska Lincoln.

Olmanson, J., (2022). [OpenAI Fine Tuning Jsonl Converter](#) (Version 0.0). Lincoln, NE: University of Nebraska Lincoln.

Olmanson, J., Al Shorman, D. (2021). [打字宝 Dǎ Zì Bǎo Chinese Character Helper](#) (Version 0.5). Lincoln, NE: University of Nebraska Lincoln.

Olmanson, J., Srivastava, A., & Bieber, K. (2018). MICa: Multimodal Interactive and Conceptual Assistant (Version 0.01). Lincoln, NE: University of Nebraska Lincoln.

Olmanson, J., Hellwege, S., & Srivastava, A. (2017). [打字宝 Dǎ Zì Bǎo Chinese Character Helper](#) (Version 0.2). Lincoln, NE: University of Nebraska Lincoln.

Cope, B., Sears Smith, D., Kennett, K., & Olmanson, J. (2013). [InfoWriter](#) (Version 0.1) [Web]. Champaign, IL: Common Ground Publishing.

Olmanson, J., Farchy, A., Day, P., & Huang, C.-K. (2010). [FunWritr](#) (Version 0.3). Austin, TX: University of Texas at Austin.

Olmanson, J., & Greenstein, S. (2008). [Distributed Biography](#) (Version 1.0). Austin, TX: Digital Spaces Working Group.

Olmanson, J. (2004). [Cipherland](#) (Version 0.2). Cambridge, Mass.

Peer Reviewed Book Chapters and Encyclopedia Entries

Olmanson, J., Davis, J., Kilbride, M., (2022). Supporting In-Service Teachers in Understanding the Potential of Data and Artificial Intelligence to Influence and Impact Learning. In Mouza, Yadav, & Leftwich (Ed.), *Preparing Teachers to Teach Computer Science: Models, Practices and Policies*. Information Age Publishing.

Olmanson, J., Liu, X., Heselton, C., & Srivastava, A. (2019). DaZiBao: Multimodality in Learning and Communicating via Chinese Characters. In K.-Y. Sung (Ed.), *Emerging Trends in Teaching and Learning Chinese as a Second or Foreign Language in the Twenty-first Century*. Lexington Books.

Olmanson, J., Guieswende, R., & Falls, Z. (2017). [Historical Analysis: Tracking, problematizing, and reterritorializing achievement and the Achievement Gap](#). In *African American Children in Early Childhood Education: Making the Case for Policy Investments in Families, Schools, and Communities*. Emerald.

Olmanson, J., & Falls, Z. (2016). [New Media Literacies](#). In M. Peters (Ed.), *Encyclopedia of Educational Philosophy and Theory*. Springer Singapore.

Peer-Reviewed Articles in Proceedings at National and International Conferences

Larsen, G., Olmanson, J., & Hassani, A. (Under Review). *Constructionist Pathways for Learning with and about Generative AI*. Submitted to: EAAI.

Olmanson, J., Jeon, M., Trainin, G., & Husbey, N. (Under Review). *Exquisite Scaffolding: Scenario Planning and Speculative Fiction in the Design of AI-Supported Learning Applications*. Submitted to: EAAI.

Duong, T., Olmanson, J., Hassani, A. (2024). *Perspectives and Experiences of Using Generative AI by Undergraduate Speech Language Pathology Students for Course Navigation and Caregiver Information Session Preparation*. Conference on Education, Research, and Innovation (iCERi), Seville, Spain.

Olmanson, J., Hassani, A., Even, T., & Palala, H. (2024). *Learning Computational Thinking in a Heteroglossic Environment: A Multimodal Multi-Agent Translanguaging Approach to Computational Literacies Acquisition via Generative AI*. Conference on Education, Research, and Innovation (iCERi), Seville, Spain.

- Gopal, B., Bockmon, R., Cooper, S., & Olmanson, J. (2022). *The impact of POGIL-like learning on student understanding of software testing and DevOps: A qualitative study*. Psychology of Programming Interest Group (PPIG), Online.
- Gopal, B., Cooper, S., Olmanson, J., & Bockmon, R. (2021). *Student Difficulties in Unit Testing and Continuous Integration: An exploratory pilot qualitative study*. Psychology of Programming Interest Group (PPIG), Online: <https://34.120.224.60/files/2021-PPIG-32nd-gopal.pdf>
- Falls, Z., & Olmanson, J. (2018). [“There’s Nothing Wrong with Fun”: Unpacking the Tensions and Challenges of Human Centered Design for Learning with Pre-Service Teachers](#) (pp. 1260–1265). Presented at the Society for Information Technology & Teacher Education International Conference, Association for the Advancement of Computing in Education (AACE).
- Olmanson, J., Abebe, F., Jones, V., Kyle, E., Lucas, L., Robbins, K., Rouamba, G., Liu, X. (2015). [Caught in the Tractor Beam of Larger Influences: The Filtration of Innovation in Education Technology Design](#). In ICEDT 2015 (Vol. 9 (7), pp. 1838–1842). Oslo, Norway: World Academy of Science, Engineering and Technology.
- Olmanson, J., Katrina S. Kennett, & Cope, B. (2015). [The Techno-Pedagogical Pivot: Designing and Implementing a Digital Writing Tool](#). In ICEDT 2015 (Vol. 9 (7), pp. 1843–1846). Oslo, Norway: World Academy of Science, Engineering and Technology.
- Olmanson, J., Huang, C.-K., Scordino, R., & Lee, J. (2013). [Designing FunWritr: Unpacking an affinity-based, professionalizing, graduate-level educational technology design experience](#). In *Design Learning for Tomorrow* (Vol. 1, p. 129-142). Proceedings of the 2nd International Conference for Design Education Researchers, Oslo, Norway: Oslo and Akershus University College of Applied Sciences.
- Olmanson, J., Huang, C.K., Sung, W., Chen, Y.H. (2012). Writing to Learn: L2 writing as a gateway to effective implicit vocabulary learning and language acquisition via CALL. In J. Colpaert, A. Aerts, W. C. Wu, & Y. C. Chao (Eds.), *The Medium Matters: Proceedings of the 15 International Computer Assisted Language Learning Research Conference (CALL 2012)* (Vol. 1, pp. 510-514). Taichung, Taiwan: Providence University: University of Antwerp.
- Huang, C.K., Olmanson, J., Sung, W., Chen, Y.H. (2012). FunWritr: An open-ended language exploration playground based on a sextet of design parameters for CALL. In J. Colpaert, A. Aerts, W. C. Wu, & Y. C. Chao (Eds.), *The Medium Matters: Proceedings of the 15 International Computer Assisted Language Learning Research Conference (CALL 2012)* (Vol. 1, pp. 277-283). Taichung, Taiwan: Providence University: University of Antwerp.
- Liu, M., Olmanson, J., Anderson, M., & Horton, L. (2011). [Web 2.0 in Higher Education: Levels of Awareness and Patterns of Use](#) (pp. 3082–3092). Presented at the EdMedia: World Conference on Educational Media and Technology, Association for the Advancement of Computing in Education (AACE).
- Olmanson, J., Kim, Y.S., Sung, W., Huang, C.K., Chen, Y.H. (2010). [Technology in the Creative](#)

- [and Participatory Literacy Practices of a Second Grade Classroom](#). In the 22nd Annual World Conference on Educational Multimedia, Hypermedia, & Telecommunications (Ed-Media 2010). Toronto, Canada: Association for the Advancement of Computing in Education.
- Olmanson, J., Lee, J., Navarrete, C., Wong, A., Farchy, A., Day, P., (2010). [FunWritr an Online Language and Literacy Playground](#). In the 22nd Annual World Conference on Educational Multimedia, Hypermedia, & Telecommunications (Ed-Media 2010). Toronto, Canada: Association for the Advancement of Computing in Education.
- Huang, C.K., Chen, Y.H., Olmanson, J., Sung, W. (2010). [On Initiating Maintaining and Growing an Affinity Based Student Led Research and Design Group](#). In the 22nd Annual World Conference on Educational Multimedia, Hypermedia, & Telecommunications (Ed-Media 2010). Toronto, Canada: Association for the Advancement of Computing in Education.
- Olmanson, J., Greenstein, S., Smith, A., Brewer, C. (2007). [Designing Distributed Biography: Co-constructing a polyphonic application on borrowed time](#). In the proceedings of the 25th Annual ACM International Conference on Design of Communication (SigDoc 2007) (Vol. 1, pp. 21-25). El Paso, TX: Association for Computing Machinery.

Invited Book Chapters and Book Reviews

- Olmanson, J., & Falls, Z. (2018). Showing up Early, Building Trust, and Running Downhill: Pre-Implementation Notes from the Field. In *Managing Educational Technology: School Partnerships and Technology Integration*. Routledge.
- Guevara, N., & Anton, A. (2012). [Getting Better Together](#). (J. Olmanson, Trans.). Mexico City: Federico Gomez Children's Hospital.
- Olmanson, J., (2011). [Emerging technologies in distance education](#) -Book Review. Educational Media International, Volume 48, Issue 1
- Olmanson, J., (2007). [Review of eSpindle Vocabulary & Spelling Program Online](#). Language Learning & Technology, Volume 11, Issue 3, October

Peer-Reviewed Conference Presentations

- Olmanson, J., Hassani, A., Evan, T., & Palala Martinez, H. (2024, June 4). *A Society of Agents; A Multimodal Conversational Approach to Computational Literacies Acquisition for Educators* [Conference]. Norwegian Artificial Intelligence Research Consortium, Kristiansand, Norway. <https://www.nora.ai/nora-conferences/annual-conference-2024/>
- Olmanson, J., Trainin, G., Jeon, M., & Husbey, N. (2024, June 4). *Intelligent Learning Technology Design in an Era of Exquisite Scaffolding* [Conference]. Norwegian Artificial Intelligence Research Consortium, Kristiansand, Norway. <https://www.nora.ai/nora-conferences/annual-conference-2024/>
- Olmanson, J., & Liu, M. (2021). Chinese Literacy Development via Multimodal Pinyin Support: From research to practice. International Conference on Chinese Pedagogy 2021, Harvard

University, Online.

Olmanson, J., & Liu, M. (2019). Multimodality in Learning and Communicating via Chinese Characters. American Educational Research Association 2019 Annual Meeting, Toronto, Ontario, Canada.

Olmanson, J. (2016). *How Might Multimodality Help Learners of Chinese Overcome a Centuries-Old Problem*. Presented at the Emerging Learning Design, Montclair, NJ.

Greenstein, S., & Olmanson, J. (2016). *Designing at the Intersection of Theory, Content, & Pedagogical Experience*. Presented at the Emerging Learning Design, Montclair, NJ.

Olmanson, J., & Falls, Z. (2016). The Role of New Media in Expanding the Construct of Literacies. American Educational Research Association 2016 Annual Meeting, Washington, DC.

Olmanson, J., Robbins, K., Lucas, L., Abebe, F., Kyle, E., Rouamba, G., & Jones, V. (2016). Socioeducational Constellations of Influence: A 10-Year Content Analysis of Technology-Supported Writing Implementation and Research. American Educational Research Association 2016 Annual Meeting, Washington, DC

Olmanson, J., Kennett, K., McCarthey, S., (2015, April). Visualizing Revision: Re-Mediating Self-Evaluation via Between-Drafts Concept Mapping. American Educational Research Association 2015 Annual Meeting, Chicago, IL.

Olmanson, J., Kennett, K., Cope, W., van Haren, R., Searsmith, D., (2015, April). The Innovational Pivot: The Design and Implementation of a Digital Writing Tool. American Educational Research Association 2015 Annual Meeting, Chicago, IL.

Olmanson, J., Abrams, S., (2014, April). Distributed Technology, Pedagogy, and Content Knowledge: A Study of the Integration of Emerging Technologies in Classroom Writing Spaces. American Educational Research Association 2014 Annual Meeting.

Olmanson, J., (2013, May). What does Motivated Mean? Middle School Technologies and Technology in Middle School. Paper Session. Annual Qualitative and Ethnographic Research Conference. Exeter University, United Kingdom.

Olmanson, J., Huang, C. K., Scordino, R., Sung, W., & Lee, J. (2013, April). Explicit and Congruent: A Case Study of Factors Guiding the Design of an Online Environment. Paper Session. Annual conference of the American Educational Research Association. San Francisco, CA.

Olmanson, J., Abrams, S. (2013, April). From Partnership Agreement to Initial Use: Multi-Sited Inquiry into Early Implementation Efforts. Paper Session. Annual conference of the American Educational Research Association. San Francisco, CA.

Sung, W., Olmanson, J., & Huang, C. K. (2013, April). Understanding Creative and Participatory Literacy Practices: A Design Ethnography. Poster Session. Annual conference of the

American Educational Research Association. San Francisco, CA.

Olmanson, J. & Abrams, S. (2013, February). Ethnographic Inquiry into Early Technology Integration Dynamics: Sideways Moves as Counter Narratives in Educational Technology Research. Paper Session. Annual Ethnography in Education Research Forum. Philadelphia, PA.

Olmanson, J. (2012, May). Moving Sideways: Methodological wayfaring, new ethnographic writing, non-representational theory, weak theory, and actor-network theory in educational research. Paper presented at annual conference of the International Congress of Qualitative Inquiry. Urbana-Champaign, IL.

Olmanson, J. & Sung, W. (2012, February). Beyond Critical Design Ethnography: Inquiring for understanding and digital possibility. Paper presented at the annual Ethnography in Education Research Forum. Philadelphia, PA.

Olmanson, J. (2011, April). An Affinity for Educational Research and Technology Design: Student-led Design, Development, and Inquiry Endeavors. Session organizer for the annual conference of the American Educational Research Association. New Orleans, LA.

Olmanson, J., Huang, C. K., & Sung, W. (2011, April). Innovational Affinities: Designing, Developing, and Implementing FunWritr, an Intelligent Mashup for Language and Literacy Play. Paper presented at the annual conference of the American Educational Research Association. New Orleans, LA.

Brewer, C., Olmanson, J., Greenstein, S. (2011, April). An Affinity for Design, Deleuze, and Research: Democratized, Heterogeneous, Non-hierarchical Collaboration on-a Distributed Writing Tool. Paper presented at the annual conference of the American Educational Research Association. New Orleans, LA.

Horton, L., Liu, M., Olmanson, J., & Toprac, P. (2011). [Engaging Learners through Interactive Media: Findings and Implications from a Technology Enhanced Problem-Based Learning Environment](#). In *Annual Meeting of the American Educational Research Association*. New Orleans: American Educational Research Association.

Liu, M., Olmanson, J., Horton, L., & Toprac, P. (2011). [Motivational Multimedia: Examining Students' Learning and Motivation as They Use a Multimedia Enriched Learning Environment](#). In *Annual Meeting of the American Educational Research Association*. New Orleans: American Educational Research Association.

Olmanson, J., Liu, M. (2010, April-May). Launched into Outer Space yet Tethered to Earth: PBL Science Curriculum within Middle School Milieus. Poster presented at the annual conference of the American Educational Research Association. Denver, CO.

Olmanson, J. (2009, April). The Strong Case for Weak Theory: Unrealized Roles for New Ethnography in Educational Technology Research. Paper presented at the annual conference of the American Educational Research Association. San Diego, CA.

Olmanson, J. (2008, October). When Naïve Notions of the Efficient Qualitative Education Researcher Get in the Way: Tracking how discourses of efficiency, quality and [new] ethnography collided in a pilot study. Paper presented at the annual American Education Studies Association conference. Savannah, GA.

Olmanson, J. (2002, November). Mathematics Understanding and Programming by Example. Presentation at the Texas Computer Education Association annual conference. Austin, TX.

Olmanson, J. (2001, November). Literacy and Language Development of Bilingual Kindergarten Students through Animated Online Storybooks. Presentation at the Area IV Educators Conference. Houston, TX.

Invited Talks & Panels

Olmanson, J., Palala, H., (2025). Learning with AI: Redefining How We Teach and Learn at Nebraska and Beyond, CEHS Teaching at Nebraska. Lincoln, NE.

Olmanson, J., Hassani, A., (2025). From Cheating to Learning Magnification and Everything In-Between: A Taxonomy of Generative AI Use for Learning, ESU 7 Regional Professional Development Day. Columbus, NE.

Duong, T., Olmanson, J., Hassani, A., (2025). Learning to Use Generative AI: Ten SLP Students Share their Experiences, ESU 7 Regional Professional Development Day. Columbus, NE.

Olmanson, J., Daher, T., Trainin, G., Price, K., (2023). A.I. Panel. Center for Transformative Teaching, University of Nebraska - Lincoln. Lincoln, NE.

Olmanson, J., Khandan, F., Palala Martinez, H. (2023). [Large Language Models and Neurological Mimicry for PhD Student Advising](#). Center for Intelligent Health Care, University of Nebraska Medical Center. Omaha, NE.

Olmanson, J., (2023). Let's Chat about GPT. Innovative Learning Technologies Program. Department of Teaching, Learning, and Teacher Education, College of Education and Human Sciences, University of Nebraska - Lincoln. Lincoln, NE.

Olmanson, J., (2022). Personalizing Learning in Logosyllabic Writing Systems. College of Information. University of North Texas. Denton, TX.

Olmanson, J., & Falls, Z. (2019). Understanding the achievement gap for students of color in early education curricula and programs. Buffett Early Childhood Institute. Presented at the Institute. Omaha, NE.

Olmanson, J., Larsen, G., Falls, Z., Cattau, J., & Bielenberg, E., (2019). For the Love of Frenkel: Materializing mathematics in a makerspace. Nebraska Association of Teachers of Mathematics 2019 Pre-Professionals Conference, Lincoln, NE.

Brown, M., van der Meer, M., Sheehan, T., Shilling, R., & Olmanson, J. (2017). Panel: [Fostering](#)

- [Innovation in Education Institutions](#). Presented at the EdTechXEurope 2017 Summit, London, UK.
- Olmanson, J., (2016, June). Socioeducational Constellations of Influence: A 10-Year Content Analysis of Technology-Supported Writing Implementation and Research. Invited talk. University of Washington. Seattle, WA.
- Olmanson, J., (2014, March). From Yes to Use: Teachers and Technology Implementation in the Writing Classroom. Invited talk. University of Cincinnati. Cincinnati, OH.
- Olmanson, J., (2014, March). From Yes to Use: Teachers and Technology Implementation in the Writing Classroom. Invited talk. Georgia State University. Atlanta, GA.
- Olmanson, J., (2014, February). Leading and Supporting Understanding: Guiding theories, influential experiences, and future trajectories. Invited talk. University of Nebraska. Lincoln, NE.
- Olmanson, J., (2014, February). From Yes to Use: Teachers and Technology Implementation in the Writing Classroom. Invited talk. University of Nebraska. Lincoln, NE.
- Olmanson, J., (2013, May). Introduction to the Common Core State Standards, Writing, and Technology. Invited Talk. Lakenheath Elementary School. Lakenheath RAF, United Kingdom.
- Olmanson, J., (2013, May). New Media and New Learning: Exploring Pedagogical Affordances in a Peer Review and Academic Knowledge-Sharing Space. Invited presentation. London Knowledge Lab. London, United Kingdom.
- Olmanson, J., (2013, February). Reterritorializing Writing: Digital Spaces for Expression, Exploration, and Growth. Presented at the University of Miami. Miami, FL
- Olmanson, J., (2013, December). Affinity, Congruence, and Interdisciplinarity in the Design, Development, and Use of Multimodal Digital Learning Environments for Expression, Language Exploration, and Literacy Growth. Invited talk. The University of Texas San Antonio. San Antonio, TX.
- Olmanson, J. (2012, September). Scholar Research and Development Progress Report. Presented at the annual meeting of the Institute of Education Sciences' Small Business Innovation Research Program. Washington DC.
- Olmanson, J. (2012, August). Thinking about and Experimenting with Educational Technology Use. Presented to the faculty of Immanuel Lutheran College. Invited presentation. Immanuel Lutheran College. Eau Claire, WI.
- Olmanson, J. (2012, April). Postmodern Analytical Research Methods in Education Research. Presented to the students of Dr. Joan Hughes' graduate-level Intro to Qualitative Research course. The University of Texas at Austin.

Olmanson, J. (2006, October). Improving Your Serve: Consuming and using educational research. Presented at the annual National Conference of Teachers Church of the Lutheran Confession. Mankato, MN.

Olmanson, J. (2001, June). Using the Internet for Academic Research in a Developing Nation. Presented at Southwest Jiaotong University. Chengdu, Sichuan Province, China.

Grants, Fellowships, and Awards

Github Accelerator Program

Github Inc. - San Francisco, CA

PI: Justin Olmanson

Role: Proposal Author & PI

Funding for: further development of the intelligent Personal Learning Assistant [iPLA] project
\$40,000 ~ *Under review*

Faculty Development Fellowship (FDF)

University of Nebraska - Lincoln, Lincoln NE

PI: Justin Olmanson

Role: Proposal Author & PI

Funding for: applied technology design fellowship: exploring the technical and pedagogical boundaries of generative AI in learning contexts
\$65,000 ~ Awarded Fall 2024-Spring 2025

CSMCE STEM Research and External Funding Incubation Award

Center for Science, Mathematics & Computer Education (CSMCE)

PI: Justin Olmanson

Role: Award Recipient

Funding for: Design Based Research in Generative AI Leading to External Funding

Type: Course Release

\$8,000 ~ Awarded Spring 2024

CEHS Technology Innovation Grant

College of Education and Human Sciences, UNL, Lincoln, NE

PIs: Justin Olmanson, Azadeh Hassani

Role: Proposal Author & PI

Funding for: intelligent Personal Learning Assistant Project [iPLA]

Type: Design Based Research Grant + Scholarship of Teaching and Learning

\$7,500 ~ Awarded 2023

CTT Teaching Grant | Incubation Fund

Center for Transformative Teaching, UNL, Lincoln, NE

PIs: Justin Olmanson, Hector Palala

Role: Proposal Author & PI

Funding for: Generative AI Design and Development for Learning and Advising

Type: Design Based Research Grant + Scholarship of Teaching and Learning

\$1,000 ~ Awarded 2023

CSMCE STEM Research and External Funding Incubation Award

Center for Science, Mathematics & Computer Education (CSMCE)

PI: Justin Olmanson

Role: Award Recipient

Funding for: Design Based Research in Generative AI Leading to External Funding

Type: Course Release

\$8,000 ~ Awarded Spring 2023

UNL Technology Innovation Project Award

College of Education and Human Sciences, UNL, Lincoln, NE

PIs: Justin Olmanson, Brandon Heinz

Role: Proposal Author & PI

Funding for: CEHS College-Wide Student Maker X Competition

\$6,305 ~ Awarded 2019

Google Cloud Platform Education Grant

Title: Artificial Intelligence and Data in the Design of Learning (TEAC 882D)

PI: Justin Olmanson,

Role: PI/Instructor

Funding for: Machine Learning, IaaS, and Cloud Computing Time

\$1,300 ~ Awarded 2017

Microsoft Azure for Research Award

Microsoft, Redmond, WA

Title: A New Genre for Learning: The MICa Multimodal Interactive and Conceptual assistant

PI: Justin Olmanson,

Co-PIs: Steven Greenstein, Teo Paoletti, Montclair State University

Role: Proposal Author & PI

Funding for: Machine Learning, IaaS, and Cloud Computing Time

\$20,000 ~ Awarded 2017

UNL Technology Innovation Project Award

College of Education and Human Sciences, UNL, Lincoln, NE

PIs: Justin Olmanson, Andrew Zimbhoff

Role: Proposal Author & PI

Funding for: College-Wide Digital Research and Design Studio

\$13,106 ~ Awarded 2015

Innovative Social Entrepreneurship Design & Development Award

LBJ School of Public Affairs, University of Texas, Austin, TX

Awarded to: Digital Spaces Working Group

Role: Proposal Author, Lead Designer, Lead Programmer

Funding for: Continued Design and Development of the Distributed Biography Application

\$500 ~ Awarded 2007

After School Achievement Program

Mayor's Office, City of Houston, Houston, TX

Awarded to: Crespo Fine Arts Magnet Academy, Houston, TX

Role: Proposal Author

Funding for: After School Programming, Resource Creation, Administration, and Staffing
\$90,000 ~ Awarded 2001-2004

Texas Infrastructure Fund Special Projects Grant

State of Texas Telecommunications Infrastructure Fund, Austin, TX

Awarded to: Crespo Fine Arts Magnet Academy, Houston, TX

Role: Proposal Author

Funding for: Technology Infrastructure Augmentation
\$40,000 ~ Awarded 2002-2003

Intel Teach to the Future and Bill and Melinda Gates Technology Leadership Grant

Intel Education, Santa Clara, CA; The Bill and Melinda Gates Foundation, Seattle WA

Awarded to: Technology Educator, Crespo Fine Arts Magnet Academy, Houston, TX

Role: Proposal Author

Funding for: Technology integration and leadership training; Hardware and software
\$8,000 ~ Awarded 2001-2002

Texas Computer Education Association State Conference Travel Grant

Texas Computer Education Association, Austin, TX

Awarded to: Technology Educator, Crespo Fine Arts Magnet Academy, Houston, TX

Role: Proposal Author

Funding for: Travel to and lodging at the annual TCEA conference
\$380 ~ Awarded 2001

Higher Education and Community Education Courses Taught

Technology Integration in K12 and Clinical Settings [TEAC 259]

Undergraduate Course, UNL, Fall 2014-2023, Spring 2015 & 2018-2022, Summer 2015-2022

Designing Learning Experiences [TEAC 859]

Graduate Course, UNL, Fall 2015-2022

Learning Analytics and Technology Supported Assessment [TEAC 880M]

Graduate Course, UNL, Summer 2021, Summer 2023

Data Science & Artificial Intelligence in the Design of Learning [TEAC 882D]

Graduate Course, UNL, Spring 2015, Spring 2018, Spring 2019-2021, Spring 2023

Advanced Web Design and Databases [TEAC 882B]

Graduate Course, UNL, Spring 2022, Spring 2024

Multicultural Education [TEAC 330]

Undergraduate Course, UNL, Spring 2017 (guest instructor in 2 sections for 7 weeks)

Education Technology for Social Change: Equity and Learning Design [TEAC 960]

Graduate Course, UNL, Spring 2015, Spring 2021

The Common Core State Standards, Writing, and Technology

In-Service Teacher Education for Graduate Credit, University of San Diego, 2013

Art, Design, and New Media for Social Justice Co-Designer & Co-Instructor

21st Century Afterschool Program, Urbana High School, 2013

Undergraduate Advanced Digital Media Summer Institute

Center for Teaching and Learning, The University of Texas at Austin 2009, 2010

National Professional Organization Memberships

American Educational Research Association

International Artificial Intelligence in Education Society

Department, College, and University Committees & Service

Innovative Learning Technologies Program Committee

College of Education and Human Sciences ~ University of Nebraska

Chair 2019-Present; Member 2015-2019

Center for Intelligent Health Care

University of Nebraska Medical Center

Member 2020-Present

TLTE Advisory Committee

College of Education and Human Sciences ~ University of Nebraska

Member 2019-2021

CEHS Advocating for Inclusion, Respect, and Equity [AFIRE]

College of Education and Human Sciences ~ University of Nebraska

Member 2019-Present

CEHS Instructional Technology Committee

College of Education and Human Sciences ~ University of Nebraska

Member 2015-Present

UNL ACE Review Ad Hoc Committee

University of Nebraska

Member 2021-2022

UNL Center for Transformative Teaching Advising Board

University of Nebraska
Member 2018-Present

UNL Information Technology Committee

University of Nebraska
Member 2020-Present

Faculty Senate

University of Nebraska Lincoln
Member 2019-Present

TLTE Scholarship Committee

College of Education and Human Sciences ~ University of Nebraska
Member 2019-2021

TLTE Graduate Committee

College of Education and Human Sciences ~ University of Nebraska
Member 2015-2018

Children's Research Center Space Allocation Committee

College of Education ~ University of Illinois at Urbana-Champaign
Member 2012-2014

5/20/50 Year Long Term Planning Committee

College of Education ~ University of Illinois at Urbana-Champaign
Participant 2012

Educational Technology Fall Brown Bag Series

College of Education: Instructional Technology Department ~ University of Texas at Austin
Organizer 2009

Instructional Technology Assistant Professor Faculty Search Committee

College of Education: Instructional Technology Department ~ University of Texas at Austin
Member 2008-2009

National, Regional, State, and Local Service

National

IEEE TLT Journal

Special Issue on Generative AI and Learning
Guest Co-Editor: 2024

National Science Foundation

Division of Translational Impacts
Program Officer: Lindsay Portnoy

Learning & Cognition Technologies Panelist: 2024

Teachers Making for Mathematical Learning

DRK12 National Science Foundation Grant

PI: Steven Greenstein

Advisory Board Member: 2018-2021

National Science Foundation

Division of Research on Learning in Formal & Informal Settings

Program Officer: Robert Russell

Advancing Informal STEM Learning Panelist: 2018

Educational Technology Research & Development Journal

Editor: Tristan Johnson ~ Lin Lin

Reviewer: 2020-Present

Technology, Knowledge and Learning

Editor: Dirk Ifenthaler ~ University of Mannheim

Reviewer: 2015-Present

Journal of Learning and Individual Differences

Editor: P. Cirino ~ University of Houston

Reviewer: 2015-Present

Journal of Innovation in Education

Editor: Nicole Kimmelman ~ Paderborn University

Reviewer: 2015-Present

Computer and Internet Applications in Education Special Interest Group

American Educational Research Association

Chair: 2014-2016

Graduate Student Supervision

Wang, Y., (expected 2028). Primary Supervisor.

Shcherbakov, I., (expected 2027). Primary Supervisor.

Patrick, R., (expected 2027). Supervisor.

Even, T., (expected 2026). Primary Supervisor.

Jorgenson, B., (expected 2026). Primary Supervisor.

Kabir, T., (expected 2026). Co-Supervisor.

Kelsey, M., (expected 2026). Primary Supervisor.

Mason-D'Croze, M., (expected 2026). Primary Supervisor.

Young, S., (expected 2026). Primary Supervisor.

Palala Martinez, H., (2024). "KEMATZ'IB' PARA GRITAR" Innovative Technologies in Revitalizing the Mayan Language: Empowering Youth through Poetry - A Narrative Study. Co-Supervisor.

Larsen, G., (2024). [Supporting the Creative Side of Creative Coding: Helping Students Wild](#)

- [Code in the Pursuit of Their Own Dreams](#). Primary Supervisor.
- Al Shorman, D., (2024). [Examining the Role of Immersive Technologies in Preparing Preservice Elementary Teachers: Augmented Reality, Integrated STEM, Teaching Self-efficacy, and Technology Self-efficacy](#). Primary Supervisor.
- Bingham, S.J., (2023). [K-12 Teachers' Perspectives on Mobile Technology Integration: A Qualitative Study](#). Primary Supervisor.
- Pilakowski, M., (2023). [Affinity Based Writing Groups: Building Communities across 9–12 Grade Levels](#). Primary Supervisor.
- Sato, K., (2022). [Designing Effective Vocabulary Videos: Comparing Animated and Live-Action Movies](#). Co-Supervisor.
- Bryan Wessel, K., (2020). [Hospital-Based Nurse Educators' Technology Readiness and Use of High-Fidelity Simulation](#). Primary Supervisor.
- Falls, Z., (2020). [Answering Wicked Questions: Using a Transdisciplinary Ste\(A\)M Maker Project to Explore Pre-Service Teachers' Experiences](#). Primary Supervisor.
- Rouamba, G., (2020). [An Online Institute for Teaching Graduate Students to Design Online Courses: A Design-based Research Study](#). Primary Supervisor.

Local K12 Committees

Campus Grant Writing Committee

Crespo Elementary ~ Houston Independent School District
Chair 2001-2003

Campus Technology Committee

Crespo Elementary ~ Houston Independent School District
Chair 2001-2003

Campus Shared Decision Making Committee

Crespo Elementary ~ Houston Independent School District
Member 2001-2003

Human and Computer Languages / Literacies

English	Advanced
Spanish	Intermediate-High
Norwegian	Intermediate
French	Intermediate-Low

Python	Advanced
PHP	Advanced
mySQL	Advanced
Lingo	Advanced
JavaScript	Advanced
HTML	Intermediate
Cold Fusion	Intermediate
Perl	Intermediate
LISP	Intermediate

Cypher	Intermediate
Haskell	Novice
Plutus	Novice

Certifications

IBM Data Science Certificate January 2023

eCornell Machine Learning Certificate In Progress

Development Profile

- [GitHub](#)

Research Profiles

- [ORCID](#) 0000-0002-2648-1450
- [Google Scholar](#)
- See Also (beta)
 - [ResearcherID](#) C-7198-2019
 - [UNL Digital Commons](#)
 - [ResearchGate](#)
 - [Impactstory](#)
 - [Microsoft Academic](#)
 - [Scopus](#)
 - [Academia.edu](#)
 - [ScienceOpen](#)

Scholarly Interests #02

Multi-Agent Systems for Learning and Intelligent Health Care

- Design and development of educational experiences that support students in engaging with new and challenging learning practices, including computational and mathematical problem solving, literacies development, and transdisciplinary knowledge construction.
- Integrate technical innovation in AI with insights on curriculum, learning theory, and pedagogy for design and education.
- Explore how AI, particularly generative AI, can be used to engage students' full communicative and sense-making repertoires in the learning process.
- Design and development of systems that use LLMs for Patient-Clinician Communication.