

## SPECIAL INTEREST GROUP

Instructional Technology



### Spring 2025 Newsletter

#### Message from the SIG Chair

Greetings SIG Instructional Technology Members! After a year of planning, we are thrilled that the 2025 AERA Annual Meeting is just days away! A tremendous amount of work has taken place behind the scenes to make this a successful and memorable experience for you, and I'd like to take a moment to acknowledge the dedication of our incredible 2024-2025 team.

A special thank you to **Jill Stefaniak** for her outstanding leadership in managing the conference program over the past year. She ensured that we had a strong pool of quality reviewers to evaluate the many proposals submitted to our SIG and crafted an exceptional program based on their feedback. Another heartfelt thank you to **Hengtao Tang** for overseeing the awards process with such diligence and integrity. From coordinating with nominated authors to securing a strong reviewer panel, Hengtao's work has ensured a fair and ethical selection process. I am also deeply grateful to **Jiahui Wang** and **Lili Yan** for their incredible contributions throughout the year. Jiahui, your careful management of our finances and regular updates have helped us make sound financial decisions for our SIG. Lili, your dedication to keeping our members informed and celebrating our community's achievements has been invaluable. Your communication efforts have helped us stay connected and engaged—thank you both!

We can't wait to see you in Denver and look forward to an inspiring and rewarding conference together. Safe travels, and see you soon!

Enilda Romero-Hall, Ph.D., SIG IT Chair



## **SIG IT 2025 Awards**

This year, SIG IT will recognize recipients for two awards: Best Paper Award and Best Student Paper Award. Top-ranked conference proposal submissions to the SIG IT, as established by the peer review process, will be contacted and invited to nominate their full papers for review by an awards committee and the SIG IT Board.

After a thorough review by the awards committee, and final review and confirmation by the SIG IT Board, awardees will be selected and recognized during the AERA 2025 SIG IT Business Meeting during the AERA Conference in Denver, April 2025.

### **Best Paper Award**

*Does Need for Cognition Determine Success in Science Problem-Based Learning?: Analyzing Middle School Students' Performance*

- Min Liu, University of Texas at Austin
- Songhee Han, Florida State University
- Peixia Shao, University of Texas at Austin
- Ying Cai, University of Texas at Austin

### **Student Best Paper Award**

*A Systematic Review Examining the Design of Pedagogical Agents for K-12 Students*

- Shan Zhang, University of Florida
- Chris Davis Jaldi, Wright State University
- Noah Schroeder, University of Florida
- Alexis Lopez, Educational Testing Service
- Jessica Gladstone, University of Illinois at Urbana-Champaign
- Steffi Heidig, University of Applied Sciences Zittau/Goerlitz

### **Many thanks to the Best Paper Reviewers:**

- Michael Grant, *University of South Carolina*
- Dirk Ifenthaler, *University of Mannheim, Germany*
- Kyungbin Kwon, *Indiana University*
- Tugce Aldemir, *Texas A&M University*
- Zilong Pan, *Lehigh University*
- Bo Pei, *University of South Florida*
- Fatih Ari, *University of South Carolina*
- Ceren Ocak, *Georgia Southern University*
- Suha Tamim, *University of South Carolina*



## Travel Scholarships

In recognition of outstanding work, the SIG Instructional Technology once again awarded travel scholarships to the top 10 proposals submitted with a graduate student as the first author. The SIG Instructional Technology Graduate Student Travel Scholarship aims to alleviate the cost of attending the AERA 2025 Annual Meeting. More importantly, it serves as an honor for us to recognize these emerging scholars. We are able to offer these scholarships thanks to the generous support provided through membership fees!

The following graduate students were (1) selected as recipients, (2) accepted the scholarship, and (3) submitted the required information (the list of recipients is also attached in PDF format):

Graduate Student ▾	Institutional Affiliation ▾	Academic Advisor ▾
Chaewon Kim	Florida State University	Bret Staudt Willet
Hui Shi	Florida State University	Vanessa Dennen
Justine Hampton	University of Utah	Kirsten Butcher
Gabriella Haire	University of Florida	Pavlo Antonenko
Asma Al Aamri	University of Georgia	Lauren Malia Bagdy
Amani Itani	University of Houston	Bulent Dogan
Minkyung Lee	Penn State University	Priya Sharma
Shan Zhang	University of Florida	Maya Israel
Yuchun Zhong	The University of Hong Kong	Luke Kutszik Fryer

Congratulations to all the SIG Instructional Technology Graduate Student Travel Scholarship recipients!

Hengtao Tang, Ph.D., SIG IT Awards Chair

## **SIG IT AERA 2025 Program**

The AERA Conference is almost here, and we couldn't be more excited! This April in Denver, join leading researchers, educators, and practitioners for an inspiring exploration of the latest innovations shaping the future of learning and technology. From AI-driven instructional design to ethical tech use, problem-based learning, and immersive environments, this conference will ignite meaningful discussions and highlight groundbreaking practices. With an engaging lineup featuring 1 panel, 25 presentations, 13 posters, and 15 roundtable sessions, there's something for everyone in the Instructional Technology SIG. Don't miss your chance to connect, learn, and contribute!



Join us for an exciting conference showcasing cutting-edge research and practical insights across diverse themes in technology-enhanced learning. Explore presentations on instructional planning and implementation, where experts discuss curriculum design, professional development, and the integration of digital tools to enhance student learning. Delve into the role of learning analytics and student engagement, uncovering data-driven strategies that optimize educational experiences. Sessions will also highlight AI-driven innovations in instructional technologies, examining how artificial intelligence is reshaping instructional design, assessment, and personalized learning.

This conference also addresses instructional technology in the age of AI, exploring ethical considerations, emerging trends, and best practices for leveraging AI in education.

Presenters will share research on pedagogical design and educational technologies, showcasing innovative frameworks that foster meaningful learning experiences. Whether you're interested in virtual reality, adaptive learning systems, or AI-enhanced teaching strategies, this conference is sure to offer valuable insights into instructional design.

Join us for the Confronting Complex Educational Challenges in Instructional Design and Technology Research and Practice symposium, where experts tackle the evolving role of AI, ethics, and student-centered learning. This session will explore how AI can address social issues, enhance informal learning, and elevate student agency while navigating critical ethical considerations. Gain valuable insights into the challenges and opportunities of AI in education and discover strategies for responsible and impactful instructional design!

Jill Stefaniak, Ph.D., SIG IT Program Chair

## **SIG IT Community Building**

SIG IT is a diverse and collaborative community connecting members interested in the design and development of instruction and the media technologies that aid in implementing instruction. SIG IT currently has 217 members and \$5,224.47 as of February 2025's financial statement. This year, funds will be used for our AERA SIG Management Fee, 2025 Best Papers certificates, and 2025 graduate students travel scholarships and certificates.

As you renew your AERA membership and register for the AERA 2025 conference, please do remember to support this SIG-IT by joining the SIG membership. Your membership funds support our awards and our events throughout the year and at the conference.

This year, we continue to work on building communities in the following ways:

- Fall/Spring Newsletter sharing community updates and SIG IT members' work
- Regular communication via emails about calls for proposals/book chapters, job announcements, and distribution of surveys, exclusively open to members of SIG IT
- SIG Website:  
<https://www.aera.net/SIG052/Instructional-Technology-SIG-Welcome>
- Social media on [SIG IT Facebook group](#) and [SIG IT Twitter](#)

We truly appreciate SIG IT members' contributions in various forms, which makes spaces of friendship and generous sharing.



Jiahui Wang, PhD  
SIG IT Secretary/Treasurer

Lili Yan, PhD  
SIG IT Communication Officer

## **Election Results and New Leadership Team Members**

We would like to congratulate our newly elected SIG Instructional Technology board members:



**Heather Leary**

Awards Chair (3-Year Term)  
*Brigham Young University*



**Wei Yan**

Communication Officer (1-Year Term)  
*Northern Arizona University*



**Rebecca Clark-Stallkam**

Secretary/Treasurer (1-Year Term)  
*East Carolina University*

Based on the results of the election, the 2025-2026 SIG Instructional Board will include the following members:

- Jill Stefaniak, *Chair*
- Hengtao Tang, *Program Chair*
- Heather Leary, *Awards Chair*
- Wei Yan, *Communication Officer*
- Rebecca Clark-Stallkam, *Secretary/Treasurer*

Thank you all for your participation in the AERA election process!

## **Members' Awards, Grants, and Professional Accomplishments**

### **Hui Shi (PhD Candidate, Florida State University)**

- Hui Shi recently received several awards and scholarships, which include 1) Dissertation Research Grant (\$1,000), The Graduate School, the Congress of Graduate Students (COGS), Florida State University; 2) College of Education, Health, and Human Sciences Showcase Research Funding (\$2,000), Florida State University; 3) Scholarship (\$500), College of Education, Health, and Human Sciences, Florida State University.



### **Rick West (Professor, IPT, Brigham Young University)**

- Dr. Rich West took a new role as Editor-in-Chief of ETRD-Development Section. See details here: <https://www.aect.org/blogs/aect-staff/2025/01/30/dr-richard-e-west-appointed-as-editor-in-chief>

### **Ela Castellanos-Reyes (Assistant Professor, North Carolina State University)**

- Dr. Ela Castellanos-Reyes was accepted by the Digital Futures 2025 Early Career Summer Programme by Digital Futures Research Center to visit KTH Royal Institute of Technology (\$50000 SEK). <https://www.digitalfutures.kth.se> I will be collaborating with Stefan Stenbom for two months.

### **Gabriella Haire (PhD Student, University of Florida)**

- Gabriella Haire accepted a PhD admission offer and have officially committed to the PhD program in Curriculum and Instruction with a concentration in Educational Technology at the University of Florida

## **What are SIG Instructional Technology Members Reading?**

### ***Artificial Intelligence***

The AI-Driven Leader: Harnessing AI to Make Faster, Smarter Decisions by Geoff Woods

**Inspirations from the reading(s):** "It highlights how AI enhances decision-making by providing data-driven insights and automation, which directly applies to instructional technology by enabling personalized learning, adaptive assessments, and more efficient educational strategies. This reading inspires educators and instructional designers to leverage AI for optimizing learning experiences, improving student engagement, and streamlining administrative tasks." – Caitlin Riegel (Assistant Professor, Department of Foundations and Pedagogy, College of Education, Niagara University)

Secchi, M. (2024). Artificial Intelligence in Unreal Engine 5: Unleash the power of AI for next-gen game development with UE5 by using Blueprints and C++ (1st ed.). Packt Publishing.

**Inspirations from the reading(s):** "It is important for XR educators, researchers, and practitioners to understand how XR learning environments are created using modern game engines and how these virtual environments can be enhanced or further empowered by the AI technology. This book helps these people learn how to implement and integrate various AI technologies, such as deep learning, computer vision, natural language processing, etc., in Unreal Engine 5 to create more realistic XR learning environments and thus provide more realistic and potentially better learning experiences and outcomes for learners." – Hao He

(Assistant Professor at the School of Library and Information Management at Emporia State University)

### ***Data and Ethics***

Véliz, C. (2020). *Privacy is power: Why and how you should take back control of your data*. Penguin Random House.

**Inspirations from the reading(s)**: This book helped me rethink my approach towards data usage in my courses and my professional life. As a researcher in our field, I'm prompt to try technology every day, and having a strong reminder of how I can be cautious makes my work better. – Ela Castellanos-Reyes (Assistant Professor, North Carolina State University)

Moore, S. L., & Dousay, T. A. (2023). *Applied Ethics for Instructional Design and Technology: Design, Decision Making, and Contemporary Issues*. <https://doi.org/10.59668/270>

**Inspirations from the reading(s)**: “Ethics is an essential part of our field, but it can sometimes be overlooked. This book helped me broaden my knowledge of aspects of ethics that I may fail to consider as an instructional designer.” – Deniz Unal (Research Assistant, Ed.D student at Texas Tech University)

### ***Pedagogy and Online Learning***

Freire, P., Ramos, M. B., Shor, I., & Macedo, D. P. (2018). *Pedagogy of the oppressed: 50th anniversary edition*. Bloomsbury Academic.

**Inspirations from the reading(s)**: This book is one of my all-time favorites. I return to it from time to time to remind myself of my values and what we can achieve with education. – Deniz Unal (Research Assistant, Ed.D student at Texas Tech University)

Mccabe, M., & Gonzalez-Flores, P. (2016). *Essentials of Online Teaching*. Routledge.

**Inspirations from the reading(s)**: “This is a great book for taking online teaching and course development skills a step further. It helped me a lot with how I structure online courses.” – Deniz Unal (Research Assistant, Ed.D student at Texas Tech University)

Martindale, T., Amankwatia, T. B., Cifuentes, L., & Piña, A. A. (2024). *Handbook of Research in Online Learning: Insights and Advances*. Brill.

**Inspirations from the reading(s)**: This handbook helped me gain up-to-date insights from our field and broaden my perspective on the different subfields of instructional technology. – Deniz Unal (Research Assistant, Ed.D student at Texas Tech University)



## **SIG Instructional Technology Members Spotlights**

**Hui Shi (hshi2@fsu.edu)**

**(PhD Candidate, Florida State University)**

I am a doctoral candidate in the Instructional Systems and Learning Technologies program at Florida State University. I earned an M.S. in Education Information Technology at East China Normal University. I also went to Auburn University as a short-term visiting student during my master's program. My research interests are Collaborative problem-solving, Knowledge Building, Online Teaching/Learning, and Self-regulated Learning. My current projects include exploring metacognitive processes and scaffolding design for online ill-structured collaborative problem-solving, knowledge construction and problem-solving processes in a simulation learning environment, and academic peer review and knowledge co-construction. I am looking for faculty positions in the education technology, instructional design, and learning science fields.



**Your websites / social media / any platform you want to share:**

<https://meme.create.fsu.edu/hui-shi/>

**What do you usually do outside of work and research?**

I like traveling, hiking, and watching movies.

**Rick West (rickwest@byu.edu)**  
**(IProfessor, IPT, Brigham Young University)**

In my research, I study how to innovate and advance education through the three Cs of education: (a) Content, (b) Communities, and (c) Credentials and Recognition. In my research I have sought to improve educational (a) content by creating open textbooks to provide open access to high quality educational content. I have also studied how to make the what of learning more focused on developing creativity and innovation skills through collaborative co-design learning. Because I believe good learning is inherently social, I have studied methods for improving learning (b) communities, including in online settings. Finally, because students need feedback and recognition for their learning, I have been integrally involved in the movement to reimagine learning (c) credentials and how we evaluate and recognize learning.



**Your websites / social media / any platform you want to share**

Twitter (now known as X): @richardewest

Bluesky: <https://bsky.app/profile/richardewest.bsky.social>

**What do you usually do outside of work and research?**

Trail running, ultramarathons, listening to all genres on audiobooks!

**Huiruo Chen (huiruochen@usf.edu)**

**(PhD Candidate, University of South Florida)**

Huiruo Chen is a PhD candidate at the University of South Florida. Her research interests span a diverse range of instructional technology and evaluation domains, including online learning, distance learning, collaborative evaluation, program evaluation, cross-cultural issues in online environments, art-based research and child education with technology.

Currently, Huiruo is working on her dissertation, which focuses on applying the Collaborative Evaluation Model (MCE) as an alternative approach to evaluating the quality of online courses. Simultaneously, she is collaborating with her professor to uncover and explore the foundations and principles of qualitative research epistemologies through an innovative arts-based reflective approach.



Upon completing her PhD, Huiruo plans to remain actively engaged in higher education and research, striving to bridge theory and practice in technology-enhanced learning. She is passionate about fostering inclusive, evidence-based educational practices that address diverse learner needs. Currently, she is actively seeking professional opportunities in Instructional Technology to contribute her expertise in designing and implementing innovative learning solutions.

**What do you usually do outside of work and research?**

Exploring art galleries, working on handmade art projects, practicing music and hiking

**Caitlin Riegel (ceriegel@niagara.edu)**

**(Assistant Professor, Department of Foundations and Pedagogy, College of Education, Niagara University)**

Dr. Caitlin Riegel is an Assistant Professor in the College of Education at Niagara University in New York State. Holding a Ph.D. in Leadership and Policy, her work focuses on quality teacher education related to educational technology.

Dr. Riegel has taught in higher education since 2015, with extensive experience in online graduate education. She is committed to fostering student engagement within the virtual learning environment, modeling effective instructional technologies, teaching through feedback, and guiding students in their research interests. Her research explores enhancing teacher preparation, leading to grant-funded initiatives such as an NSF Noyce grant for STEM teacher development and the development of the Online Teaching Studio (OTS). Her innovative work earned her the Glen Earthman Dissertation of the Year Award for developing the Teacher Preparation Technology Inventory (TPTI), which now used internationally to promote educational equity in technology integration. Dr. Riegel's interest in the role of artificial intelligence (AI) in education and teacher education led to her actively shaping AI policy through university committees and school district collaborations. As an editorial board member and reviewer for top education journals, she contributes to advancing AI research in education and is dedicated to bridging the gap between AI and classroom practice. She continues to explore AI's evolving impact on education while mentoring future educators and fostering global research collaborations.



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Dr. Riegel currently serves as President of the International Society of Educational Planning (ISEP) and East Regional Representative for the Association of Independent Liberal Arts Colleges for Teacher Education (AILACTE).

### **What do you usually do outside of work and research?**

<https://www.linkedin.com/in/caitlin-riegel> and <https://x.com/CaitlinRiegel>

### **What do you usually do outside of work and research?**

Outside of academia, Dr. Riegel is passionate about coaching figure skating and serving as a power skating instructor for hockey players and teams. With a deep-rooted love for skating stemming from her own career as a figure skater, she dedicates her time to mentoring skaters of all levels, helping them refine their technique, build confidence, and achieve their goals on the ice. As a United States Figure Skating Association (USFSA) coach and coach for the club figure skating team at Niagara University, she works with skaters of all levels to refine their technique, build confidence, and achieve their goals on the ice. As a power skating coach, she works with hockey players to enhance their speed, agility, and edge control, equipping them with the skating skills necessary for high-level performance.

Coaching allows her to combine her expertise in teaching with her commitment to personal development, fostering discipline, resilience, and creativity in athletes. Whether training competitive figure skaters or hockey players looking to improve their game, she finds joy in creating a positive and supportive environment that pushes skaters to reach their full potential. Through coaching, she continues to apply her leadership skills beyond the classroom, inspiring others to strive for excellence both on and off the ice.

**Hao He ( haohephd@gmail.com)**

**(Assistant Professor at the School of Library and Information Management, Emporia State University)**

I am currently an assistant professor at the School of Library and Information Management at Emporia State University. I earned my Ph.D. from the School of Information Science and Learning Technologies at the University of Missouri-Columbia in 2023. In addition, I have an M.Ed. in educational technology and a B.A. in English Language and Literature. I was an English teacher and an educational project manager for seven years.

My research embraces AI-enhanced virtual reality, game-based learning, creativity fostering, and beyond. I apply my research in general education, engineering education, nursing education, and library science. As an early-career researcher and a passionate advocate for technology, I am dedicated to exploring emerging technologies in teaching and learning. I founded the Learning Propulsion Laboratory (LPL) with a mission to "propel" education forward through innovative technological applications.



I believe that advanced learning technologies should be thoughtfully integrated with well-crafted instructional design to maximize their impact. Technology should be a tool that adapts to the diverse needs of both instructors and learners, rather than a separate tool used in isolation. By seamlessly blending with pedagogical practices, technology can enhance educational experiences in meaningful ways.

### **Your websites / social media / any platform you want to share**

ESU bio page:

<https://www.emporia.edu/school-library-and-information-management/about/directory/hao-he-bio-page/>

Lab: <https://www.lplab.top/>

Google Scholar: <https://scholar.google.com/citations?user=48Gvf2sAAAAJ&hl=zh-CN>

LinkedIn: <https://www.linkedin.com/in/haohephd/>

### **What do you usually do outside of work and research?**

Outside of work, I enjoy gaming, cooking, swimming, hiking, and animal photography. I swim 3,000 meters daily and have a deep love for national parks.

## **Gratitude!**

Stay connected with us! Join the conversation on our [SIG IT Facebook Group](#) and follow us on [SIG IT Twitter](#) for the latest updates. Don't forget to visit the [AERA 2025 website](#) for Annual Meeting updates! From all of us on the SIG Instructional Technology Board, we wish you an outstanding experience at the AERA 2025 Annual Meeting!

