Meryem Yilmaz Soylu

Research Scientist II

Campus Location: Center for 21st Century Universities

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RESEARCH INTERESTS:

Dr. Yılmaz Soylu investigates the design and study of AI-supported and immersive learning environments for online and blended education. Her work examines how artificial intelligence, extended reality (XR), and learning analytics can be intentionally designed to strengthen learner engagement, self-regulation, leadership, and durable skill development. Grounded in educational psychology and user-experience research, she employs experimental, mixed-methods, and design-based approaches to understand how adaptive systems influence learning processes and outcomes in higher education and professional contexts. Her research aims to inform the responsible design of human-centered AI and immersive technologies that support cognitive, metacognitive, and interpersonal growth.

TEACHING INTERESTS:

Dr. Yilmaz Soylu's teaching focuses on project-based and experiential learning in data-driven education at the undergraduate and graduate levels. She emphasizes collaborative inquiry, applied problem solving, and mentoring students through team-based research experiences, including vertically integrated projects that connect coursework with real-world challenges.
She serves as a co-instructor for the VIP Data-Driven Education team at Georgia Tech, where she guides students in designing and studying data-informed educational technologies in authentic learning contexts.

EDUCATION:

Ph.D. in Educational Psychology, May, 2014

University of Nebraska-Lincoln *Lincoln, Nebraska*

M.S. in Computer Education and Instructional Technology, January, 2005

Hacettepe University *Ankara, Turkiye*

B.S. in Computer Education and Instructional Technology, June, 2002

Hacettepe University *Ankara, Turkiye*

RECENT SCHOLARLY OUTPUT:

1. Yilmaz Soylu, M., Gallard, A., Lee, J., Grigoryan, G., Desai, R., and Harmon, S., "Streamlining admission with LOR insights: AI-based leadership assessment in online master's programs," *Discover Artificial Intelligence*, **5**(1), 276 (2025).
2. Yilmaz Soylu, M., Lee, J., Hung, J. T., Cui, C. Z., and Joyner, D., "AI literacy as a key driver of user experience in AI-powered assessment: insights from Socratic Mind," *Interactive Learning Environments*, 1–17 (2025).
3. Yilmaz Soylu, M., Lee, J., and Hüsing, Z., "Exploring the impact of virtual reality on students' perceptions and competency in multimodal communication," *Immersive Learning Research–Academic*, 176–185 (2025).
4. Yilmaz Soylu, M., Lee, J., Godshalk, R., and Sembrat, E., "From concept to reality: Detecting and assessing 21st-century skills for online program success using LLMs," *2025 UPCEA Annual Conference*, Denver, CO, March 24–26 (2025).
5. Borela, R., Yilmaz Soylu, M., Lee, J., and Roy, N., "What computing faculty want: Designing AI tools for high-enrollment courses beyond CS1," *Proceedings of the 2025 ACM Conference on International Computing Education Research (Vol. 2)*, 32–33 (2025).
6. Yilmaz Soylu, M., Kim, L., & Lee, J. (2024). Insights into College Students' Experiences and Expectations for VR Integration in Education. *Immersive Learning Research-Practitioner*, 13-15.
7. Yilmaz Soylu, M., and Lee, J., "Examining college students' readiness for virtual reality in education," *AERA Online Paper Repository* (2024).
8. Yilmaz Soylu, M., and Akkoyunlu, B., "Embracing the era of extended reality (XR)," in *Educational Technology Readings 2024*, 163–178 (2024).
9. Yilmaz Soylu, M., and Lee, J., "Analyzing interplay of metacognition, cognitive presence, and course performance in MOOCs and master course forums," *2024 IEEE Digital Education and MOOCS Conference (DEMOcon)*, Atlanta, GA, 1–6 (2024).
10. Lee, J., Yilmaz Soylu, M., and Ou, C., "Exploring insights from online students: Enhancing the design and development of intelligent textbooks for the future of online education," *International Journal on Innovations in Online Education*, **7**(2) (2023).