

CENTER FOR LEARNING IN THE DIGITAL AGE (LiDA)

LiDA Colloquium Series – October 1, 2025

<https://www.rochester.edu/warner/lida/programs/lida-colloquium-series/>

LiDA PROJECTS' Showcase and Connections

[Link to main Session Navigator](#)

****WORKING DOCUMENT****

GROUP B1 - Leveraging AI/AR/VR to Support Learning/Students

(FACILITATOR: Pat Vaughan-Brogan)

STRUCTURE *(40 minutes total):*

1. *Round-robin introductions and identification of theme-related interests/initiatives (2-3 minutes max per participant)*
2. *Time for participants to ask questions to each other*
3. *Additional conversation around key questions related to the theme*

*Note: Information about selected theme-related project (marked with “**”) are provided at the end of this document.*

Participants - and theme-related key interests/initiatives:

- **Pat Vaughan-Brogan:** using AI with pre-service school leaders in ED469
- **Keirah Comstock + Lisa Mohr:** Developing and using URCourseBot (preceding and including **Empire AI Coursebot Study + *UR ED IT mini-grant to pilot URCourseBot*)

- **Tom Fuller:** Developing and using RIT TutorBot (preceding and including **Empire AI Coursebot Study*)
- **Anastasia Shikanova:** How Instructor-Designed Prompts Can Scaffold Graduate Student Learning
- **Joe Gomulak-Cavicchio:** Using AI in nursing education courses
- **Ben Guerrero:** Experiences using AI with music students (**TEAMuP* experiences and other)
- **Hecong Wang:** Creating AI agents to support students' collaborative learning
- **Zhen Bai:** AI-empowered Scientific Inquiry
- **Erqian Xu:** Using Machine Learning related to immigrant students
- **Oliver Gatchell**

Additional possible discussion questions:

- Which learning activities did AI (or AR/VR) enable that were not possible before, and what value did each add?
- What do you see as potential risks for students using AI, and how could those risks be minimized?

TEMPLATE to be copied in a new cell of the table below and filled in for additional projects:

[PROJECT TITLE]

Brief description:

Key achievements to date:

Key activities planned for 2025-26:

Team:

Contacts:

Links to more information:

Selected projects' descriptions and links to additional information
Empire AI Coursebot study <i>Brief description:</i> As part of a larger grant from Google to Empire AI, UR and RIT are collaborating in an exploratory study of coursebots/virtual course assistants - that is, LLM-powered chatbots customized to draw only from a set of resources selected by the course instructor to support

student learning in that course. A group of about 24 UR and RIT instructors teaching a variety of courses across fields and levels will receive training and on-going support to design and implement innovative uses in their courses of two existing coursebots developed in these institutions (URCourseBot and TutorBot), with the ultimate goal of creating a publicly accessible set of effective use cases to serve as a resource for instructors using any of the many available coursebots.

Key achievements to date: The project has just been launched, and a first group of interested instructors is implementing a coursebot in their Fall 2025 course and participating in an online professional learning community (PLC) to share and discuss these experiences. Short videos introducing URCourseBot and TutorBot have also been produced.

Key activities planned for 2025-26: Implementing the targeted coursebot in participants' courses in Fall 2025 and Spring 2026 with the support of their PLC, holding at least two project-wide meetings each semester, and preparing the promised use cases. Instructors interested in participating in Spring 2026 pilots should contact the PIs.

Team: UR: Raffaella Borasi (PI), Zenon Borys, Dave Miller, Cyndi Carson, Yu Jung Han, Keirah Comstock, Joe Ogg; RIT: Chris Collison (PI), Tom Fuller

Contacts: Raffaella Borasi (rbourasi@warner.rochester.edu); Chris Collison (cjcscha@rit.edu)

Links to more information:

How Instructor-Designed Prompts Can Scaffold Graduate Student Learning

Brief description: Ohio State University AI Fluency Initiative and ongoing research on how instructor-designed AI prompts support graduate students' engagement, problem-solving, and learning outcomes in higher education.

Key achievements to date: Gathering data, doing observations

Contacts: Anastasia shikanova.1@osu.edu

UR ED IT mini-grant to pilot URCourseBot

Brief description: With the support of an internal UR mini-grant, a group of UR faculty in business, education and music have piloted the URCourseBot - an LLM-powered chatbot customized to respond to students' questions by drawing only from a set of resources selected by the course instructor, developed by the Simon School.

Key achievements to date: URCourseBot was piloted in xx courses across business, education and music. Data was collected through student and faculty surveys and focus group interviews, as well as recorded meetings where faculty shared their experiences.

Key activities planned for 2025-26: Data are currently being analyzed.

Team: Mitch Lovett & Raffaella Borasi (PIs), Keirah Comstock, Zenon Borys, Yvonne Xu

Contacts: Keirah Comstock (kcomsto2@simon.rochester.edu)

Links to more information:

TEAMuP - Musicians' "Future of Work project

Brief description: This 4-year "Towards an Ecosystem of AI-powered music production (TEAMuP)" project is funded by a grant from the NSF Future of Work at the Human-Technology Frontier program to develop new technology that will facilitate the deployment of AI-powered music production solutions to musicians to make them more self-sufficient, while also developing the conditions for more musicians to be able to take advantage of these new tools. This project builds on a previous Future of Work planning grant, focusing on the emerging occupation of "artist-technologists". It is a collaboration between UR and Northwestern.

Key achievements to date: We have completed year 3 of the project; the tech team has made major progress on developing the prototype, while the music/education team has conducted and analyzed 42 interviews with diverse musicians, received over 200 responses to a national survey, designed and piloted a week-long summer camp for high school students and a college course to introduce music technology and AI.

Key activities planned for 2025-26: Complete the technology development; implementing and studying a revised version of the college course at Eastman; completing the e-book we are preparing as a resource for other music educators interested in to completed publications from the interview data; conduct a national survey; implement a revised 1-semester version of the college courses and a slightly redesigned summer camp.

Team: UR: *Raffaella Borasi, Zhiyao Duan, Jonathan Herington; Rachel Roberts (PIs); Mark Bocko; *Zenon Borys; Matthew Brown; *Dave Miller; Ben Guerrero; Blaire Koerner; Yu Jung Han; Md. Mmamunur Rashid; Northwestern: Bryan Pardo (PI)

Contacts: Raffaella Borasi - rborasi@warner.rochester.edu

Links to more information:

[TEAMup project public abstract](#)

[TEAMup poster presented at the 2023 PI meeting](#)

[Open-access article on ethics of AI in music \(based on interview data\)](#)

AI-Child Collaborative Reasoning in Story Reading

Brief description: The AI-Child Collaborative Reasoning (AIC2OR) Project aims to develop a computational framework rooted in theory to create argumentation-driven conversational agents powered by large language models (LLMs) for fostering dialogic learning in children.

Key updates: During this summer, we have conducted an exploratory pilot study with 18 8-year-old students participating in a literacy-focused reading summer camp. Learners demonstrated a high level of engagement with the prototype agent, and key collaborative reasoning behaviors such as ideation, question posing, and supporting claims saw noticeable increases during the human-agent conditions (compared to human-human baseline).

Key activities planned for 2024-25: Initial feedback study and continued human-subject evaluation study, collecting additional agent-child interaction data to identify key interaction patterns to be incorporated into the next iteration of the system.

Team: Hecong Wang, Prof. Zhen Bai

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AI-empowered Scientific Inquiry

Brief description: ML4Inq aims at creating a programming-free authoring platform for teachers to create scientific inquiry activities using basic ML-based data analysis methods like k-means clustering and k-NN classification.

Key achievements to date: The project is formerly supported by NSF EAGER, and we have two publications on the work (see below).

Key activities planned for 2025-26: We received a one-year URA grant this year to refine the ML4Inq platform by incorporating it to the CODAP K-12 data analysis platform by Concord Consortium, and conducting a follow-up study with high school teachers in classroom context.

Team: UR: Zhen Bai (PI), Michael Daley (Co-PI), Xiaofei Zhou (collaborator)

Contacts: Zhen Bai (zhen.bai@rochester.edu)

Links to more information:

- Zhou, X., Lyu, H., Sa, Y., Li, M., Sarkar, A., Luo, J., Daley, M., and Bai, Z. (2025, July). Empower Secondary School Teachers to Create ML-Supported Inquiry-Based Learning Activities. In International Conference on Artificial Intelligence in Education (pp. 150-164). Cham: Springer Nature Switzerland.
- Zhou, X., Tang, J., Xiao, Q., Zhou Y., Bai, Z. (2024, June). Supporting Multidimensional Data Analysis for High-School Students in the Era of Machine Learning. In Proceedings of the 18th International Conference of the Learning Sciences-ICLS 2024, pp. 1255-1258. International Society of the Learning Sciences.