

Gerd Kortemeyer – Colloquium – April 16, 2026
ETH Zurich

Project Ethel: using AI for teaching and learning at ETH Zurich”

Large language models have moved from generating amusing fiction to outperforming undergraduates on first-year physics and chemistry exams, forcing us to rethink how knowledge is produced, assessed, and learned. Drawing on a series of empirical studies - from GPT-3.5 barely passing an introductory physics course to GPT-5 solving a multi-page physics final more accurately and faster than most students - I explore what these systems can and cannot yet do, and how this reshapes our notions of expertise and academic integrity. I then introduce “Ethel,” ETH Zurich’s on-premises AI ecosystem that uses commercial LLMs through controlled workflows to support course-specific chatbots, accessibility services, automated feedback, and large-scale grading assistance with psychometric, human-in-the-loop safeguards. Rather than treating AI as a better teacher or as a prohibition problem, the talk discusses how institutions can curate AI for students, design assessments that focus on reasoning processes instead of answers, and maintain transparency and student agency in high-stakes settings — without forgetting that our students are humans navigating yet another disruptive technological wave.