Examining Undergraduate Thinking in Science using AI-based Evaluation of Constructed Responses

Dr. Kevin Haudek

Associate Professor, Teaching
Department of Biochemistry & Molecular Biology
Michigan State University

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NSB 1205 Auditorium

Zoom link: https://ucsd.zoom.us/j/96149183748

A roundtable discussion with Dr. Haudek will take place immediately following the talk

Abstract:
Research in my group focuses on uncovering undergraduates' thinking about key concepts in biology and engagement in scientific practices through formative assessment. As part of this, we investigate the application of machine learning and natural language processing to help evaluate student writing in explanations and scientific arguments. These tools enable both exploration of ideas in student writing, as well as prediction of classifications for short, content-rich responses. These classifications can provide a classroom level view of student ideas and reasoning, even for large science courses. Using findings from several projects across science disciplines, I'll highlight how these approaches can reveal student ideas and patterns at scale and how we leverage these tools to compare text responses.

Hosted by: Claire Meaders (cmeaders@ucsd.edu)