Abstract:

This talk details parts of my own research program to describe, predict and control learning using mathematical models of learning as a way to make learning decisions in some instructional system. The talk will outline my recent work developing a universal framework for modeling performance during learning using logistic regression, which generalizes a variety of learner models in the literature to describe a system for creating new models based on the unique features of different tasks. I will discuss how modeling such as this is applied and describe my collaborations with McGraw Hill Education to apply these methods in the context of practice problems after textbook chapters. An important component of this research is my funding through the LearnSphere project, which is a platform for data sharing and learning analytics.

Bio:

Assistant Professor and Director of the Optimal Learning Lab. Dr. Pavlik completed his dissertation research with John Anderson in Carnegie Mellon University's Psychology Department and has worked with Ken Koedinger in Carnegie Mellon's Human Computer Interaction Institute. He is currently working on multiple existing grants and has applied for funding from both DoD and NSF.