College of Science

Bioinformatics

The University of Texas at El Paso

Opportunities at the Intersection of Patient-Reported Outcomes and Artificial Intelligence

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Patient-reported outcome measures (PROMs) are tools that assist with patient decision-making, monitoring, and outcome assessment. Contemporary advances in psychometrics, such as Item Response Theory (IRT), and data science techniques like machine learning, have the potential to enhance the value of patient-reported outcome (PRO) data initiatives.

During this presentation, Dr. Cai Xu will explain the core principles of Item Response Theory (IRT) and demonstrate its application in validating PROMs for clinical research and practice. Furthermore, she will introduce innovati ve methods like Computer Adaptive Testing (CAT), aimed at streamlining the collection of PRO data, alleviating the burden on patients when responding, and fostering greater engagement in clinical settings.

Dr. Xu will also present and discuss the training of machine learning algorithms utilizing PRO data to optimize the decision-making process. Emphasizing the significance of these advanced techniques, she will underscore their role in enhancing patient-centered care and ultimately improving patient outcomes.

Bell Hall 143

Friday, September 29, 2023, 10:00 AM

(Also available remotely: https://utep-edu.zoom.us/j/84398694840)