Translational AI Center (TrAC) Seminar Spring 2023

Sean D. Mooney

March 3 at 12:00 noon (US Central Time)

Zoom: https://iastate.zoom.us/j/92178103551?pwd=dlNCa2l0ckVBTEVyR1JEN2Y3b21XQT09

Facilitating the use of artificial intelligence in healthcare at the University of Washington

Abstract

It is an opportune time to be engaged in the research and application of informatics in biomedicine. The increased use of electronic and personal health records and personal mobile devices is creating many opportunities at research academic medical centers. At the University of Washington, I believe, we are laying the groundwork to build the informatics and information technology infrastructure to support research on personalized approaches and the use of data science to enable them. We are beginning to see the early successes of these efforts and I will describe some of them. But there are many challenges, for example, we continue to generate massive amounts of data that is largely uncurated. This includes images, genomes and other -omics datasets, personal monitors, electronic health records, etc. In this presentation, I will discuss our support of data for research use within UW Medicine, our efforts to build new machine learning and data science approaches using clinical datasets, and our efforts to develop new machine learning methods and to implement them so that we can study the impacts of their use.

Short Bio

Dr. Sean Mooney is the Chief Research Information Officer (CRIO) of UW Medicine, the Director of Informatics for the Institute of Translational Health Sciences, an Associate Director of the National Alzheimers Coordinating Center (NACC), and a Professor in the Department of Biomedical Informatics and Medical Education at the University of Washington. As CRIO, he leads the growing Research Information Technology team that contributes to a number of national research networks the National Kidney Precision Medicine Project, the National Alzheimer's Coordinating Center, the UW Clear Center and others. Some notable efforts include leading the team that developed the open source Leaf application for clinical data querying and extraction, managed a REDCap instance with >25k projects and >15k active users, managing the FH, UW and Seattle Cancer Care Alliance joint CTMS application, and enhancing the UW Medicine EDW with advanced analytics including NLP. Currently he is focusing on developing an Epic EHR Research team for supporting research in the EHR at UW Medicine and leading the newly founded UW Institute for Medical Data Science. His research interests focus on data science applications in biomedicine, particularly in understanding the underlying molecular causes of inherited genetic diseases and cancer. A prolific speaker, he has given more than 150 invited seminars throughout the world. Dr. Mooney is a 4th generation Seattleite and in his spare time he is found in the outdoors having climbed Mt. Rainier and Mt. Baker and has bicycled across the United States twice.