Translation of Technology into Healthcare as a Wicked Problem

Dr. Stephanie Tulk Jesso
Assistant Professor, Systems Science and Industrial Engineering, Binghamton University

Wednesday March 8, 2023  12:00-1:00pm EST
Hybrid (EB-T1 & Zoom; meeting link available on http://coco.binghamton.edu/)

In healthcare, the adoption of new practices and therapies is predicated on evidence of their safety and efficacy in providing better care to patients. Observations from the past 20+ years have demonstrated that the process of translating these “best practices” into real clinical work is prone to failure, due in part to the high degree of sociotechnical complexity within healthcare organizations. This is even worse for new algorithmic tools which rely on data that are highly variable from one organization to another. In this talk, I will discuss some of the inherent challenges in creating and implementing clinically relevant and usable algorithmic tools. These insights were discovered through mixed-methods, human-centered research and design efforts, and have demonstrated -- to me -- that failure is not due to a lack of trying, but from the wicked level of complexity related to implementation within healthcare systems.

Dr. Stephanie Tulk Jesso is an Assistant Professor in the Department of Systems Science and Industrial Engineering at Binghamton University. Her work focuses on applying human-centered research and design methods to define a better path towards the implementation of exceptional “high tech” clinical tools into practice, which support clinicians as they care for patients. Her research is extremely collaborative and multidisciplinary, spanning fields of engineering, healthcare, human factors, human-centered design, usability/UX, cognitive science, human-computer interaction, artificial intelligence, robotics, and implementation science.

For more information, contact Hiroki Sayama (sayama@binghamton.edu). http://coco.binghamton.edu/