

The Department of Educational Psychology's Research Methods, Measurement, & Evaluation (RMME) program and the Department of Statistics at the University of Connecticut present:

## *Assessing Personalization in Digital Health*

Dr. Susan Murphy, Harvard University

Friday, 9/10/2021, 12pm

<https://uconn-cmr.webex.com/uconn-cmr/j.php?MTID=m883b79a16b8b2c21038a80da6301cba3>

Reinforcement Learning provides an attractive suite of online learning methods for personalizing interventions in Digital Health. However, after a reinforcement learning algorithm has been run in a clinical study, how do we assess whether personalization occurred? We might find users for whom it appears that the algorithm has indeed learned in which contexts the user is more responsive to a particular intervention. But could this have happened completely by chance? I discuss some first approaches to addressing these questions.



**Dr. Susan Murphy** is a Radcliffe Alumnae Professor at Harvard Radcliffe Institute and a professor of statistics and computer science at the Harvard John A. Paulson School of Engineering and Applied Sciences. A 2013 recipient of a MacArthur Fellowship, she was previously the H. E. Robbins Distinguished University Professor of Statistics, a research professor at the Institute for Social Research, and a professor of psychiatry, all at the University of Michigan. Murphy earned her BS from Louisiana State University and her PhD from the University of North Carolina at Chapel Hill. Her research focuses on analytic methods to design and evaluate medical treatments that adapt to individuals, including some that use mobile devices to deliver tailored interventions for drug addicts, smokers, and heart disease patients, among others. She is a member of the National Academy of Medicine and of the National Academy of Sciences.

**ONLINE INTERDISCIPLINARY SEMINARS ON STATISTICAL METHODOLOGY FOR SOCIAL AND BEHAVIORAL RESEARCH:** Support for this seminar comes from Department of Educational Psychology's Research Methods, Measurement, & Evaluation (RMME) program and the Department of Statistics at the University of Connecticut (UConn), the Statistical and Applied Mathematical Sciences Institute (SAMSI), and the New England Statistical Society (NESS). This seminar aims to promote connection between the statistics and social/behavioral science communities and encourage interdisciplinary research across faculty and students.

For announcements and WebEx live streaming links, please contact Tracy Burke ([tracy.burke@uconn.edu](mailto:tracy.burke@uconn.edu)). For questions related to the seminars, please feel free to contact the session organizers, Prof. Xiaojing Wang ([xiaojing.wang@uconn.edu](mailto:xiaojing.wang@uconn.edu)) and/or Prof. Betsy McCoach ([betsy.mccoach@uconn.edu](mailto:betsy.mccoach@uconn.edu)). For information about previous and upcoming speakers, please visit <https://stat.uconn.edu/online-seminars/> or <https://rmme.education.uconn.edu/>.

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