



Guest Lecture

Varun Mishra

**Understanding Clinical Trajectories of
Individuals with Opioid Use Disorder**

Thursday, February 13, 2020, 10:30am - 11:30am

ETH Zürich, Main Building, Rämistrasse 101, HG F 26.1

About Varun Mishra

Varun Mishra is a Ph.D. candidate in the Department of Computer Science at Dartmouth College, working with Prof. David Kotz in the domain of mHealth sensing and intervention. He is affiliated with the Center of Technology and Behavioral Health (CTBH) at Dartmouth. His current research interest broadly focuses on the development of novel mobile sensing and intervention systems for smart-phones and wearable devices. He is particularly interested in sensing mental and behavioral health conditions, like stress and opioid use, and providing meaningful and impacting interventions.

About the Lecture

Across the U.S., the prevalence of Opioid Use Disorder (OUD) and the rates of opioid overdoses have risen precipitously in recent years. Drug overdose is being called a “modern plague” and is now the leading cause of death of Americans under age 50. Effective treatment with buprenorphine has shown to greatly increase opioid abstinence. However, given the chronic relapsing nature of addiction, many individuals continue to engage in opioid use during the treatment. Further, many individuals who enter buprenorphine treatment do not consistently take their medication or remain engaged in treatment, typically resulting in continued opioid use.

In this talk, Varun will present his on-going project on harnessing digital health technologies and analytics to understand clinical trajectories of individuals with OUD in buprenorphine treatment. In this multi-institution project, Varun is part of a team that aims to conduct a clinical trial with 50 participants undergoing OUD treatment and track them for 12 weeks. The team will collect data from the smartphone, a Garmin wearable, responses to EMA, social media data (Facebook/Twitter/Instagram), and EHR data for the participants. As part of his talk, Varun will discuss the background and rationale for the project, the key objectives of the study, including some of the exploratory research questions he hopes to investigate, followed by a discussion of the study logistics. He will conclude with the current progress of the project and a tentative timeline for future goals.

We invite you to join this guest lecture. Registration is not required.

Prof. Dr. Tobias Kowatsch

Assistant Professor for Digital Health, University of St.Gallen (HSG)
Director, Center for Digital Health Interventions (CDHI), ETH Zürich & HSG

Prof. David Kotz, PhD

International Paper Professor, Dartmouth College
Visiting Professor CDHI, ETH Zürich

Prof. Dr. Elgar Fleisch

Professor of Information Management, ETH Zürich
Professor of Technology Management, HSG

Prof. Dr. Florian von Wangenheim

Professor of Technology Marketing, ETH Zürich