

Closing the Sensing-to-Intervention Loop for Behavioral Health

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Live Webinar
via Zoom Conference



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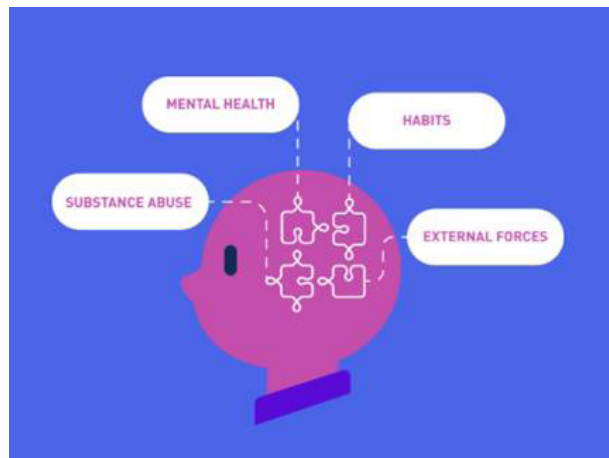
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Abstract

Mobile and ubiquitous computing research has led to new techniques for cheaply, accurately, and continuously collecting data on human behavior that include detailed measurements of physical activities, mobility, social interactions, mood, sleep quality and more. Continuous and unobtrusive sensing of behaviors has tremendous potential to support the lifelong management of mental health by: (1) acting as an early warning system to detect changes in mental well-being, (2) delivering personalized interventions to patients when and where they need them, and (3) significantly accelerating patient and physician understanding of changes in mental health in real-time. In this talk, I will give an overview of our work on turning sensor-enabled mobile devices into well-being monitors and instruments for administering real-time/real-place interventions.



1. Daniel Adler, Dror Ben-Zeev, Vicent W-S Tseng, John M Kane, Rachel Brian, Andrew T Campbell, Marta Hauser, Emily A Scherer, Tanzeem Choudhury. Predicting Early Warning Signs of Psychotic Relapse From Passive Sensing Data: An Approach Using Encoder-Decoder Neural Networks. JMIR Mhealth Uhelath 2020p8(8):e19962 doi: 10.2196/19962. PMID: 32865506; PMCID: 7490673
2. John Torous, Tanzeem Choudhuary, Ian Barnett, Matcheri Keshavan, John Kane. Smartphone Relapse Prediction in Serious Mental Illness: A Pathway Towards Personalized Preventive Care. World Psychiatry. 2020;19(3):308-309. Doi:10.1002/wps.20805
3. Saeed Abdullah, Mark Matthews, Ellen Frank, Gavin Doherty, Geri Gay, Tanzeem Choudhury. Automatic detection of Social Rhythms in Bipolar Disorder. J AM Med Inform Assoc. 2016 May;23(3):538-43. doi: 10.1093/jamia/ocv200. Epub 2016 Mar 14.

