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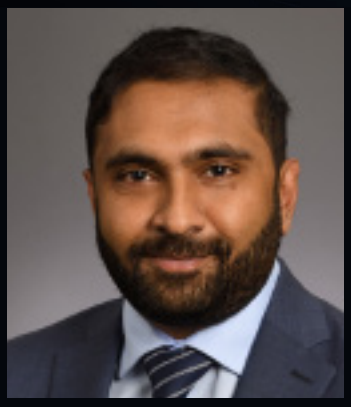
Seminar Series



Date:
October 21, 2024

Time:
2:00 - 3:00 pm

Location:
Blocker 220 and
Zoom

Faculty host:
Dr. Hye-Chung Kum,
Director of Population
Informatics Lab

Contact:
Delany Baum
delany_baum@tamu.edu

Zoom ID:
974 9688 4861
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Dr. Abeed Sarker

Associate Professor and Vice Chair for Research, Department of Biomedical Informatics, Emory University

Dr. Sarker (he/him) is an Associate Professor and the Vice Chair for Research at the Department of Biomedical Informatics, School of Medicine, Emory University. He leads several large-scale projects focusing on the application of NLP for health-related tasks, particularly those involving vulnerable populations such as people with substance use disorders, victims of intimate partner violence, and people at risk of self-harm and suicide. His research is primarily funded by the National Institutes of Health (NIH) and Centers for Disease Control and Prevention (CDC). Dr. Sarker's research has been covered by various national and international media outlets such as the Wall Street Journal, Forbes, and Scripps National News.

Social Media Mining for Substance Use Research

The epidemic of substance use (SU) and substance use disorder (SUD) in the United States has been evolving for decades. Both prescription and illicit drugs have been involved in overdose deaths over the years, with notable increases in synthetic opioids (eg., fentanyl & analogs) and psychostimulants (eg., methamphetamine) in recent years. The emergence of high-potency novel psychoactive substances (NPSs), such as fentanyl analogs, have drastically contributed to rising deaths, and adversely impacted treatment engagement and response. A key element to tackling the crisis is improved surveillance. Specifically, there is a need for establishing novel approaches to provide timely insights about the trends, distributions, and trajectories of the SUD epidemic, as traditional surveillance approaches involve considerable lags. Many recent studies have identified social media (SM) as useful resources for conducting SU/SUD surveillance. Many people use SM to discuss personal experiences, provide advice, or seek answers to questions regarding SU/SUD, resulting in the generation of an abundance of information. Such information can be characterized, aggregated and analyzed to obtain population- or subpopulation-level insights, at low cost and in near real time. However, converting SM data into timely, actionable knowledge is non-trivial since the data is big, complex, and noisy, requiring the development of advanced, automated artificial intelligence methods. In this talk, I will highlight our ongoing and past work on developing NLP and machine learning methods for effectively leveraging social media data for substance use research.

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