

Department of Biomedical Informatics
School of Medicine and College of Engineering and Applied Sciences
Special Seminar

Data-centric solutions to leverage social media big data for health-related tasks



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Join Zoom Meeting

<https://stonybrook.zoom.us/j/91315279229?pwd=TlVYNs9DZjF4NDYyVVpYTjVlTIRzdz09>

Meeting ID: 913 1527 9229

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Abstract:

Social media has emerged as an important source of patient-generated health information over recent years. However, the many challenges associated with social media data mining act as barriers to efficiently utilizing the knowledge in such resources. Effectively leveraging social media data for health-related tasks requires the development of sophisticated data processing pipelines involving natural language processing and machine learning. In this talk, I will present our work on developing such pipelines for the problem of substance use and substance use disorder. Overdose-related deaths caused by substance use are a national crisis in the United States, and despite the enormity of the problem, there is a lack of surveillance mechanisms that would enable investigations on the factors contributing to substance use, the natural history of the individuals who develop substance use disorders, and the characteristics of the populations affected (eg. age and gender) by substance use. I will present our current infrastructure that involves manual annotation, supervised classification, information extraction, and combining them with social media meta-data such as geolocation. I will present our various data characterization methods and their validations against traditional sources of data such as the CDC Wonder database and the National Survey on Drug Use and Health. I will also outline future research opportunities in this space--particularly for social media-based interventions and for integrating social media with other sources of data.

Bio:

Dr. Abeed Sarker is an Assistant Professor at the Department of Biomedical Informatics, School of Medicine, Emory University. He has adjunct appointments at the Department of Computer Science, Emory University and the Department of Biomedical Engineering, Georgia Institute of Technology and Emory Universities. His primary area of expertise is in biomedical natural language processing for text-based data from electronic health records, published medical literature and social media. He is currently leading a number of research projects in this space funded primarily by the National Institute on Drug Abuse of the National Institutes of Health, the Centers for Disease Control and Prevention, and Emory University. His research has been featured on international news media including the Wall Street Journal and Forbes. Regular updates about his research can be found on his Twitter page: @sarkerabeed