



***The WiTNY, the Math & CS Dept. and
Center for Cybercrime Studies***

Present

Integrating and Analyzing Social Media Health Data

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Professor

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Date: Monday, May 7, 2018

Time: 1:40 – 2:50 pm

Math & CS Dept. Grad Lab, 6.67NB

Abstract:

Social Health Records (SHRs) refer to open health data, generated and shared by patients on online social media, as opposed to the Electronic Health Records (EHRs) that are created and managed by authorized providers. SHRs are changing the healthcare paradigm from the authoritative provider-centric EHR model to a collaborative and patient-oriented healthcare framework. This talk will present a *Social Health Record Integration and Analytics Framework* to leverage Social Health Records for gaining insights into population-level and individual-level healthcare practices and behaviors. The SHR integration and analytics framework builds a coherent knowledge base, linking the Social Health Records that are 'spilled' in distributed online social media, with other online health information sources, such as results from authoritative medical research. We discuss SHR characteristics and challenges, including data quality, data privacy,

and data governance issues, in integrating and repurposing the shared open SHR. We present four research projects on the semantic integration of heterogeneous health data sources, Social Health Records-based epidemic surveillance systems, quantification of public “health concern” levels, and comorbidity prediction using progression trajectories from SHR.

Bio: Dr. Soon Ae Chun is a professor and director of the Information Systems and Informatics program at CUNY College of Staten Island. She is a doctoral faculty of Computer Science at the CUNY Graduate Center. Dr. Chun is the director of the Information Security Research and Education Lab (iSecure Lab) at CUNY. She is a Fulbright Scholar and has served as President of the Digital Government Society.

Dr. Chun's research interests include Security and Privacy, Semantic Web, Data Integration, Social Data Analytics and Workflow. Her current research projects include the development of cybersecurity ontology and linked data for the development of multi-modal cybersecurity educational data, and research on social data analytics in the healthcare domain.

Her research has been sponsored by NSF, NOAA, New Jersey State Agencies and CUNY PSC. Dr. Chun is the recipient of the 2014 President's Dolphin Award for Outstanding Scholarly Achievements of CUNY. Her research has been published in: Journal of Information Science, Social Network Analysis and Mining, Journal of Computer Security, IEEE Transactions on Dependable and Secure Computing, International Journal of Information and Computer Security, Journal of Distributed and Parallel Databases, Government Information Quarterly and others. She serves as an editorial board member for a number of Digital Government journals.

Dr. Chun has served as an organizing committee member for many international conferences, including as general chair of the International Conference of Digital Government Research and the IFIP conference of Database and Applications Security and Privacy, as chair of the Semantic Web Applications track at the ACM Symposium of Applied Computing, and as FLAIRS track chair on Cybersecurity and AI.