

Spring 2015 Seminar Series

Presented by the CS Division

UNDERSTANDING SOCIAL SPAMMERS: A DATA MINING PERSPECTIVE

MONDAY APRIL 6, 2015

10:00 AM – HEC 450

With the growing popularity of social media, social spamming has become rampant on all platforms. Many (fake) accounts, known as social spammers, are employed to overwhelm legitimate users with unwanted information. Social spammers are unique due to their coordinated efforts to launch attacks such as distributing ads to generate sales, disseminating pornography and viruses, executing phishing attacks, or simply sabotaging a system's reputation. In this talk, I will introduce a novel and systematic analysis of social spammers from a data mining perspective to tackle the challenges raised by social media data for spammer detection. Specifically, I will formally define the problem of social spammer detection and discuss the unique properties of social media data that make this problem challenging. By analyzing the two most important types of information, network and content information, I will introduce a unified framework by collectively using heterogeneous information in social media. To tackle the labeling bottleneck in social media, I will show how we can take advantage of the existing information about spam in email, SMS, and on the web for spammer detection in microblogging. I will also present a solution for efficient online processing to handle fast-evolving social spammers.

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Xia Hu is a Ph.D. candidate in Computer Science and Engineering at Arizona State University, supervised by Professor Huan Liu. His research interests include data mining, machine learning, social network analysis, etc. As a result of his research work, he has published 40 papers in several major academic venues, including WWW, SIGIR, KDD, WSDM, IJCAI, AAI, CIKM, SDM, etc. One of his papers was selected for the Best Paper Shortlist in WSDM'13. He is the recipient of IEEE "Atluri Award" Scholarship, 2014 ASU's President's Award for Innovation, and Faculty Emeriti Fellowship. He has served on program committees for several major conferences such as WWW, IJCAI, SDM and ICWSM, and reviewed for multiple journals, including IEEE TKDE, ACM TOIS and Neurocomputing. His research attracts wide range of external government and industry sponsors, including NSF, ONR, AFOSR, Yahoo!, and Microsoft.

Hosted by: Dr. Mark Heinrich

