IMPROVING DISASTER RESPONSE THROUGH THE EYES OF SOCIAL MEDIA

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MONDAY, APRIL 9
6:30 PM – 7:30 PM
Farzaneh Hall, Room 148

Tornadoes, hurricanes, earthquakes, plane crashes, epidemics, bombings, terrorist attacks - deadly disasters happen at all times. Social media platforms such as Twitter and Facebook have emerged as an effective tool for broadcasting messages worldwide during disaster events. With millions of messages posted through these services during such events, it has become imperative to extract valuable information that can help emergency responders to develop efficient relief efforts and aid victims. In this talk, I will present models of social media data that explore the following questions: "In a social media stream of messages, what is the useful information to be extracted that can help emergency response organizations to become more situationally aware during and following a disaster? What are the features (or patterns) that can help to automatically identify messages that are useful during disasters?" I will describe domain adaptation algorithms to automatically predict the relevance and informativeness of messages posted during emergency events in Twitter.

Cornelia Caragea is an Associate Professor of Computer Science and the Lloyd T. Smith Creativity in Engineering Chair at Kansas State University, where she directs the Machine Learning group. She received her Ph.D. in Computer Science from Iowa State University and her B.S. in Computer Science and Mathematics from the University of Bucharest. Her research interests are in artificial intelligence, machine learning, information retrieval, and natural language processing, with applications to text, image analysis, and social media. Caragea's work has been recognized with several NSF research awards, including an NSF CAREER award. Caragea has published research papers in prestigious venues such as AAAI, IJCAI, WWW, EMNLP, ICDM, and ACM Transactions on the Web. She reviewed for many journals including Nature, ACM TIST, JAIR, TACL, and IEEE TKDE, served on several NSF panels, and was a program committee member for top conferences such as AAAI, IJCAI, ACL, NAACL, EMNLP, and SIGIR. Caragea also organized several workshops on scholarly big data co-located with IJCAI, AAAI, and IEEE Big Data.

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