EPSTEIN INSTITUTE SEMINAR ▪ ISE 651

Intelligent Systems for Investigative Decision Support

ABSTRACT – Despite being a resounding success story, the Web has also had the unfortunate consequence of lowering the barrier of entry for illicit activities like human trafficking, illegal weapons sales and narcotics trading. To avoid law enforcement while luring customers, perpetrators and advertisers use clever obfuscation techniques. Adaptive techniques, building on recent advances in Artificial Intelligence areas like Natural Language Processing and Semantic Web, are necessary both for collecting data at scale (on the order on hundreds of millions of webpages for some applications), and aggregating, analyzing and indexing the data to support sophisticated interfaces that law enforcement and government agencies can use for finding victims and gathering evidence for prosecutions. In this talk, I will describe the problem of investigative decision support and our research in this area, using the human trafficking domain as a case study. I will describe the impact that the system has had on actual prosecutions in the US, qualitative and quantitative evaluations conducted over the multi-year course of the system's development, current collaborations, and extensions of our architecture to other novel problem domains.

Dr. Mayank Kejriwal
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SPEAKER BIO – Mayank Kejriwal is a researcher in the Center on Knowledge Graphs in the USC Information Sciences Institute. He obtained his PhD in 2016 from the University of Texas at Austin. His dissertation, which involved building a Web-scale entity linking system, was awarded an international Best Dissertation award by the Semantic Web Science Association in 2017 and published as a book. His work has been published in multiple venues across Artificial Intelligence and Big Data, and in 2018, he was one of 12 nationally selected recipients for the Allen Institute of Artificial Intelligence's Scientific Challenge Award. Currently, he is working on two books on knowledge graphs, and is co-PI on the DARPA-funded THOR project, which was featured in DARPA's 60th anniversary in 2018.

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