

Computer Science Seminar Series

National Capital Region

A Tale of Two Evils: Fraud and Privacy in Online Advertising

Speaker: Prof. Minaxi Gupta
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1:00PM- 2:00PM, NVC T3

Abstract

Online advertising is a multi-billion dollar industry with many outstanding issues, including those related to fraud, privacy, and delivery. This talk will focus on the first two issues. First, in the context of ad fraud, I will describe the results from in situ experimentation with the largest online fraud infrastructure recently taken down by the FBI under "Operation Ghost Click". At the heart of this ad fraud scheme was a DNS changer malware, which helped the attackers hijack clicks and ad impressions on victim machines. The fraud affected 4 million users and made its perpetrators 14 million USD over a period of of four years. Next, in the context of privacy issues arising out of targeted advertising, I will present the design and analysis of a system that blocks ads based on the behavioral features of the JavaScript related to ads. In contrast, the state-of-the-art is based on URL-based regular expression matching, which requires tedious manual upkeep.

Biography



Minaxi Gupta is an Associate Professor of Computer Science in the School of Informatics and Computing at Indiana University (Bloomington). She has been there since the completion of her Ph.D. from Georgia Tech in 2004. Dr. Gupta's research interests are in network security. Her current work focuses on cyberfraud and Web censorship. Dr. Gupta's research is supported by NSF and DHS, and has been covered by popular media, including the MIT Technology Review and The Washington Post. She is the recipient of the Trustees Teaching Award and an Outstanding Junior Faculty Award from Indiana University. More information about Dr. Gupta is available on her web-page: <http://www.cs.indiana.edu/~minaxi/>