Spring 2009 Colloquium Series

That’s None of Your Business

Speaker: Prof. Krishnan Pillaipakkamnatt

Date: April 1, 2009
Time: 11:30 am – 12:30 pm
Venue: 200 Adams Hall

Abstract: The Bureau of Census and many other organizations collect and release microdata—tables of data about individuals that has not been aggregated. This data is valuable to sociologists, policy planners, and researchers in general. However, if an individual can be identified in this public data their privacy could be unacceptably compromised (for example, it could reveal their annual income).

The obvious thing to do is to remove identifying information such as the names of individuals, their social security numbers, their street addresses and so on. This kind of first-level "sanitization" turns out to be insufficient. Knowing just the sex, the date of birth, and the zip code of a person you could identify their record in the 1990 census table (for about 87% of the people). Using precisely this information, researchers were able to identify the medical records of the Governor of Massachusetts.

We will look at the some of the proposed methods of sanitization that attempt to solve this problem. They include techniques such as $k$-anonymity, $l$-diversity and differential privacy. One of my areas of interest is that last mentioned technique. It turns out that making data more "private" makes it less useful. I'm mostly interested in finding out what kind of trade-off happens between privacy and utility.

Speaker’s Biography: Prof. Krishnan Pillaipakkamnatt has a Ph.D. from Vanderbilt University and a B. Engg. from Andhra University, India. His interests are in Data Mining, Machine Learning, Privacy Preservation.

Refreshments will be served in Adams Hall, Room 200!

For more information about this colloquium, please contact Habib M. Ammari at cschma@hofstra.edu