

September 8, 2015

2015 NSF Award Recipient

Associate Professor Anda Iamnitchi received an NSF grant totaling \$661K. The grant is titled “Structural Anonymization Techniques for Large, Labeled, and Dynamic Social Graphs”.

The project aims to approach graph anonymization via two techniques for graph generation: dK-series techniques, introduced in the context of internet network generation, and Exponential Random Graph Model-based approaches (ERGM), which are the state of the art in modeling social networks in Sociology. For each approach, the project first investigates its effectiveness on anonymizing static social networks sampled from representative datasets (some available, others collected as part of this effort). Second, it adapts the dK series and ERGM techniques to dynamic social networks based on empirical characterizations of the evolution of social relations. Third, the empirically-described dynamic processes are added on top of the static and dynamic networks from the previous steps. And finally, the research focuses on scaling up the computational techniques to be able to anonymize social (thus, sparse) graphs in the order of millions of nodes.



For more information see:

http://www.nsf.gov/awardsearch/showAward?AWD_ID=1546453&HistoricalAwards=false