



New DIMACS Workshops Associated with the Northeast Big Data Innovation Hub

[September, 2016] On September 28, the National Science Foundation (NSF) issued a press release announcing awards to establish ten new “Big Data Spokes” that will coordinate interdisciplinary collaborations addressing some of our most pressing data challenges. In the same press release, NSF announced award of ten planning grants also associated with the BD Spokes program. The planning grants include one to DIMACS to organize two workshops aimed at catalyzing research on privacy and security in big data.



Each BD Spokes project will coordinate with one of the four regional Big Data Innovation Hubs (BD Hubs). The new DIMACS project Planning for Privacy and Security in Big Data is affiliated with the Northeast Big Data Innovation Hub, whose region spans Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont. The role of the BD Hubs is to stimulate collaboration and facilitate sharing of data, tools, infrastructure, techniques, and knowledge to address regional priority areas designated as “spokes”. For the Northeast BD Hub, these priorities areas include energy, health, finance, education, discovery science, and urbanization. Additional cross-cutting themes, or “rings,” are also designated as priority areas because they are critical to the success of data science solutions across all of the spokes. These rings include data sharing, data literacy, ethics, and privacy and security, which is the focus of the new DIMACS grant. Three of the new BD Spokes announced by NSF and four of the planning grants (including the one to DIMACS) are associated with the Northeast BD Hub. They are described in an announcement by the Hub.

The new DIMACS workshops will develop a research agenda on privacy and security for big data, build a community of interested researchers and practitioners, and plan for Northeast BD Hub activities in security and privacy for the coming years. The workshops aim toward developing larger projects and partnerships and project that lead to foundational and practical advances in privacy and security for big data that have the ability to positively impact society by (1) expanding the extent to which individuals can have control over protection of their personal data, and (2) enabling data's value to be harnessed for advances in areas including health, energy, smart cities, finance, and education. The first workshop on Overcoming Barriers to Data Sharing including Privacy and Fairness, will bring together computer scientists, legal scholars, social scientists, and consumers of data to understand the extent to which privacy currently limits the sharing of data, including but not limited to research data, and to develop standards and best practices to enable new information flows in domains from healthcare to energy. The second event, the NE BD Hub Workshop on Privacy and Security for Big Data, will bring together privacy and security experts as well as experts in a variety of big data application areas to highlight privacy and security issues associated with each of the Northeast Big Data hub spokes.

DIMACS Director Rebecca Wright will lead the project in collaboration with Adam Smith of the Pennsylvania State University. Smith leads the Northeast BD Hub's Privacy & Security ring, which also includes Wright as a member. Wright said, "We are excited for this opportunity to work with the Northeast Big Data Hub to help realize the potential of big data to advance society while also assuring that privacy and basic rights are respected. Addressing these challenging problems requires multidisciplinary, multi-institutional collaboration, and is critical to achieving the full promise of big data in society."

The new project builds on DIMACS activities on related themes, including the ongoing Special Focus on Cyber Security and Special Focus on Cryptography.

Related Links:

- NSF News: <http://www.nsf.gov/news/>
- Northeast Big Data Innovation Hub: <http://nebigdatahub.org/>
- Special Focus on Cybersecurity: http://dimacs.rutgers.edu/SpecialYears/2011_Cyber/
- Special Focus on Cryptography: http://dimacs.rutgers.edu/SpecialYears/2015_Crypto/