Workshops: International & DIMACS

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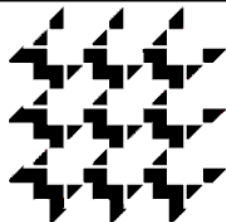
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Panel: Lessons Learned from Previous Studies

CyberSpace 2025 Workshop

April 2014

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THE STATE UNIVERSITY
OF NEW JERSEY

DIMACS

Center for Discrete Mathematics & Theoretical Computer Science
Founded as a National Science Foundation Science and
Technology Center

International Workshops

- US Chair, US-Japan 2nd Japan/US Workshop on Critical Information Infrastructure Protection, Tokyo, June 26-27, 2005. Sponsored by the National Science Foundation and the Japan Science and Technology Agency.

- US Chair, INCO-TRUST Workshops on International Cooperation in Security and Privacy: Madrid, March 31-April 1, 2009 and New York City, May 3-5, 2010. Sponsored by the National Science Foundation and the European Commission.

- Co-chair, DIMACS/BIC/A4Cloud/CSA International Workshop on Trustworthiness, Accountability and Forensics in the Cloud, Malaga, June 6-7, 2013.

- US lead for trustworthy software, China-US Software Workshops: Beijing, September 27-29, 2011 and San Diego, March 5-7, 2012.

DIMACS Workshops

- Around 20 workshops per year, most associated with DIMACS Special Focus programs.

- Current special focus programs are cybersecurity; information sharing and dynamic data analysis; and energy and algorithms.

- Upcoming planned programs include cryptography; analytics of preference, comparison, and judgment; theoretical foundations and scalability of machine learning; and health and medical informatics.

- Often interdisciplinary, always integrate research and education.

Sample Recommendations & Outcomes

- INCO-TRUST workshops (2009 & 2010):
  - There is a continuing need for research and development of the technical components of secure and private data repositories. These include a number of steps related to representing and structuring data; policy representation and understanding; architectures and enforcement; and development of specific testbeds. International collaboration is critical to ensure that solutions can operate across national and cultural boundaries.
  - The workshops were mentioned in the December 2011 NITRD Trustworthy Cyberspace: Strategic Plan for the Federal Cybersecurity Research and Development Program as an example of an international forum for engaging the cybersecurity research community.
- DIMACS/BIC/A4Cloud/CSA International Workshop on Trustworthiness, Accountability and Forensics in the Cloud (2013):
  - Both the need for, and the nature of, accountability is culturally dependent, yet cloud computing and other Internet technology crosses geographic and cultural boundaries. Additionally, the ability to carry through accountability measures to actually hold a person or entity accountable relies on relevant local laws and practices. International collaboration is needed to understand the technical and the political aspects of accountability and to develop and promote workable accountability frameworks and solutions.
- DIMACS Special Focus on Communication Security and Information Privacy:
  - contributed to the development of differential privacy.

Lessons Learned

- Different kinds of workshops serve different purposes and have different needs. Examples include:
  - bring together people already working on cutting-edge research in a well-defined important area.
  - bring together people from different research disciplines to establish and make progress on a research agenda in a new cross-disciplinary area.
  - cross boundaries of research, practice, policy, education, international cultures, …
- For crossing boundaries and establishing new communities, it is helpful to have multiple meetings over time:
  - establish trust and comfort
  - develop shared vocabulary
  - understand commonality and diversity in perspectives, expertise, approach, and modalities