

A Panel on DARPA Network Challenge

Nicklaus A. Giacobe¹, Anythony Kim¹, Madian Khabisa², Chris Robuck¹, Greg Traylor¹, Anthony Maslowski¹, Gregory O'Neill¹, Avner Faraz Ahmad¹, Matt Maisel¹, Earl Yun¹, Wade Shumaker¹, John Yen¹

College of Information Sciences and Technology¹, Computer Science and Engineering²
Pennsylvania State University
University Park, Pennsylvania 16802 USA

ABSTRACT

In celebration of the 40th anniversary of the internet, DARPA launched the Network Challenge to explore issues related to social networking, collaboration, and trust. The iSchools viewed this as an excellent opportunity to achieve multiple goals: (1) to participate the challenge to win, (2) to conduct a collaborative research project of interests across multiple iSchools, (3) to enhance the visibility of the iSchools, and (4) to collect data for future research regarding social networking, extreme events, whether they occur in the physical space or in the cyber space. The iSchools DARPA Challenge Team was thus formed. This panel will discuss the background of the iSchools project and the strategy to spread information through the networks of iSchools. The operation consists of three subgroups: the physical search group for processing reports from observers, the cyber search group for using crawlers to monitor the cyberspace; and the visualization group that integrates information into a geo-visual display. While there is a significant amount of information gathered in real-time from crawling the web, the information needs to be verified to distinguish correct DARPA balloon locations from fake ones. This often requires gathering additional information using crawler or human observers, correlates multiple types of information (text, images, Google Earth) from multiple sources.

With the goal to reflect, enrich, and share the experience of the iSchools-DARPA Challenge team, the panel will discuss questions including, but not limited to, the following:

- What were the background and the motivation for forming the iSchools DARPA Challenge Team?
- What was the process for forming the team? Can the process be used for future iSchools projects?
- How was the message crafted and distributed through the network of iSchools?
- How effective was the physical search and the cyber search efforts, what was the interactions between them?
- How did the team distinguish correct and fake information?
- What data were collected from the DARPA challenge? How can iSchools leverage these data for future research?
- What were the lessons learned from the DARPA Network Challenge? What were implications of these lessons to broader research questions?