## **About The Summer Institute**

The CASOS Summer Institute provides an intense hands-on introduction in the area of network science with an emphasis on dynamic network analysis and computational modeling of complex sociotechnical systems. Extracting networks from texts, analyzing networks, visualizing networks, and forecasting change in networks will be covered.

Participants learn about current trends, practices, and tools available for social networks analysis, link analysis, network simulation, and multi-agent network modeling and much, much more.



CASOS 2009 Summer Institute Photo

#### **CASOS** Director

Prof. Kathleen M. Carley kathleen.carley@cs.cmu.edu





2009 CASOS Faculty, Staff, and Students

## **CASOS**

Carnegie Mellon University School of Computer Science Center for Computational Analysis of Social and Organizational Systems (CASOS) 5000 Forbes Avenue 1325 Wean Hall Pittsburgh, PA, 15213 Telephone: 1-412-268-3163

Fax: I-412-268-1744

www.casos.cs.cmu.edu

# **CASOS 2010 Summer Institute**

June 7th - 14th, 2010 Carnegie Mellon University Pittsburgh, Pa.



CENTER FOR COMPUTATIONAL ANALYSIS OF SOCIAL AND ORGANIZATIONAL SYSTEMS

Carnegie Mellon.

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#### What Topics will be covered?

Topics this year include...

- Social Network Analysis
- Dynamic Network Analysis (multimode, multi-network)
- Link analysis
- Network grouping techniques Cliques, fuzzy groups, Newman-Girvan
- Text analysis techniques for extracting networks from unstructured texts.
- Meta-network extraction from semistructured data such as email.
- Simulation of networks and network evolution.
- Comparing and assessing change in networks.
- Hands-on introduction to CASOS tools: ORA, AutoMap, and Construct

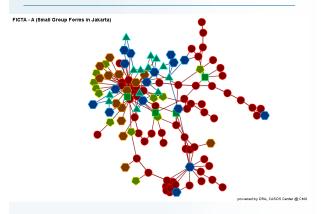
#### What Tools are used?

Students will use \*ORA, Automap and Construct and sub-tools within these such as CEMAP, Loom, and ORA-GIS.

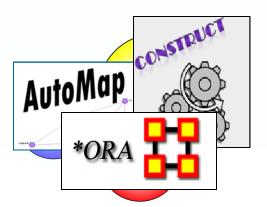
These tools have been developed by CASOS and are widely used in government, business and education. In addition, students might use MSWord, PowerPoint, and Excel.

### **Summer Institute 2010**

## A Hands-On DNA workshop...



The focus is on social and organizational network analysis, complex adaptive systems, designing and evaluating computational models, virtual experiments, and docking. Sessions will be split between lectures and hands-on work. Participants are encouraged to bring their own machines.



#### Can I bring my own data?

As part of the institute, we will provide data for you to work with.

However, if you have data that you would like to ask questions about on how to analyze, or that you want to try the tools on, please bring that data.

Examples of data that you might want to bring:

- Free form unstructured text in the form of .txt or .pdf files - such as blogs, email, news-articles, abstracts from papers, or twitter.
- Excel or CSV spread sheets with information on any of the following entities and their connections to other entities: people, organizations, nations, resources, activities, locations, areas of expertise and attributes of any of those entities such as age and gender for people.
- UCINET, PAJEK, Analyst Notebook, Palantyr or other existing files with network data.

#### Costs

- Graduate Students & Post-Docs: \$680
- Faculty: **\$960**
- Government and Industry: \$1400

#### **How do I Register?**

Register online at http: <a href="http://www.casos.cs.cmu.edu/events/summer\_institute/2010/register.php">http://www.casos.cs.cmu.edu/events/summer\_institute/2010/register.php</a>

Questions? Email: Rochelle@cs.cmu.edu