

Carnegie Mellon



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CASOS Summer Institute, June 8 - 14, 2020

The CASOS Summer Institute is a weeklong event lead by CASOS Director Kathleen M. Carley that provides an intense hands-on introduction to network analysis and visualization from a combined social-network, network-science, link-analysis and dynamic network analysis perspective. Social network, high-dimensional networks, semantic networks, and meta-networks are covered as are network dynamics and geo-spatial networks. This year it will be held as a remote event over zoom.

Participants learn about current trends, practices, and tools available for analyzing complex systems as networks. Examples are drawn from social media, malware, organizations, newspapers, and so forth. Basic social network and dynamic network measure for one-mode, bi-partite and multi-mode data are covered. Network statistic, analysis and visualization techniques are covered for static and dynamic networks. Techniques for extracting networks from text and social media will be covered. Simple simulation techniques for forecasting change in these networks and their impact on the diffusion of ideas and beliefs are covered. Key issues associated with social media analytics, and big data are covered. Participants gain experience through a series of hands-on exercises. Data sets are provided for these exercises; however, participants who wish to can bring their own data and use it in these exercises. An examination of social network methods, complexity theory and procedures for integrating network-based metrics and statistics into computational models completes the program. This year there will be special sections on social media analytics with applications to COVID-19.

The software tools participants will learn and work with include: ORA-PRO and NetMapper, which are network analysis & visualization, information extraction/text mining tools, respectively, which are widely used globally in business, government, and education.

All participants will be given trial software, data sets, and a deep discount on the professional versions of the tools. Lite versions of these tools are available on the CASOS website. Participants who finish the instruction will receive a certificate.

Visit our website for more information about the program,
http://www.casos.cs.cmu.edu/events/summer_institute/2020/.

We look forward to “virtually” seeing you this summer!

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