

CASOS Summer Institute 2021

Day 0 – Set Up

Sunday, 6/6/21

Times	Activity	CASOS TA Staff for Sunday
TIME TBD US Eastern TIME TBD US Eastern	Assistance with loading software and data on machines	TBD

The focus of Sunday:

- 1) helping participants get the software onto their machines and loading properly.
- 2) helping the participants load their data into the tools.
- 3) provide some one-on-one support to participants having access issues.

****SUNDAY IS NOT A REQUIRED DAY FOR PARTICIPANTS.***

*****Lectures and common instruction begin on Monday June 7, 2021.***

CASOS PhDs and Post Doctorates:

Catherine King	Geoff Dobson
Daniele Bellutta	Ramon Villa-Cox
Janice Blane	Matthew Babcock, PhD
Thomas Magelinski	Christine Lepird
Isabel Murdock	Josh Uyheng
Jeremy Straughter	Stephen Dipple, PhD
Luke Osterritter	Lynnette Ng
JD Moffitt	Mihovil Bartulović

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Day 1 – Overview and Getting Started

Monday, 6/7/21

LIVE INSTRUCTION SCHEDULE Session Times: 9:30am – 12:30pm & 1:30pm – 5:30pm All Times US Eastern		
<u>Time/Duration</u>	<u>What</u>	<u>Instructor</u>
9:30am – 9:40am	Welcome	Prof. Kathleen M. Carley
9:40am – 11:30am	Dynamic Network Analysis Overview & Basics	Prof. Kathleen M. Carley (Lecture)
11:30am – 12:30pm	DNA - key metrics	Prof. Kathleen M. Carley (Lecture)
BREAK 12:30pm – 1:30pm		
1:30pm – 2:30pm	ORA – Basic Interface, Import CSV file, Key Entity Report, Citation import, Citation report	Jeff Reminga (Hands On)
2:30pm – 3:30pm	ORA – Visualizer Basics	Jon Storricks (Hands On)
BREAK 3:30pm – 3:45pm		
3:45pm – 4:45pm	Groups & Topology	Prof. Kathleen M. Carley (Lecture)
4:45pm – 5:30pm	ORA – Group Report, using attributes in Group Report, Reports with 2 or more meta-networks, finding which measure is in which report	Jeff Reminga (Hands On)
6:00pm – 7:00pm	Virtual Reception	All participants and CASOS Center
1hr	Q&A Session/Help with loading software	Participants and TA's – by appointment

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Day 2 – Data

Tuesday, 6/8/21

LIVE INSTRUCTION SCHEDULE Session Times: 9:30am – 12:30pm & 1:30pm – 5:30pm All Times US Eastern		
<u>Time/Duration</u>	<u>What</u>	<u>Instructor</u>
9:30am – 9:40am	Where does the data come from?	Prof. Kathleen M. Carley (Lecture)
9:40am – 10:40am	Text to Networks & Semantic Networks	Prof. Kathleen M. Carley (Lecture)
10:40am – 11:00am	NetMapper	Prof. Kathleen M. Carley (Lecture)
11:00am – 12:00pm	NetMapper – from texts to networks	Neal Altman (Hands On) <i>(Janice Blane)</i>
12:00pm – 12:30pm	A Cautionary Note about Saving Unicode Text from Excel	Neal Altman (Hands On) <i>(Janice Blane)</i>
BREAK 12:30pm – 1:30pm		
1:30pm – 2:00pm	Edit Data, Create Thesauri or Delete List, Apply functions to Many Files	Jeff Reminga (Hands On)
2:00pm – 2:30pm	LDA, LSA for Topic Modeling in ORA	Joshua Uyheng (Hands On)
2:30pm – 3:00pm	Stance Mining (Title TBD)	Daniele Bellutta (Hands On)
BREAK 3:00pm – 3:15pm		
3:15pm – 4:00pm	Dynamic Networks for Social Media	Prof. Kathleen M. Carley (Lecture)
4:00pm – 5:00pm	BEND & Community Assessment	Prof. Kathleen M. Carley (Lecture)
5:00pm – 5:30pm	Semantic Report, BEND Report	Janice Blane (Hands On)
1hr	Q&A Sessions/Watch Case Study Videos	Participants and TA's – by appointment
ASSOCIATED PRE-TAPED CASE STUDY VIDEOS:		
1 hr	Text as a Network Analysis of COVID-19 Related Tweets	JD Moffitt (Case Study)
1 hr	BEND Maneuvers on Twitter During the Initial COVID-19 Vaccine Rollout	Janice Blane (Case Study)
1 hr	Networks of Hate Speech in COVID-19 Discourse	Joshua Uyheng (Case Study)

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Day 3 – Basic Analysis

Wednesday, 6/9/21

LIVE INSTRUCTION SCHEDULE Session Times: 10:00am – 12:30pm & 1:30pm – 5:30pm All Times US Eastern		
<u>Time/Duration</u>	<u>What</u>	<u>Instructor</u>
10:00am – 11:00am	Centralities, redundancies, cognitive demand - Key Entity Report, Management Report	Geoff Dobson (Hands On) <i>(Daniele Bellutta)</i>
11:00am – 11:45am	One and Two Mode Metrics, Folding	Ramon Villa-Cox (Hands On) <i>(Catherine King)</i>
11:45am – 12:30pm	Metric Based Comparison	Christine Lepird (Hands On)
BREAK 12:30pm – 1:30pm		
1:30pm – 2:30pm	Advanced Visualization, Big Data	Jon Storricks (Hands On)
2:30pm – 3:30pm	Visualizing Change in Networks	Jon Storricks (Hands On)
BREAK 3:30pm – 3:45pm		
3:45pm – 4:30pm	MRQAP and Regression, Visualize Distributions How to put network metrics in regressions	Jeff Reminga (Hands On)
4:30pm – 5:00pm	Prediction and Comparison of Networks	Catherine King (Hands On)
5:00pm – 5:30pm	Clustering - Unimodal, to Cluster Ensembling, to Multi-Modal Clustering	Tom Magelinski (Hands On)
1hr	Q&A Sessions/Watch Case Study Videos	Participants and TA's – by appointment
ASSOCIATED PRE-TAPED CASE STUDY VIDEOS:		
1 hr	Finding Factions from Ukrainian Legislative Data	Tom Magelinski (Case Study)
1 hr	Text and Networks	Jeremy Straughter (Case Study)

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Day 4 – Dynamics & Spatial Reasoning

Thursday, 6/10/21

LIVE INSTRUCTION SCHEDULE		
Session Times: 9:30am – 12:30pm & 1:30pm – 4:15pm		
All Times US Eastern		
<u>Time/Duration</u>	<u>What</u>	<u>Instructor</u>
9:30am – 11:00am	Dynamics: Reasoning About Networks Over Time	Prof. L. Richard Carley (Lecture)
11:00am – 11:30am	Fourier Analysis, change detection <i>Follow along</i>	Prof. L. Richard Carley (Lecture)
11:30am – 12:00pm	Geo-temporal Networks and Visualization	Prof. L. Richard Carley (Lecture)
12:00pm – 12:30pm	Geo-Spatial Visualization	Jon Storrick (Hands On)
BREAK 12:30pm – 1:30pm		
1:30pm – 2:00pm	Collecting and Analyzing Twitter Data Best Practices	Ramon Villa-Cox (Lecture and Hands On) <i>(JD Moffitt)</i>
2:00pm – 2:30pm	Collecting and Analyzing Reddit Data Best Practices	Christine Lepird (Lecture and Hands On)
2:30pm – 3:00pm	Twitter Importers, Twitter Report Reddit Importer, Reddit Report	Jeff Reminga (Hands On)
BREAK 3:00pm – 3:15pm		
3:15pm – 3:45pm	Twitter De-identification and Microvisualizations	Jon Storrick (Hands On)
3:45pm – 4:15pm	Finding Bots and Trolls	Joshua Uyheng (Hands On)
1 hr	Q&A Sessions/Watch Case Study Videos	Participants and TA's – by appointment
ASSOCIATED PRE-TAPED CASE STUDY VIDEOS:		
1 hr	Examining the COVID Protest Discussion on Twitter	Matthew Babcock, PhD (Case Study)
1 hr	Exploring Russian Influence Campaigns Over Time on Reddit	Christine Lepird (Case Study)
1 hr	Ecuadorian Protests	Ramon Villa-Cox (Case Study)
1 hr	Twitter Hashtag Community Analysis: A Case Study on the Canadian Elections	Daniele Bellutta and Catherine King (Case Study)

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Day 5 – Simulation

Friday, 6/11/21

LIVE INSTRUCTION SCHEDULE Session Times: 9:30am – 12:30pm & 1:30pm – 4:30pm All Times US Eastern		
<u>Time/Duration</u>	<u>What</u>	<u>Instructor</u>
9:30am – 10:30am	Social Influence Theory	Prof. Kathleen M. Carley (Lecture)
10:30am – 11:00am	Trails and Networks: From Trails to Networks and Higher-order Networks	Mihovil Bartulović (Hands On)
11:00am – 11:30am	Trails and Networks: Loom; Network representation of Trails	Mihovil Bartulović (Hands On)
11:30am – 12:00pm	Synthetic Networks	Luke Osterritter (Lecture)
12:00pm – 12:30pm	Immediate Impact Analysis	Tom Magelinski (Hands On) <i>(Catherine King)</i>
BREAK 12:30pm – 1:30pm		
1:30pm – 2:30pm	Agent Based Modeling - Intro	Mike Kowalchuk (Hands On)
2:30pm – 3:00pm	Virtual Experiments	Geoff Dobson (Hands On) <i>(Luke Osterritter)</i>
BREAK 3:00pm – 3:15pm		
3:15pm – 3:45pm	Micro-Simulations in ORA	Tom Magelinski (Hands On)
3:45pm – 4:30pm	Construct	Stephen Dipple (Hands On)
1hr	Q&A Sessions/Watch Case Study Videos	Participants and TA's – by appointment
ASSOCIATED PRE-TAPED CASE STUDY VIDEOS:		
1 hr	Cyber-FIT	Geoff Dobson (Case Study)

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Day 6 – Advanced Issues

Saturday, 6/12/21

LIVE INSTRUCTION SCHEDULE Session Times: 10:00am – 12:15pm All Times US Eastern		
<u>Time</u>	<u>What</u>	<u>Instructor</u>
10:00am – 10:45am	Triad Census, Heat Maps and other Visualizations	Luke Osterritter (Lecture and Hands On)
10:45am – 11:15am	Handling Large Data Sets	Jeff Reminga (Hands On)
11:15am – 11:45am	Ego Network Reports	Jeff Reminga (Hands On)
11:45am – 12:15pm	Machine Learning Models in ORA	Mike Kowalchuck (Hands On)
2hr	Q&A Sessions/Watch Case Study Videos	Participants and TA's – by appointment
ASSOCIATED PRE-TAPED CASE STUDY VIDEOS:		
1 hr	Conversations around Insider Threat	Luke Osterritter (Case Study)
45 min	Interaction Network Dynamic Network Analysis in ORA	Geoff Dobson (Case Study)
1 hr	Project OMEN	Catherine King & Christine Leprid (Case Study)

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Day 7 – One on One

Extra Sunday 6/13/21

<u>Time</u>	<u>What</u>	<u>Instructor</u>
TBD by Appointment	<p>Break-out sessions on tools and individualized training</p> <p><i>**During the week we will be grouping together participants with students, this day is optional and for anyone who needs further instruction. Timings will be established with TA's and participants</i></p>	All CASOS TA's