

CASOS Summer Institute 2021

Day 0 – Set Up

Sunday, 6/6/21

Zoom Info: TBD

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

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. It is optional to join the zoom meeting.*

***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	Iain Cruickshank
Isabel Murdock	Christine Lepird
Jeremy Straughter	Josh Uyheng
Luke Osterritter	Stephen Dipple, PhD
JD Moffitt	Lynnette Ng
Mihovil Bartulović	

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Day 1 – Overview and Getting Started

Monday, 6/7/21

LIVE INSTRUCTION SCHEDULE SESSION TIMES: TBD		
<u>Time/Duration</u>	<u>What</u>	<u>Instructor</u>
TBD	Welcome	Prof. Kathleen M. Carley (Other)
TBD	Dynamic Network Analysis Overview & Basics	Prof. Kathleen M. Carley (Lecture)
TBD	DNA - key metrics	Prof. Kathleen M. Carley (Lecture)
TBD	ORA – Basic Interface, Import CSV file, email import, Key Entity Report, Citation import, Citation report	Jeff Reminga (Hands On)
TBD	ORA – Visualizer Basics	Jon Storricks (Hands On)
TBD	Groups & Topology	Prof. Kathleen M. Carley (Lecture)
TBD	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)
1 hr	Virtual Reception	All participants and CASOS Center
1hr	Q&A Session	Participants and TA's – by appointment

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Day 2 – Data

Tuesday, 6/8/21

LIVE INSTRUCTION SCHEDULE		
SESSION TIMES: TBD		
<u>Time/Duration</u>	<u>What</u>	<u>Instructor</u>
TBD	Where does the data come from?	Prof. Kathleen M. Carley (Lecture)
TBD	Text to Networks & Semantic Networks	Prof. Kathleen M. Carley (Lecture)
TBD	NetMapper	Prof. Kathleen M. Carley (Lecture)
TBD	NetMapper – from texts to networks	Neal Altman (Hands On)
TBD	A Cautionary Note about Saving Unicode Text from Excel	Neal Altman (Hands On)
TBD	Edit Data, Create Thesauri or Delete List, Apply functions to Many Files	Jeff Reminga (Hands On)
TBD	LDA, LSA for Topic Modeling in ORA	Joshua Uyheng (Hands On)
TBD	Moving from Data to Latent Spaces and Networks	Daniele Bellutta (Hands On)
TBD	Dynamic Networks for Social Media	Prof. Kathleen M. Carley (Lecture)
TBD	BEND & Community Assessment	Prof. Kathleen M. Carley (Lecture)
TBD	Semantic Report, BEND Report	Janice Blane (Hands On)
1hr	Q&A Sessions	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	TBD	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: TBD		
<u>Time/Duration</u>	<u>What</u>	<u>Instructor</u>
TBD	Centralities, redundancies, cognitive demand - Key Entity Report, Management Report	Geoff Dobson (Hands On) <i>(Daniele Bellutta)</i>
TBD	One and Two Mode Metrics, Folding	Ramon Villa-Cox (Hands On) <i>(Catherine King)</i>
TBD	Metric Based Comparison	Christine Lepird (Hands On)
TBD	Advanced Visualization, Big Data	Jon Storricks (Hands On)
TBD	Prediction and Comparison of Networks	Catherine King (Hands On)
TBD	MRQAP and Regression, Visualize Distributions How to put network metrics in regressions	Jeff Reminga (Hands On)
TBD	Visualizing Change in Networks	Jon Storricks (Hands On)
TBD	Clustering - Unimodal, to Cluster Ensembling, to Multi-Modal Clustering	Tom Magelinski (Hands On)
1hr	Q&A Sessions	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: TBD		
<u>Time/Duration</u>	<u>What</u>	<u>Instructor</u>
TBD	Dynamics: Reasoning About Networks Over Time	Prof. L. Richard Carley (Lecture)
TBD	Fourier Analysis, change detection <i>Follow along</i>	Prof. L. Richard Carley (Lecture)
TBD	Geo-temporal Networks and Visualization	Prof. L. Richard Carley (Lecture)
TBD	Collecting and Analyzing Twitter Data Best Practices	Ramon Villa-Cox (Lecture and Hands On) <i>(JD Moffitt)</i>
TBD	Collecting and Analyzing Reddit Data Best Practices	Christine Lepird (Lecture and Hands On)
TBD	Twitter Importers, Twitter Report Reddit Importer, Reddit Report	Jeff Reminga (Hands On)
TBD	Geo-Spatial Visualization	Jon Storricks (Hands On)
TBD	Finding Bots and Trolls	Joshua Uyheng (Hands On)
1hr	Q&A Sessions	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: TBD		
<u>Time/Duration</u>	<u>What</u>	<u>Instructor</u>
TBD	Synthetic Networks	Luke Osterritter (Lecture)
TBD	Micro-Simulations in ORA	Tom Magelinski (Hands On)
TBD	Immediate Impact Analysis	Tom Magelinski (Hands On) <i>(Catherine King)</i>
TBD	Social Influence Theory	Prof. Kathleen M. Carley (Lecture)
TBD	Agent Based Modeling - Intro	Mike Kowalchuk/Stephen Dipple (Hands On)
TBD	Virtual Experiments	Geoff Dobson (Hands On) <i>(Luke Osterritter)</i>
TBD	Trails and Networks: From Trails to Networks and Higher-order Networks	Mihovil Bartulović (Hands On)
TBD	Trails and Networks: Loom; Network representation of Trails	Mihovil Bartulović (Hands On)
TBD	Construct	Mike Kowalchuck/Stephen Dipple (Hands On)
1hr	Q&A Sessions	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: TBD		
<u>Time</u>	<u>What</u>	<u>Instructor</u>
TBD	Triad Census, Heat Maps and other Visualizations	Luke Osterritter (Lecture and Hands On)
TBD	Handling Large Data Sets	Jeff Reminga (Hands On)
TBD	Twitter De-identification and Microvisualizations (2 videos)	Jon Storrick (Hands On)
TBD	Ego Network Reports	Jeff Reminga (Hands On)
TBD	Machine Learning Models in ORA	Mike Kowalchuck (Hands On)
1hr	Q&A Sessions	Participants and TA's – by appointment
ASSOCIATED PRE-TAPED CASE STUDY VIDEOS:		
1 hr	Conversations around Insider Threat	Luke Osterritter (Case Study)
40 min	Interaction Network Dynamic Network Analysis in ORA	Geoff Dobson (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