

# CASOS Summer Institute 2023

## Day 1 – Overview and Getting Started

Monday, 6/5/23

<b>LIVE INSTRUCTION SCHEDULE</b> <i>All Times US Eastern</i>		
<u>Time</u>	<u>Lecture/Presentation</u>	<u>Instructor</u>
9:00am – 9:10am	Welcome	Prof. Kathleen M. Carley
9:10am – 11:00am	Dynamic Network Analysis Overview & Basics	Prof. Kathleen M. Carley (Lecture)
11:00am – 12:00pm	DNA - key metrics	Prof. Kathleen M. Carley (Lecture)
<b>LUNCH BREAK</b> 12:00pm – 1:00pm		
1:00pm – 2:00pm	ORA – Basic Interface, Import CSV file, Key Entity Report, Citation import, Citation report	Jeff Reminga (Hands On)
2:00pm – 3:00pm	ORA – Visualizer Basics	Jon Storricks (Hands On)
<b>BREAK</b> 3:00pm – 3:15pm		
3:15pm – 4:15pm	Groups & Topology	Prof. Kathleen M. Carley (Lecture)
4:15pm – 5:15pm	ORA – Reports, Group Reports	Jeff Reminga (Hands On)
5:30pm – 7:30pm	Welcome Reception GHC Commons, 6 <sup>th</sup> Floor	All in-person participants and CASOS Center faculty, students and staff

# CASOS Summer Institute 2023

## Day 2 – Data

Tuesday, 6/6/23

LIVE INSTRUCTION SCHEDULE		
<i>All Times US Eastern</i>		
<u>Time</u>	<u>Lecture/Presentation</u>	<u>Instructor</u>
9:00am – 9:10am	Where does the data come from?	Prof. Kathleen M. Carley (Lecture)
9:10am – 10:15am	Text to Networks & Semantic Networks	Prof. Kathleen M. Carley (Lecture)
BREAK 10:15am – 10:30am		
10:30am – 11:30am	NetMapper and ORA	Dawn Robertson (Hands On) <i>(Christine Lepird)</i>
11:30am – 12:00pm	Edit Data, Create Thesauri or Delete List, Apply functions to Many Files	Jeff Reminga (Hands On)
LUNCH BREAK 12:00pm – 1:00pm		
1:00pm – 1:30pm	LDA, LSA for Topic Modeling in ORA	Charity Jacobs (Hands On) <i>(Daniele Bellutta)</i>
1:30pm-2:15pm	Stance Detection & Clustering	Daniele Bellutta & Samantha Phillips (Hands On)
2:15pm – 3:00pm	Dynamic Networks for Social Media	Prof. Kathleen M. Carley (Lecture)
BREAK 3:00pm – 3:15pm		
3:15pm – 4:00pm	BEND & Community Assessment	Prof. Kathleen M. Carley (Lecture)
4:00pm – 4:45pm	BEND Tutorial	Matthew Hicks (Hands On) <i>(Jonathan Howard Morgan)</i>
4:45pm – 5:15pm	Semantic Report	Charity Jacobs (Hands On) <i>(Lynnette Ng)</i>
5:15pm – 6:30pm	Q&A Sessions/Help with Software	In person Participants and TA's – by appointment

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## Day 3 – Basic Analysis

Wednesday, 6/7/23

<b>LIVE INSTRUCTION SCHEDULE</b> <i>All Times US Eastern</i>		
<u>Time</u>	<u>Lecture/Presentation</u>	<u>Instructor</u>
9:00am – 10:15am	<b>Network Measures, Structure, and Folding</b>	Daniele Bellutta (Hands On) <i>(Jiajia Hu)</i>
<b>BREAK</b> 10:15am – 10:30am		
10:30 – 11:30am	<b>Network Comparison and Prediction</b>	Catherine King (Hands On) <i>(Zhifei Jin)</i>
11:30am – 12:00pm	<b>Handling Large Data Sets</b>	Jeff Reminga (Hands On)
<b>LUNCH BREAK</b> 12:00pm – 1:00pm		
1:00pm – 2:00pm	<b>Advanced Visualization, Big Data</b>	Jon Storricks (Hands On)
2:00pm – 3:00pm	<b>Visualizing Change in Networks</b>	Jon Storricks (Hands On)
<b>BREAK</b> 3:00pm – 3:15pm		
3:15pm – 4:00pm	<b>MRQAP and Regression, Visualize Distributions How to put network metrics in regressions</b>	Jeff Reminga (Hands On)
4:00pm – 4:30pm	<b>Clustering - Unimodal, to Cluster Ensembling, to Multi-Modal Clustering</b>	Evan Williams (Hands On) <i>(Samantha Phillips)</i>
4:30pm – 5:15pm	<b>Contextualized Network Dynamics</b>	Evan Williams <i>(Peter Carragher)</i>
5:15pm – 6:30pm	<b>Q&amp;A Sessions</b>	<b>In person Participants and TA's – by appointment</b>

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## Day 4 – Dynamics, Geo-Spatial & Social Media

Thursday, 6/8/23

LIVE INSTRUCTION SCHEDULE		
<i>All Times US Eastern</i>		
<u>Time/Duration</u>	<u>What</u>	<u>Instructor</u>
9:00am – 10:15am	Dynamics: Reasoning About Networks Over Time	Prof. L. Richard Carley (Lecture)
BREAK 10:15am – 10:30am		
10:30am – 11:00am	Fourier Analysis, change detection <i>Follow along</i>	Prof. L. Richard Carley (Lecture)
11:00am – 11:30am	Geo-temporal Networks and Visualization	Prof. L. Richard Carley (Lecture)
11:30am – 12:00pm	Geo-Spatial Visualization	Jon Storrick (Hands On)
LUNCH BREAK 12:00pm – 1:00pm		
1:00pm – 1:30pm	Trails and Networks: From Trails to Networks and Higher-order Networks	Mihovil Bartulović, PhD <i>Can move</i>
1:30pm – 2:00pm	Trails and Networks: Loom; Network representation of Trails	Mihovil Bartulović, PhD
2:00pm – 2:45pm	Social Influence Theory	Prof. Kathleen M. Carley (Lecture)
BREAK 2:45pm – 3:00pm		
3:00pm – 3:30pm	Triad Census	Luke Osterritter (Lecture & Hands On) <i>(Jake Shin)</i>
3:30pm – 4:00pm	Ego Network Reports	Jeff Reminga (Hands On)
4:00pm – 4:30pm	Polarization	Samantha Phillips (Hands On) <i>(Zhifei Jin)</i>
4:30pm – 6:00pm	Q&A Sessions	In person Participants and TA's – by appointment

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## Day 5 – Social Media Analytics

Friday, 6/9/23

LIVE INSTRUCTION SCHEDULE		
<i>All Times US Eastern</i>		
<u>Time</u>	<u>Lecture/Presentation</u>	<u>Instructor</u>
9:00am – 9:45am	Collecting and Analyzing Reddit Data Best Practices and analyzing in ORA	Christine Lepird (Lecture & Hands On) <i>(Samantha Phillips)</i>
9:45am – 10:30am	Collecting and Analyzing Twitter Data Best Practices	Charity Jacobs (Lecture & Hands On) <i>(Zhifei Jin)</i>
BREAK 10:30am – 10:45am		
10:45am – 11:30am	Collecting and Analyzing Telegram Data Best Practices	Ian Kloo <i>(Peter Carragher)</i>
11:30am – 12:00pm	Social Media Importers and Reports (Twitter, Telegram, Reddit)	Jeff Reminga (Hands On)
LUNCH BREAK 12:00pm – 1:00pm		
1:00pm – 1:45pm	Finding Trolls and Hate Speech	Joshua Uyheng (Hands On) <i>(Lynnette Ng)</i>
1:45pm – 2:30pm	Finding Bots	Peter Carragher (Hands On) <i>(Lynnette Ng)</i>
2:30pm – 3:00pm	Using Qualitative Approach to support Network Analysis	Iuliia Alieva, PhD (Lecture)
BREAK 3:00pm – 3:15pm		
3:15pm – 3:45pm	Analyzing Networks Across Social Media Platforms	Isabel Murdock (Hands On) <i>(Jiajia Hu)</i>
3:45pm – 4:15pm	Twitter De-identification and Microvisualizations	Jon Storricks (Hands On)
4:15pm – 5:00pm	Artemis	Mihovil Bartulović, PhD
5:00pm – 6:00pm	Q&A Sessions	In person Participants and TA's – by appointment

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## Day 6 – Simulation

Saturday, 6/10/23

LIVE INSTRUCTION SCHEDULE <i>All Times US Eastern</i>		
<u>Time</u>	<u>Lecture/Presentation</u>	<u>Instructor</u>
9:30am – 10:15am	Machine Learning Models in ORA	Mike Kowalchuck (Hands On) –
BREAK 10:15am - 10:30am		
10:30am – 11:00am	Micro-Simulations in ORA	Isabel Murdock (Hands On) <i>(Matthew Hicks)</i>
11:00am – 11:30am	Synthetic Networks	Luke Osterritter (Lecture) <i>(Matthew Hicks)</i>
11:30am – 12:00pm	Immediate Impact Analysis	Peter Carragher (Hands On) <i>(Ian Kloo)</i>
LUNCH BREAK 12:00pm – 1:00pm		
1:00pm – 2:00pm	Agent Based Modeling - Intro	Geoffrey Dobson, PhD
2:00pm – 2:30pm	Virtual Experiments	Luke Osterritter (Hands On) <i>(Isabel Murdock)</i>
2:30pm – 3:00pm	Diffusion: Cross Platform	Isabel Murdock <i>(Ian Kloo)</i>
BREAK 3:00pm – 3:15pm		
3:15pm – 4:00pm	Case Study: Learning Within Organizations using Construct	Stephen Dipple, PhD
4:00pm – 4:45pm	Construct	Stephen Dipple, PhD (Hands On)
4:45pm – 5:15pm	Construct API	Stephen Dipple, PhD (Hands On)
5:15pm – 6:00pm	Q&A Sessions	In person Participants and TA's – by appointment

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## Day 7 – One on One

Extra Sunday 6/11/23

<b><u>*By appointment</u></b>	<b><u>Instructor</u></b>
<p><b>Break-out sessions on tools and individualized training (in-person participants only)</b></p> <p><i>**During the week we will be grouping together in-person participants with members from CASOS. This day is optional and for anyone who needs further instruction. Timings will be established with TA's and participants</i></p>	<p><b>All CASOS TA's GHC 6115</b></p>