

CASOS Summer Institute 2024

Day 0 – Set Up

Sunday, 6/9/24

Times	Activity	How to participate
1:00PM – 3:00PM US Eastern	*Assistance for participants; help with loading software and data on machines, Troubleshoot access issues	Virtual Assistance: Join Zoom Meeting In-person Assistance: GHC 6115 Join Zoom Meeting https://cmu.zoom.us/j/94813525417?pwd=JlNjOM0zI5FzJZtyOWUnwOVV1Bsuka.1 Meeting ID: 948 1352 5417 Passcode: 159710

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. Sessions begin on Monday June 10, 2024 at 9am US Eastern.***

Faculty & Technical Staff:

Prof. Kathleen M. Carley	Prof. L. Richard Carley	Jon Storricks
Mihovil Bartulović, PhD	Jonathan Howard Morgan, PhD	Dawn Robertson
Samantha Clark	Mike Kowalchuck	Jeff Reminga
Stephen Dipple, PhD	Geoffrey Dobson, PhD	

CASOS Postdoc Researchers and Graduate Student TAs:

Scott Renshaw, PhD	Lynnette Ng	Jacob Shaha
Evan Williams	Luke Osterritter	Matthew Hicks
Peter Carragher	Samantha Phillips	Zhifei Jin
Catherine King	Daniele Bellutta	Ian Kloof
Jake Shin	Christine Lepird	Rebecca Marigliano

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Links and participant info:

Online participants will be able to join sessions live via Zoom during instruction days at the link below. If you join remotely, members of the CASOS team will be online to moderate questions during live sessions.

Zoom Meeting for all Live Sessions:

<https://cmu.zoom.us/j/94813525417?pwd=JlNjOM0zI5FzJZty0WUnwOVV1Bsuka.1>

Meeting ID: 948 1352 5417

Passcode: 159710

**All sessions will be recorded and available to view by the following day. Videos of the sessions and case studies will be available for all participants through August 31, 2024.*

Video playlist on Panopto:

<https://scs.hosted.panopto.com/Panopto/Pages/Sessions/List.aspx?folderID=0ab64b69-2418-41f8-982a-b181011ea141>

In-Person Participants will meet each day in Gates/Hillman Center (GHC), 4902 Forbes Ave., Pittsburgh, PA, Room 6115 on the 6th floor. Get an interactive Carnegie Mellon University campus map, <https://www.cmu.edu/visit/maps-parking-transportation.html>. Breakfast and lunch will be provided for in-person attendees throughout instruction days but not on Sundays. Breakfast will be available an hour prior to the start of each instruction day.

All Participants will have access to software, data, slides from the presentations, posters, and reading list publications in the Summer Institute Box Folder. You will be able to access the folder with the email you registered with.

Link for Summer Institute Box Folder:

<https://cmu.box.com/s/4ljcr73m1f1eoi4vymucsaf1w5wel1tq>

Blue Titles in the agenda indicate a hands on presentation.

CASOS Summer Institute 2024

Day 1 – Overview and Getting Started

Monday, 6/10/24

LIVE INSTRUCTION SCHEDULE <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)
LUNCH BREAK 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) (Matthew Hicks)
2:00pm – 3:00pm	ORA – Visualizer Basics	Jon Storricks (Hands On) (Lynnette Ng)
BREAK 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) (Daniele Bellutta)
5:30pm – 7:30pm	Welcome Reception GHC Commons, 6 th Floor	All in-person participants and CASOS Center faculty, students and staff

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Day 2 – Data

Tuesday, 6/11/24

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) <i>(Samantha Phillips)</i>
LUNCH BREAK 12:00pm – 1:00pm		
1:00pm – 1:45pm	Dynamic Networks for Social Media	Prof. Kathleen M. Carley (Lecture)
1:45pm-2:30pm	BEND & Community Assessment	Prof. Kathleen M. Carley (Lecture)
2:30pm- 3:15pm	Stance Detection	Daniele Bellutta (Hands On) <i>(Rebecca Marigliano)</i>
BREAK 3:15pm – 3:30pm		
3:30pm – 4:15pm	BEND Tutorial	Matthew Hicks (Hands On) <i>(Jake Shaha)</i>
4:15pm – 4:45pm	Semantic Report	Samantha Phillips (Hands On) <i>(Lynnette Ng)</i>
4:45pm – 5:15pm	Topic Modeling in ORA	Daniele Bellutta (Hands On) <i>(Jake Shaha)</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, 6/12/24

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

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Day 4 – Dynamics, Geo-Spatial & Social Media

Thursday, 6/13/24

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) <i>(Daniele Bellutta)</i>
BREAK 10:15am – 10:30am		
10:30am – 11:00am	Fourier Analysis, change detection <i>Follow along</i>	Prof. L. Richard Carley (Lecture) <i>(Jake Shaha)</i>
11:00am – 11:30am	Geo-temporal Networks and Visualization	Prof. L. Richard Carley (Lecture) <i>(Rebecca Marigliano)</i>
11:30am – 12:00pm	Geo-Spatial Visualization	Jon Storricks (Hands On) <i>(Rebecca Marigliano)</i>
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>(Jake Shaha)</i>
1:30pm – 2:00pm	Trails and Networks: Loom; Network representation of Trails	Mihovil Bartulović, PhD <i>(Jake Shaha)</i>
2:00pm – 2:45pm	Social Influence Theory	Prof. Kathleen M. Carley (Lecture) <i>(Samantha Phillips)</i>
BREAK 2:45pm – 3:00pm		
3:00pm – 3:30pm	Ego Network Reports	Jeff Reminga (Hands On) <i>(Daniele Bellutta)</i>
3:30pm – 4:00pm	Social Media Importers and Reports (Twitter, Telegram, Reddit)	Jeff Reminga (Hands On/Technical) <i>(Ian Kloo)</i>
4:00pm – 4:30pm	Twitter De-identification and Microvisualizations	Jon Storricks (Hands On) <i>(Rebecca Marigliano)</i>
4:30pm – 6:00pm	Q&A Sessions	In person Participants and TA's – by appointment

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Day 5 – Simulating Networks

Friday, 6/14/24

LIVE INSTRUCTION SCHEDULE <i>All Times US Eastern</i>		
<u>Time</u>	<u>Lecture/Presentation</u>	<u>Instructor</u>
9:30am – 10:00am	Micro-Simulations in ORA	Matthew Hicks (Hands On) <i>(Rebecca Marigliano)</i>
10:00am – 10:30am	Immediate Impact Analysis	Peter Carragher (Hands On) <i>(Ian Kloo)</i>
BREAK 10:30am – 10:45am		
10:45am – 11:30am	Agent Based Modeling - Intro	Geoffrey Dobson, PhD <i>(Lynnette Ng)</i>
11:30am – 12:00pm	Cyberfit and Red Cyber	Geoffrey Dobson, PhD <i>(Jake Shin)</i>
LUNCH BREAK 12:00pm – 1:00pm		
1:00pm – 1:45pm	Construct	Stephen Dipple, PhD (Hands On) <i>(Lynnette Ng)</i>
1:45pm – 2:15pm	Case Study: Learning Within Organizations using Construct	Stephen Dipple, PhD <i>(Lynnette Ng)</i>
2:15pm – 2:45pm	OSIRIS	Jake Shin (Hands On) <i>(Peter Carragher)</i>
BREAK 2:45pm – 3:00pm		
3:00pm – 3:30pm	Virtual Experiments	Luke Osterritter (Hands On) <i>(Peter Carragher)</i>
3:30pm – 4:15pm	Artemis	Mihovil Bartulović, PhD
4:15pm – 6:00pm	Q&A Sessions	In person Participants and TA's – by appointment

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Day 6 – Social Media Analysis

Saturday, 6/15/24

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	AESOP	Matthew Hicks (Hands On) <i>(Rebecca Marigliano)</i>
11:00am – 11:30am	Generating Synthetic Networks in ORA	Rebecca Marigliano (Lecture) <i>(Matthew Hicks)</i>
11:30am – 12:00pm	Generating Synthetic Social Media Data	Ian Kloo (Lecture) <i>(Rebecca Marigliano)</i>
LUNCH BREAK 12:00pm – 1:00pm		
1:00pm – 2:00pm	Finding Trolls and Hate Speech	Lynnette Ng (Hands On) <i>(Matthew Hicks)</i>
2:00pm – 2:30pm	Finding Bots	Lynnette Ng (Hands On) <i>(Peter Carragher)</i>
2:30pm – 3:00pm	Webgraphs, Data Voids, and Dredge Words	Evan Williams <i>(Peter Carragher)</i>
3:00pm – 3:30pm	Pink Slime	Christine Lepird <i>(Catherine King)</i>
3:30pm – 5:00pm	Q&A Sessions	In person Participants and TA's – by appointment

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Day 7 – One on One

Extra Sunday 6/16/24

<u>*By appointment</u>	<u>Instructor</u>
<p>Break-out sessions on tools and individualized training (in-person participants only)</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>All CASOS TA's GHC 6115</p>