CASOS Summer Institute
2020
Day 0 – Set Up
Sunday, 6/7/20
Zoom Info: TBD

Times	Activity	CASOS TA Staff for Sunday
7am-9am US Eastern 11am-1pm US Eastern	Assistance with loading software on machines	Mihovil Bartulovic Aman Tyagi Neal Altman

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 8, 2020.

CASOS PhDs and Post Doctorates:

Catherine King	Geoff Dobson
Daniele Bellutta	Ramon Villa-Cox
Aman Tyagi	Matthew Babcock, PhD
Thomas Magelinski	Iain Cruickshank
Mihovil Bartulovic	Christine Sowa
Jeremy Straughter	Josh Uyheng
Luke Osterritter	Ibrahim Rahhal
JD Moffitt	

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How will this virtual format work?

For each day there is a focus listed on the agenda. The lectures, follow-along sessions, and case studies have been pre-recorded. You should watch them before or on that day. The tentative length of those videos are marked on the agenda. In addition to the pre-recorded videos, we will also hold 3 three-hour live sessions daily to do large group instruction, small group and if needed, individual instruction, more details below.

Lectures – In these videos a talk is given covering critical background information, theoretical and empirical. Questions can be asked during the interactive sessions for that day's lectures. In addition, questions and answers can be posted to our slack channel (details to be distributed).

Hands-On – In these videos the instructor walks through how to do a specific task. You will be given a link and password to access data and software to download. Before starting these videos, you should get the data on your machine and launch ORA or NetMapper, depending on the video and then follow along withthe instructor to learn how to do that task on the software.

Case Studies – In these videos a particular research vignette is presented then the instructor walks you through how to do a piece of that research. You should get the data on your machine for that vignette and launch ORA or NetMapper, depending on the video, and then follow along with the instructor on this second part of the video, to gain experience doing that portion of the research.

Live Sessions - Also each day there are three different windows for hands-on learning and Q&A. We have chosen three very different time periods, such that at least 2 fall into the times between 8 am and 8 pm for most participants. We anticipate that most participants will attend at most two of these each day. During these sessions we will do the following three things:
1) Repeat aspects of each follow along and conduct secondary follow-alongs based on attendee questions
2) Answer questions – main speaker who does follow along and several graduate assistants
3) Hold breakout sessions where you can go if you want to work one on one with someone on your data, or on an advanced features of ORA or NetMapper.

For the breakout rooms, you will need to be assigned to them at a specific time. More information will be sent on how to sign up each day. We want to make sure groups are evenly distributed. Thus it is important that you send your request the day before.

The three interactive/live sessions each day are:
- 9 am-12 noon est
- 1 pm-4 pm est
- 7 pm-10 pm est

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Links for Materials

All of this information can be found in the participant portal link below.

Software Downloads, Data, Slides from Presentations:

SI Participant Portal
link: http://www.casos.cs.cmu.edu/events/summer_institute/2020/si_portal/si_login.php
password: si2020

Pre-recorded Lectures, Case Studies, and Hand-On Videos:

Panopto access is linked to the email you used to register for SI. Go to the folders to view a particular video or click on the playlist to begin viewing the videos in order and continuously.

https://scs.hosted.panopto.com/Panopto/Pages/Sessions/List.aspx?folderID=1338bd23-9ff1-4654-82d3-abba01292b4d

Live Sessions via Zoom:

You are not permitted to share this link or the information below. Participants will be monitored and verified before joining the sessions. You can create a free account on https://zoom.us/.

Join Zoom Meeting: https://cmu.zoom.us/j/95439812770
Meeting ID: 954 3981 2770
Password: 019747

One tap mobile:
+12678310333,,95439812770# US (Philadelphia)
+17866351003,,95439812770# US (Miami)

Dial by your location, Find your local number: https://cmu.zoom.us/u/aJApqTIkp

Join by SIP
95439812770@zoomcrc.com

Join by H.323
162.255.37.11 (US West)
162.255.36.11 (US East)
221.122.88.195 (China)
115.114.131.7 (India Mumbai)
115.114.115.7 (India Hyderabad)
213.19.144.110 (EMEA)
103.122.166.55 (Australia)
209.9.211.110 (Hong Kong SAR)
64.211.144.160 (Brazil)
69.174.57.160 (Canada)
207.226.132.110 (Japan)

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Slack Channel:

Use this tool to ask questions outside of the virtual sessions and small group meetings. Messages will be responded to by CASOS Summer Institute Instructors. You will receive an invitation to join the channel before Sunday the 7th.

Virtual reception:

Online Town is a place to simulate an in-person gathering. Click the link to join the room, create your avatar and communicate!

link: https://theonline.town/9ULjlZynaapqYrnE/CASOS%20SI

password: casos2020

Breakout Session Questionnaire:

Fill out daily by 5pm US Eastern for the following day's breakout session.

link: https://forms.gle/B9krUBGfAXHQRhhWA

CASOS Summer Institute 2020

Day 1 – Overview and Getting Started
Monday, 6/8/20

Time/Duration	What	Instructor
10 min	**Welcome**	Prof. Kathleen M. Carley (Other)
2 hr	**Dynamic Network Analysis Overview & Basics**	Prof. Kathleen M. Carley (Lecture)
1.5 hrs	**DNA - key metrics**	Prof. Kathleen M. Carley (Lecture)
32 min/32 min	**ORA – Basic Interface, Import CSV file, email import, Key Entity Report, Citation import, Citation report (2 videos)**	Jeff Reminga (Hands On)
1 hr	**ORA – Visualizer Basics**	Jon Storrick (Hands On)
1 hr	**Groups & Topology**	Prof. Kathleen M. Carley (Lecture)
35 min/30 min	**ORA – Group Report, using attributes in Group Report, Reports with 2 or more meta-networks, finding which measure is in which report (2 videos)**	Jeff Reminga (Hands On)
3 hr	**The three interactive/live sessions:** • **9 am-12 noon US Eastern** • **1 pm-4 pm US Eastern** • **7 pm-10 pm US Eastern**	ALL
1 hr	**Reception – This will take place during the last live session on Monday the 8th at 1pm** link: https://theonline.town/9ULjlZynaapqYrnE/CASOS%20SI password: casos2020	**All participants and CASOS Center**

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2020
Day 2 – Data
Tuesday, 6/9/20

Time/Duration	What	Instructor
10 min	**Where does the data come from?**	Prof. Kathleen M. Carley (Lecture)
1.5 hrs	**Text to Networks & Semantic Networks**	Prof. Kathleen M. Carley (Lecture)
30 min	**NetMapper**	Prof. Kathleen M. Carley (Lecture)
58 min	**NetMapper – from texts to networks**	Neal Altman (Hands On)
6 min	**A Cautionary Note about Saving Unicode Text from Excel**	Neal Altman (Hands On)
19 min	**Edit Data, Create Thesauri or Delete List, Apply functions to Many Files**	Jeff Reminga (Hands On)
1 hr	**Networks of Hate Speech in COVID-19 Discourse**	Joshua Uyheng (Case Study)
45 min	**Dynamic Networks for Social Media**	Prof. Kathleen M. Carley (Lecture)
25 min	**Topic Group Report & Semantic Report**	Jeff Reminga (Hands On)
1 hr	**Case Study: Social Media Analytics for Stance Mining**	Sumeet Kumar (Case Study)
30 min	**LDA, LSA for Topic Modeling in ORA**	Joshua Uyheng
28 min	**Moving from Data to Latent Spaces and Networks**	Iain Cruickshank (Hands On)
1 hr	**Analyzing Moroccan Employment Stakeholder Perceptions**	Ibrahim Rahhal (Case Study)
1 hr 6 min	**Text as a Network Analysis of COVID-19 Related Tweets**	JD Moffitt (Case Study)
3 hr	**The three interactive/live sessions:** • **9 am-12 noon US Eastern** • **1 pm-4 pm US Eastern** • **7 pm-10 pm US Eastern**	ALL

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Day 3 – Basic Analysis
Wednesday, 6/10/20

Time/Duration	What	Instructor
1 hr	**Centralities, redundancies, cognitive demand - Key Entity Report, Management Report**	Geoff Dobson (Hands On)
47 min	**One and Two Mode Metrics, Folding**	Ramon Villa-Cox (Hands On)
43 min	**Metric Based Comparison**	Christine Sowa
34 min/22 min	**Advanced Visualization, Big Data (2 videos)**	Jon Storrick (Hands On)
1 hr	**Finding Factions from Ukrainian Legislative Data**	Tom Magelinski (Case Study)
42 min	**Prediction and Comparison of Networks**	Ramon Villa-Cox (Hands On)
49 min	**QAP:MRQAP Analysis Report**	Jeremy Straughter (Case Study)
24 min	**MRQAP and Regression, Visualize Distributions How to put network metrics in regressions**	Jeff Reminga (Hands On)
29 min	**Geo-Spatial Visualization**	Jon Storrick (Hands On)
27 min	**Visualizing Change in Networks**	Jon Storrick (Hands On)
36 min	**Clustering - Unimodal, to Cluster Ensembling, to Multi-Modal Custering**	Iain Cruickshank (Hands On)
3 hr	**The three interactive/live sessions:** • **9 am-12 noon US Eastern** • **1 pm-4 pm US Eastern** • **7 pm-10 pm US Eastern**	ALL

CASOS Summer Institute 2020
Day 4 – Dynamics & Spatial Reasoning
Thursday, 6/11/20

Time	What	Instructor
2 hr	**Dynamics: Reasoning About Networks Over Time**	Prof. L. Richard Carley (Lecture)
1 hr 30 min	**Fourier Analysis, change detection** *Follow along*	Prof. L. Richard Carley (Lecture)
30 min	**Geo-temporal Networks and Visualization**	Prof. L. Richard Carley (Lecture)
1 hr	**Examining the COVID Protest Discussion on Twitter**	Matthew Babcock, PhD (Case Study)
25 min	**Collecting and Analyzing Twitter Data Best Practices**	Ramon Villa-Cox (Lecture and Hands On)
34 min	**Collecting and Analyzing Reddit Data Best Practices**	Christine Sowa (Lecture and Hands On)
29 min	**Twitter Importers, Twitter Report Reddit Importer, Reddit Report**	Jeff Reminga (Hands On)
1 hr	**BEND & Community Assessment**	Prof. Kathleen M. Carley
42 min	**Exploring Russian Influence Campaigns Over Time on Reddit**	Christine Sowa (Case Study)
41 min	**Ecuadorian Protests**	Ramon Villa-Cox (Case Study)
16 min/13 min	**Twitter De-identification and Microvisualizations (2 videos)**	Jon Storrick (Hands On)
1 hr	**Twitter Hashtag Community Analysis: A Case Study on the Canadian Elections**	Daniele Bellutta and Catherine King (Case Study)
30 min	**Finding Bots and Trolls**	Joshua Uyheng
3 hr	**The three interactive/live sessions:** **9 am-12 noon US Eastern** **1 pm-4 pm US Eastern** **7 pm-10 pm US Eastern**	ALL

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Day 5 – Simulation
Friday, 6/12/20

Time	What	Instructor
22 min	**Synthetic Networks**	Luke Osterritter
32 min	**Micro-Simulations in ORA**	Tom Magelinski (Hands On)
30 min	**Immediate Impact Analysis**	Tom Magelinski (Hands On)
1 hr 15 min	**Social Influence Theory**	Prof. Kathleen M. Carley (Lecture)
30 min	**Agent Based Modeling - Intro**	Mike Kowalchuk (Hands On)
30 min	**Virtual Experiments**	Geoff Dobson (Hands On)
36 min	**Trails and Networks: From Trails to Networks and Higher-order Networks**	Mihovil Bartulović (Hands On)
27 min	**Trails and Networks: Loom; Network representation of Trails**	Mihovil Bartulović (Hands On)
35 min	**Cyber-FIT**	Geoff Dobson (Case Study)
17 min	**Construct**	Mike Kowalchuck (Hands On)
40 min	**Exploring Polarization on Climate Change debate on Twitter**	Aman Tyagi (Case Study)
3 hr	**The three interactive/live sessions:** • **9 am-12 noon US Eastern** • **1 pm-4 pm US Eastern** • **7 pm-10 pm US Eastern**	ALL

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Day 6 – Advanced Issues
Saturday, 6/13/20

Time	What	Instructor
39 min	**NetFlow**	Geoff Dobson
33 min	**Handling Large Data Sets**	Jeff Reminga (Hands On)
30 min	**Ego Network Reports**	Jeff Reminga (Hands On)
13 min	**Machine Learning Models in ORA**	Mike Kowalchuck
38 min	**Conversations around Insider Threat**	Luke Osterritter (Case Study)
3 hr	**The three interactive/live sessions:** • **9 am-12 noon US Eastern** • **1 pm-4 pm US Eastern** • **7 pm-10 pm US Eastern**	ALL

CASOS Summer Institute
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Day 7 – One on One
Extra Sunday 6/14/20

Time	What	Instructor
TBD by Appointment	**Break-out sessions on tools and individualized training** *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*	**All CASOS TA's**