Principles of Complex Systems, Vols. 1 & 2, CSYS/MATH 300 and 303
University of Vermont, Fall 2021
Assignment 09 • code name: Stressed Western

Due: Friday, October 29, by 11:59 pm, 2021.
Relevant clips, episodes, and slides are listed on the assignment's page:
https://pdodds.w3.uvm.edu//teaching/courses/2021-2022principles-of-complex-systems//assignments/09/
Some useful reminders:
Deliverator: Prof. Peter Sheridan Dodds (contact through Teams)
Assistant Deliverator: Michael Arnold (contact through Teams)
Office: The Ether
Office hours: TBD
Course website:
https://pdodds.w3.uvm.edu//teaching/courses/2021-2022principles-of-complex-systems

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All parts are worth 3 points unless marked otherwise. Please show all your workingses clearly and list the names of others with whom you collaborated.

For coding, we recommend you improve your skills with Python, R, and/or Julia. The Deliverator uses Matlab.

Graduate students are requested to use LaTeX (or related TeX variant). If you are new to LaTeX, please endeavor to submit at least n questions per assignment in LaTeX, where n is the assignment number.

Assignment submission: Via Blackboard.

Please submit your project's current draft in pdf format via Blackboard by the same time specified for this assignment. For teams, please list all team member names clearly at the start.

Your assignment for this week will be to present a plan for your project in a short video.[1]

Details:

You will collectively generate a mini-conference of short talks, with each PoCS team member presenting for up to a maximum of two and a half minutes (2:30, 150 seconds).

Here's what you need to know and do:

[1] Please do not request to make a diorama instead of a video. Because of the [redacted] in Professor [redacted]'s 2017 course on [redacted] [redacted], dioramas are now strictly forbidden.

First: If you have not already done so, please firm up your team and project topic.

Per earlier guidance: Feel free to talk in Teams about possible projects. Pitch your idea and recruit people to your team.

Teams of 2 to 3 are strongly encouraged (4 is maybe too many, 1 is totally okay, 5 is right out).

Below are instructions for the talks and how to submit a video of your talk to Microsoft Streams along with your slides within our Teams environment.

There should be one video and one set of slides per team.

Videos will be private to the course.

These talks always prove to be interesting, diverse, and fun.

Okay, here's the plan for these first talks:

1. Talks will be capped at 3:00 minutes per person.
2. Your mission, which you have accepted, is to:
   (a) Clearly state the problem/area you're going to investigate;
   (b) Why it's interesting;
   and
   (c) What you plan to do for the remainder of the semester.
   (d) Please also quickly introduce yourself at the start (name + your field).
3. Talks should absolutely be PG and respectful of others.
4. If you are part of a group, you will need to speak for 3:00 minutes each. Please coordinate your talk with your fellow group members.
5. Talks that are longer than $n\times$3:00 will be removed and you will be asked to resubmit.
6. Slides: Mandatory. The number should be 1 to 3 per speaker. More can work but certainly not, say, 20, unless flipping through them rapidly helps with your presentation. Your assessment will in part be based on your slides.
7. Practice before recording! These are short talks so you can run through them a number of times to straighten everything out.
8. Please submit your slides and video before the due date and time.

9. Talks will be organized in a Teams channel by the Assistant to the Regional Deliverator.

10. All students will be requested to watch all talks. Providing helpful comments and feedback via Teams is encouraged.

A few project ideas/topics/areas:

1. Work with data from Storywrangler. Join Twitter time series with data from other areas (e.g., ecology, energy use, food, politics) to open up new ways to examine socio-anything-ological studies.
2. Scaling of the number of meanings of words with frequency of usage
3. Work on ousiometry, allotaxonometry figures in Python, Julia, and/or D3.
4. Excess deaths, the true toll, and the mismeasurement of death:

   Ongoing:

   https://www.economist.com/graphic-detail/coronavirus-excess-deaths-tracker

   No longer being updated:

   https://www.nytimes.com/interactive/2020/05/05/us/coronavirus-death-toll-us.html.

   https://www.nytimes.com/interactive/2021/01/14/us/covid-19-death-toll.html
5. Everything in IMDB.

   Start from series heat visualizations: https://vallandingham.me/seriesheat/

   Box office, ratings.
6. Everything to do with TV tropes: https://tvtropes.org
7. https://litlab.stanford.edu/pamphlets/
8. For more, see projects slides.