



Principles of Complex Systems, Vols. 1, 2, & 3D  
CSYS/MATH 300, 303, & 394  
University of Vermont, Fall 2022  
Assignment 22

The potatoes of defiance

**Due:** Not due

<https://pdodds.w3.uvm.edu/teaching/courses/2022-2023pocsverse/assignments/22/>

*Some useful reminders:*

**Deliverator:** Prof. Peter Sheridan Dodds (contact through Teams)

**Assistant Deliverator:** Dylan Casey (contact through Teams)

**Office:** The Ether

**Office hours:** See Teams calendar

**Course website:** <https://pdodds.w3.uvm.edu/teaching/courses/2022-2023pocsverse>

**Overleaf:** LaTeX templates and settings for all assignments are available at

<https://www.overleaf.com/project/631238b0281a33de67fc1c2b>.

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

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

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Do not do this assignment.

1. Explore punctuation in your text.

An art project:

<https://www.c82.net/work/?id=347>


Some coverage:

<https://www.theguardian.com/books/gallery/2016/feb/23/say-what-books-with-the-words-removed-punctuation-maps-in-pictures>


<https://www.wired.com/2016/02/charting-punctuation-usage-in-literary-classics/>

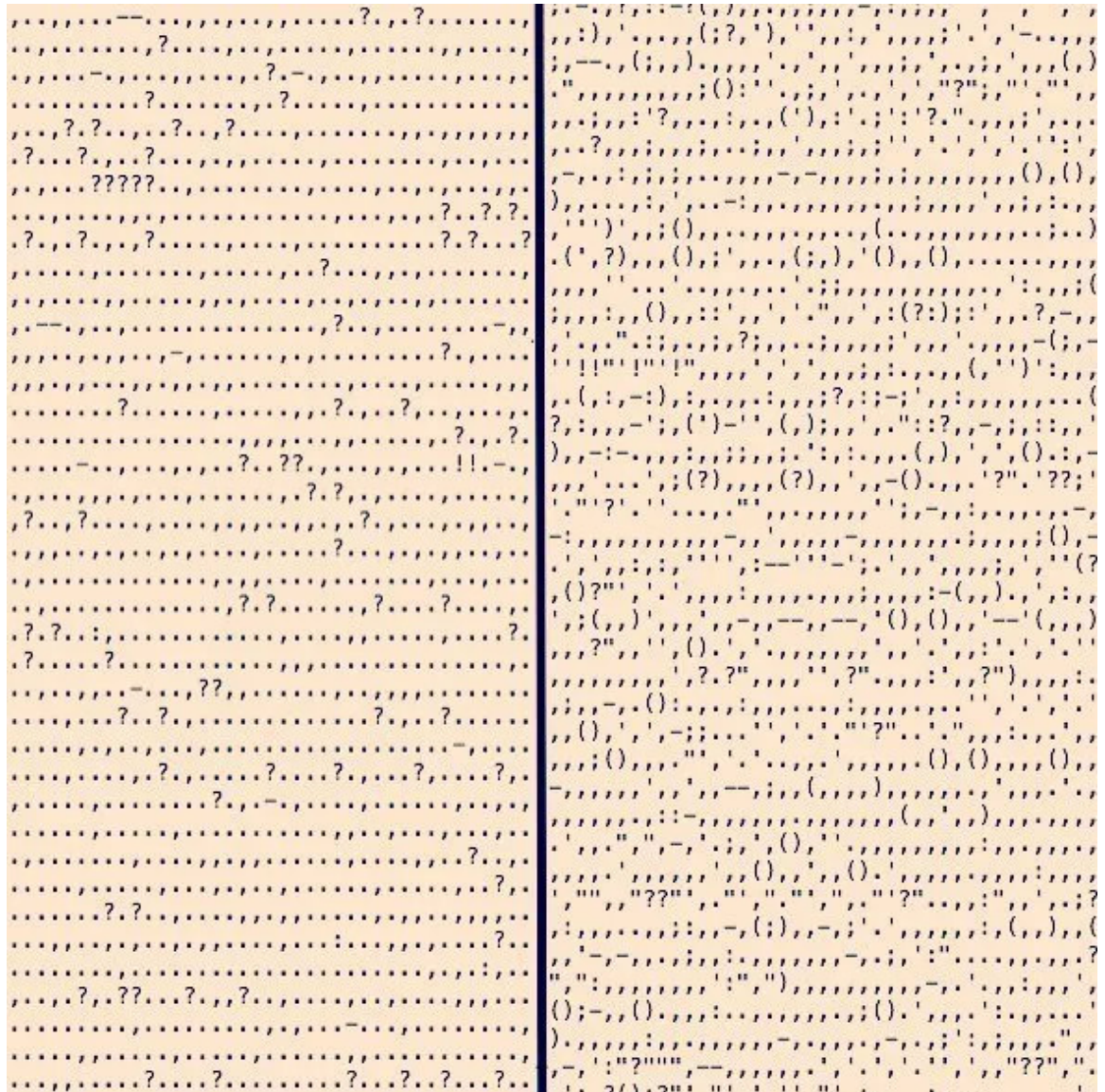
<https://medium.com/@neuroecology/punctuation-in-novels-8f316d542ec4>

- First remove all letters, spaces, and numbers from your text. Examine what you have left and keep removing text elements until you only have punctuation left.
- Plot size distributions for counts for all punctuation types you find. Given that the number of types of punctuation is limited, you will be able to indicate them on the plot.

Make two plots: One with sizes of all punctuation ranked in descending order, and another with the specific set of punctuation and ordering per these examples taken from [Calhoun's Medium article](#) :



- Plot the punctuation in order of a matrix like the example below, taken from [here](#) . Use a representative sequence.



- How does what you have found compare with the examples covered in the press above?  
 You may take a sample of your corpus if it's too big.  
<https://arxiv.org/abs/1604.00834>
- "In narrative texts punctuation marks obey the same statistics as words" [1]  
 The title of this paper is somewhat dysfunctional. What is the needed edit?

## References

[1] A. Kulig, J. Kwapien, T. Stanisz, and S. Drozd. In narrative texts punctuation marks obey the same statistics as words. *Information Sciences*, 375:98–113, 2017.