

# Markov Chain Text Generator

Intro to CS

Driver Name:

Navigator Name:

## Getting Started

### DRIVER ONLY:

1. Have this lab open, and ***you will be typing***.
2. Research will be conducted on your station, and you will complete the lab.

**NAVIGATOR ONLY:** Have this lab open only as reference; *you will not be typing*. Provide guidance on how the driver should proceed when necessary.

## Lab Goal

**In this lab**, you will further explore how some text generating technology works and the ethical implications of such technology.

Use this space below to:

- jot down some notes from the start of class
- make some predictions on how realistic your generated text will be
- write down some ideas on what ethical concerns arise

## Part 1: Selecting Input & Generating Text

**1. Brainstorm** with your partner some ideas on input text. Come to an agreement on one idea and various texts from that source as your input text.

- *An optional reading, if you're interested:*  
<https://blog.demofox.org/2019/05/11/markov-chain-text-generation/>

**2. Use** the Markov Chain Text Generator here: <https://projects.haykranen.nl/markov/demo/>.

**Q1.** Describe your sources of input text, and why you chose these sources.

**Q2.** Copy and paste the generated text.

**Q3.** How “realistic” is your generated text?  
Explain your opinion.

## Part 2: Unintended Consequences

**3.** As with many other computing innovations that drive innovation, the applications of Markov Chain technology can also have unintended consequences.

Here are some similar text-generated products for you to explore:

- <https://twitter.com/HNTitles>
- <https://www.reddit.com/r/SubredditSimulator/>

**Q4.** What are some potential **beneficial** effects of such technology? You may illustrate with examples.

**Q5.** What are some potential **harmful** effects of such technology? You may illustrate with examples.

**4.** Applications of more complicated and sophisticated Markov models can be used in machine learning, as an alternative to random sampling. If you’re interested, read more here:  
<https://wiki.pathmind.com/markov-chain-monte-carlo>.

Object and facial recognition is an example of **computer vision**, an exploding sector of artificial intelligence that takes advantage of machine learning.

**Watch** this YouTube video on **computer vision**: <https://youtu.be/eQLcDmfmGB0> (8 min)

**Q6.** In your own words, what is computer vision?

**Q7.** Describe **two** applications of computer vision that have been -- or have the potential to be -- beneficial to you directly and/or the world.

**Q8.** Compare the algorithms computer vision uses to the ones used in the Markov Chain Text Generator. What similarities and differences do you see?

Excellent work :)  
Submit in Google Classroom!

Turn in