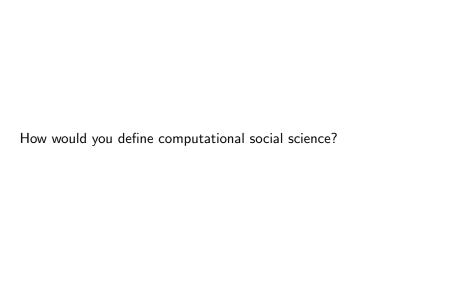# Introduction to Computational Social Science

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SICSS UCLA
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How would you define computational social science?

How computing looked **in the 1950s**

Source: NASA

How computing looked **in the 1980s**

Source: Wikimedia

How computing looks **today**

MacBook Air

Source: Apple

How computing looks **today**

Ian Lundberg

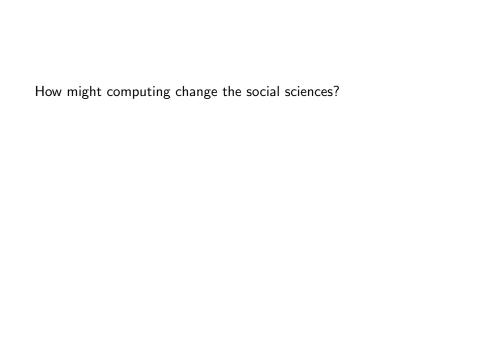Can you write a poem about the Summer Institute in Computational
Social Science at UCLA?

ChatGPT

Of course! Here's a poem about the Summer Institute in
Computational Social Science at UCLA:

In sunny UCLA's embrace,
Where minds converge in shared space,
Computational marvels unfold,
At the Institute, stories untold.

Source: OpenAI

How might computing change the social sciences?

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- ▶ new sources of data

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    - ▶ digital exhaust

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    - ▶ prediction with semi- and nonparametric models
    - ▶ simulation

Whose ideas will help computational social science thrive?

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Applied statisticians, computer scientists

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Computational social science benefits from **everyone's ideas**

Perspective that have shaped my thinking

- Athey, S. & Imbens, G. (2018). Machine Learning and Econometrics. 2018 AEA Continuing Education Webcast. (Scroll down on website). See also review articles.

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- Grimmer, J., Roberts, M. E., & Stewart, B. M. (2022). Text as data: A new framework for machine learning and the social sciences. Princeton University Press.