

Predicting Authoritarian Crackdowns

A Machine Learning Approach

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policychangeindex.org

Policy Change Index (PCI) project

- Predict authoritarian policies based on propaganda;
- First use cases:
 - PCI-China: China's major policy moves;
 - **PCI-Crackdown**: China's response to Hong Kong protests;
 - PCI-Outbreak: true scale of COVID-19 in China.
- Future: North Korea, Iran, Cuba, Russia,...
- Open-source (GitHub).

9:15-9:45 am today



A time-sensitive question

Will the Hong Kong protests be met with a Tiananmen-like crackdown? If so, when??

A time-sensitive question

There may be an answer in the Chinese government's own words.

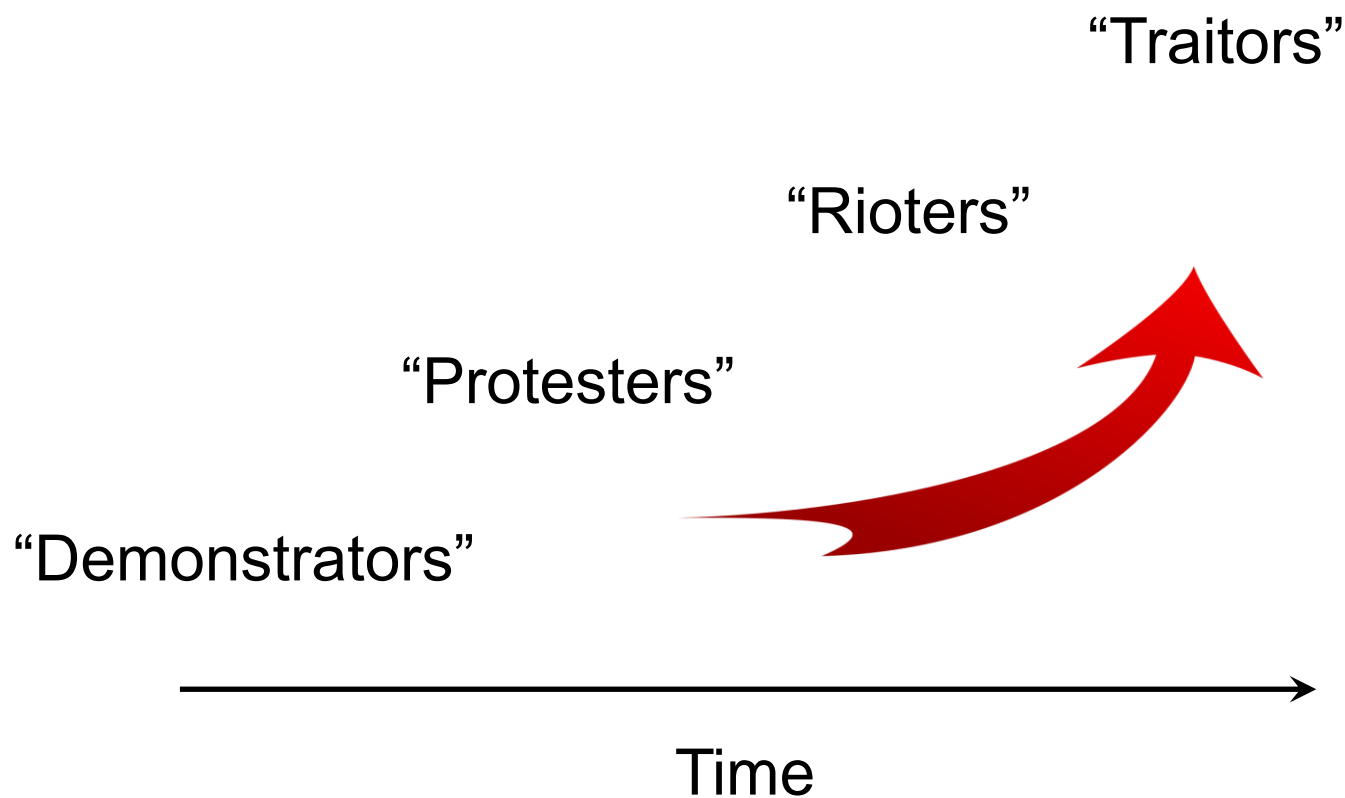
The problem PCI solves

“Value” of closed regimes’ propaganda

High, because



Who were in 1989 Tiananmen protests?



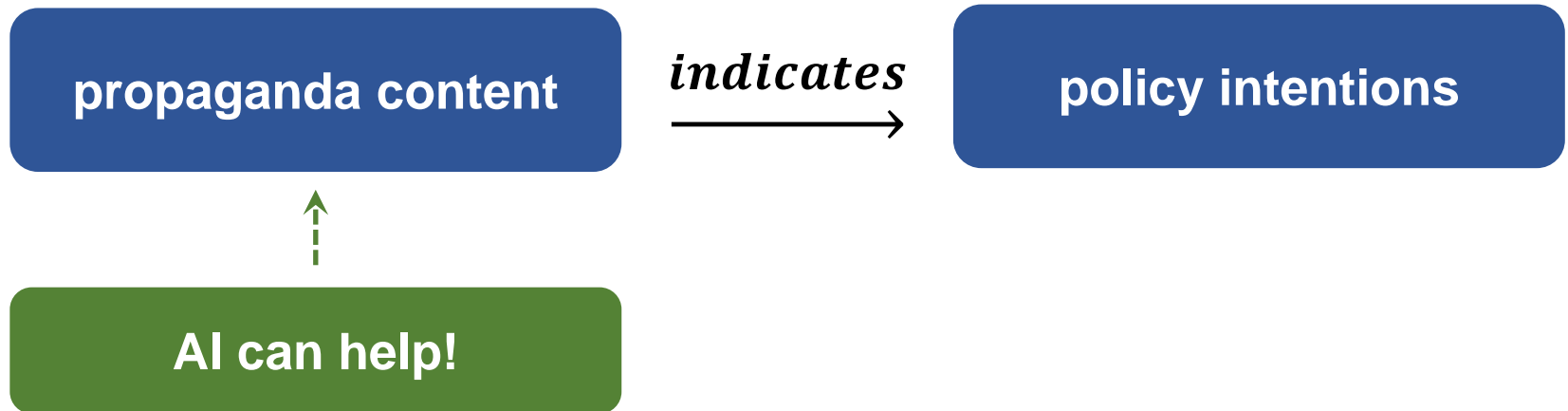
Analyzing closed regimes' propaganda

Easier said than done!

- Unstructured data;
- Labor-intensive;
- Objective mixed with subjective.

PCI's solution

Core idea



Two features:

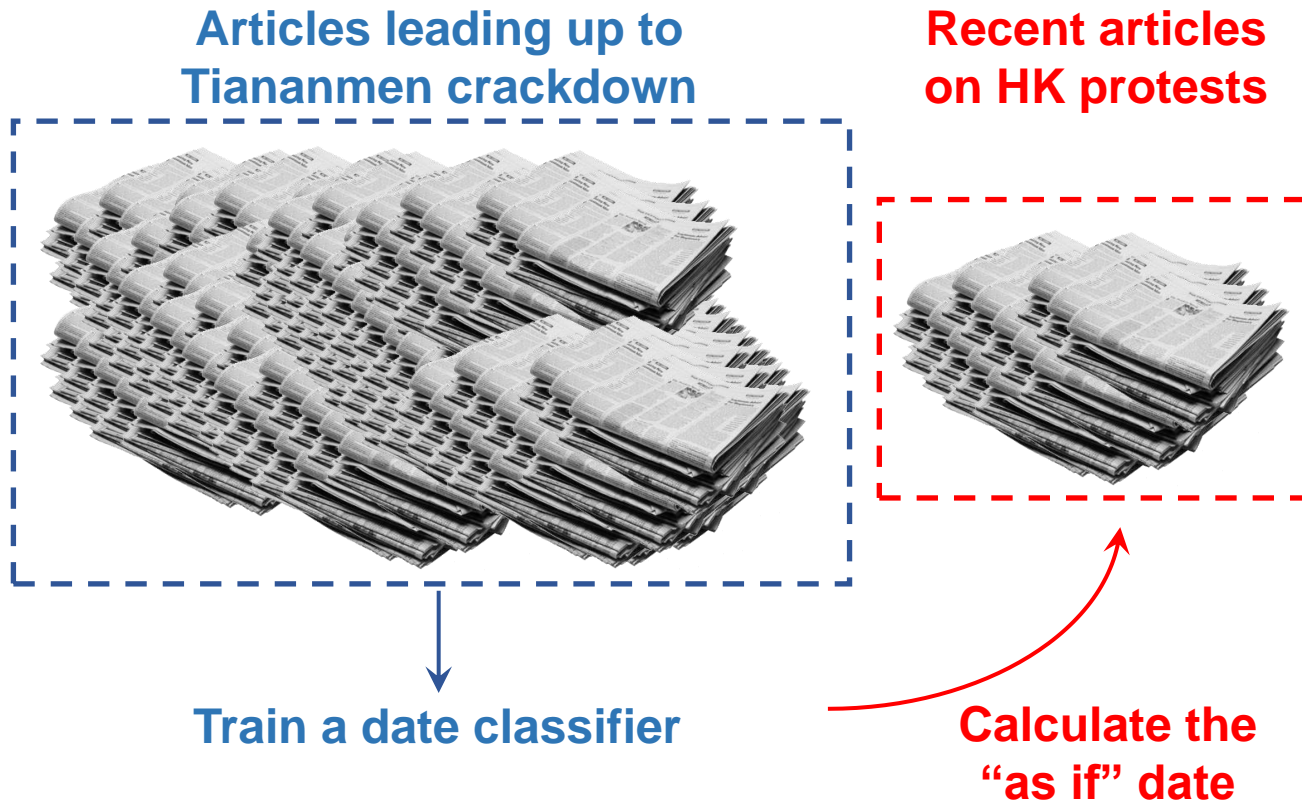
- Automate content analysis of propaganda;
- Delineate boundaries between objective & subjective components.

PCI-Crackdown

PCI-Crackdown

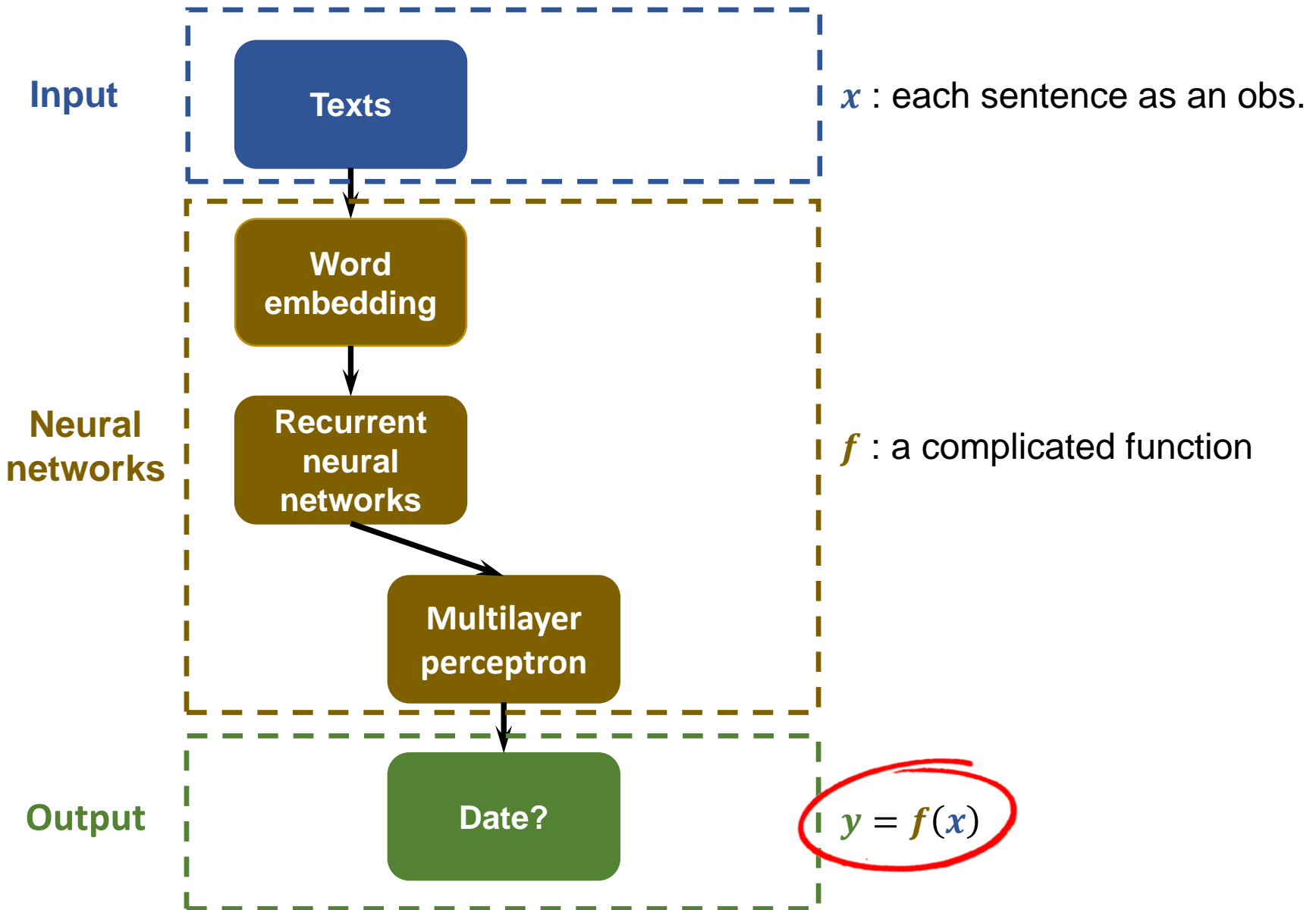
- Input: *People's Daily* articles on Tiananmen and Hong Kong protests;
- Output: daily index of crackdown possibility.

PCI-Crackdown: algorithm



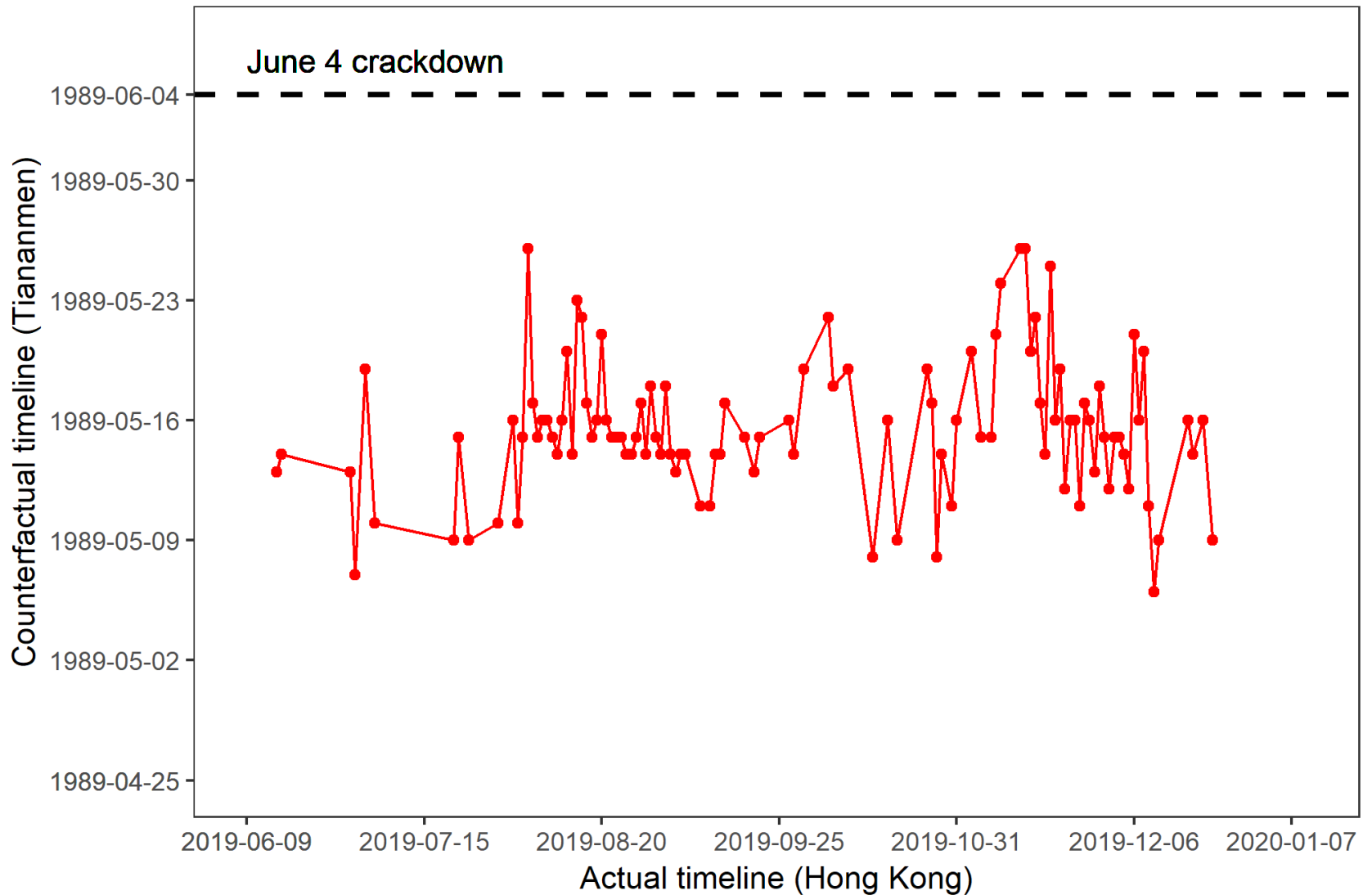
PCI-Crackdown: “as if” date for the actual date

Walkthrough: model



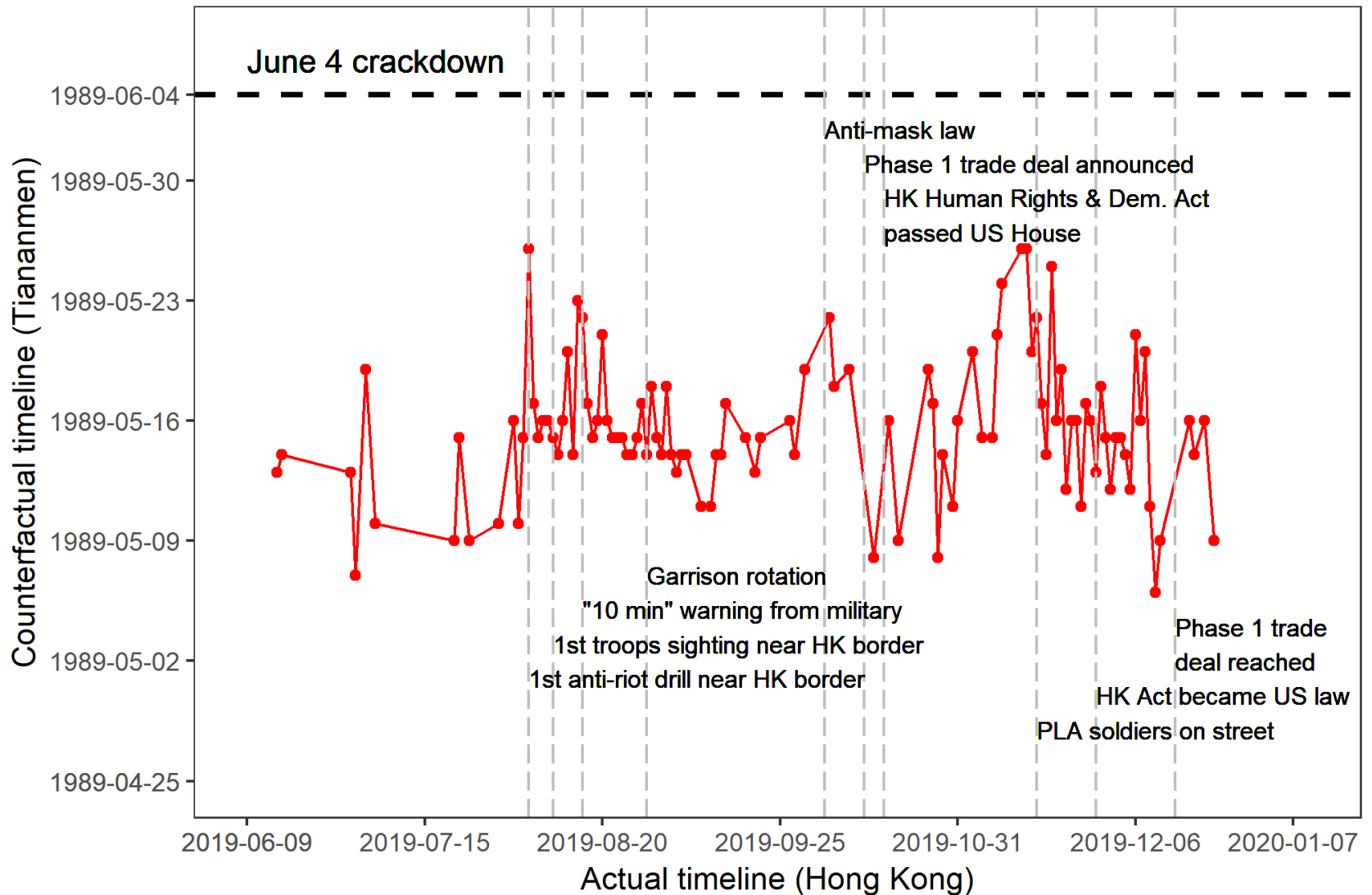
PCI-Crackdown: result

(Jun 9, 2019 to Jan 7, 2020)



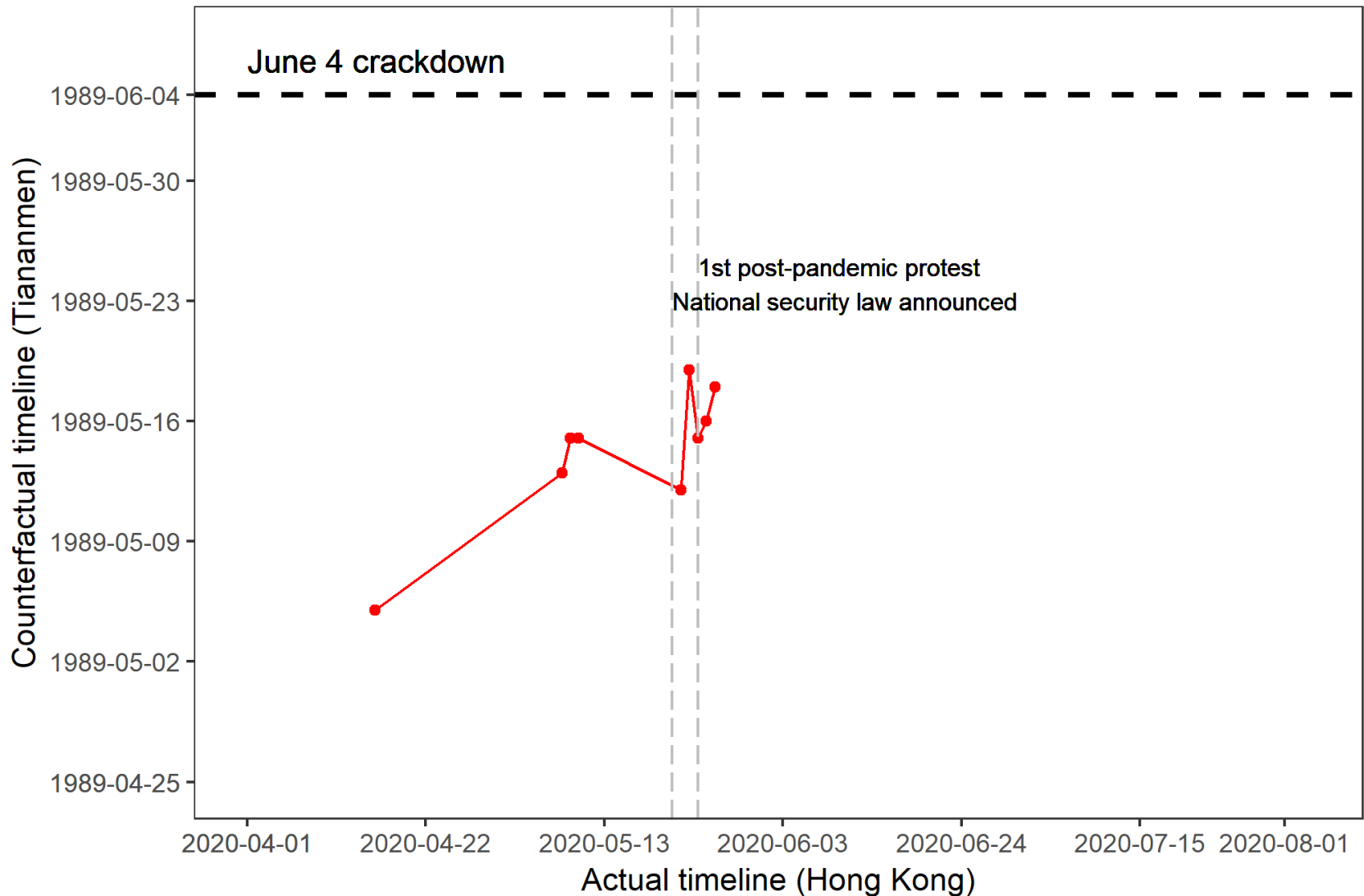
PCI-Crackdown monitors HK protests

(Jun 9, 2019 to Jan 7, 2020)



PCI-Crackdown monitors HK protests

(2nd wave: April 16 to May 26, 2020)



Bottom line

Fluctuations in

propaganda content

indicates
→

Fluctuations in

policy intentions

Bottom line

Our judgment calls/hypotheses:

- There is a well-formed precedent;
- The same “playbook” is being followed now.

Scaling up: other timeline mappings?

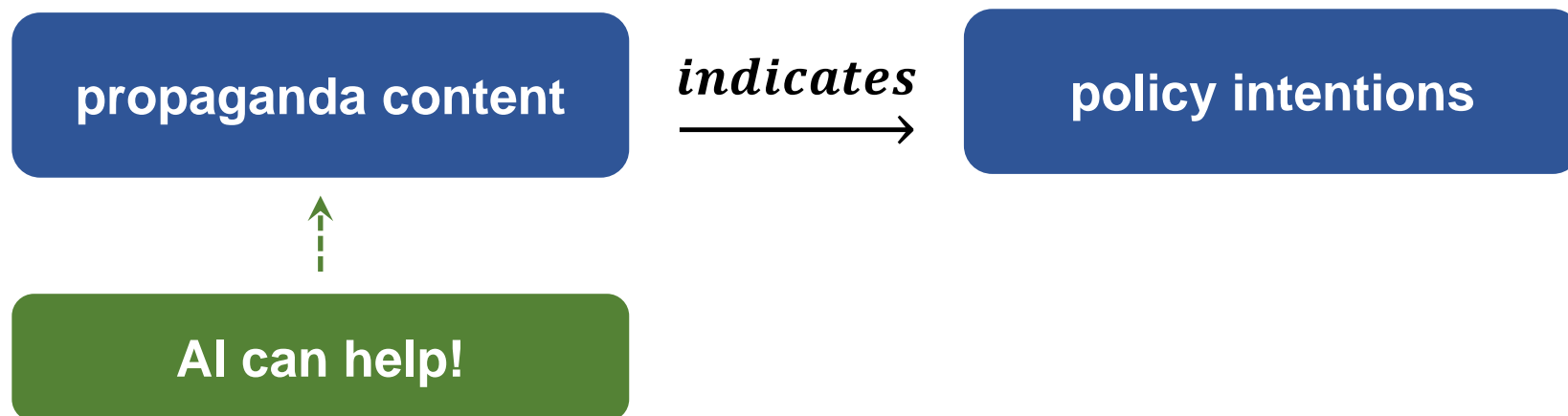
- COVID-19 (vis-a-vis SARS)?

PCI-Outbreak

- China's Taiwan policy?
- NK missile tests?
- Other rare events?

To conclude...

Core idea



Thank you!

- First step toward policymaking is to better understand the problem.
- PCI's mission: crack a window to otherwise closed systems with new techniques.

Thank you!

- Website: policychangeindex.org
- Newsletter: mercatus.org/PCInewsletter
- Code: github.com/PSLmodels/PCI-China
github.com/PSLmodels/PCI-Crackdown
[github.com/PSLmodels/PCI-Outbreak \(TBA\)](https://github.com/PSLmodels/PCI-Outbreak)
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