Predicting Authoritarian Crackdowns A Machine Learning Approach

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Policy Change Index (PCI) project

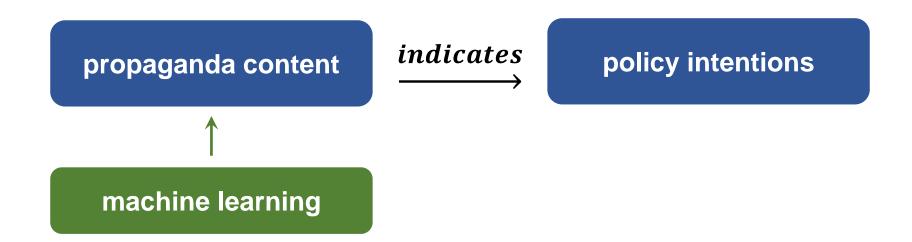
- Use machine learning to predict authoritarian policies based on propaganda;
- Current use cases:

This paper

- PCI-China: on major changes in policy direction;
- PCI-Crackdown: on Hong Kong protests;
- PCI-Outbreak: on severity of COVID-19 in China.
- Future: more China issues + other authoritarian regimes.
- Open-source and free (on GitHub).

PCI-Crackdown

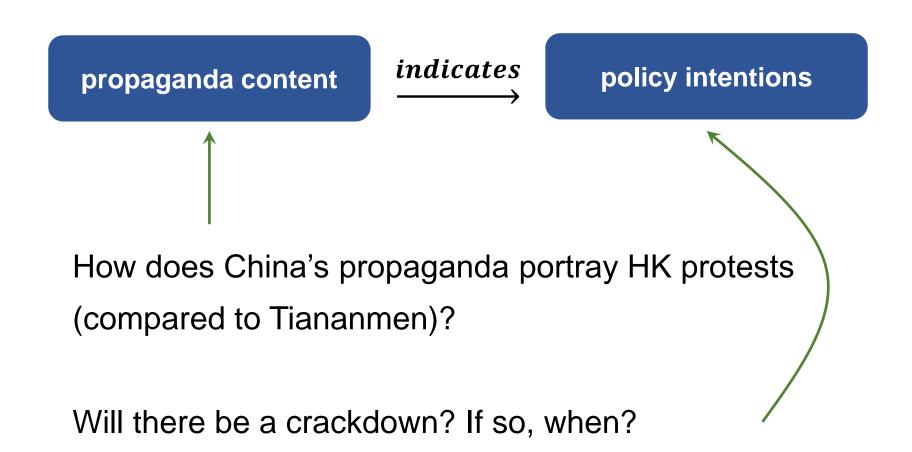
The idea: words matter.



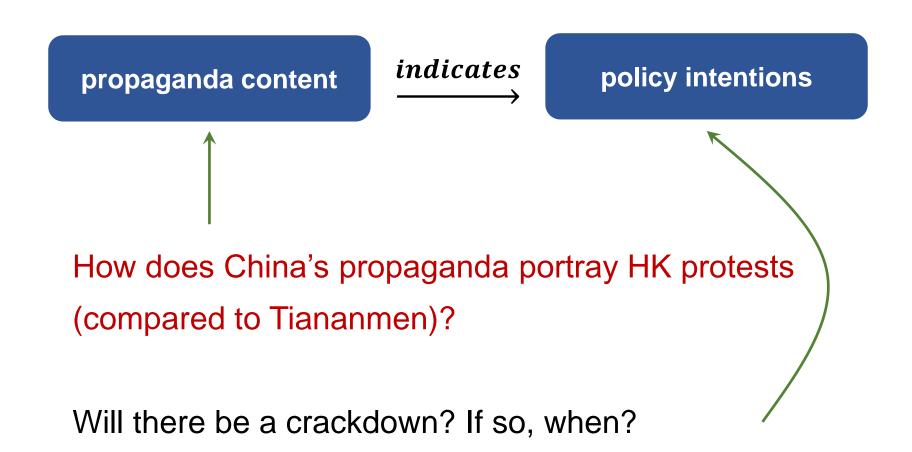
What PCI does:

- Automate propaganda analysis;
- Facilitate policy inferences.

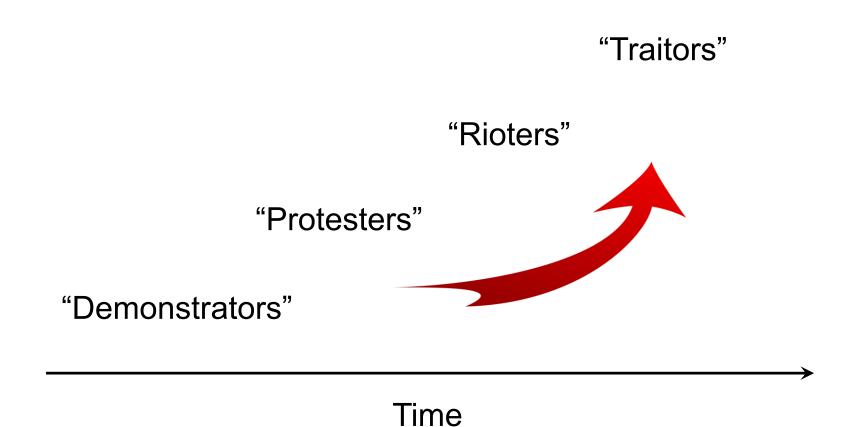
Words matter — to crackdowns



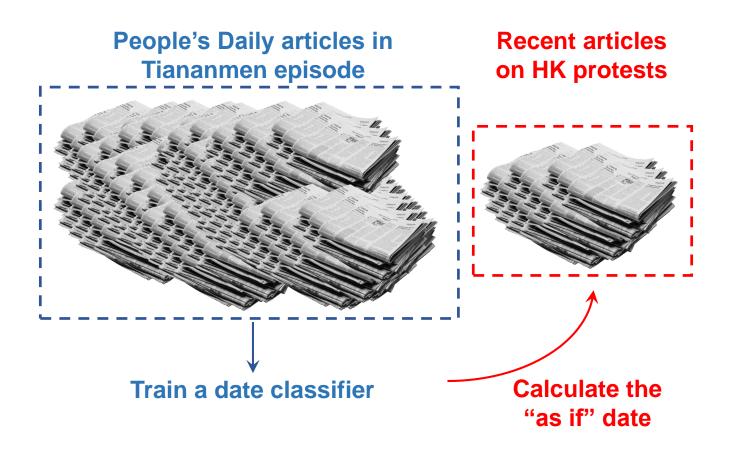
Words matter — to crackdowns



Who were Tiananmen protesters?



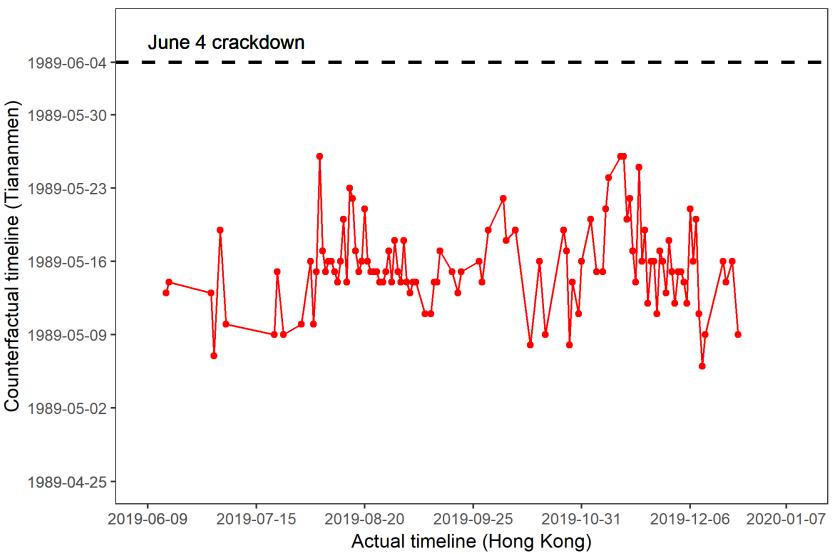
PCI-Crackdown: algorithm



PCI-Crackdown: "as if" date for the actual date

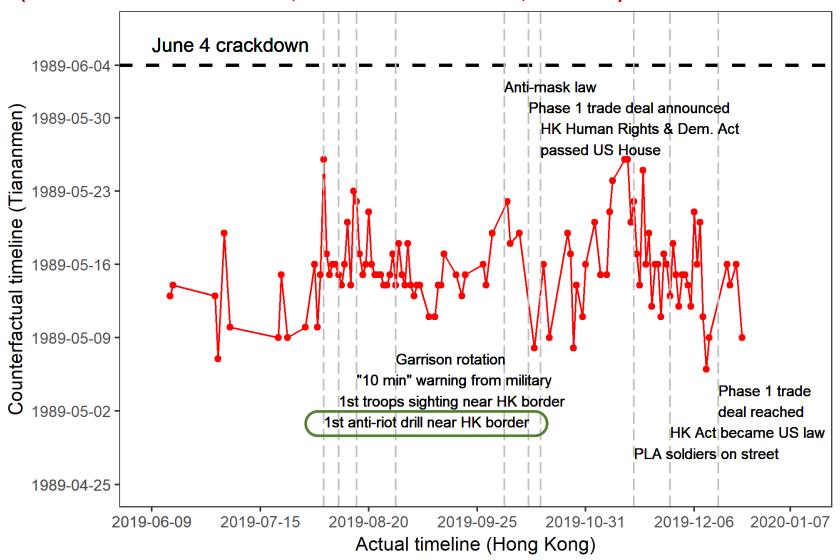
PCI-Crackdown monitors HK protests

(First wave: Jun 9, 2019 to Jan 7, 2020)



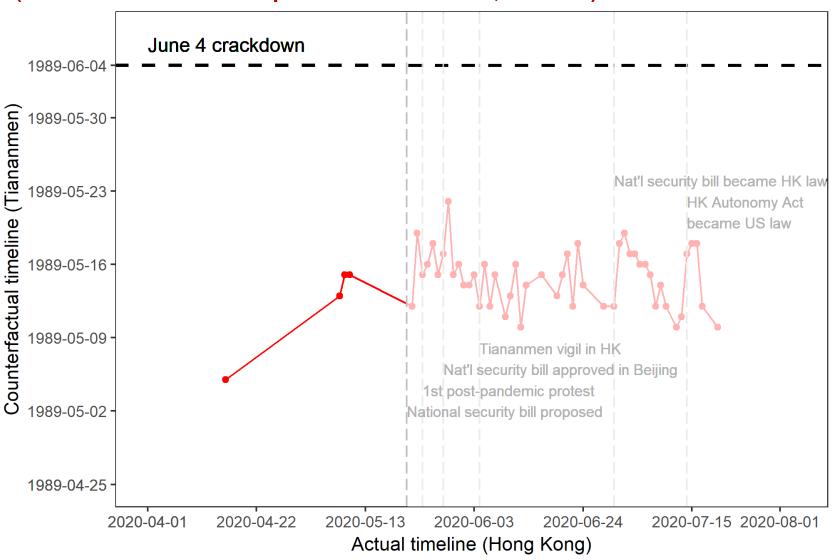
PCI-Crackdown monitors HK protests

(First wave: Jun 9, 2019 to Jan 7, 2020)



PCI-Crackdown monitors HK protests

(Second wave: Apr 16 to Jul 20, 2020)



Bottom line

Fluctuations in

Fluctuations in

propaganda content



policy intentions

Our judgment calls/hypotheses:

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

Similarly, SARS vs. COVID-19

What's next for PCI

Future programs

- More applications on China:
 - Predict a Sino-Indian border war;
 - Predict China's Taiwan policy; ...
- Extensions to other countries:
 - North Korea, Cuba, Iran...

Thank you!

- Website & source code: policychangeindex.org
- Newsletter: mercatus.org/pcinewsletter
- We welcome your feedback!
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