The “Value” of Propaganda:
Understanding China’s Policies in a New Light

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The raw materials

The People’s Daily

- official newspaper;
- 1946 to present;
- 2 million articles.
A profound and profoundly simple idea...

Propaganda is effective, and it often precedes policies.
A profound and profoundly simple idea...
...brought to you by these guys:
A profound and profoundly simple idea...

...brought to you by these guys:

It’s a fundamental necessity “to transform the press... into a serious organ for the economic education of the mass of the population.”

— Vladimir Lenin

The purpose is to “convince the masses... that [our] policy is sound, thus... inducing the broad masses of the workers to follow [our] lead.”

— Josef Stalin
The “value” of propaganda

Detect changes in propaganda content ≈ Predict changes in future gov’t policies

policychangeindex.org
The “value” of propaganda

Detect changes in propaganda content

Predict changes in future gov’t policies

AI techniques can help!

policychangeindex.org
The product

**Policy Change Index (PCI):** a series of machine learning algorithms that predict policy changes by “reading” propaganda messages.
PCI algorithms

Two PCI algorithms in the lineup:

1. **PCI-China**: predict China’s policy moves (with trade-war implications);

2. **PCI-Crackdown**: predict China’s response to the Hong Kong protests.

• And more to come!

* Joint with Julian Chan (Bates White).
1. PCI-China
PCI-China: the question

Will China change its policy priorities, and in what way?
PCI-China: algorithm

Train a front-page classifier

Articles in previous 5 years
PCI-China: algorithm

Articles in previous 5 years

Train a front-page classifier

Articles in next quarter

Deploy

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PCI-China: algorithm

Train a front-page classifier

Articles in previous 5 years

Articles in next quarter

Deploy

PCI-China: the difference in performance

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PCI-China: algorithm

Articles in previous 5 years ➔ Train a front-page classifier ➔ Deploy Articles in next quarter

PCI-China: the difference in performance

Large PCI-China ⇒ Change in editorial emphasis

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PCI-China: result
PCI-China: result v ground truth
PCI-China: what does the future hold?
Trade-war implications

Two upticks in 2018 Q1 and 2019 Q1:

- Internally: strengthening party authority;
- Externally: nationalism and global leadership.

Market expectations in April: trade deal imminent.

Our consistent prediction since January: curb your enthusiasm...
2. PCI-Crackdown
PCI-Crackdown: the question

Will the Hong Kong protests be met with a Tiananmen-like crackdown by the Chinese government?
PCI-Crackdown: algorithm

1989 articles leading up to Tiananmen crackdown

Train a date classifier

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PCI-Crackdown: algorithm

1989 articles leading up to Tiananmen crackdown

Train a date classifier

Recent articles on HK protests

Deploy

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PCI-Crackdown: algorithm

PCI-Crackdown: mapping each current date to an “as-if” date
PCI-Crackdown: algorithm

1989 articles leading up to Tiananmen crackdown

Recent articles on HK protests

Train a date classifier

PCI-Crackdown: mapping each current date to an “as-if” date

PCI-Crackdown closer to June 4 ⇒ Crackdown more likely
PCI-Crackdown: 2019 Hong Kong protests

Counterfactual timeline (Tiananmen)

Actual timeline (Hong Kong)
Future PCI algorithms

Stay tuned for more in the PCI pipeline:

• PCIs for other countries: North Korea, Russia, Iran, Cuba,…

• PCI sub-indices by issue: trade policy, fiscal policy, foreign policy…

• And more to come!
How can these be useful to you?
Taking the first step

The first step toward policymaking is to understand the problem.

We have cracked a window to an otherwise close system.

You should start peeking inside.
Or, if you have two million other documents...
Takeaway

Propaganda is effective, and it often precedes policies.
To get involved

One-stop website:  policychangeindex.org

Monthly Newsletter:  mercatus.org/PCInewsletter

Source codes:  github.com/PSLmodels/PCI-China

  github.com/PSLmodels/PCI-Crackdown