How to "help solve society's most pressing challenges" (quote from ALI homepage)

Gary King[1]

Institute for Quantitative Social Science
Harvard University

Harvard Advanced Leadership Initiative, 4/29/2021

---

[1]GaryKing.org

How to Solve Society's Most Pressing Challenges?

How to Solve Society's Most Pressing Challenges?

How to Solve Society's Most Pressing Challenges?

- 🤝 Connections
- Ⓜ
- ⓵

How to Solve Society's Most Pressing Challenges?

- ⊗ Connections
- Ⓜ Methods
- ⊘

How to Solve Society's Most Pressing Challenges?

How to Solve Society's Most Pressing Challenges?

☝ Connections: Sharing data, people, expertise

Ⓜ Methods

⑦ Questions

How to Solve Society's Most Pressing Challenges?

(C) Connections: Sharing data, people, expertise

(M) Methods: Big data is not about the data!

(?) Questions

How to Solve Society's Most Pressing Challenges?

🤝 Connections: Sharing data, people, expertise

Ⓜ Methods: Big data is not about the data!

⍰ Questions: Pivot freely; let data suggest new questions

How to Solve Society's Most Pressing Challenges?

How to Solve Society's Most Pressing Challenges?

China

United States

Here's How

Reverse Engineering Censorship in China

Reverse Engineering Censorship in China

- How'd we get to do this?

Reverse Engineering Censorship in China

- How'd we get to do this? trying Ⓜ,

Reverse Engineering Censorship in China

- How'd we get to do this? trying Ⓜ, with 🔄,

Reverse Engineering Censorship in China

- How'd we get to do this? trying Ⓜ, with 🔄, ↝ Ⓐ

Reverse Engineering Censorship in China

- How'd we get to do this? trying (M), with ⊗, ⤳ (?)
- Previous approach: watch a few posts; see what's removed

Reverse Engineering Censorship in China

- **How'd we get to do this?** trying Ⓜ, with 🔄, ⤳ ⑦
- **Previous approach:** watch a few posts; see what's removed
- **Data:** Download all posts before the Chinese censor them

Reverse Engineering Censorship in China

- **How'd we get to do this?** trying Ⓜ, with 🔁, ⤳ ⑦
- **Previous approach:** watch a few posts; see what's removed
- **Data:** Download all posts before the Chinese censor them
- **Everyone knows the Goal:**

Reverse Engineering Censorship in China

- How'd we get to do this? trying (M), with ⟲, ⤳ (?)
- Previous approach: watch a few posts; see what's removed
- Data: Download all posts before the Chinese censor them
- Everyone knows the Goal:
  Stop criticism and protest about the state,
  its leaders, and their policies

Reverse Engineering Censorship in China

- **How'd we get to do this?** trying Ⓜ, with ⊗, ⤳ ⑦
- **Previous approach:** watch a few posts; see what's removed
- **Data:** Download all posts before the Chinese censor them
- ~~Everyone knows the Goal:~~
  ~~Stop criticism and protest about the state,~~
  ~~its leaders, and their policies~~ *Wrong*

Reverse Engineering Censorship in China

- **How'd we get to do this?** trying Ⓜ, with 🔄, ⤳ ⑦
- **Previous approach:** watch a few posts; see what's removed
- **Data:** Download all posts before the Chinese censor them
- ~~Everyone knows the Goal:~~
  ~~Stop criticism and protest about the state,~~
  ~~its leaders, and their policies~~ *Wrong*
- **What Could be the Goal?**

Reverse Engineering Censorship in China

- **How'd we get to do this?** trying Ⓜ, with 🔄, ⤳ ⑦
- **Previous approach:** watch a few posts; see what's removed
- **Data:** Download all posts before the Chinese censor them
- ~~**Everyone knows the Goal:**~~ ~~Stop criticism and protest about the state,~~ ~~its leaders, and their policies~~ *Wrong*
- **What Could be the Goal?**
  1. Stop criticism of the state

Reverse Engineering Censorship in China

- **How'd we get to do this?** trying (M), with ⟳, ⤳ (?)
- **Previous approach:** watch a few posts; see what's removed
- **Data:** Download all posts before the Chinese censor them
- ~~**Everyone knows the Goal:**~~
  ~~Stop criticism and protest about the state,~~
  ~~its leaders, and their policies~~ *Wrong*
- **What Could be the Goal?**
  1. Stop criticism of the state
  2. Stop collective action

Reverse Engineering Censorship in China

- **How'd we get to do this?** trying Ⓜ, with 🔄, ↝ ⑦
- **Previous approach:** watch a few posts; see what's removed
- **Data:** Download all posts before the Chinese censor them
- ~~**Everyone knows the Goal:**~~
  ~~Stop criticism and protest about the state,~~
  ~~its leaders, and their policies~~ *Wrong*
- **What Could be the Goal?**
  1. ~~Stop criticism of the state~~ *Wrong*
  2. Stop collective action

Reverse Engineering Censorship in China

- **How'd we get to do this?** trying Ⓜ, with 🔄, ⤳ ⑦
- **Previous approach:** watch a few posts; see what's removed
- **Data:** Download all posts before the Chinese censor them
- ~~Everyone knows the Goal:~~
  ~~Stop criticism and protest about the state,~~
  ~~its leaders, and their policies~~ *Wrong*
- **What Could be the Goal?**
  1. ~~Stop criticism of the state~~ *Wrong*
  2. Stop collective action *Right*

Reverse Engineering Censorship in China

- How'd we get to do this? trying (M), with 🔄, ⤳ (?)
- Previous approach: watch a few posts; see what's removed
- Data: Download all posts before the Chinese censor them
- ~~Everyone knows the Goal:~~
  ~~Stop criticism and protest about the state,~~
  ~~its leaders, and their policies~~ *Wrong*
- What Could be the Goal?
  1. ~~Stop criticism of the state~~ *Wrong*
  2. Stop collective action *Right*
- Implications: Social Media is Actionable!

Reverse Engineering Censorship in China

- How'd we get to do this? trying Ⓜ, with 🔄, ⤳ ⑦
- Previous approach: watch a few posts; see what's removed
- Data: Download all posts before the Chinese censor them
- ~~Everyone knows the Goal:~~
  ~~Stop criticism and protest about the state,~~
  ~~its leaders, and their policies~~ *Wrong*
- What Could be the Goal?
  1. ~~Stop criticism of the state~~ *Wrong*
  2. Stop collective action *Right*
- Implications: Social Media is Actionable!
  - Chinese leaders:

Reverse Engineering Censorship in China

- **How'd we get to do this?** trying Ⓜ, with 🔄, ⤳ ⑦
- **Previous approach:** watch a few posts; see what's removed
- **Data:** Download all posts before the Chinese censor them
- ~~Everyone knows the Goal:~~
  ~~Stop criticism and protest about the state,~~
  ~~its leaders, and their policies~~ *Wrong*
- **What Could be the Goal?**
  1. ~~Stop criticism of the state~~ *Wrong*
  2. Stop collective action *Right*
- **Implications: Social Media is Actionable!**
  - Chinese leaders:

  - We can predict:

Reverse Engineering Censorship in China

- How'd we get to do this? trying Ⓜ, with 🔄, ⤳ ⑦
- Previous approach: watch a few posts; see what's removed
- Data: Download all posts before the Chinese censor them
- ~~Everyone knows the Goal:~~
  ~~Stop criticism and protest about the state,~~
  ~~its leaders, and their policies~~ *Wrong*
- What Could be the Goal?
    1. ~~Stop criticism of the state~~ *Wrong*
    2. Stop collective action *Right*
- Implications: Social Media is Actionable!
    - Chinese leaders:
        - measure criticism: to judge local officials

    - We can predict:

Reverse Engineering Censorship in China

- How'd we get to do this? trying (M), with ⟳, ⤳ (?)
- Previous approach: watch a few posts; see what's removed
- Data: Download all posts before the Chinese censor them
- ~~Everyone knows the Goal:~~
  ~~Stop criticism and protest about the state,~~
  ~~its leaders, and their policies~~ *Wrong*
- What Could be the Goal?
  1. ~~Stop criticism of the state~~ *Wrong*
  2. Stop collective action *Right*
- Implications: Social Media is Actionable!
  - Chinese leaders:
    - measure criticism: to judge local officials
    - censor: to stop events with collective action potential
  - We can predict:

Reverse Engineering Censorship in China

- How'd we get to do this? trying Ⓜ, with 🔄, ⇝ ⑦
- Previous approach: watch a few posts; see what's removed
- Data: Download all posts before the Chinese censor them
- ~~Everyone knows the Goal:~~
  ~~Stop criticism and protest about the state,~~
  ~~its leaders, and their policies~~ *Wrong*
- What Could be the Goal?
  1. ~~Stop criticism of the state~~ *Wrong*
  2. Stop collective action *Right*
- Implications: Social Media is Actionable!
  - Chinese leaders:
    - measure criticism: to judge local officials
    - censor: to stop events with collective action potential
  - We can predict:
    - Officials in trouble, likely to be replaced

Reverse Engineering Censorship in China

- How'd we get to do this? trying Ⓜ, with 🔁, ↝ ⑦
- Previous approach: watch a few posts; see what's removed
- Data: Download all posts before the Chinese censor them
- ~~Everyone knows the Goal:~~
  ~~Stop criticism and protest about the state,~~
  ~~its leaders, and their policies~~ *Wrong*
- What Could be the Goal?
  1. ~~Stop criticism of the state~~ *Wrong*
  2. Stop collective action *Right*
- Implications: Social Media is Actionable!
  - Chinese leaders:
    - measure criticism: to judge local officials
    - censor: to stop events with collective action potential
  - We can predict:
    - Officials in trouble, likely to be replaced
    - Dissident arrests;

Reverse Engineering Censorship in China

- How'd we get to do this? trying Ⓜ, with ⊚, ↝ ⑦
- Previous approach: watch a few posts; see what's removed
- Data: Download all posts before the Chinese censor them
- ~~Everyone knows the Goal:~~
  ~~Stop criticism and protest about the state,~~
  ~~its leaders, and their policies~~ *Wrong*
- What Could be the Goal?
  1. ~~Stop criticism of the state~~ *Wrong*
  2. Stop collective action *Right*
- Implications: Social Media is Actionable!
  - Chinese leaders:
    - measure criticism: to judge local officials
    - censor: to stop events with collective action potential
  - We can predict:
    - Officials in trouble, likely to be replaced
    - Dissident arrests; new peace treaties;

Reverse Engineering Censorship in China

- **How'd we get to do this?** trying Ⓜ, with 🔄, ⤳ ⑦
- **Previous approach:** watch a few posts; see what's removed
- **Data:** Download all posts before the Chinese censor them
- ~~Everyone knows the Goal:~~
  ~~Stop criticism and protest about the state,~~
  ~~its leaders, and their policies~~ *Wrong*
- **What Could be the Goal?**
  1. ~~Stop criticism of the state~~ *Wrong*
  2. Stop collective action *Right*
- **Implications: Social Media is Actionable!**
  - **Chinese leaders:**
    - measure criticism: to judge local officials
    - censor: to stop events with collective action potential
  - **We can predict:**
    - Officials in trouble, likely to be replaced
    - Dissident arrests; new peace treaties; emerging scandals

Reverse Engineering Censorship in China

- How'd we get to do this? trying Ⓜ, with 🔄, ⤳ ⑦
- Previous approach: watch a few posts; see what's removed
- Data: Download all posts before the Chinese censor them
- ~~Everyone knows the Goal:~~
  ~~Stop criticism and protest about the state,~~
  ~~its leaders, and their policies~~ *Wrong*
- What Could be the Goal?
  1. ~~Stop criticism of the state~~ *Wrong*
  2. Stop collective action *Right*
- Implications: Social Media is Actionable!
  - Chinese leaders:
    - measure criticism: to judge local officials
    - censor: to stop events with collective action potential
  - We can predict:
    - Officials in trouble, likely to be replaced
    - Dissident arrests; new peace treaties; emerging scandals
    - Disagreements between central and local leaders

Reverse Engineering Censorship in China

- How'd we get to do this? trying Ⓜ, with 🔄, ⤳ ❓
- Previous approach: watch a few posts; see what's removed
- Data: Download all posts before the Chinese censor them
- ~~Everyone knows the Goal:~~
  ~~Stop criticism and protest about the state,~~
  ~~its leaders, and their policies~~ *Wrong*
- What Could be the Goal?
  1. ~~Stop criticism of the state~~ *Wrong*
  2. Stop collective action *Right*
- Implications: Social Media is Actionable!
  - Chinese leaders:
    - measure criticism: to judge local officials
    - censor: to stop events with collective action potential
  - We can predict:
    - Officials in trouble, likely to be replaced
    - Dissident arrests; new peace treaties; emerging scandals
    - Disagreements between central and local leaders
- Applications:

Reverse Engineering Censorship in China

- How'd we get to do this? trying Ⓜ, with 🔄, ⤳ ⑦
- Previous approach: watch a few posts; see what's removed
- Data: Download all posts before the Chinese censor them
- ~~Everyone knows the Goal:~~
  ~~Stop criticism and protest about the state,~~
  ~~its leaders, and their policies~~ *Wrong*
- What Could be the Goal?
  1. ~~Stop criticism of the state~~ *Wrong*
  2. Stop collective action *Right*
- Implications: Social Media is Actionable!
  - Chinese leaders:
    - measure criticism: to judge local officials
    - censor: to stop events with collective action potential
  - We can predict:
    - Officials in trouble, likely to be replaced
    - Dissident arrests; new peace treaties; emerging scandals
    - Disagreements between central and local leaders
- Applications: Mike Smith as Dean of FAS.

Reverse Engineering Censorship in China

- **How'd we get to do this?** trying Ⓜ, with 🔄, ⤳ ❓
- **Previous approach:** watch a few posts; see what's removed
- **Data:** Download all posts before the Chinese censor them
- ~~Everyone knows the Goal:~~
  ~~Stop criticism and protest about the state,~~
  ~~its leaders, and their policies~~ *Wrong*
- **What Could be the Goal?**
  1. ~~Stop criticism of the state~~ *Wrong*
  2. Stop collective action *Right*
- **Implications:** Social Media is Actionable!
  - Chinese leaders:
    - measure criticism: to judge local officials
    - censor: to stop events with collective action potential
  - We can predict:
    - Officials in trouble, likely to be replaced
    - Dissident arrests; new peace treaties; emerging scandals
    - Disagreements between central and local leaders
- **Applications:** Mike Smith as Dean of FAS. What about you?

Reverse Engineering China's 50c Party

The Government Surreptitiously Fabricating Social Media Posts

Reverse Engineering China's 50c Party

The Government Surreptitiously Fabricating Social Media Posts

- Prevailing view of scholars, activists, journalists, social media participants:

Reverse Engineering China's 50c Party

The Government Surreptitiously Fabricating Social Media Posts

- Prevailing view of scholars, activists, journalists, social media participants: 50c party argues against those who criticize the government, its leaders, and their policies

The Government Surreptitiously Fabricating Social Media Posts

- Prevailing view of scholars, activists, journalists, social media participants: 50c party argues against those who criticize the government, its leaders, and their policies

  Existing evidence?

Reverse Engineering China's 50c Party
The Government Surreptitiously Fabricating Social Media Posts

- Prevailing view of scholars, activists, journalists, social media participants: 50c party argues against those who criticize the government, its leaders, and their policies

  Existing evidence? A few anecdotes;

Reverse Engineering China's 50c Party
The Government Surreptitiously Fabricating Social Media Posts

- Prevailing view of scholars, activists, journalists, social media participants: 50c party argues against those who criticize the government, its leaders, and their policies

  Existing evidence? A few anecdotes; "no ground truth";

Reverse Engineering China's 50c Party

The Government Surreptitiously Fabricating Social Media Posts

- Prevailing view of scholars, activists, journalists, social media participants: 50c party argues against those who criticize the government, its leaders, and their policies

  Existing evidence? A few anecdotes; "no ground truth"; "no successful attempts to quantify" 50c party activity;

Reverse Engineering China's 50c Party
The Government Surreptitiously Fabricating Social Media Posts

- Prevailing view of scholars, activists, journalists, social media participants: 50c party argues against those who criticize the government, its leaders, and their policies

  Existing evidence? A few anecdotes; "no ground truth"; "no successful attempts to quantify" 50c party activity; even several analyses with made up dependent variables!

Reverse Engineering China's 50c Party

The Government Surreptitiously Fabricating Social Media Posts

- Prevailing view of scholars, activists, journalists, social media participants: 50c party argues against those who criticize the government, its leaders, and their policies

    Existing evidence? A few anecdotes; "no ground truth"; "no successful attempts to quantify" 50c party activity; even several analyses with made up dependent variables!

    Our evidence:

- Prevailing view of scholars, activists, journalists, social media participants: 50c party argues against those who criticize the government, its leaders, and their policies

    Existing evidence? A few anecdotes; "no ground truth"; "no successful attempts to quantify" 50c party activity; even several analyses with made up dependent variables!

    Our evidence:
    - 🤝 with journalists who found leaked archive in 1 county

Reverse Engineering China's 50c Party
The Government Surreptitiously Fabricating Social Media Posts

- Prevailing view of scholars, activists, journalists, social media participants: 50c party argues against those who criticize the government, its leaders, and their policies

  Existing evidence? A few anecdotes; "no ground truth"; "no successful attempts to quantify" 50c party activity; even several analyses with made up dependent variables!

  Our evidence:
  - 🤝 with journalists who found leaked archive in 1 county
  - (?) from fact of leak to reason for 50c

Reverse Engineering China's 50c Party
The Government Surreptitiously Fabricating Social Media Posts

- Prevailing view of scholars, activists, journalists, social media participants: 50c party argues against those who criticize the government, its leaders, and their policies

  Existing evidence? A few anecdotes; "no ground truth"; "no successful attempts to quantify" 50c party activity; even several analyses with made up dependent variables!

  Our evidence:
  - 👁 with journalists who found leaked archive in 1 county
  - ⓘ from fact of leak to reason for 50c
  - Ⓜ to systematize messy text, image, email archive

Reverse Engineering China's 50c Party
The Government Surreptitiously Fabricating Social Media Posts

- Prevailing view of scholars, activists, journalists, social media participants: 50c party argues against those who criticize the government, its leaders, and their policies

  Existing evidence? A few anecdotes; "no ground truth"; "no successful attempts to quantify" 50c party activity; even several analyses with made up dependent variables!

  Our evidence:
  - 👐 with journalists who found leaked archive in 1 county
  - (?) from fact of leak to reason for 50c
  - (M) to systematize messy text, image, email archive
  - extrapolated results to all of China

Reverse Engineering China's 50c Party
The Government Surreptitiously Fabricating Social Media Posts

- Prevailing view of scholars, activists, journalists, social media participants: 50c party argues against those who criticize the government, its leaders, and their policies

  Existing evidence? A few anecdotes; "no ground truth"; "no successful attempts to quantify" 50c party activity; even several analyses with made up dependent variables!

  Our evidence:
    - 👁 with journalists who found leaked archive in 1 county
    - (?) from fact of leak to reason for 50c
    - (M) to systematize messy text, image, email archive
    - extrapolated results to all of China
    - In a poll(!), convinced 50c to acknowledge behavior

Reverse Engineering China's 50c Party
The Government Surreptitiously Fabricating Social Media Posts

- Prevailing view of scholars, activists, journalists, social media participants: ~~50c party argues against those who criticize the government, its leaders, and their policies~~ *Wrong*

Reverse Engineering China's 50c Party

The Government Surreptitiously Fabricating Social Media Posts

- ~~Prevailing view of scholars, activists, journalists, social media participants:~~ ~~50c party argues against those who criticize the government, its leaders, and their policies~~ *Wrong*
- Fabricates 450M social media posts a year — by hand!

Reverse Engineering China's 50c Party

The Government Surreptitiously Fabricating Social Media Posts

- ~~Prevailing view of scholars, activists, journalists, social media participants: 50c party argues against those who criticize the government, its leaders, and their policies~~ *Wrong*
- Fabricates 450M social media posts a year — by hand!
- Does not argue; does not engage on controversial issues

Reverse Engineering China's 50c Party

The Government Surreptitiously Fabricating Social Media Posts

- ~~Prevailing view of scholars, activists, journalists, social media participants:~~ ~~50c party argues against those who criticize the government, its leaders, and their policies~~ *Wrong*
- Fabricates 450M social media posts a year — by hand!
- Does not argue; does not engage on controversial issues
- Distracts; redirects public attention from criticism and central issues to cheerleading and positive discussions of valence issues

Reverse Engineering China's 50c Party

The Government Surreptitiously Fabricating Social Media Posts

- ~~Prevailing view of scholars, activists, journalists, social media participants:~~ ~~50c party argues against those who criticize the government, its leaders, and their policies~~ *Wrong*
- Fabricates 450M social media posts a year — by hand!
- Does not argue; does not engage on controversial issues
- Distracts; redirects public attention from criticism and central issues to cheerleading and positive discussions of valence issues
- Applications:

Reverse Engineering China's 50c Party
The Government Surreptitiously Fabricating Social Media Posts

- ~~Prevailing view of scholars, activists, journalists, social media participants:~~ ~~50c party argues against those who criticize the government, its leaders, and their policies~~ *Wrong*
- Fabricates 450M social media posts a year — by hand!
- Does not argue; does not engage on controversial issues
- Distracts; redirects public attention from criticism and central issues to cheerleading and positive discussions of valence issues
- Applications: How to end a fight?

Externalities: Finding Those Hiding in Plain Sight

Externalities: Finding Those Hiding in Plain Sight

Example Substitution 1:

Example Substitution 1:

自由

Externalities: Finding Those Hiding in Plain Sight

Example Substitution 1:

自由   "Freedom"

Externalities: Finding Those Hiding in Plain Sight

Example Substitution 1:

自由   "Freedom" **CENSORED**

Externalities: Finding Those Hiding in Plain Sight

Example Substitution 1:

自由   "Freedom"   **CENSORED**
目田

Externalities: Finding Those Hiding in Plain Sight

Example Substitution 1:

自由   "Freedom" CENSORED

目田   "Eye field"

Externalities: Finding Those Hiding in Plain Sight

Example Substitution 1:

自由   "Freedom" CENSORED

目田   "Eye field" (nonsensical)

Externalities: Finding Those Hiding in Plain Sight

Example Substitution 1: <u>Homograph</u>

自由   "Freedom" **CENSORED**
目田   "Eye field" (nonsensical)

Externalities: Finding Those Hiding in Plain Sight

Example Substitution 1: Homograph

自由   "Freedom" **CENSORED**
目田   "Eye field" (nonsensical)

Externalities: Finding Those Hiding in Plain Sight

Example Substitution 1: Homograph

自由
目田
    "Freedom" **CENSORED**
    "Eye field" (nonsensical)

Example Substitution 2:

Externalities: Finding Those Hiding in Plain Sight

Example Substitution 1: Homograph

自由   "Freedom" CENSORED
目田   "Eye field" (nonsensical)

Example Substitution 2:

和谐

Externalities: Finding Those Hiding in Plain Sight

Example Substitution 1: Homograph

自由   "Freedom" **CENSORED**

目田   "Eye field" (nonsensical)

Example Substitution 2:

和谐   "Harmonious [Society]" (official slogan)

Externalities: Finding Those Hiding in Plain Sight

Example Substitution 1: Homograph

自由   "Freedom" CENSORED
目田   "Eye field" (nonsensical)

Example Substitution 2:

和谐   "Harmonious [Society]" (official slogan) CENSORED

Externalities: Finding Those Hiding in Plain Sight

Example Substitution 1: <u>Homograph</u>

自由
目田

"Freedom" **CENSORED**
"Eye field" (nonsensical)

Example Substitution 2:

和谐
河蟹

"Harmonious [Society]" (official slogan) **CENSORED**

Externalities: Finding Those Hiding in Plain Sight

Example Substitution 1: Homograph

自由   "Freedom" CENSORED
目田   "Eye field" (nonsensical)

Example Substitution 2:

和谐   "Harmonious [Society]" (official slogan) CENSORED
河蟹   "River crab"

Externalities: Finding Those Hiding in Plain Sight

Example Substitution 1: Homograph

自由　　　"Freedom" **CENSORED**
目田　　　"Eye field" (nonsensical)

Example Substitution 2:

和谐　　　"Harmonious [Society]" (official slogan) **CENSORED**
河蟹　　　"River crab" (irrelevant)

Externalities: Finding Those Hiding in Plain Sight

Example Substitution 1: Homograph

自由   "Freedom" **CENSORED**
目田   "Eye field" (nonsensical)

Example Substitution 2: Homophone (sound like "hexie")

和谐   "Harmonious [Society]" (official slogan) **CENSORED**
河蟹   "River crab" (irrelevant)

Externalities: Finding Those Hiding in Plain Sight

Example Substitution 1: Homograph

自由   "Freedom" **CENSORED**

目田   "Eye field" (nonsensical)

Example Substitution 2: Homophone (sound like "hexie")

和谐   "Harmonious [Society]" (official slogan) **CENSORED**

河蟹   "River crab" (irrelevant)

Censors can't follow the conversation;

Externalities: Finding Those Hiding in Plain Sight

Example Substitution 1: Homograph

自由   "Freedom" CENSORED
目田   "Eye field" (nonsensical)

Example Substitution 2: Homophone (sound like "hexie")

和谐   "Harmonious [Society]" (official slogan) CENSORED
河蟹   "River crab" (irrelevant)

Censors can't follow the conversation; with Ⓜ we can.

Externalities: Finding Those Hiding in Plain Sight

Example Substitution 1: Homograph

自由   "Freedom" **CENSORED**
目田   "Eye field" (nonsensical)

Example Substitution 2: Homophone (sound like "hexie")

和谐   "Harmonious [Society]" (official slogan) **CENSORED**
河蟹   "River crab" (irrelevant)

Censors can't follow the conversation; with (M) we can.

(?):

Externalities: Finding Those Hiding in Plain Sight

Example Substitution 1: Homograph

自由   "Freedom" **CENSORED**
目田   "Eye field" (nonsensical)

Example Substitution 2: Homophone (sound like "hexie")

和谐   "Harmonious [Society]" (official slogan) **CENSORED**
河蟹   "River crab" (irrelevant)

Censors can't follow the conversation; with Ⓜ we can.

Ⓐ: (1) Analysts,

Externalities: Finding Those Hiding in Plain Sight

Example Substitution 1: Homograph

自由   "Freedom" ~~CENSORED~~
目田   "Eye field" (nonsensical)

Example Substitution 2: Homophone (sound like "hexie")

和谐   "Harmonious [Society]" (official slogan) ~~CENSORED~~
河蟹   "River crab" (irrelevant)

Censors can't follow the conversation; with (M) we can.

(?): (1) Analysts, (2) eDiscovery,

Externalities: Finding Those Hiding in Plain Sight

Example Substitution 1: Homograph

自由   "Freedom" ~~CENSORED~~
目田   "Eye field" (nonsensical)

Example Substitution 2: Homophone (sound like "hexie")

和谐   "Harmonious [Society]" (official slogan) ~~CENSORED~~
河蟹   "River crab" (irrelevant)

Censors can't follow the conversation; with (M) we can.

(?): (1) Analysts, (2) eDiscovery, (3) Long tail search,

Externalities: Finding Those Hiding in Plain Sight

Example Substitution 1: Homograph

自由   "Freedom" **CENSORED**
目田   "Eye field" (nonsensical)

Example Substitution 2: Homophone (sound like "hexie")

和谐   "Harmonious [Society]" (official slogan) **CENSORED**
河蟹   "River crab" (irrelevant)

Censors can't follow the conversation; with Ⓜ we can.

(?): (1) Analysts, (2) eDiscovery, (3) Long tail search,
(4) Language drift (#BostonBombings ⇝ #BostonStrong),

Externalities: Finding Those Hiding in Plain Sight

Example Substitution 1: Homograph

自由   "Freedom" CENSORED
目田   "Eye field" (nonsensical)

Example Substitution 2: Homophone (sound like "hexie")

和谐   "Harmonious [Society]" (official slogan) CENSORED
河蟹   "River crab" (irrelevant)

Censors can't follow the conversation; with Ⓜ we can.

⑦: (1) Analysts, (2) eDiscovery, (3) Long tail search,
(4) Language drift (#BostonBombings ⤳ #BostonStrong),
(5) Look-alike modeling, etc.

Externalities: Finding Those Hiding in Plain Sight

Example Substitution 1: Homograph

自由
目田

"Freedom" CENSORED
"Eye field" (nonsensical)

Example Substitution 2: Homophone (sound like "hexie")

和谐
河蟹

"Harmonious [Society]" (official slogan) CENSORED
"River crab" (irrelevant)

Censors can't follow the conversation; with (M) we can.

(?): (1) Analysts, (2) eDiscovery, (3) Long tail search,
(4) Language drift (#BostonBombings ⤳ #BostonStrong),
(5) Look-alike modeling, etc. ⤳ Thresher

China

United States

Here's How

The Effect of the News Media

The Effect of the News Media

- What's the evidence?

The Effect of the News Media

- What's the evidence?
  - We can't randomize!

The Effect of the News Media

- What's the evidence?
  - We can't randomize!
  - Clever alternatives:

The Effect of the News Media

- What's the evidence?
  - We can't randomize!
  - **Clever alternatives:** (1) New TV tower, behind a hill, in radio shadow;

The Effect of the News Media

- What's the evidence?
    - We can't randomize!
    - Clever alternatives: (1) New TV tower, behind a hill, in radio shadow; (2) Before/after studies of "surprise" events; etc.

The Effect of the News Media

- What's the evidence?
  - We can't randomize!
  - Clever alternatives: (1) New TV tower, behind a hill, in radio shadow; (2) Before/after studies of "surprise" events; etc.
  - Better but ⤳ "Profound biases," > 600% difference from truth

The Effect of the News Media

- What's the evidence?
  - We can't randomize!
  - Clever alternatives: (1) New TV tower, behind a hill, in radio shadow; (2) Before/after studies of "surprise" events; etc.
  - Better but ↝ "Profound biases," > 600% difference from truth
  - Estimands: different, of sometimes questionable relevance

The Effect of the News Media

- What's the evidence?
    - We can't randomize!
    - Clever alternatives: (1) New TV tower, behind a hill, in radio shadow; (2) Before/after studies of "surprise" events; etc.
    - Better but ⤳ "Profound biases," > 600% difference from truth
    - Estimands: different, of sometimes questionable relevance
- Switch to the obvious (hard) (?)

The Effect of the News Media

- What's the evidence?
  - We can't randomize!
  - Clever alternatives: (1) New TV tower, behind a hill, in radio shadow; (2) Before/after studies of "surprise" events; etc.
  - Better but ⤳ "Profound biases," > 600% difference from truth
  - Estimands: different, of sometimes questionable relevance
- Switch to the obvious (hard) ⓘ?
- What's required to randomize

The Effect of the News Media

- What's the evidence?
  - We can't randomize!
  - Clever alternatives: (1) New TV tower, behind a hill, in radio shadow; (2) Before/after studies of "surprise" events; etc.
  - Better but ⤳ "Profound biases," > 600% difference from truth
  - Estimands: different, of sometimes questionable relevance
- Switch to the obvious (hard) (?)
- What's required to randomize
  - Journalists:

The Effect of the News Media

- What's the evidence?
  - We can't randomize!
  - Clever alternatives: (1) New TV tower, behind a hill, in radio shadow; (2) Before/after studies of "surprise" events; etc.
  - Better but ⇝ "Profound biases," > 600% difference from truth
  - Estimands: different, of sometimes questionable relevance
- Switch to the obvious (hard) (?)
- What's required to randomize
  - Journalists: total control over what's published & when

The Effect of the News Media

- What's the evidence?
  - We can't randomize!
  - Clever alternatives: (1) New TV tower, behind a hill, in radio shadow; (2) Before/after studies of "surprise" events; etc.
  - Better but ⤳ "Profound biases," > 600% difference from truth
  - Estimands: different, of sometimes questionable relevance
- Switch to the obvious (hard) (?)
- What's required to randomize
  - Journalists: total control over what's published & when
  - Scientists:
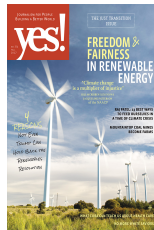
The Effect of the News Media

- What's the evidence?
  - We can't randomize!
  - **Clever alternatives:** (1) New TV tower, behind a hill, in radio shadow; (2) Before/after studies of "surprise" events; etc.
  - Better but ⤳ "Profound biases," > 600% difference from truth
  - **Estimands:** different, of sometimes questionable relevance
- Switch to the obvious (hard) ⓪
- What's required to randomize
  - **Journalists:** total control over what's published & when
  - **Scientists:** total control over what's published & when
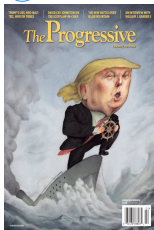
The Effect of the News Media

- What's the evidence?
    - We can't randomize!
    - **Clever alternatives:** (1) New TV tower, behind a hill, in radio shadow; (2) Before/after studies of "surprise" events; etc.
    - Better but ⤳ "Profound biases," > 600% difference from truth
    - **Estimands:** different, of sometimes questionable relevance
- Switch to the obvious (hard) (?)
- What's required to randomize
    - **Journalists:** total control over what's published & when
    - **Scientists:** total control over what's published & when
- 🔁

The Effect of the News Media

- What's the evidence?
  - We can't randomize!
  - Clever alternatives: (1) New TV tower, behind a hill, in radio shadow; (2) Before/after studies of "surprise" events; etc.
  - Better but ⤳ "Profound biases," > 600% difference from truth
  - Estimands: different, of sometimes questionable relevance
- Switch to the obvious (hard) (?)
- What's required to randomize
  - Journalists: total control over what's published & when
  - Scientists: total control over what's published & when
- 🔄 48 media outlets let us randomize:

The Effect of the News Media

- What's the evidence?
  - We can't randomize!
  - Clever alternatives: (1) New TV tower, behind a hill, in radio shadow; (2) Before/after studies of "surprise" events; etc.
  - Better but ⤳ "Profound biases," > 600% difference from truth
  - Estimands: different, of sometimes questionable relevance
- Switch to the obvious (hard) ⑦
- What's required to randomize
  - Journalists: total control over what's published & when
  - Scientists: total control over what's published & when
- 🔄 48 media outlets let us randomize:

The Effect of the News Media

- We choose a *policy area* (1 of 11)

The Effect of the News Media

- We choose a *policy area* (1 of 11)
- Outlets volunteer for a *pack* of ≈ 3 (with our approval), following "project manager" protocol (e.g., Panama Papers)

The Effect of the News Media

- We choose a *policy area* (1 of 11)
- Outlets volunteer for a *pack* of ≈ 3 (with our approval), following "project manager" protocol (e.g., Panama Papers)
- The pack chooses *subject* for articles

The Effect of the News Media

- We choose a *policy area* (1 of 11)
- Outlets volunteer for a *pack* of ≈ 3 (with our approval), following "project manager" protocol (e.g., Panama Papers)
- The pack chooses *subject* for articles
  - We approve: If rejected, outlets can still publish

The Effect of the News Media

- We choose a *policy area* (1 of 11)
- Outlets volunteer for a *pack* of ≈ 3 (with our approval), following "project manager" protocol (e.g., Panama Papers)
- The pack chooses *subject* for articles
  - We approve: If rejected, outlets can still publish
  - Requirement: No breaking news (so we can randomize timing)

The Effect of the News Media

- We choose a *policy area* (1 of 11)
- Outlets volunteer for a *pack* of ≈ 3 (with our approval),
  following "project manager" protocol (e.g., Panama Papers)
- The pack chooses *subject* for articles
  - We approve: If rejected, outlets can still publish
  - Requirement: No breaking news (so we can randomize timing)
- Matched Pair Randomization Ⓜ

The Effect of the News Media

- We choose a *policy area* (1 of 11)
- Outlets volunteer for a *pack* of ≈ 3 (with our approval), following "project manager" protocol (e.g., Panama Papers)
- The pack chooses *subject* for articles
  - We approve: If rejected, outlets can still publish
  - Requirement: No breaking news (so we can randomize timing)
- Matched Pair Randomization (M)
  - Match weeks on similarly of predicted news

The Effect of the News Media

- We choose a *policy area* (1 of 11)
- Outlets volunteer for a *pack* of ≈ 3 (with our approval), following "project manager" protocol (e.g., Panama Papers)
- The pack chooses *subject* for articles
  - We approve: If rejected, outlets can still publish
  - Requirement: No breaking news (so we can randomize timing)
- Matched Pair Randomization Ⓜ
  - Match weeks on similarly of predicted news
  - *One* coin flip: to choose weeks

The Effect of the News Media

- We choose a *policy area* (1 of 11)
- Outlets volunteer for a *pack* of ≈ 3 (with our approval), following "project manager" protocol (e.g., Panama Papers)
- The pack chooses *subject* for articles
  - We approve: If rejected, outlets can still publish
  - Requirement: No breaking news (so we can randomize timing)
- Matched Pair Randomization Ⓜ
  - Match weeks on similarly of predicted news
  - *One* coin flip: to choose weeks
    - Treatment week: publish & promote articles (usually Tuesday)

The Effect of the News Media

- We choose a *policy area* (1 of 11)
- Outlets volunteer for a *pack* of ≈ 3 (with our approval), following "project manager" protocol (e.g., Panama Papers)
- The pack chooses *subject* for articles
  - We approve: If rejected, outlets can still publish
  - Requirement: No breaking news (so we can randomize timing)
- Matched Pair Randomization Ⓜ
  - Match weeks on similarly of predicted news
  - *One* coin flip: to choose weeks
    - Treatment week: publish & promote articles (usually Tuesday)
    - Control week: no compensation or special actions

The Effect of the News Media

- We choose a *policy area* (1 of 11)
- Outlets volunteer for a *pack* of ≈ 3 (with our approval),
  following "project manager" protocol (e.g., Panama Papers)
- The pack chooses *subject* for articles
  - We approve: If rejected, outlets can still publish
  - Requirement: No breaking news (so we can randomize timing)
- Matched Pair Randomization Ⓜ
  - Match weeks on similarly of predicted news
  - *One* coin flip: to choose weeks
    - Treatment week: publish & promote articles (usually Tuesday)
    - Control week: no compensation or special actions
  - Outlets Publish Simultaneously (following their procedures)

The Effect of the News Media

- We choose a *policy area* (1 of 11)
- Outlets volunteer for a *pack* of ≈ 3 (with our approval), following "project manager" protocol (e.g., Panama Papers)
- The pack chooses *subject* for articles
  - We approve: If rejected, outlets can still publish
  - Requirement: No breaking news (so we can randomize timing)
- Matched Pair Randomization Ⓜ
  - Match weeks on similarly of predicted news
  - *One* coin flip: to choose weeks
    - Treatment week: publish & promote articles (usually Tuesday)
    - Control week: no compensation or special actions
  - Outlets Publish Simultaneously (following their procedures)
- Statistical Methods Ⓜ

The Effect of the News Media

- We choose a *policy area* (1 of 11)
- Outlets volunteer for a *pack* of ≈ 3 (with our approval), following "project manager" protocol (e.g., Panama Papers)
- The pack chooses *subject* for articles
  - We approve: If rejected, outlets can still publish
  - Requirement: No breaking news (so we can randomize timing)
- Matched Pair Randomization Ⓜ
  - Match weeks on similarly of predicted news
  - *One* coin flip: to choose weeks
    - Treatment week: publish & promote articles (usually Tuesday)
    - Control week: no compensation or special actions
  - Outlets Publish Simultaneously (following their procedures)
- Statistical Methods Ⓜ
  - Sequential Hypothesis Testing: Saved $ millions & years

The Effect of the News Media

- We choose a *policy area* (1 of 11)
- Outlets volunteer for a *pack* of ≈ 3 (with our approval), following "project manager" protocol (e.g., Panama Papers)
- The pack chooses *subject* for articles
  - We approve: If rejected, outlets can still publish
  - Requirement: No breaking news (so we can randomize timing)
- Matched Pair Randomization Ⓜ
  - Match weeks on similarly of predicted news
  - *One* coin flip: to choose weeks
    - Treatment week: publish & promote articles (usually Tuesday)
    - Control week: no compensation or special actions
  - Outlets Publish Simultaneously (following their procedures)
- Statistical Methods Ⓜ
  - Sequential Hypothesis Testing: Saved $ millions & years
  - Automated Text Analysis: To measure national conversation

The Effect of the News Media

- We choose a *policy area* (1 of 11)
- Outlets volunteer for a *pack* of ≈ 3 (with our approval),
  following "project manager" protocol (e.g., Panama Papers)
- The pack chooses *subject* for articles
  - We approve: If rejected, outlets can still publish
  - Requirement: No breaking news (so we can randomize timing)
- Matched Pair Randomization Ⓜ
  - Match weeks on similarly of predicted news
  - *One* coin flip: to choose weeks
    - Treatment week: publish & promote articles (usually Tuesday)
    - Control week: no compensation or special actions
  - Outlets Publish Simultaneously (following their procedures)
- Statistical Methods Ⓜ
  - Sequential Hypothesis Testing: Saved $ millions & years
  - Automated Text Analysis: To measure national conversation
- Results

The Effect of the News Media

- We choose a *policy area* (1 of 11)
- Outlets volunteer for a *pack* of ≈ 3 (with our approval), following "project manager" protocol (e.g., Panama Papers)
- The pack chooses *subject* for articles
  - We approve: If rejected, outlets can still publish
  - Requirement: No breaking news (so we can randomize timing)
- Matched Pair Randomization (M)
  - Match weeks on similarly of predicted news
  - *One* coin flip: to choose weeks
    - Treatment week: publish & promote articles (usually Tuesday)
    - Control week: no compensation or special actions
  - Outlets Publish Simultaneously (following their procedures)
- Statistical Methods (M)
  - Sequential Hypothesis Testing: Saved $ millions & years
  - Automated Text Analysis: To measure national conversation
- Results
  - Causal effects:

The Effect of the News Media

- We choose a *policy area* (1 of 11)
- Outlets volunteer for a *pack* of ≈ 3 (with our approval),
  following "project manager" protocol (e.g., Panama Papers)
- The pack chooses *subject* for articles
  - We approve: If rejected, outlets can still publish
  - Requirement: No breaking news (so we can randomize timing)
- Matched Pair Randomization (M)
  - Match weeks on similarly of predicted news
  - *One* coin flip: to choose weeks
    - Treatment week: publish & promote articles (usually Tuesday)
    - Control week: no compensation or special actions
  - Outlets Publish Simultaneously (following their procedures)
- Statistical Methods (M)
  - Sequential Hypothesis Testing: Saved $ millions & years
  - Automated Text Analysis: To measure national conversation
- Results
  - Causal effects: 1st day: 19.4% increase,

The Effect of the News Media

- We choose a *policy area* (1 of 11)
- Outlets volunteer for a *pack* of ≈ 3 (with our approval), following "project manager" protocol (e.g., Panama Papers)
- The pack chooses *subject* for articles
  - We approve: If rejected, outlets can still publish
  - Requirement: No breaking news (so we can randomize timing)
- Matched Pair Randomization (M)
  - Match weeks on similarly of predicted news
  - *One* coin flip: to choose weeks
    - Treatment week: publish & promote articles (usually Tuesday)
    - Control week: no compensation or special actions
  - Outlets Publish Simultaneously (following their procedures)
- Statistical Methods (M)
  - Sequential Hypothesis Testing: Saved $ millions & years
  - Automated Text Analysis: To measure national conversation
- Results
  - Causal effects: 1st day: 19.4% increase, Total: 62.7% increase

The Effect of the News Media

- We choose a *policy area* (1 of 11)
- Outlets volunteer for a *pack* of ≈ 3 (with our approval), following "project manager" protocol (e.g., Panama Papers)
- The pack chooses *subject* for articles
    - We approve: If rejected, outlets can still publish
    - Requirement: No breaking news (so we can randomize timing)
- Matched Pair Randomization Ⓜ
    - Match weeks on similarly of predicted news
    - *One* coin flip: to choose weeks
        - Treatment week: publish & promote articles (usually Tuesday)
        - Control week: no compensation or special actions
    - Outlets Publish Simultaneously (following their procedures)
- Statistical Methods Ⓜ
    - Sequential Hypothesis Testing: Saved $ millions & years
    - Automated Text Analysis: To measure national conversation
- Results
    - Causal effects: 1st day: 19.4% increase, Total: 62.7% increase
    - Context: 3 small media outlets

The Effect of the News Media

- We choose a *policy area* (1 of 11)
- Outlets volunteer for a *pack* of ≈ 3 (with our approval), following "project manager" protocol (e.g., Panama Papers)
- The pack chooses *subject* for articles
  - We approve: If rejected, outlets can still publish
  - Requirement: No breaking news (so we can randomize timing)
- Matched Pair Randomization Ⓜ
  - Match weeks on similarly of predicted news
  - *One* coin flip: to choose weeks
    - Treatment week: publish & promote articles (usually Tuesday)
    - Control week: no compensation or special actions
  - Outlets Publish Simultaneously (following their procedures)
- Statistical Methods Ⓜ
  - Sequential Hypothesis Testing: Saved $ millions & years
  - Automated Text Analysis: To measure national conversation
- Results
  - Causal effects: 1st day: 19.4% increase, Total: 62.7% increase
  - Context: 3 small media outlets ⇝ national conversation
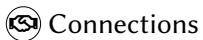
The Effect of the News Media

- We choose a *policy area* (1 of 11)
- Outlets volunteer for a *pack* of ≈ 3 (with our approval), following "project manager" protocol (e.g., Panama Papers)
- The pack chooses *subject* for articles
  - We approve: If rejected, outlets can still publish
  - Requirement: No breaking news (so we can randomize timing)
- Matched Pair Randomization Ⓜ
  - Match weeks on similarly of predicted news
  - *One* coin flip: to choose weeks
    - Treatment week: publish & promote articles (usually Tuesday)
    - Control week: no compensation or special actions
  - Outlets Publish Simultaneously (following their procedures)
- Statistical Methods Ⓜ
  - Sequential Hypothesis Testing: Saved $ millions & years
  - Automated Text Analysis: To measure national conversation
- Results
  - Causal effects: 1st day: 19.4% increase, Total: 62.7% increase
  - Context: 3 small media outlets ⇝ national conversation ⇝ policy agenda

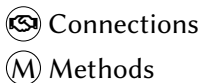# The Effect of the News Media

- We choose a *policy area* (1 of 11)
- Outlets volunteer for a *pack* of ≈ 3 (with our approval), following "project manager" protocol (e.g., Panama Papers)
- The pack chooses *subject* for articles
  - We approve: If rejected, outlets can still publish
  - Requirement: No breaking news (so we can randomize timing)
- Matched Pair Randomization Ⓜ
  - Match weeks on similarly of predicted news
  - *One* coin flip: to choose weeks
    - Treatment week: publish & promote articles (usually Tuesday)
    - Control week: no compensation or special actions
  - Outlets Publish Simultaneously (following their procedures)
- Statistical Methods Ⓜ
  - Sequential Hypothesis Testing: Saved $ millions & years
  - Automated Text Analysis: To measure national conversation
- Results
  - Causal effects: 1st day: 19.4% increase, Total: 62.7% increase
  - Context: 3 small media outlets ⇝ national conversation ⇝ policy agenda ⇝ policy

China

United States

Here's How

How to Solve Society's Most Pressing Challenges?

How to Solve Society's Most Pressing Challenges?

🤝 Connections

How to Solve Society's Most Pressing Challenges?

🤝 Connections

Ⓜ Methods

How to Solve Society's Most Pressing Challenges?

Ⓢ Connections
Ⓜ Methods
⑦ Questions

How to Solve Society's Most Pressing Challenges?

(C) Connections

(M) Methods

(?) Questions

For more information
GaryKing.org