How Censorship in China Allows Government Criticism but Silences Collective Expression

Gary King, Jennifer Pan, Molly Roberts

Institute for Quantitative Social Science
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(talk at Emory University, 2/1/2013)
Chinese Censorship

The largest selective suppression of human expression in history

Press freedom: 187th of 197 countries, but by far the largest effort

Content filtering: Removing individual posts by hand

Estimated workforce involved:

Total government censors: $\approx 200,000$

Internal censors at individual sites like Sina.com: $\approx 1,000$

Internet police: 20,000–50,000

50 cent party members (wumao dang): 250,000–300,000

(Other examples: Iran, Saudia Arabia, Syria, Vietnam, etc.)

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Our Main Point

Prevailing Wisdom: the goal of censorship: to stop government criticism

A BBC Reporter thought he found a contradiction in Chinese Premier Wen Jiabao's farewell speech:

"[Premier Wen] claimed that China's leaders welcomed criticism expressed on the internet. It is 'natural for that to happen', he said. And yet he presides over a government that routinely censors the internet — and has imprisoned many who have given voice to their criticism."

We show:

There is no contradiction; Wen Jiabao was sincere

China allows plenty of criticism in social media

Censorship is not "leaky & imperfect"; our understanding of it is

The goal: stopping collective action, clipping social ties

(They also censor 2 other smaller categories we'll talk about)

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1 February 2013
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Our Data Source
Our Data Source

crimson hexagon
KNOW MORE. KNOW WHY. KNOW HOW.
Chinese Social Media: Fractured over 1,400+ sites
Chinese Social Media: Fractured over 1,400+ sites

(Plus 59% from Sina Blog)
Posts Collected and Analyzed

3,674,698 social media posts in 85 topic areas over 6 months

Random sample: 127,283

For each post (on a timeline in one of 85 content areas):

Download content the instant it appears
(Carefully) revisit each later to determine if it was censored

Use computer-assisted methods of text analysis (some existing, some new, all adapted to Chinese)

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Censorship is not Ambiguous: Example Error Page

Sorry, the host you were looking for does not exist, has been deleted, or is being investigated
Censorship is not Ambiguous: BBS Error Page

The page you requested is temporarily down. How about you go look at another page.

Jingjing, one of China’s cartoon internet police
The Censors are Fast; Our Automated Methods are Faster
The Censors are Fast; Our Automated Methods are Faster

Example: Shanghai Subway Crash
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Chinese Censorship

1 February 2013
For 2 Rare Topics: Constant Censorship Effort

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For 2 Rare Topics: Constant Censorship Effort

**Pornography**

**Criticism of the Censors**
All other topics: Censorship & Post Volume are “Bursty”
Unit of analysis: volume burst (≈ 3 SDs greater than baseline volume)

We monitored 85 topic areas (Jan–July 2011) and found 87 volume bursts in total. Identified real world events associated with each burst.

Gary King, Jennifer Pan, & Molly Roberts (2013) Chinese Censorship
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The Goals of Chinese Censorship

The theories of the purpose of censorship are:

1. Stop collective action

Either or both could be right or wrong.
The Goals of Chinese Censorship

Theories. The Purpose of Censorship is to:

1. Stop criticism of the state
The Goals of Chinese Censorship

Theories. The Purpose of Censorship is to:

1. Stop criticism of the state
2. Stop collective action
The Goals of Chinese Censorship

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Theories. The Purpose of Censorship is to:

1. Stop criticism of the state **Wrong**
2. Stop collective action

Either or both could be right or wrong.
The Goals of Chinese Censorship

Theories. The Purpose of Censorship is to:

1. Stop criticism of the state *Wrong*
2. Stop collective action *Right*

Either or both could be right or wrong.
Our Central Hypothesis: The Rules Censors Follow

1. Monitor many broad topic areas
2. Detect volume bursts; identify associated real world events
3. Select events that could (or did) generate collective action
4. Censor all posts within bursts associated with these events
5. Judge individual posts for association with events, not for the posts' collective action potential (or for criticism of the state)

⇝ The government censors all posts (regardless of how critical or supportive of the state) in volume bursts associated with events with collective action potential.

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Our Evidence

1. Increasingly specific tests based on:
   - Post volume
   - Nature of the event generating each volume burst
   - Content of the posts

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Our Evidence

3 increasingly specific tests based on

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Test 1: Post Volume

Begin with our 87-volume bursts in 85 topic areas. For each burst, calculate change in % censorship inside to outside each volume burst within topic areas. If the goal of censorship is to stop collective action, we expect:

1. On average, % censored should increase during volume bursts.
2. Some bursts (associated with politically relevant events) should have much higher censorship.

Censorship Magnitude

Density

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Test 2: Nature of Event Generating Increases in Volume

Event classification (each category can be +, −, or neutral comments about the state):

1. Protest or organized crowd formation outside the Internet;
2. Individuals who have organized or incited collective action on the ground in the past;
3. Topics related to nationalism or nationalist sentiment that have incited protest or collective action in the past.

(Other) News

Government Policies
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Event classification (each category can be +, −, or neutral comments about the state)

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   - protest or organized crowd formation outside the Internet
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What Types of Events Are Censored?

Censorship Magnitude

Density

Collective Action
Criticism of Censors
Pornography
Policy
News

Gary King, Jennifer Pan, & Molly Roberts (2013, Chinese Censorship)
What Types of Events Are Censored?

Protests in Inner Mongolia
Pornography Disguised as News
Baidu Copyright Lawsuit
Zengcheng Protests
Pornography Mentioning Popular Book
Ai Weiwei Arrested
Collective Anger At Lead Poisoning in Jiangsu
Google is Hacked
Localized Advocacy for Environment Lottery
Fuzhou Bombing
Students Throw Shoes at Fang BinXing
Rush to Buy Salt After Earthquake
New Laws on Fifty Cent Party

U.S. Military Intervention in Libya
Food Prices Rise
Education Reform for Migrant Children
Popular Video Game Released
Indoor Smoking Ban Takes Effect
News About Iran Nuclear Program
Jon Hunstman Steps Down as Ambassador to China
Gov't Increases Power Prices
China Puts Nuclear Program on Hold
Chinese Solar Company Announces Earnings
EPA Issues New Rules on Lead
Disney Announced Theme Park
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Censorship Magnitude

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Gary King, Jennifer Pan, & Molly Roberts (2013)
Censoring Collective Action: Ai Weiwei’s Arrest

Gary King, Jennifer Pan, & Molly Roberts
Censoring Collective Action: Protests in Inner Mongolia

Gary King, Jennifer Pan, & Molly Roberts

Chinese Censorship

1 February 2013

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Low Censorship on One Child Policy

Speculation of Policy Reversal at NPC

Count Published
Count Censored

Gary King, Jennifer Pan, & Molly Roberts (2013) Chinese Censorship
Low Censorship on News: Power Prices

Power shortages
Gov't raises power prices to curb demand

Count
Jan Feb Mar Apr May Jun Jul
Count Published
Count Censored

Gary King, Jennifer Pan, & Molly Roberts
Chinese Censorship
1 February 2013 22 / 34
Test 3: Content of Posts

We adapted "ReadMe" (Hopkins-King) methodology to the content of censored posts in Chinese. Standardize encoding of Chinese text, eliminate punctuation and stop words, experiment with segmenting characters into words, calculate the quantity of interest (% censored by category).

Code a validation set. 

ReadMe estimates: % of posts in each category
Quantity of interest: % of posts censored in a category

\[
P(\text{Censored} | \text{Category}) = \frac{P(\text{Category} | \text{Censored}) \cdot P(\text{Censored})}{P(\text{Category})}
\]

Gary King, Jennifer Pan, & Molly Roberts
Chinese Censorship
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Example: Labor Strikes, 2010 (Training set: 100; Test set: 900)
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Test 3: Content of Censored and Uncensored Posts
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Predictions from Two Theories of Censorship

#### Predictions of State Criticism Theory

<table>
<thead>
<tr>
<th>State Critique</th>
<th>Collective Action</th>
</tr>
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<tbody>
<tr>
<td>yes</td>
<td>Censored</td>
</tr>
<tr>
<td>no</td>
<td>Free</td>
</tr>
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With Collective Action, Posts that Support or Criticize the State are Censored
With Collective Action, Posts that Support or Criticize the State are Censored

Percent Censored

Criticize Support Criticize Support Criticize Support

Ai Weiwei Inner Mongolia Fuzhou Bombing

0.0 0.2 0.4 0.6 0.8 1.0

Gary King, Jennifer Pan, & Molly Roberts
Chinese Censorship
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Without Collective Action, Posts that Support or Oppose the State are NOT Censored
Without Collective Action, Posts that Support or Oppose the State are NOT Censored

Gary King, Jennifer Pan, & Molly Roberts

Chinese Censorship
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Uncensored Posts (w/o Collective Action Potential) Critical of the State
Uncensored Posts (w/o Collective Action Potential)
Critical of the State

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This is a city government [Yulin City, Shaanxi] that treats life with contempt, this is government officials run amuck, a city government without justice, a city government that delights in that which is vulgar, a place where officials all have mistresses, a city government that is shameless with greed, a government that trades dignity for power, a government without humanity, a government that has no limits on immorality, a government that goes back on its word, a government that treats kindness with ingratitude, a government that cares nothing for posterity...
Censored Post (with Collective Action Potential)
Supporting the State
Censored Post (with Collective Action Potential)
Supporting the State

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The bombing led not only to the tragedy of his death but the death of many government workers. Even if we can verify what Qian Mingqi said on Weibo that the building demolition caused a great deal of personal damage, we should still condemn his extreme act of retribution. ... The government has continually put forth measures and laws to protect the interests of citizens in building demolition. And the media has called attention to the plight of those experiencing housing demolition. The rate at which compensation for housing demolition has increased exceeds inflation. In many places, this compensation can change the fate of an entire family.
Censorship Pre-empting Collective Action: Ai Weiwei’s Arrest

Placebo Test:
Most extreme of all effects
Gary King, Jennifer Pan, & Molly Roberts (2013)
Censorship Pre-empting Collective Action: Ai Weiwei’s Arrest

Mar. 29, 5 days prior

Apr. 3, Ai Weiwei Arrested

Actual % censorship

Predicted % censorship trend based on 3/19−3/29 data
Censorship Pre-empting Collective Action: Ai Weiwei’s Arrest

Mar. 29, 5 days prior
Mar. 29, Ai Weiwei Arrested

Actual % censorship

Predicted % censorship trend based on 3/19–3/29 data

Placebo Test:

Mar. 19 Mar 29 Apr 08 Apr 18
0.0 0.2 0.4 0.6 0.8 1.0
2011
% of Posts Censored
Actual % censorship
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Censorship Pre-empting Collective Action: Ai Weiwei’s Arrest

Placebo Test: Most extreme of all effects
Predicting the South China Sea Peace Agreement

Placebo Test: Most extreme of all effects

Gary King, Jennifer Pan, & Molly Roberts
Predicting the South China Sea Peace Agreement

% of Posts Censored

Jun. 20, 5 days prior

Jun. 22

Jun. 25, Peace Agreement

Predicted % censor trend based on 6/10–6/20 data

Actual % censorship

Jun 12 Jun 22 Jul 02
Predicting the South China Sea Peace Agreement

% of Posts Censored

Jun. 20, 5 days prior
Jun. 25, Peace Agreement

Predicted % censor trend based on 6/10–6/20 data

Actual % censorship

Placebo Test:
Predicting the South China Sea Peace Agreement

Jun. 20, 5 days prior
Jun. 25, Peace Agreement

Predicted % censor trend based on 6/10–6/20 data

Actual % censorship

Placebo Test: Most extreme of all effects
Censorship Pre-empting Collective Action: Wang Lijun’s Demotion

Jan. 28, 5 days prior
Feb. 2, Wang Lijun demoted

Actual % censorship
Predicted % censorship trend based on 1/18−1/28 data

Placebo Test: Most extreme of all effects

Gary King, Jennifer Pan, & Molly Roberts
Censorship Pre-empting Collective Action: Wang Lijun’s Demotion

Actual % censorship

Predicted % censorship trend based on 1/18–1/28 data
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Concluding Remarks

The Chinese Censorship Program:
Stops collective action, not criticism
Reveals government intentions; predicts actions

Our methodology:
Automated text analysis methods validated in Chinese (without translation)
Enables continuous time measurement of Chinese government censorship activities
Reveals information about state action when traditional media is silent
Might be applicable to other countries

Gary King, Jennifer Pan, & Molly Roberts
Concluding Remarks

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