

Covert Information Control Survey Experiment

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Introduction

Though the internet and information and communication technology were initially heralded as tools of liberation (Diamond, 2010; MacKinnon, 2008), autocrats have increasingly taken advantage of the internet, turning it into a system to strengthen and legitimize their rule through legislation, control of network infrastructure, and cooptation of private companies (Lessig, 1999). Many governments go to great lengths to control information visible to their citizens and are increasingly using mass-surveillance systems to target information control more precisely than was previously possible (Shahbaz, 2018).

The Chinese state has been experimenting with public opinion guidance in online social platforms for over a decade (Wei et al., 2015; Zou & Su, 2015; Yugeng, n.d.-a,-b). The state has mobilized hundreds of thousands of bureaucrats to flood social platforms with manufactured “grassroots” opinion, a tactic commonly referred to as astroturfing (Han, 2015b,a; King, Pan, & Roberts, 2016; Miller, 2015). These astroturfers make use of mass stores of social data to change the behavior and opinion of netizens (Zeng, 2015; Zhou, 2011). These data are gathered with software from state contractors that offer “public opinion emergency early warning systems,” and natural language processing technologies to track and quantify discourse about “hot topics” (Zhou, 2011, 201-228).

While much of this opinion guidance technology is being developed in China for the purposes of Chinese domestic security, it is being exported all over the world. As many as 18 countries are using Chinese-built mass surveillance systems and 36 are using Chinese “public opinion guidance” techniques (Mozur, Kessel, & Chan, 2019). These countries include both democracies such as Germany and autocracies such as Venezuela. Russia (Morgus & Sherman, 2019) and Iran (Staff, 2019) have been inspired by Chinese principles of surveillance and information control as they develop domestic information control technologies. Recently, the Chinese state has begun more openly expressing an interest in promoting its ideas about internet governance globally (Deibert, 2008). Its efforts to infiltrate and guide opinion globally have garnered the attention of many scholars and policy wonks (Diamond & Schell, 2019; Brady, 2018).

Despite the massive scope of China’s opinion guidance efforts, we know very little about whether or not they are effective and how they might be effective. While a handful of recent works examine how experiencing information control can affect behavior and opinion, they disagree about the state logic of information control and the particular ways in which information control tactics can be effective (Han, 2018; Roberts, 2018). In addition to interrogating the effectiveness of China’s information control tactics, I adjudicate between several hypotheses about the effectiveness of information control tactics.¹

¹(Han, 2018) identifies how the pluralism of Chinese voices online and doubts about the motives of regime critics allows the state to benefit from discourse competition, solidifying their control over online communities through subtle interventions. I explore the behavioral microfoundations underpinning this high-level analysis of state strategy and discourse competition. Roberts (2018) explored how personally experiencing censorship influenced user behavior and expressed opinions. This study, by contrast, explores the effects of observing the resulting distribution of opinions after an information control tactic has been used.

I explore a common trend in state-led informational interventions that has not yet been addressed in the political science literature: the obfuscation of the state’s identity as the information manipulator, what I call “covert information control.” In this analysis, I examine how overt and covert forms of information control can vary in their effectiveness.

Because informational interventions are often mediated by profit-driven private companies (Miller, 2016; MacKinnon, 2009; Crete-Nishihata et al., 2016; Cairns, 2016), I also explore how each of these tactics impact private companies—often unwilling agents of the state’s information control agenda. User satisfaction on private media platforms has downstream effects on these companies’ stock prices (ProPublica, n.d.).

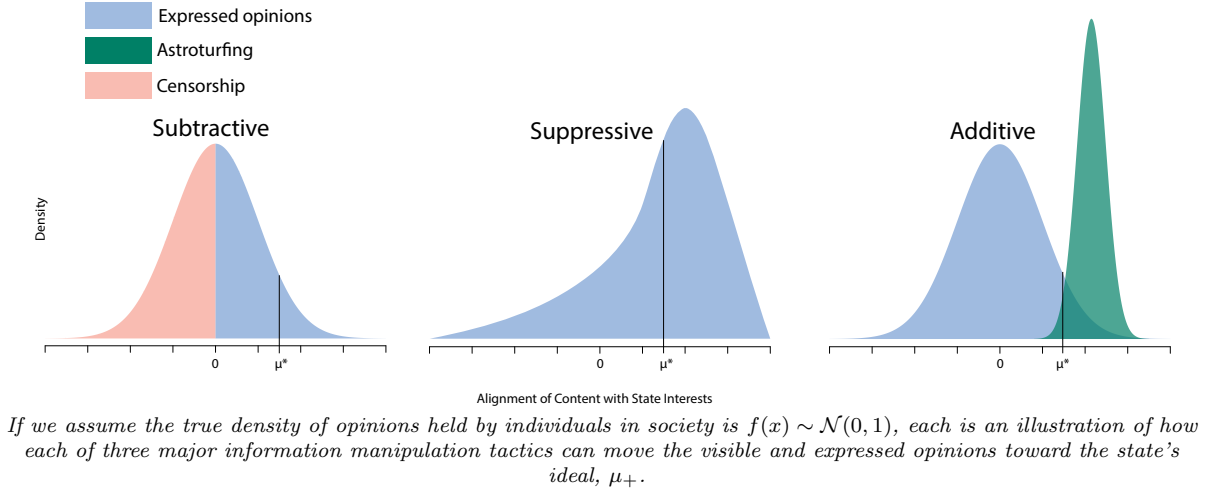
Finally, I examine several expectations for heterogeneous effects of each outcome—namely, treatment-by-covariate interaction effects for political knowledge, media exposure, and ideology—all well-understood moderators of media effects.

1 Conceptualizing Information Control

I define information control as the systematic government manipulation of the visibility of information to the public. I further group information control into three main sub-types based on how one can change the visibility of information: adding favorable information (using astroturfing, propaganda, etc.), subtracting unfavorable information (through deletion, shadow-banning, etc.), or suppressing the creation of unfavorable information (by intimidating, threatening, or co-opting regime critics). I visualize these three subtypes of information control using a symmetric univariate distribution representing the probability that an individual receives information of a certain polarity (positive to negative). Positive values represent information that is favorable to the government prefers and negative values represent information that is unfavorable to the government. The government’s goal in its information interventions is to make favorable information more visible and make unfavorable information less visible. Assuming that the unperturbed distribution of information is symmetric around a neutral viewpoint, Figure 1 depicts three ways the government could shift the mean opinion toward the same positive value μ^* .

Though the average polarity of each of the three methods of information control visualized is identical, the variation in polarity across these three methods of information control differs greatly. The additive distribution, for example, has some probability mass at the negative tail, the suppressive distribution has almost none, and the subtractive distribution does not have any. To the information consumer, the additive distribution would appear to have the most discourse competition, suppressive distribution would have a small amount of discourse competition, and the subtractive distribution would have no discourse competition.

Figure 1: Three Main Information Control Tactics



The conspicuousness of the information manipulation in each of these three types of information control varies. For state-led information manipulation, this means that the identity of the state as the information manipulator is sometimes present and sometimes obscured. For example, government bureaucrats often participate in online discourse. In some circumstances, the bureaucrat participates in online discourse with the identity of a bureaucrat (i.e. their name and title are visible in their social media profile, they wear a uniform in their profile picture, or are posting from an official government account). In other circumstances, the bureaucrat will deliberately obscure her identity to appear like she is an ordinary citizen. This means that the types of information control tactics in Figure 1 have overt and covert forms. Of course, each of these tactics themselves differ in the degree to which the information manipulation is observed and the degree to which the identity of the information manipulator is identifiable. Subtractive information manipulation, for example can only be overt or covert if the deletion of content is reported to the user, which in some cases it is. In most cases, comments are deleted without notice to the user. Suppressive and additive information control are more conspicuous in both overt and covert forms than most subtractive information. Because suppressive information control seeks to dissuade individuals from posting anti-regime messages using carrots and sticks, the information control tactic is almost always observed. In additive information control, the information control tactic can be observed in overt form if the resulting distribution of opinions is so skewed that it does not seem plausible to the user. In overt forms, the presence of opinions from state-affiliated individuals means this information control tactic is observed.

2 Theory and Empirical Expectations

I argue that if an information consumer observes greater discourse competition in the information they consume, they will be more likely to accept that information as representative of the views of their peers. Because of this, the characteristics of the distribution of visible information is an important part of how individuals form opinions, and how individuals can be mobilized to engage in certain behaviors. In Zaller's seminal work on opinion formation, individuals receive information from the media and their social interactions (Zaller, 1992). Their opinion formation is contingent on the information to which they are exposed, the subset of that information they choose to accept, and the information they later sample from their memory. An authoritarian state seeking to influence public opinion can control the information individuals receive by regulating or controlling the media, but it can also influence what individuals accept by influencing how individuals assess the social desirability of their own opinions.

If the state is mindful of how it perturbs the distribution of information that individuals

receive, it can also influence what individuals are likely to accept. Take for example an individual who holds an anti-government opinion. If they are presented with a sample of opinions from their peers that seems credible and unadulterated, but nonetheless has been deliberately perturbed to over-represent pro-government opinions, they could be persuaded that their opinion is unpopular, even if it is in fact a popular opinion. If their opinion is weakly held, they might even update it out of concern for social desirability. If, however, the state is observed as the information manipulator, the distribution of information the individual receives will be seen as unrepresentative of the views held by their peers. I hypothesize that covert information interventions will be more effective than overt ones because a sample of opinions that appear to be manipulated by the state will be seen as less representative of the views of ones peers than a sample of opinions that appears unperturbed.

Hypothesis 1 (Covert Information Control): Information interventions will be more effective in covert forms.

Citizens of authoritarian regimes with state-controlled media are aware that the information they consume does not come from disinterested sources. That being said, in many authoritarian regimes, the media are semi-commercialized, and some media outlets are perceived as less state-controlled (Stockmann, 2013). I argue that authoritarian regimes can benefit from opening circumscribed spaces for anti-regime discourse because the presence of anti-regime discourse can increase the credibility of pro-regime discourse. Closing these spaces off completely decreases the likelihood that individuals will believe that the distribution of opinions they observe has been unperturbed. Similarly, Han (2018) argues that the state benefits from contestation online because individuals are distrustful of the intentions of those espousing anti-regime opinions, not because they are convinced by state propaganda.

Individuals assess the representativeness of the opinions they observe based on perceptions of discourse competition and the objectivity of the source of information. Subjects should then find covert information control more believable than overt information control in all three forms.

Hypothesis 2a (Credibility): Covert forms of information control will seem like more credible representations of the opinions held by ordinary citizens.

Because the distribution of opinions resulting from subtractive interventions result in no anti-regime viewpoints, there is less discourse competition, and observed opinions are less likely to be seen as unadulterated or credible representations of the opinions of ones peers.

Hypothesis 2b (Credibility): Forms of information control that result in higher levels of discourse competition (additive and suppressive) will seem like more credible representations of the opinions held by ordinary citizens.

Informational interventions are effective insofar as they contribute positively to the state's broad goals of solidifying legitimacy, silencing regime criticism and increasing regime support, and/or preventing spontaneous collective action.

2.1 Silencing Regime Criticism and Increasing Regime Support

Because individuals are more likely to accept opinions they observe as representative when there appears to be some discourse competition and little government interference, they will also be more likely to agree with state messages when there appears to be some discourse competition and little government interference. While all three information control tactics will result in higher levels of agreement with the state's messages, individuals who experience covert information control will be more persuaded by the state's messages than those who experience overt

information control.

Hypothesis 3a (Persuasion): Additive, subtractive, and suppressive information control tactics will make individuals more likely to agree with the state's messages in the media.

Hypothesis 3b (Persuasion): Covert information control tactics will be more persuasive than overt information control tactics.

Because individuals are more likely to perceive a source of information as disinterested and unbiased if there is more discourse competition, information control tactics that maintain some anti-regime discourse (suppressive and additive) will be more persuasive than those that eliminate discourse competition (subtractive).

Hypothesis 3c (Persuasion): Additive and suppressive information control tactics will be more persuasive than subtractive information control tactics.

In addition to these main persuasion effects, I expect the following heterogeneous effects:

Hypothesis 3d (Persuasion): Persuasion effects will be higher for those with low media exposure.

Hypothesis 3e (Persuasion): Persuasion effects will be higher for those with low levels of political knowledge.

Hypothesis 3f (Persuasion): Persuasion effects will be higher for those whose ideology is consonant with the Ruling Communist Party.

Information control tactics may also decrease the willingness of an individual to express an opinion that is unfavorable to the state. If an individual is convinced that their opinion is not socially desirable, they will be less likely to voice it.

Hypothesis 4a (Self-Expression): Those whose ideology is dissonant with the ruling Communist Party will be less likely to express their opinion on the policy in the editorial.

Hypothesis 4b (Self-Expression): Covert information control tactics will result in a greater decrease in willingness of those whose ideology is dissonant with the ruling Communist Party to express their opinion on the policy in the editorial than overt information control tactics.

2.2 Solidifying Legitimacy

Single-party authoritarian regimes like China are acutely concerned with preserving and bolstering legitimacy through economic performance or moral authority. State control of the media can—to some extent—help achieve these goals. Han (2015) finds that though the messages in state propaganda are not persuasive, they signal legitimacy, benevolence, and capacity.

Hypothesis 5 (Nature of the State): Experiencing information control will make individuals more likely to have a positive view of the nature of the state (legitimacy, benevolence, capacity).

2.3 Preventing Collective Action

Han (2015) also finds that propaganda can decrease the willingness of individuals to participate in collective action. King, Pan, and Roberts (2013, 2014) also argue that preventing collective action is a central goal of government information control.

Hypothesis 6 (Collective action): Experiencing information control will decrease individuals' willingness to participate in collective action.

2.4 Impact Of Informational Interventions on Private Companies

Covert censorship minimizes the anger and backlash that Roberts (2018) finds results from experiencing censorship. This backlash is bad for both private internet platforms and the state. By preventing backlash, covert censorship also reduces the occurrence of conflicts between users and the state over the acceptable bounds of discussion.

Hypothesis 7a (User satisfaction): Experiencing overt information control will decrease user satisfaction.

Hypothesis 7b (Emotion): Experiencing overt information control will result in negative emotions.

3 Design

Using survey experiments, I examine the overall effectiveness of additive, subtractive, and suppressive information control and compare the effectiveness of each of these tactics in their overt and covert forms. In experiment 1, I test the effectiveness of additive information control in the form of astroturfing. In experiment 2, I test the effectiveness of subtractive information control in the form of comment deletion. In experiment 3, I test the effectiveness of suppressive information control in the form of signaled surveillance. Each of these three experiments have similar treatment interfaces but differ according to the information control tactic to which the survey subject is exposed. Each subject answers identical pre-treatment and post-treatment questions to measure the effectiveness of the information intervention. Below I explain each of these interventions in detail.

In all three experiments, subjects are sent to a website outside of the Qualtrics survey interface to perform “user testing” of a newly developed interface for a fictional news website, “Now News.” The user testing interface loads in a new window when clicked from the Qualtrics survey. This user testing website contains instructions for user testing at the top. A large frame below the instructions contains a “live version” of the news site which loads dynamically. The frame loads a news article and its comment section (see Figure XXX). Subjects are advised that the comment section of the website is live, with “real user comments, posted in real time.”

In the instructions at the top of the page, users are directed to “read the article, like or dislike comments in the comment section, and leave your own comment if you would like to.” In the instructions, they are told that they will need to pay attention to the content of the article and its comments to complete the next round of survey questions. When they have finished interacting with the article, they click a button under the instructions reading, “I have completed the above steps.”

In all experiments, the user testing interface contains a summarized Global Times op-ed about a new government ride sharing policy. As Global Times is a state media outlet, the op-ed is written in favor of the new regulation. Along with the article text, subjects see a comment selection with comments that have been selected from the real comment sections of a variety of outlets that have syndicated the original editorial. Each comment has been categorized according

to the polarity of views on the ride sharing policy (in favor, neutral, opposed). The distribution of the polarity of comments varies across treatment groups, as do the identities of the comments' respective authors. Comments can be liked, disliked, or reported, and these user interactions are saved in a database to be used as behavioral outcomes. Subjects can also leave their own comments which appear dynamically in the comment section and are saved in the database as an additional behavioral outcome.

3.1 Outcomes

I define an "effective" information intervention as one that contributes positively to the state's broad goals of solidifying legitimacy, silencing regime criticism and increasing regime support, and/or preventing spontaneous collective action. Under the umbrella of each of these broad goals, I measure attitudes and self-reported behaviors with several post-treatment questions. Each of these post treatment questions are on a 7-point Likert scale ranging between numeric values of -3 for outcomes that are very counterproductive to the state achieving this goal, and 3 for outcomes that are very productive for the state achieving this goal. To mitigate problems with reliability of self-reported behaviors, I also measure behavioral outcomes using click tracking and records of user comments on the user testing interface. In the experiments, I measure persuasion as follows:

$$(\text{pro-govt. likes} + \text{anti-govt. dislikes}) - (\text{pro-govt. dislikes} + \text{anti-govt. likes})$$

In all experiments, political expression is measured using a binary indicator of whether the subject chose to leave a comment or not.

3.2 Experiment 1: Effectiveness of Additive Information Control

Experiment 1 examines the effectiveness of comment propaganda, an additive information control tactic. This experiment compares the effectiveness of overt and covert comment propaganda. Overt comment propaganda is commonly deployed across social media platforms in China. Bureaucracies are encouraged to cultivate online presences and to select bureaucrats to serve as opinion leaders within their bureaucracy. Covert propaganda is also commonly deployed by bureaucrats across China in an effort to create the appearance of mass support for the Party, local government, and their respective policies. This tactic is referred to as astroturfing, named after a brand of artificial grass, a nod to the intended effect of this information control tactic: to fake grass roots support.

This experiment is intended to test if and how comment propaganda is effective, identifying if it is more or less effective in its overt or covert form (astroturfing). The baseline treatment includes 9 comments that are balanced according to their polarity: 3 pro-ride sharing policy comments, 3 neutral comments, and 3 anti-ride sharing policy. Subjects are randomly assigned to this baseline treatment, an overt treatment, or a covert treatment. In the overt and covert treatments, subjects see the 9 original comments and 6 additional pro-ride share comments. These additional pro-ride share comments are based on real comments found in comment sections of sources syndicating the Global Times editorial and are all pro-ride share policy. In the covert treatment, the identities of these additional pro-ride share policy comments resemble ordinary people. In the overt treatment, they resemble government bureaucracies or bureaucrats. The identities of the users in the comment sections—specifically their usernames and photos—are fictional, but based on real user profiles from the Sina News and Sina Weibo platforms. A table of all of the user identities can be found in Figure X in the appendix.

3.3 Experiment 2: Effectiveness of Subtractive Information Control

Experiment 2 examines the effectiveness of subtractive information control in overt and covert forms. Over time, when content was removed from view, overt and covert messages were commonly displayed to the user. Recently however, many platforms have stopped showing these messages. In all subtractive conditions in this experiment, negative comments are removed from the comment section, leaving the 3 neutral, and 3 positive comments. For the overt condition, a notice at the top of the comment section reads:

“Some comments may relate to content that does not comply with relevant laws, regulations, and policies, and have not been displayed.”

For covert subtractive information, a notice at the top of the comment section reads:

“Some comments may relate to content that does not comply with Now News’ community standards, and have not been displayed.”

3.4 Experiment 3: Effectiveness of Suppressive Information Control

Experiment 3 examines the effectiveness of suppressive information control in overt and covert forms. In particular, this experiment examines how priming commenters with surveillance both overtly and covertly can influence the effectiveness of suppressive information interventions. On various social media platforms, it is common to prompt users with a moderation policy or regulations about commenting on the platform. These prompts sometimes overtly reference the government regulations that have prompted some of the moderation, while others only reference company policy.

In the suppressive treatments in this experiment, users are given a notice of comment moderation at the top of the comment section. For the overt treatment, users are presented with a small cartoon of an internet police officer, and the following notice:

“In order to protect the safety and quality experience of our users, this platform is supervised by internet police.”

For the covert treatment, users are presented with the Now News logo and the following notice:

“In order to protect the safety and quality experience of our users, this platform is supervised by our staff.”

Appendix

Figure 2: Article Interface



Figure 3: Truncated Comment Section with Covert Suppressive (CS) Treatment



Figure 4: Truncated Comment Section with Overt Suppressive (OS) Treatment

9条评论

登录被禁用。评论将以匿名形式发布。



为了维护用户的安全并提供更积极的体验，该平台受到网络警察的监督。

写下你的评论...

评论



大盗爱粽子的蚊子 1天前

这个政策会推动网约车行业的健康发展!

👍 赞 (0) 🗑️ 踩 (0) 🚩 举报



某莎是一团老丸子89 1天前

支持企业，发展经济，促进改革，实现振兴!

👍 赞 (0) 🗑️ 踩 (0) 🚩 举报



古怪的简繁 1天前

上海的黑车什么时候少过 册那 管事的都是游手好闲。

👍 赞 (0) 🗑️ 踩 (0) 🚩 举报

Figure 5: Truncated Comment Section with Covert Propaganda (CP) Treatment

9条评论

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写下你的评论...

评论



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古怪的简繁 1天前

上海的黑车什么时候少过 册那 管事的都是游手好闲。

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Figure 6: Truncated Comment Section with Overt Flooding (OF) Treatment

9条评论

登录被禁用。评论将以匿名形式发布。

写下你的评论...

评论



上海交警 1天前

这个政策会推动网约车行业的健康发展!

赞 (0)

踩 (0)

举报



上海交警网评员 1天前

支持企业，发展经济，促进改革，实现振兴!

赞 (0)

踩 (0)

举报



古怪的简繁 1天前

听党话，跟党走!

赞 (0)

踩 (0)

举报

Table 1: Government Avatars

Gender	Username	Username (English)	Avatar
Unspecified	上海交警	Shanghai Traffic Police	
Unspecified	上海交警网评员	Shanghai Traffic Police commentator	
Unspecified	上海发布网评员	Shanghai Publicity commentator	
Female	上海胡警官	Shanghai Police Officer Hu	
Unspecified	中山民众镇青年志愿者	Zhongshan Township Youth Volunteers	
Male	上海林警官	Shanghai Police Officer Lin	

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Table 2: Ordinary Avatars

Gender	Username	Username (English)	Avatar
Female	芽雅92	Elegant Sprout 92	
Female	爱粽子的蚊子	Dumpling-loving Mosquito	
Female	老丸子89	Old Meatball 89	
Female	雅思精解	Elegant, thoughtful, energetic, liberated	
Female	康尼岛大盗	Coney Island Bandit	
Female	等你的兔子	Wait for your rabbit	
Male	我心本尊	Respect at the bottom of my heart	
Male	章鱼丸子	Octopus meatballs	
Male	奇幻雨林	Magical Rainforest	
Male	那小子真帅44	That guy is really handsome 44	
Male	太阳之光82	Sunlight 82	
Male	萌面小怪兽	Cute-faced Little Monster	
Unspecified	爱玩的小胖	Playful chubby thing	
Unspecified	好人520	Good person 520 (I love you)	
Unspecified	可保平安	Safe and sound	

Table 3: Media Exposure Sources

Name (ZH)	Name (EN)	Source Type	Medium
参考消息	Reference News	Semiofficial	Newspaper
环球时报	Global Times	Semiofficial	Newspaper
华商报	Chinese Business Paper	Semiofficial	Newspaper
人民日报	People's Daily	Official	Newspaper
工人日报	Workers' Daily	Official	Newspaper
经济日报	Economic Daily	Official	Newspaper
经济观察报	Economic Observer	Commercialized	Newspaper
21世纪经济报道	21st Century Economic Report	Commercialized	Newspaper
财经时报	Business Times	Commercialized	Newspaper
人民网	People's Network	Official	Website
央视网	CCTV	Official	Website
新华网	xinhuanet	Official	Website
网易新闻	NetEase	Commercialized	Website
新浪新闻	Sina News	Commercialized	Website
凤凰网	Phoenix New Media	Commercialized	Website
纽约时报	The New York Times	Blocked	Website
明报新闻网	Mingpao	Blocked	Website
苹果日报	Apple Daily	Blocked	Website
微信	WeChat	Domestic	Social Media Platform
新浪微博	Sina Weibo	Domestic	Social Media Platform
腾讯QQ	Tencent QQ	Domestic	Social Media Platform
百度贴吧	Baidu Tieba	Domestic	Social Media Platform
豆瓣	Douban	Domestic	Social Media Platform
知乎	Zhihu	Domestic	Social Media Platform
Facebook (脸书)	Facebook	Blocked	Social Media Platform
Twitter (推特)	Twitter	Blocked	Social Media Platform
新闻联播	Xīnwén Liánbō		Television Program
焦点访谈	Jiāodiǎn Gǎngtán		Television Program
今日关注	Jīnrì Guānzhù		Television Program
海峡两岸	Hǎixiá Liǎng'àn		Television Program
新闻30分	Xīnwén 30 Fēn		Television Program
中国新闻	Zhōngguó Xīnwén		Television Program
今日亚洲	Jīnrì Yàzhōu		Television Program
中国舆论场	Zhōngguó Yúlùn Chǎng		Television Program
深度国际	Shēndù Guójì		Television Program

Table 4: All Comments

Type	English	Chinese	Index
Critical	Isn't this kind of regulation is essentially prohibiting ride-share services?	这样管理还不如直接禁止网约车算了	5
Critical	The number of illegal taxis in Shanghai never decreases. Damn. The authorities are all idling about.	上海的黑车什么时候少过册那管事的都是游手好闲。	3
Critical	Strict legislation, prevalent violation, selective enforcement, what's expected from the Communist Party.	严格立法，普遍违法，选择执法，共党日常	7
Neutral	Internet-based shared cars need to display a sign, just like taxis do. It's easier for traffic police to supervise them this way.	网约车也要象的士一样，挂上标识，标注网约车三个字，方便交警管理。	8
Neutral	The emergence of ride-sharing services reflects the development of the times. The emergence of a new industry certainly will come with lots of problems. The point is how to solve these problems.	网约车是顺应时代发展的产物，一个新型行业的出现，必然会伴随很多问题，怎么处理好这些问题才是关键	4
Neutral	I'd like to make a policy suggestion: passengers should be allowed to keep drivers' cell phones while they are in a taxi or using the Internet-based ride-share services like DIDI. Eight out of ten drivers are using their phones while driving. They don't even notice the traffic light when it turns green.	实名建议出台政策允许乘客打出租车或者滴滴这类的网约车时有权暂时替司机保管手机十个司机里面八个边玩手机边开车信号灯转绿了都不知道	6
Support	This policy will help the healthy development of the ride-sharing industry!	这个政策会推动网约车行业的健康发展！	1
Support	Support companies, support the economy, support reform, realize revitalization!	支持企业，发展经济，促进改革，实现振兴！	2
Support	Thank you Central Government for the good policy	感谢中央的好政策	9
Flooding	Listen to the Party and follow the Party!	听党话，跟党走！	3
Flooding	So many good policies make people full of hope for the future.	一项项利好政策的出台让人民对未来充满希望。	4
Flooding	The care for people from the Party and the nation is the warmest thing.	最给人温暖的，源自党和国家对人民的关怀。	5
Flooding	I hope that even more favorable policies are introduced to bring benefits to the people.	希望有更多优惠政策出台，让老百姓受益。	6
Flooding	Our country has introduced another policy that reflects a good deal of consultation [with the people].	国家多出台一些像若干意见这些的政策。	7
Flooding	The Party's policies are getting better and better, China's future will inevitably be bright.	党的政策越来越好，中国的未来必将更加美好	8

Table 5: Pre-Treatment Questions

#	Purpose	Question (EN)	Question (ZH)	Variable Type
Q1	Human Statement	-	-	-
Q2	Browser Metadata	-	-	-
Q3	Age	In what year were you born?	请问您是哪年出生的?	Integer (1900-2001)
Q4	Gender		您的性别为:	M, F, Other
Q5	Hukou	What type of hukou do you have?	您的户口为:	Urban/Rural
Q6	Province	In which province do you live?	您目前居住在哪个省?	Multiple Choice
Q7	Ethnicity	What ethnicity is on your identity card?	在您的身份证上显示的民族是什么?	Multiple Choice
Q8	Income	What is your monthly income?	请问您的月收入大概是多少?	Multiple Choice
Q9	Years of education	How many years of education have you received?	您接受过多少年教育?	Positive Integer
Q10	Work Unit	In your career, what kind of work units have you been employed by?	除了您现在的工作之外, 您还在什么性质的单位工作过?	Multiple Choice
Q11	Media Exposure (Newspaper)	During a typical week, how many days do you read news in a printed newspaper?	在过去的一周内, 您通常会有多少天通过阅读纸质媒体了解新闻?	Integer (1-7)
Q12	Media Exposure (Newspaper)	Which of the following newspapers have you read in the last week?	在过去的一周内, 您曾阅读过下列哪些报纸?	Multiple Choice, Multiple Answer
Q13	Media Exposure (Television)	During a typical week, how many days do you watch news on TV?	在过去的一周内, 您通常会有多少天通过观看电视了解新闻?	Integer (1-7)
Q14	Media Exposure (Television)	Which of the following television news programs have you watched in the last month?	在过去的一个月内, 您曾观看过下列哪些新闻节目?	Multiple Choice, Multiple Answer
Q15	Media Exposure (Internet News)	During a typical week, how many days do you watch or read news on the Internet?	在过去的一周内, 您通常会有多少天观看或阅读互联网上的新闻?	Integer (1-7)
Q16	Media Exposure (Internet News)	Which of the following news websites have you visited in the last month?	在过去的一个月内, 您曾访问过下列哪些新闻网站?	Multiple Choice, Multiple Answer
Q17	Media Exposure (Social Media)	During a typical week, how many days do you watch or read news on social media?	在过去的一周内, 您通常会有多少天观看或阅读社交媒体上的新闻?	Integer (1-7)
Q18	Media Exposure (Social Media)	Which of the following social networking platforms have you visited in the last month?	在过去的一个月内, 您曾访问过下列哪些社交媒体平台?	Multiple Choice, Multiple Answer
Q19	Measure of political knowledge	Where was the 2016 G20 Conference was held?	2016年的G20峰会举办地点位于哪里?	Multiple Choice
Q20	Measure of political knowledge	In what year did Hong Kong return to the motherland?	香港在哪一年回归祖国?	Multiple Choice
Q21	Measure of political knowledge	Which of the following political slogans were not created under President Xi Jinping's leadership?	以下哪个理念不是在习近平主席的领导下提出的?	Multiple Choice
Q22	Measure of political knowledge	Who was China's Premier from 2003-2013? (Wang Qishan, Li Keqiang, Xi Jinping, Hu Jintao, Wen Jiabao, Jiang Zemin)	谁曾在2003至2013年间担任中华人民共和国总理?	Multiple Choice
Q23	Measure of political knowledge	In 2017 China had a border conflict with which country?	中国曾在2017年与下列哪个国家发生过边界冲突?	Multiple Choice

Table 6: Post-Treatment Questions

#	Purpose	Question (EN)	Question (ZH)	Variable Type
Q24	Instructions	Hello, we at "Now News" have recently set up a new website and would like you to help us test it and give feedback. You will follow certain instructions to interact with the content on the website. At the end of the survey, you will answer some short questions. Please note that the comments section is real user comments, posted in real time. We will not share your identity with anyone, and your comments will be published in an "anonymous" form.	您好，我们最近在“Now新闻网”设计了一个新版本的网站，希望您能对其进行测试并加以反馈。您将遵循一定的指示在网站上与内容进行互动。在调查结束时，您会回答一些简短的问题。请注意，评论部分是实时的真实用户评论。我们不会与任何人分享您的身份，您的评论也将以“匿名”形式发布。	-
Q25	Instructions	Please click this link to enter user testing of the news website. This link will open a new browser tab. After you are finished with user testing, please enter the completion code below:	请单击此链接进入新闻网站用户测试。此链接将在新的浏览器选项卡中打开。完成新闻网站用户测试后，请您输入完成代码：	-
Q26	User satisfaction	We highly value your user experience. Would you please tell us how your experience was on this Now News platform? Please write two or more sentences. (For example: anything that should be fixed on the webpage, or any negative experiences you may have had.)	我们很重视您的用户体验，请问您使用Now新闻网的体验如何？请您提供两句话以上的评价。（例如：页面上可以具体改进的部分，任何对使用体验有负面影响的地方。）	Open-ended
Q27	Persuasion	We are very interested in your opinion. Could you please share with us your opinion about the new ride share policy? Please write two or more sentences.	我们对您的观点很感兴趣，请您与我们分享您有关网约车政策的观点。请您提供两句话以上的评价。	Open-ended
Q28	Instructions	In order to optimize our products as much as possible, we invite you to answer the following questions about your experience. Your criticism or praise will both be of great help to us, thank you for your honest feedback.	为了尽可能优化我们的产品，我们诚邀您对以下使用体验问题进行回答。您的批评或表扬都将会为我们提供巨大的帮助，感谢您的真诚反馈。	-
Q29	User satisfaction	How satisfied were you with the website? ^a	您对网站的满意程度：	-
Q30	User satisfaction	Do you want to use this website when it is released to the public?	在网站正式发布时，您是否想使用这个网站？	Likert ^b
Q31	Persuasion	Recall the article you just read. If you had to guess, what position would most of your peers take on the ride-share policy discussed in the article?	结合您刚刚阅读的文章，请您做出以下猜测，您周围同龄人对文章中提到的网约车政策持有怎样的立场？	Likert ^c
Q32	Persuasion	Recall the article you just read. What is your position on the ride-share policy discussed in the article?	结合您刚刚阅读的文章，您对文章中提到的网约车政策持有怎样的立场？	Likert ^c
Q33	Emotion	When using the website, to what degree did you feel the following emotions:	在使用网站时，您对以下各个情绪分别有什么程度的体验：	Matrix Likert ^d
Q34	Information-seeking	Do you want to read more about the topic of ridesharing policy after reading the article?	在阅读文章后，您想阅读有关网约车政策主题的更多信息吗？	Likert ^e
Q35	Information-seeking	How bored did you feel after the content you read?	您对所阅读的内容感到无聊的程度是：	Likert ^f
Q36	Information-seeking	How interested are you in opinions of those oppose the new ride-share policy mentioned in the article?	您对于报道中反对网约车政策的观点有多少兴趣？	Likert ^g

^aLikert choices: very satisfied, neutral, somewhat satisfied, neutral, somewhat unsatisfied, unsatisfied, very unsatisfied

^bLikert choices: really want to use, want to use, somewhat want to use, indifferent, somewhat don't want to use, really do not want to use

^cLikert choices: strongly support, support, somewhat support, somewhat oppose, oppose, strongly oppose

^dLikert choices: did not feel, felt a little bit, felt, strongly felt, very strongly felt. Emotions: angry, satisfied, disgusted, happy, anxious, annoyed.

^eLikert choices: really want to read, want to read, somewhat want to read, neutral, somewhat not boring, not boring, really don't want to read.

^fLikert choices: very boring, boring, somewhat boring, neutral, somewhat not boring, very much not boring

^gLikert choices: very interested, interested, somewhat interested, neutral, somewhat uninterested, uninterested, very uninterested.

Table 7: Post-Treatment Questions (continued)

#	Purpose	Question (EN)	Question (ZH)	Variable Type
Q37	Self-expression	How willing are you to post your opinion about this article on social media?	您是否愿意将您对此文章的观点发布在社交媒体上?	Likert ^a
Q38	Self-expression	How likely are you to state your opinion on ridesharing policy to a group of colleagues or friends if the topic came up in conversation?	如果话题出现在谈话中, 你有多大可能向一群同事或朋友陈述你对网约车政策的意见?	Likert ^b
Q39	Self-expression (preference falsification).	How frequently do you keep opinions to yourself when you think others don't agree with you?	当您觉得其他人不赞同您的观点时, 您不分享您的观点的频率是多少?	Likert ^c
Q40	Efficacy (self-efficacy)	Compare to your peers, how prepared are you to discuss ride-share policy?	与您的同龄人相比, 您对网约车政策讨论的准备程度是:	Likert ^d
Q41	Efficacy (political efficacy)	How much influence do people like yourself have on what the government does?	您认为, 像您这样的人或群体对于政府行为有多大影响?	Likert ^e
Q42	Efficacy (political efficacy)	How deeply informed do you think you are you about current political news in China?	您认为您对目前时事政治的深入了解程度是什么?	Likert ^f
Q43	Propaganda (support for state propaganda)	Do you support our government's propaganda activities?	您是否支持我国政府的宣传活动?	Likert ^g
Q44	Propaganda (trust in state news media)	Do you think the TV program "Xinwen Lianbo" is trustworthy?	您认为《新闻联播》节目内容值得信赖吗?	Likert ^h
Q45	Propaganda (interest in state propaganda)	How interesting/entertaining is the Spring Festival Gala?	央视春晚有多么有趣?	Likert ⁱ
Q46	Nature of the State (performance legitimacy)	Do you agree with the following: "Our government is working for the people and serving their needs"	您同意下列说法吗? "总的来说, 我们的政府在响应人民的要求, 为人民做事。"	Likert ^j
Q47	Nature of the state (status quo)	How do you feel about the current status quo in China?	您对中国目前总体现状感觉如何?	Likert ^k
Q48	Collective action (online collective action)	How likely are you to sign a petition to support something you highly in favor of?	您觉得您通过联名上书来支持您很提倡的事情的可能性有多大?	Likert ^b
Q49	Collective action (offline collective action)	How likely are you to join a march to support something you are highly in favor of?	您觉得您通过参加游行来支持您很提倡的事情的可能性有多大?	Likert ^b
Q50	Collective action (anti-government collective action)	How likely are you to join a march against government corruption?	您觉得您参加抵制官方腐败的游行的可能性有多大?	Likert ^b
Q51	Nature of the State (Xi's Legitimacy)	In your opinion, what is the overall impact of cancelling presidential term limits on China's future?	在您看来, 取消国家主席任期限制对中国未来的总体影响是什么?	(Positive, negative, don't know)

^aLikert choices: very willing, willing, somewhat willing, neutral, somewhat unwilling, unwilling, very unwilling.

^bLikert choices: very likely, likely, somewhat likely, neutral, somewhat unlikely, likely, very likely.

^cLikert choices: always, very frequently, somewhat frequently, sometimes, somewhat infrequently, very infrequently, never.

^dLikert choices: very prepared, prepared, somewhat prepared, average, somewhat unprepared, unprepared, very unprepared.

^eLikert choices: a very great deal, a great deal, a lot, some, a little, very little, none

^fLikert choices: very informed, informed, somewhat informed, average, somewhat uninformed, uninformed, very uninformed.

^gLikert choices: strongly support, support, somewhat support, somewhat oppose, oppose, strongly oppose.

^hLikert choices: very trustworthy, trustworthy, somewhat trustworthy, neutral, somewhat untrustworthy, untrustworthy, very untrustworthy.

ⁱLikert choices: very interesting, interesting, somewhat interesting, neutral, somewhat uninteresting, uninteresting, very uninteresting.

^jLikert choices: strongly agree, agree, somewhat agree, neutral, somewhat disagree, disagree, very much disagree.

^kLikert choices: very satisfied, satisfied, somewhat satisfied, neutral, somewhat dissatisfied, dissatisfied, very dissatisfied.

Table 8: Manipulation and Attention Checks

#	Purpose	Question (EN)	Question (ZH)	Variable Type
Q52	Manipulation check	Recall the commenting interface. Was there a notice that the comment section was moderated by internet police?	回想刚刚所看到的评论区，你收到了来自网警管控的通知吗？	(Yes, No)
Q53	Manipulation check	Recall the commenting interface. Were there government accounts in the comment section?	回想刚刚所看到的评论区，有政府机关账号在其中活动吗？	(Yes, No)
Q54	Attention check	What was the topic of the article?	这篇报道的主题是什么？	Multiple Choice
Q55	Attention check	Which of the following comments were present in the comment section?	文章评论区有下列哪条评论？	Multiple Choice
Q56	Attention check	Ridesharing and taxi prices are different. According to your experience, we are interested in knowing your opinion. To demonstrate that you are paying attention, please select the third option.	网约车和出租车的价格不一样。根据您的经验，我们想知道您的观点。为了证明您正在关注，请选择第三个答案：	Multiple Choice

References

- Brady, A.-M. (2018). New zealand and the ccp’s” magic weapons”. *Journal of Democracy*, 29(2), 68–75.
- Cairns, C. (2016). *Fragmented authoritarianism? reforms to china’s internet censorship system under xi Jinping* (Unpublished doctoral dissertation). Cornell University.
- Crete-Nishihata, M., Hilt, A., Knockel, J., Ng, J. Q., Ruan, L., & Wiseman, G. (2016, November). *Harmonized histories? a year of fragmented censorship across chinese live streaming applications*. Retrieved from <https://netalert.me/harmonized-histories.html>
- Deibert, R. J. (2008). The geopolitics of internet control: Censorship, sovereignty, and cyberspace. In *Routledge handbook of internet politics* (pp. 339–352). Routledge.
- Diamond, L. (2010). Liberation technology. *Journal of Democracy*, 21(3), 69–83. http://muse.jhu.edu/journals/journal_of_democracy/v021/21.3.diamond.html.
- Diamond, L., & Schell, O. (2019). *China’s influence and american interests: Promoting constructive vigilance*. Hoover Press.
- Han, R. (2015a). Defending the authoritarian regime online: China’s “voluntary fifty-cent army”. *The China Quarterly*, 1–20.
- Han, R. (2015b). Manufacturing consent in cyberspace: China’s “fifty-cent army”. *Journal of Current Chinese Affairs*, 44(2), 105–134. <http://journals.sub.uni-hamburg.de/giga/files/journals/3/articles/850/public/850-880-1-PB.pdf>.
- Han, R. (2018). *Contesting cyberspace in china: Online expression and authoritarian resilience*. Columbia University Press.
- King, G., Pan, J., & Roberts, M. E. (2016). *How the chinese government fabricates social media posts for strategic distraction, not engaged argument*. (Unpublished paper draft)
- Lessig, L. (1999). Code is law. *The Industry Standard*, 18.
- MacKinnon, R. (2008). Flatter world and thicker walls? blogs, censorship and civic discourse in china. *Public Choice*, 134(1-2), 31–46.
- MacKinnon, R. (2009). China’s censorship 2.0: How companies censor bloggers. *First Monday*, 14(2).
- Miller, B. (2015). *Automated detection of chinese government astroturfers using network and social metadata*. (Unpublished paper draft)
- Miller, B. (2016). *The limits of commercialized censorship in china*. (Unpublished paper draft)
- Morgus, R., & Sherman, J. (2019). Analysis: Russia’s plans for a national internet. *New America*.
- Mozur, P., Kessel, J. M., & Chan, M. (2019). Made in china, exported to the world: The surveillance state. *New York Times*.
- ProPublica. (n.d.). Weibo ipo reveals a company struggling with censorship. *ProPublica*.
- Roberts, M. E. (2018). *Censored: Distraction and diversion inside china’s great firewall*. Princeton University Press.

- Shahbaz, A. (2018). Freedom on the net 2018: The rise of digital authoritarianism. *Washington, DC: Freedom House. Retrieved February, 28, 2019.*
- Staff, E. (2019). Iran says its intranet almost ready to shield country from 'harmful' internet. *Radio Farda.*
- Stockmann, D. (2013). *Media commercialization and authoritarian rule in china.* Cambridge University Press.
- Wei, Y., Tian, X., Wang, H., Nie, G., Du, J., Feng, W., ... Deng, Y. (2015). *Gongan jiguan yuqing fenxi yu yulun yindao.* China Legal Publishing House.
- Yugeng, X. (n.d.-a). *Zhongguo shehui yuqing yu weiji guanli baogao: 2011.* Beijing: Shehui kexue xueyuan chubanshe.
- Yugeng, X. (n.d.-b). *Zhongguo shehui yuqing yu weiji guanli baogao: 2018.* Beijing: Shehui kexue xueyuan chubanshe.
- Zaller, J. (1992). *The nature and origins of mass opinion.* Cambridge university press.
- Zeng, S. (2015). *Wangluo yuqing yingdui jiqiao.* Guangdong People's Publishing House.
- Zhou, B. (2011). *Weibo wenzheng yu yuqing yingdui.* People's Publishing House.
- Zou, C. L., Hongqiang, & Su, G. (2015). *Lingdao ganbu: Wangluo yuqing gongzuo zhinan work guide for public opinion.* People's Daily Press.