Internet Freedom and Chinese Foreign Aid

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Abstract

Introduction

New declaration for internet freedom (Bose 2022). This commitment is said to be in response to ill-uses of internet by governments. But why do some misuse it? And why does it vary so much between regime types and even within autocracies? (Give some numbers from Freedom House). It could be the case that there is good reason for internet freedom to not be as high as it could be (Germany's restrictions). But what are these reasons, and how do governments settle on the best level of internet freedom for them? Even the least digitally free governments in the world don't set internet freedom at 0 (e.g., China), why? And the most reportedly free governments don't set it at 100, for that matter (e.g., Iceland). Why? If governments are rational, there must be a rational explanation for the variation we observe. Such an explanation should also inform expectations on the effectiveness of pushes for global internet freedom like the one above.

Besides recent focus on "digital authoritarianism" and the international power struggles between U.S. and China/Russia that it represents, the question of how technology gets used and why is interesting in itself. Technology will continue to grow, including the internet and AI (Filgueiras 2022) [Internet access continues to increase (citations), and if they have political effects it would be nice to know how and why they are used by governments.

Literature Review

Benefits

To understand the variation in internet freedom around the world, it is firstly necessary to understand why government's would like to control the internet in the first place; That is, what do governments stand to

gain by demonstrating mastery over this information technology and limiting freedom on the net?

The clearest motivation to control the internet is the obstruction of collective action that could be dangerous to any government looking to stay in power. The potential for information technology to aid citizens in overcoming collective action problems was well demonstrated by the predecessor to the internet, cell phones. The growth of cell phones in Africa is thought to have led to an increase in violence as groups were enabled to organize and communicate (Pierskalla and Hollenbach 2013).

There is evidence that governments recognize this ability for information technology to foster group activity, particularly with the internet. China apparently focuses much of it's censorship on social media activity that encourages collective action, letting isolated critiques of the government go unobstructed (King, Pan, and Roberts 2013, 2014). As alluded to, censorship is one of the main tools governments can use to curtail this collective action potential. It can be extremely effective, even when there exists known ways for users to circumvent it (Roberts 2018). Governments can also espouse their own information to dissuade and discourage collective action, manipulating information and distracting citizens (King, Pan, and Roberts 2017).

There have been prominent examples of governments successfully using the internet to further their goals. China (Chung 2008), Tunisia (Wagner 2012), and Iran (Golkar 2011). In cross-national studies, censorship has again proved effective (Lutscher 2021) while an incentive to stop the internet from increasing democratic demands could exist (Nisbet, Stoycheff, and Pearce 2012). A similar opportunity of preventing dissatisfaction through internet use is available to some countries, as citizens who use the internet become more aware of their constraint (Bailard 2012).

There are also other reasons for limiting internet freedom, as in the case of inhibiting hate speech which is rampant in some countries (Ogura 2021).

Costs

Given these benefits of exercising control over the internet, what might be some reasons why the internet is not perpetually delimited? There is evidence that limiting internet freedom stimulates multiple dimensions of potential backlash. A study comparing democracies and autocracies finds that internet controls lead to lower trust in institutions (You and Wang 2020) while cross-national research on authoritarian regimes demonstrates that strong controls do not wholly prevent anti-regime sentiment and internet access (Ruijgrok 2021).

Internet controls are thus not always effective, and poor implementation of controls can have unintended consequences for the government. In China, for example, unexpected censorship of popular websites can

actually lead to an increase in citizens circumventing censorship to access these relatively benign sites, stumbling onto other, politically charged and potentially anti-government material (Hobbs and Roberts 2018).

Besides the potential backlash from implementing internet controls, governments may also be missing out on crucial economic growth by limiting the internet Bahrini and Qaffas 2019.

Costs vs Benefits

Thus, taken together, current literature illuminates a trade-off for governments looking to use the internet to their political advantage. While governments stand to gain stability by inhibiting dangerous collective action through censorship and the manipulation of information, they also stand to disillusion and exasperate their populations and lose the economic growth associated with the internet. So what does the literature say about how governments navigate this trade-off?

One theory on how governments decide the extent of internet freedom posits that governments recognize the potential for collective action but also need a way to incentive bureaucracies to implement sound policy (Egorov, Guriev, and Konstantin Sonin 2009). Having a relatively free media allows for information about bureaucratic conduct to reach the otherwise uninformed government. The dependence on free media is thought to be lessened in countries with abundant natural resources, who might fare well economically even if the bureaucracy is somewhat negligent.

Further evidence shows that a positive amount of media freedom can help improve governance and stave off collective action if not too high (Lorentzen 2014). Differing levels of media freedom between countries can also result from the government internalizing the effect of media bias and deciding to nationalize or privatize the media market (Gehlbach and K. Sonin 2014).

Theorizing about social media in particular, the extent to which governments will attempt to capture or corrupt digital news outlets depends on how costly it is to control these outlets versus the benefits of staying in office (Kocak and Kıbrıs 2022). Other work hints at China's recognition that while the internet must be controlled, it should not be eliminated or impeded to the extent that economic growth is threatened (Chung 2008). This insight is supported by much work detailing the economic benefits of the internet (e.g., Kamssu et al. 2004, Wallsten 2005, Bahrini and Qaffas 2019).

While these theories speak to the nuance in government's determinance of the level of internet freedom, most take for granted the ability governments have to effectively exercise control over the internet through technologically-advanced censorship and diversion tactics, or describe a simpler process of government buying off media platforms. The literature conveys well how preventing citizen uprisings is a necessary condition for

internet control, but what about the technical knowledge necessary for governments to control the internet in a sophisticated manner? This is left unexplained in current literature.

Furthermore, some of the theories presented here do not test their formal results or, when they do, do not predict the optimal level of internet freedom in different countries based on a government's particular costs and benefits. While empirical work communicates a relationship between internet freedom and costs and benefits, precise predictions are not produced and future trends are not evaluated.

Theory and Hypotheses

In developing a theory that will 1) detail the role of technical knowledge in the control of the internet, 2) explain current levels of internet freedom around the world, and 3) provide more precise predictions for future levels of internet freedom, let us first revisit the basis for government behavior in light of the internet. Like the literature on this topic cumulatively states, if governments are rational then they must factor in the costs and benefits of potentially obstructing the growth of the internet in their respective countries.

I theorize, quite simply, that governments will try to maximize their benefits and minimize their costs if they are able. This implies that there will be some limits on the internet to take advantage of the benefits but that internet freedom should not be zero- to avoid the costs. However, this exact trade-off likely varies per country along with the knowledge of how to control the internet, which has previously gone unrecognized as a potential factor in the literature.

Testing this theory, that governments maximize benefits and minimize costs according to their ability to implement effective internet controls, would be straightforward if one could measure a governments ability for curbing internet freedom. While this is not theoretically impossible, I propose a more tractable test given more readily available data.

A test of technological capacity's effect on internet freedom would have to restrict its attention to countries with middling levels of internet freedom. To see this, firstly consider countries where we observe strict internet controls and low internet freedom. In these cases, we would have *prima facie* evidence that governments have the ability to control the internet, and the test would be tautological at the limit. Secondly, if we do not see low internet freedom, we cannot infer that governments simply lack the ability to implement internet controls. They could, in all possibility, have high costs of implementing internet controls, such as a strong suspicion that citizens will revolt or exhibit high levels of backlash. This expected backlash from the citizens should be stronger in countries where democracy is likewise strong, since citizens are less accustomed to low levels of other freedoms and already possessed with strong institutions of collective action.

Therefore, omitting countries with low levels of internet freedom (who already have observably high

technological capacity) and highly democratic countries (where costs of implementing internet controls should be highest) should theoretically leave a sample of countries that have some leeway to implement internet controls (due to the elimination of strong democracies) and an unknown technological ability to implement these controls (since they do not already demonstrate their ability). The resulting sample will, theoretically, have middling levels of internet freedom.

Given this theoretic sample, I would test the extent to which the variation in a proxy for technological ability explains the variation in internet freedom levels in these countries. The proxy I propose is China foreign aid, particularly from the Digital Silk Road program- part of the colossal Belt and Road Initiative. Explain DSR (Shen 2018) and BRI. What is being diffused and why.

There is evidence that China's DSR, and perhaps BRI more generally, leads to an effective diffusion of technology to it's partners (Fung et al. 2018). There are also reasons to doubt the impact these initiatives will ultimately have due to regulatory issues in intended partner states and the pandemic (Triolo 2022). So not only is the proposition to use involvement with the DSR a potentially innovative way to speculate on governments' secretive technological abilities, but the results could help settle the debate over whether or not the DSR has politically important ramifications.

To reiterate, my theory states that governments will set an internet freedom level such that it maximizes their benefits and minimizes their costs. Those with low expected costs of implementing strict internet controls should be observed to do so when they also have the technological capability to do so effectively. These foundational elements of the theory should be consistent with the following hypotheses:

H_1 : Democracy makes internet control costly and is thus associated with an increase in internet freedom.

H_2 : Involvement with the DSR program increases technological ability to implement internet controls and is subsequently associated with an decrease in internet freedom.

Given that it seems the internet is good for the economy, lowering internet freedom far enough could negatively impact a country's economic growth. However, I theorize that concerns over the economy's relationship to internet freedom is of secondary concern when compared to the political costs and benefits, since we are ultimately talking about governments who rationally want to stay in power- regardless if economic growth is soaring or not. Thus, a lower-bound on internet freedom based on economic considerations should only characterize those countries whose governments are already secure politically. If my theory is true, then the

following hypothesis should not be rejected by my empirical analysis.

H_3 : Poor autocracies should have higher levels of internet freedom than rich autocracies.

Methodology

I have data on China's foreign aid through aiddata.org. I would build my own index of internet freedom due to the subjective character of Freedom House and the amount of missing data. Perhaps I would use Facebook/Twitter's data, other data on internet availability.

I would either build an objective index of if countries should fear backlash or not or use democracy indices as a proxy. In either case I would have to collect data because the only objective democracy index I know is DD, which hasn't been updated in over a decade or I could use Polity. Then, to test relationship between knowledge and ability, maybe use a difference-in-difference approach and treat Chinese foreign aid as treatment or maybe IV? Definitely need an IV due to simultaneity. Maybe being autocratic causes one to be deprived of IMF and U.S. foreign aid and to drives you to work with China, getting their technology info as a by-product. Or differences-in-differences, where you assume countries that worked with China would have continued at the same level of internet freedom as countries (in our reduced sample, at least) that did not work with China until those that did experienced the treatment of Chinese foreign aid and DSR.

Include regime type as control, also try test with interaction term between technological capacity and regime type.

Limitations

Governments could get technology elsewhere. It seems reasonable to doubt the validity of Chinese foreign aid as a proxy for technological capacity if one supposes that governments are not solely dependent on China for learning the requisite technology for effective internet control. Perhaps some developed this capacity on their own or that other countries assisted them in learning the required skills. I do not doubt that this is true. However, China is by far the leader in exporting their internet technologies and my test would be a conservative one if it underestimated a government's ability to effectively implement internet controls and found support for my theory.

It seems more likely, though, that some countries developed the technological capacity on their own. This still would not drastically affect my test since I already exclude countries that have demonstrated the

ability to control the internet effectively. However, I can try to speak to this phenomenon if one supposes that developing technological capacity takes a lot of resources. This would imply:

H_4 : Countries excluded from the sample due to enhanced internet-control capabilities are richer than those in the sample.

Not being able to reject H_4 might provide support for the idea that countries who were able to learn to control the internet themselves did so, while those were too poor to do so had to wait for Chinese aid, meaning foreign aid is still a good proxy for the intended sample. Note that H_4 echoes H_3, that poor autocracies should avoid drastically low levels of internet freedom for economic reasons.

5) Arbitrary cutoffs (that we can move around in different analyses) for "high" and "low" levels of internet freedom and "democratic" countries.

Conclusion

Summary.

Contributions: My theory could more precisely explain variance we see than the current theories (Egorov, Guriev, and Konstantin Sonin 2009, Gehlbach and K. Sonin 2014, Kocak and Kıbrıs 2022, etc.) because... I also intend to employ some cool methodology. Objective index of internet freedom and the leveraging of China foreign aid.

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