Digital Sovereignty: The Political Economy of Internet Governance

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Three-Chapter Dissertation

1. **Democracy & Internet Control**
   How democratic and autocratic regimes differ in content removal approaches
   Electoral accountability shapes censorship strategies
2. **Two Types of Censorship**
   Informational Autocracies vs. Overt Dictatorships
   Data-driven classification using cluster analysis
3. **The Tradeoff Between Visibility and Control**
   How regimes balance comprehensive control and perceived openness
   Case studies: China, Iran, Russia, and Turkey

Chapters 1 & 2 co-authored with Pengfei Zhang

Contributions to Literature

- **Internet Censorship**
  - Challenges censorship dichotomization; demonstrates cross-regime convergence in removal volume (Prat and Strömberg 2013; Lorentzen 2014)
  - Links the concept of collateral censorship to strategy variation among autocracies (Ananyev et al. 2019; Chang and Lin 2020; Zittrain et al. 2017)
- **Media Capture**
  - Reveals regime-specific mechanisms for achieving similar content control outcomes (Gehlbach and Sonin 2014; Shadmehr and Bernhardt 2015)
  - Extends informational autocracy theory through censorship implementation analysis (Guriev and Treisman 2019; Guriev and Treisman 2020)
- **Electoral Accountability**
  - Identifies reputation concerns driving democratic delegation of content removal (Maskin and Tirole 2004; King, Pan, and M. E. Roberts 2013)
  - Uses election timing to demonstrate regime-specific information control strategies (Rao 2021; Williams 2013)

Chapter 1

Democracy & Internet Control

How electoral accountability shapes internet censorship patterns

Traditional View:

- Internet control = Authoritarian practice
- Democracies = Open information flow

Reality:

- Democracies actively remove online content
- But use different methods:
  - Indirect control
  - Citizen-driven moderation
  - Bottom-up vs. top-down approach

Examples of Content Removal

1. **Regime Differences**
   - How do democracies vs. autocracies differ in:
     - Content removal strategies?
     - Justifications used?
     - Implementation methods?
2. **Electoral Accountability**
   - How do elections affect content removal?
   - Does voter oversight matter?
   - Do politicians respond to reputation concerns?

Literature Contribution

Three-Part Approach:

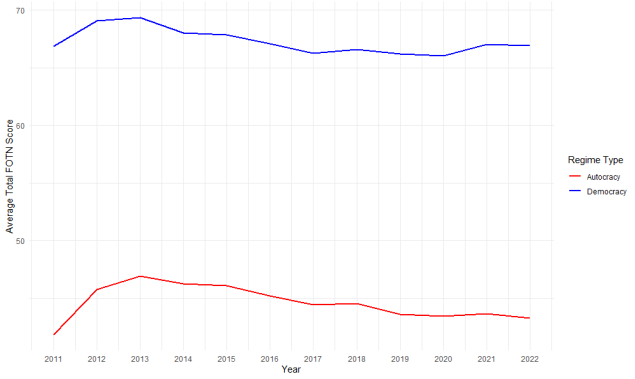
1. **Stylized Facts:**
   - Novel dataset from Google Transparency Reports
   - Cross-country, over time (2009-2019)
   - Government requests vs. court orders
2. **Political Agency Model:**
   - Explaining democratic delegation
   - Reputation concerns in democracies
3. **Natural Experiment:**
   - Electoral timing as exogenous variation
   - Causal identification strategy

Data Details

Preview of Key Findings

1. **Autocracies: Strategic Control**
   - Strong electoral cycle effects
   - +1,344 requests near end of term
   - Clear pattern of pre-election control
2. **Democracies: Consistent Approach**
   - Lower baseline (-748 requests)
   - Stable patterns throughout term
   - Electoral timing effects neutralized
3. **Institutional Differences**
   - Court orders show no electoral patterns
   - No regime differences in judicial decisions

The Digital Divide of Freedom

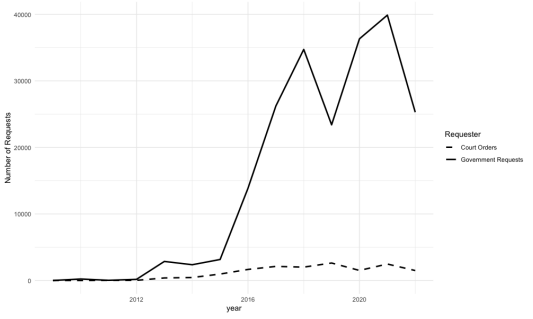


- Democracies score 20+ points higher
- Autocracies show declining trend
- Gap persists over time

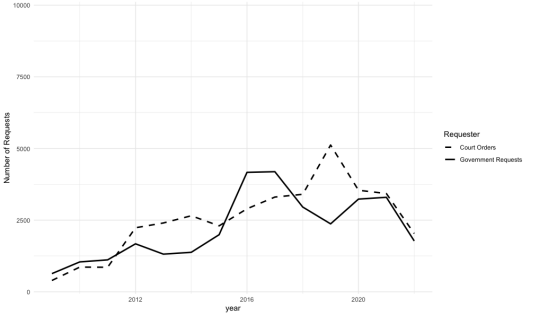
Key Takeaway: While democracies maintain stable internet freedom, autocracies are tightening control.

The Democratic Paradox

The Tools of Control - Direct vs. Delegated



Autocracies



Democracies

- **Autocracies:** Government requests dominate (up to 40,000)
- **Democracies:** Court orders slightly exceed government requests
- **Key contrast:** Direct control vs. judicial process

Anatomy of a Request

Political Agency Model: A Model of Internet Content Control

Core Components:

- **Players:** Incumbent Politician, Challenger, and Citizens
- **Two Key Choices:**
  - Who decides? (i): Politician (P) or Citizen (C)
  - What's decided? (x): Remove (1) or Keep (0) content
- **Key Parameters:**
  - Content state (ω): Harmful (1) or Harmless (0)
  - Politician type (δ): Biased (1) or Unbiased (0)
  - Citizen's belief (π): Probability politician is unbiased
- **Electoral Dynamics:**
  - Democracy: Electoral accountability constrains politicians
  - Autocracy: Politician's reelection unaffected by citizen's voting
  - Reputation building affects delegation probability

Model Details

Mathematical Model:

$$\begin{aligned} \text{GovRequests}_{it} = \alpha_i + \eta_t + \beta_1 \cdot \text{TermLeft}_{i,t} & \quad (1) \\ + \beta_2 \cdot \text{Democracy}_i & \quad (2) \\ + \beta_3 \cdot (\text{TermLeft}_{i,t} \times \text{Democracy}_i) & \quad (3) \\ + X_{it}\delta + \varepsilon_{it} & \quad (4) \end{aligned}$$

Key Variables:

- **Share of Term Left** ($\text{TermLeft}_{i,t}$):
  - Ranges from 1 (just after election) to 0 (right before election)
  - Example: In a 4-year term, 3 years left = 0.75, 1 year left = 0.25
- **Democracy**: Indicator for democratic countries
- **Interaction**: Tests if electoral effects differ by regime type

Government Requests Results

	Number of Government Requests		
	Model 1	Model 3	Model 5
Share of Term Left	-339.137*	-1,081.518***	-1,343.860***
Democracy	-338.783***	-940.157***	-747.832*
Share of Term Left * Democracy		1,101.682***	1,368.153***
Controls	No	Yes	Yes
State Fixed Effect	No	No	Yes
Year Fixed Effect	No	No	Yes
Observations	829	787	787

- As elections approach, autocracies increase takedown requests by 1,344
- Democracies make 748 fewer requests overall
- Election timing has minimal effect in democracies (effect: -1,344 + 1,368 = 24)

Marginal Effects

Court Orders Results

	Number of Court Orders		
	Model 1	Model 3	Model 5
Share of Term Left	-31.649	-26.650	-10.573
Democracy	-0.378	42.088*	-28.123
Share of Term Left * Democracy		2.866	19.077
Controls	No	Yes	Yes
State FE	No	No	Yes
Year FE	No	No	Yes
Observations	848	791	791

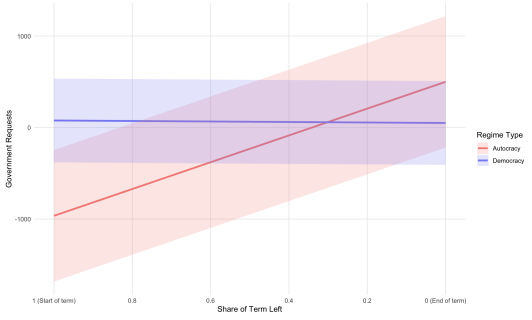
Key Contrast with Government Requests:

- All electoral timing effects are insignificant
- No clear regime differences

Marginal Effects

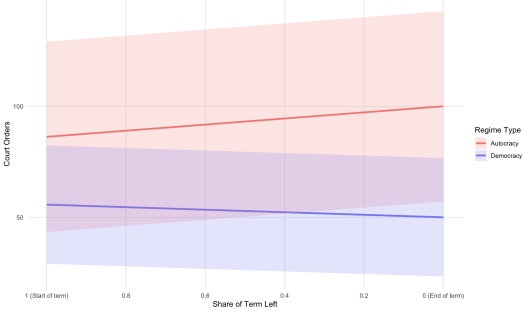
Empirical Results: Visual Comparison

Government Requests



Strategic timing in autocracies

Court Orders



No electoral patterns in either regime

- **Direct Political Control:** Susceptible to electoral manipulation
- **Judicial Process:** Maintains independence across regimes

Detailed Analysis

Key Conclusions: Chapter 1

1. **Regime Differences Matter**
   - Autocracies: Strategic content control (+1,344 near elections)
   - Democracies: Consistent approach, minimal electoral effects
2. **Institutional Independence Crucial**
   - Courts operate independently of electoral cycles
   - Similar judicial patterns across regime types
3. **Democratic Delegation Works**
   - Delegation mitigates politician bias
   - Enhances credibility and legitimacy
   - Explains paradox of freedom with moderation

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Chapter 2

Two Types of Censorship

Comparing Informational Autocracies and Overt Dictatorships

Overt Dictatorship Model

- China invested $6.6B in filtering infrastructure (2022)
- Complete blocking of social media during protests
- Direct state control of internet gateways
- "Great Firewall" infrastructure
- DNS poisoning, TCP reset, deep packet inspection

Informational Autocracy Model

- Russia made 2,500+ takedown requests during 2021 elections
- Maintained façade of open internet access
- Used legal frameworks rather than technical blocks
- "Sovereign internet" laws
- Platform-based content removal

Guriev & Treisman's Theoretical Framework:

- **Informational Autocracy:**
  - Retains power through information manipulation
  - Creates façade of democratic processes
  - Strategic censorship of specific content
  - Propaganda rather than repression
  - Examples: Russia, Turkey, Kazakhstan
- **Overt Dictatorship:**
  - Maintains power through force/coercion
  - Minimal pretense of democratic process
  - Comprehensive information control
  - Direct repression as main tool
  - Examples: China, Iran, North Korea

1. **Regime Type Differences**
   - How do IA vs. OD regimes differ in:
     - Censorship mechanisms?
     - Implementation strategies?
     - Content targeting priorities?

2. **Electoral Dynamics**
   - How do elections affect censorship in IAs?
   - Do electoral incentives shape content control strategies?
   - Does censorship intensity follow electoral cycles?

Literature Contribution

Preview of Key Findings

1. **Two Distinct Censorship Models:**
   - **Direct Censorship (OD):** Technical filtering
   - **Collateral Censorship (IA):** Platform-mediated removal
2. **Electoral Cycle Effects:**
   - +1,455 takedown requests near elections
3. **Influence Operations:**
   - IA regimes more active internationally
   - Complements domestic strategy
4. **Capacity Constraints:**
   - Technical capacity shapes strategy choice
   - Resource efficiency of collateral censorship

Regime Classification:

- PCA-K-means clustering
- Political violence, elections, elite size variables

Censorship Measurement:

- OpenNet Initiative (ONI) filtering scores
- OONI blocking data

Takedown Requests:

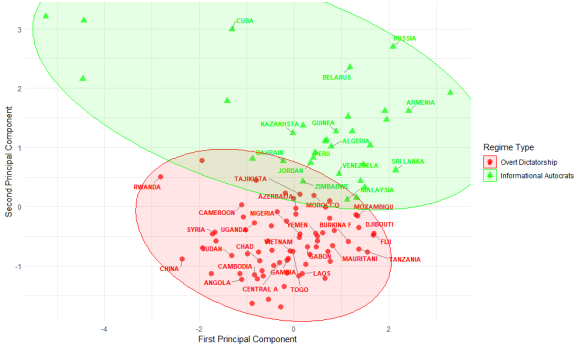
- Google Transparency Report data
- Government vs. court requests

Electoral Timing:

- Share of term left
- Time until next election

Data Details

Cluster Analysis Results: IA vs. OD Classification



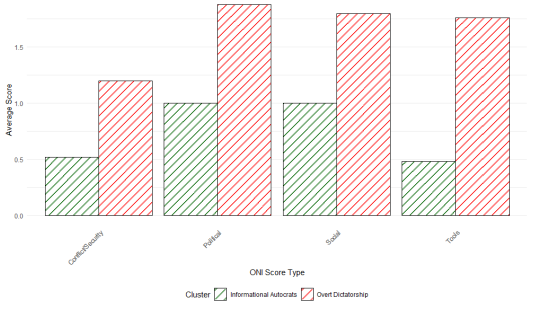
Clustering Methodology:

- K-means clustering (K=2) of autocracies (2000-2022)
- Variables from Authoritarian Control Techniques dataset:
  - Political violence (killings, torture)
  - Electoral institutions (Polity2 scores)
  - Size of informed elite (tertiary education)
- PCA used to address dimensionality

Key Findings:

- Clear empirical validation of IA/OD theoretical distinction
- Improves on previous arbitrary threshold (10 killings per year)

Censorship Patterns Across Regime Types

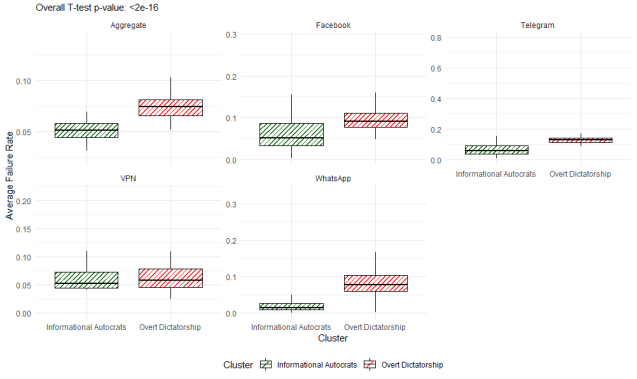


ONI (OpenNet Initiative) Filtering Scores:

- OD regimes (red) show higher censorship across all categories
- Political content most heavily censored
- Largest gap in tools censorship
- IA regimes (green) more selective

Blocking Data

Blocking Differences



Blocking Rate Comparison:

- Highly significant difference ($p < 2e\text{-}16$)
- OD regimes (red) consistently show higher blocking rates
- Largest gap in WhatsApp (0.10 vs 0.02)
- Smallest gap in VPN services

Direct vs. Collateral Censorship

Electoral Cycles in Takedown Requests

	Government Requests			
	(1)	(2)	(3)	(4)
Share of Term Left	-977.5*	-1111**	-1570**	-1455**
	(512.9)	(546.3)	(674.5)	(690.1)
Controls	No	Yes	Yes	Yes
Country FE	No	No	Yes	Yes
Year FE	No	No	No	Yes

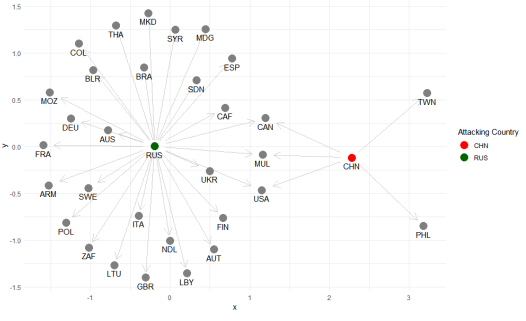
Causal Identification Strategy:

- Constitutional term lengths provide exogenous variation
- Two-way fixed effects control for country and time factors
- Represents strategic reputation-building behavior

Key Arguments:

- IA leaders strategically increase censorship before elections
- Each 1 unit decrease in term share = 1,455 additional takedown requests
- Pattern absent in democratic countries (placebo test)
- Pattern absent in court orders (placebo test)

Court Orders Comparison

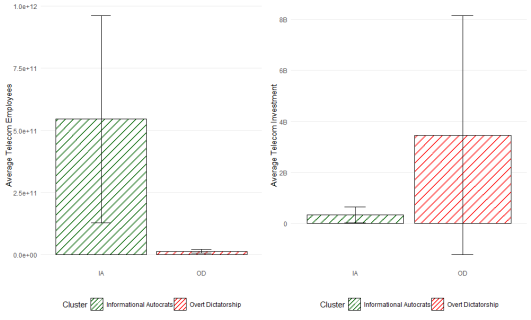


Empirical Studies of Conflict Project:

- IA regimes (green) more active across all categories
- Particularly focused on discrediting adversaries
- Multiple-fold difference in campaign frequency
- Diverse strategic objectives

Campaign Details

IT Capacity Across Regime Types



Key Differences:

- IA regimes show higher IT employment
- OD regimes demonstrate greater IT investment
- Substantial resource gap between regime types

Hypothesis: Resource differences may explain censorship strategy choices

Capacity Effects

Direct Censorship vs. Collateral Censorship

Overt Dictatorships:

- Comprehensive technical filtering
- Consistent blocking patterns
- Higher visible control

Informational Autocracies:

- Platform-mediated content removal
- Strategic pre-election intensification
- Maintains appearance of openness

Censorship strategies reflect broader regime characteristics and electoral incentives

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Chapter 3

The Control-Visibility Tradeoff

Strategic Censorship Implementation in Authoritarian Regimes

How Autocracies Balance Control and Appearance in Digital Censorship

- Building on Chapter 2's findings: different regimes use distinct censorship strategies
- This chapter examines **why** these differences exist
- Introduces the "Control-Visibility Tradeoff" framework
- Analyzes both strategic choices and implementation methods

Key Question: How do different autocracies balance comprehensive control with the appearance of internet freedom?

Context: Global internet freedom in decline for 12 consecutive years (Gorokhovskaia, Shahbaz, and Slipowitz 2023)

A Strategic Dilemma for All Autocracies

Direct Control Approach:

- Prioritize comprehensive censorship (King, Pan, and M. E. Roberts 2013)
- Accept visible filtering
- Consistent high blocking rates
- Examples: China, Iran (Griffiths 2021)

Indirect Control Approach:

- Prioritize appearance of openness (Guriev and Treisman 2019)
- Use targeted, event-driven censorship (Epifanova 2020)
- Selective intervention during critical periods
- Examples: Russia, Turkey (Yesil 2016)

Three Central Questions:

1. How do regimes **implement** their strategic choices between control and appearance?
2. What **tradeoffs** exist between consistent filtering and event-driven censorship?
3. How are these censorship models **evolving** in response to technological advancements?

Research Approach:

- Systematic comparison of filtering patterns in China, Iran, Russia, and Turkey (2016-2022)
- Analysis of both technical implementation and legal frameworks
- Examination of platform management strategies
- Evaluation of circumvention responses

Three Mechanisms of Information Control

Fear (M. Roberts 2018)

- Legal deterrence
- Self-censorship
- Intimidation of critics
- High-profile arrests

Friction (M. Roberts 2018)

- Technical barriers
- Blocking access
- Network disruption
- Throttling speeds

Flooding (M. Roberts 2018)

- Propaganda
- Disinformation
- Content manipulation
- Alternative narratives

Strategic Emphasis:

- Direct Control Regimes: Emphasize friction and fear
- Indirect Control Regimes: Emphasize flooding with selective friction (Benkler, Faris, and H. Roberts 2018)

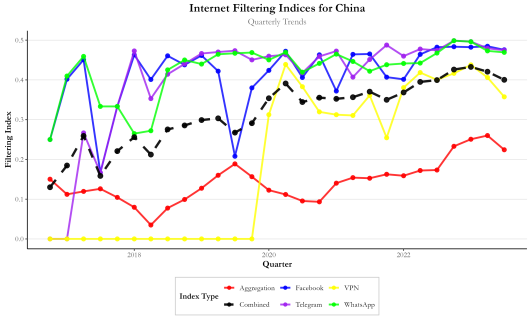
Direct Control Implementation:

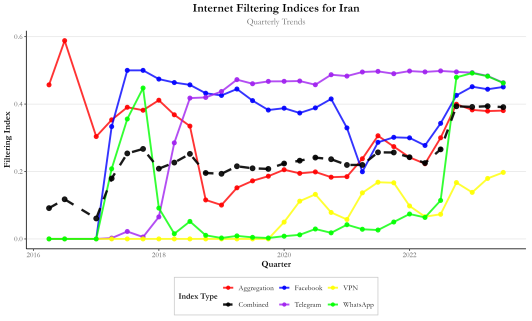
- Infrastructure-level filtering (Ensafi et al. 2015)
- "Great Firewall" approach (Clayton, Murdoch, and Watson 2006)
- Early, proactive implementation
- National intranets (Iran's NIN) (Anderson 2012)
- Consistent blocking regardless of events

Indirect Control Implementation:

- Event-driven, targeted blocking
- Platform pressure rather than direct blocks
- Temporary slowdowns during crises
- "Sovereign Internet" laws (Glazunova 2022)
- Appearance of normal access most of the time

Evidence: Direct Control Censorship Patterns





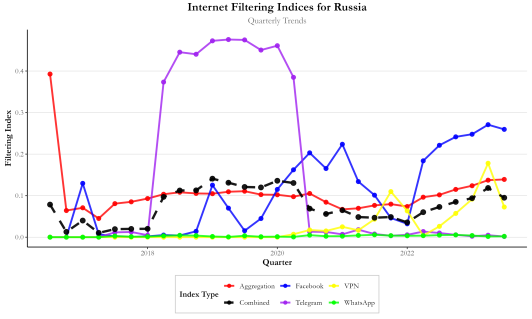
China's Pattern:

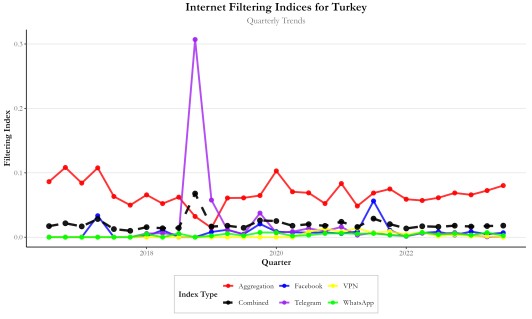
- Consistently high blocking (40-50%)
- Stable filtering across time periods
- VPN crackdown after 2020
- Comprehensive platform approach

Iran's Pattern:

- Generally high blocking with fluctuations
- Clear response to 2019 protests
- Telegram spike after 2017 protests
- 2022 Women, Life, Freedom protests: comprehensive filtering

Evidence: Indirect Control Censorship Patterns





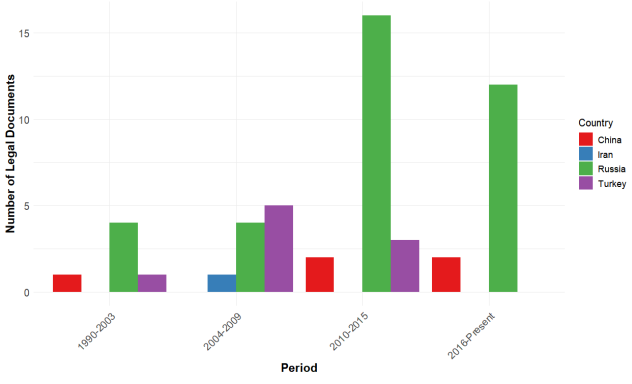
Russia's Pattern:

- Low baseline with targeted spikes
- Telegram spike (2018-2020) then abandoned
- Major shift after Ukraine invasion
- Delayed VPN response (Buchholz 2022)

Turkey's Pattern:

- Very low baseline filtering (<5%)
- Sharp election-related spike (2019) (Walther and McCoy 2021)
- Rapid relaxation after opposition victories

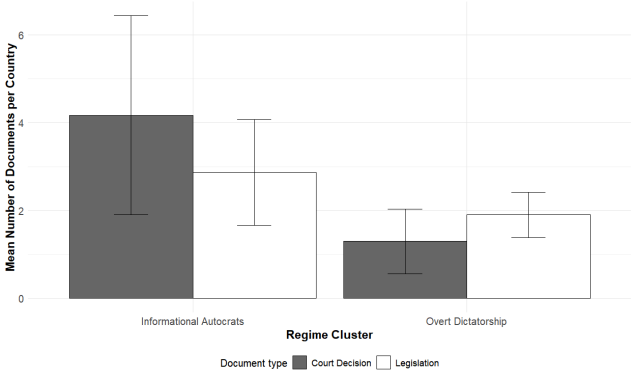
Evolution of Legal Frameworks



Key Patterns:

- **Russia:** Dramatic acceleration after 2010-2015 (16 documents) following 2011-2012 protests
- **Turkey:** Active period during 2004-2009 (5 documents) then moderate consistency
- **China:** Steady, moderate output across all periods
- **Iran:** Minimal activity with slight increase 2004-2009

Legal Approaches Reflect Strategic Choices



Statistical Analysis:

- Indirect Control regimes prefer court decisions (59% of legal documents)
- Direct Control regimes rely more on legislation (59% of documents)
- Significant difference in approach ($\chi^2 = 8.46$, $p = 0.004$)

Legal Strategy Reflects the Tradeoff:

- China's 2017 Internet News provisions establish comprehensive control (Li 2020)
- Russia's targeted laws create strategic pressure points (Schimpfossl and Yablokov 2014)
- Turkey's Social Media Law (2020) focuses on platform compliance (Tunç 2021)

Platform Management Strategies

Direct Control: Ban and Replace

- Block foreign platforms entirely
- Create domestic alternatives (Jia and Kenney 2022)
- Examples: WeChat replacing WhatsApp (China), Aparat replacing YouTube (Iran)
- Direct control over user data
- Accept economic costs (Aaronson 2019)

Indirect Control: Pressure and Comply

- Keep global platforms operating
- Require local representatives (Tunç 2021)
- Demand content removal
- Maintain appearance of connectivity
- Singapore's POFMA as cutting edge approach (Foo 2021)

Recent Trend: Russia shifting toward banning platforms while China adopts some compliance measures

Future Trends: Technological Evolution

AI-Enhanced Censorship:

- Real-time content scanning (Ruan, Knockel, and Crete-Nishihata 2021)
- Automated filtering systems
- Less visible but more effective control
- China's image recognition for prohibited content

Network Centralization:

- National internet capabilities
- "Kill switch" options during crises
- Russia's TSPU devices at ISPs

Circumvention Responses:

- Direct Control: Proactive VPN blocking (Wulf et al. 2022)
- Indirect Control: Delayed, selective response
- Elite access exceptions

Implementation Patterns:

- Direct Control: Comprehensive deployment
- Indirect Control: Crisis-focused use
- Both expanding technical capabilities

Key Conclusions: Control-Visibility Tradeoff

1. **Strategic Choice:** Autocracies must choose between maximizing control and maintaining appearance of openness
2. **Implementation Reflects Strategy:**
   - Technical infrastructure mirrors strategic priorities
   - Legal frameworks institutionalize control preferences
   - Platform management aligns with control-visibility position
3. **Persistent Differences Despite Convergence:**
   - Similar technologies but fundamentally different deployment patterns
   - Russia shifting toward more comprehensive control after Ukraine invasion
   - AI enabling less visible but more effective censorship
4. **Implications:** Democratic responses must recognize these distinct approaches to digital authoritarianism

The Control-Visibility Tradeoff helps us understand censorship strategies across autocratic regimes

Chapter 1: Electoral accountability shapes content control strategy in democracies vs. autocracies
Chapter 2: IT capacity determines which censorship approach is feasible for regimes
Chapter 3: Strategic priorities guide implementation within capacity constraints

Overall Contribution:

- Comprehensive framework for understanding internet control
- Empirically grounded typology of censorship regimes
- Novel insights into strategic implementation of digital authoritarianism
- Bridge between technical censorship research (Ensafi et al. 2015) and political theory (Guriev and Treisman 2019)

Thank You for Attending!

Any questions or comments?

Feel free to reach out:

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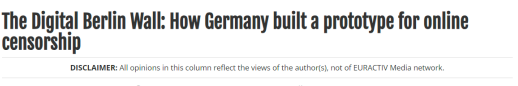
Examples of Content Removal


National

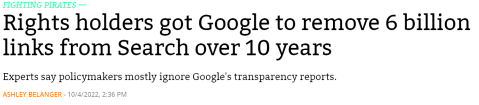
Twitter Doc: Centre Requests To Block Journalists And Politicians

by Joanna Ann Daniel · June 28, 2022


The Digital Berlin Wall: How Germany built a prototype for online censorship

DISCLAIMER: All opinions in this column reflect the views of the author(s), not of EURACTIV Media network.

By Jacob Mchangama and Natalie Alkiviadou · Est. 6min · Oct 8, 2020


FIGHTING PIRATES —

Rights holders got Google to remove 6 billion links from Search over 10 years

Experts say policymakers mostly ignore Google's transparency reports.

ASHLEY BELANGER - 10/4/2022, 2:36 PM

Key observations:

- Multiple content types targeted (news, social media)
- Varied justifications (national security, defamation)
- Both democracies and autocracies actively participate

Back to The Puzzle

Contribution to Literature:

- **Censorship Studies:**
  - Cross-country causal evidence beyond single-country focus
  - First comparative analysis of regime differences in digital control
  - Bridge between technical and political science approaches
- **Electoral Accountability:**
  - Internet control strategies in policy timing
  - Strategic use of content control before elections
  - Democratic accountability as constraint mechanism
- **Media Control:**
  - Digital governance and electoral cycle effects
  - Shifting from direct to indirect censorship mechanisms
  - Platform-based regulation as democratic innovation

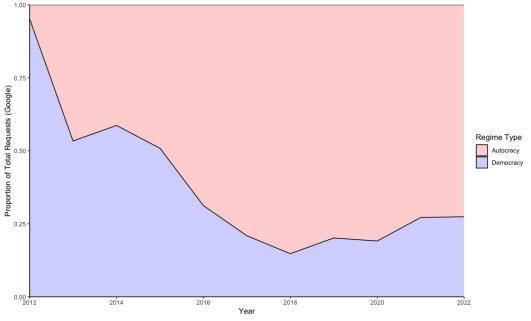
Back to Research Questions

Data Details: Google Transparency Report

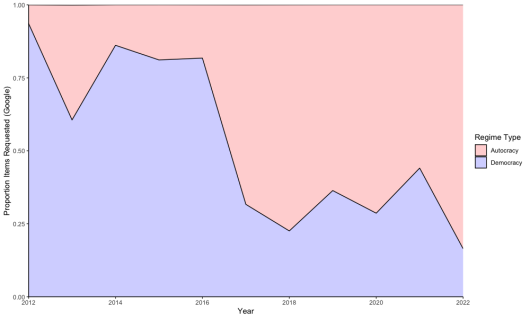
- **Coverage:**
  - Period: 2009-2019 (10+ years)
  - Countries: 101
  - Request Types: Government Requests and Court Orders
- **Key Variables:**
  - Number of removal requests
  - Items requested to be removed
  - Request justifications
  - Compliance rates
- **Additional Data Sources:**
  - Regime classifications from V-Dem
  - Electoral data from Parline Database, Characteristics of National Constitutions (CCP)
  - Internet freedom scores from Freedom House
  - Economic indicators from World Bank

Back to Approach

The Paradox of Democratic Content Removal



Number of Requests

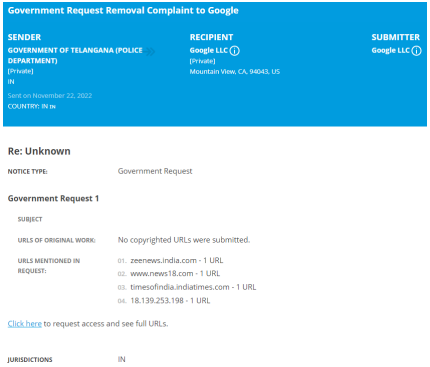


Items Requested to be Removed

- **Surprising trend:** Democracies remove substantial content
- **Efficiency difference:** Democracies demand more items per request than autocracies
- **Puzzle deepens:** High freedom scores despite active content moderation

Back to Digital Divide

Anatomy of a Government Request



Government Request Removal Complaint to Google

SENDER	RECIPIENT	SUBMITTER
GOVERNMENT OF TELANGANA (POLICE DEPARTMENT) (Private) IN	Google LLC (Private) Mountain View, CA, 94043, US	Google LLC

Sent on November 22, 2022
COUNTRY: IN

Re: Unknown

NOTICE TYPE: Government Request

Government Request 1

SUBJECT

URLS OF ORIGINAL WORK: No copyrighted URLs were submitted.

URLS MENTIONED IN REQUEST:
01. zeenews.india.com - 1 URL
02. www.news18.com - 1 URL
03. timesofindia.indiatimes.com - 1 URL
04. 18.139.253.198 - 1 URL

Click here to request access and see full URLs.

JURISDICTIONS IN

Common Justifications:

- National security
- Defamation
- Privacy violations
- Copyright infringement
- Political opposition

- **Sender:** Government of Telangana
- **Recipient:** Google LLC
- **Date:** November 22, 2022
- **Notice Type:** Government Request
- **Targeted Content:** Multiple news websites
- **Key Insight:** Direct political intervention bypassing judicial review

Back to Tools of Control

- Actors: Two Politicians (Incumbent and Challenger), one Citizen.
- Decision on Internet Content Filtering: $x \in \{0, 1\}$.
- Decision Rights: $i \in \{P, C\}$.
- Content might be removed in two ways:
  Government Censorship: $i = P, x = 1$
  or User Moderation $i = C, x = 1$.

Payoffs depend on the state of the internet ω. The content can be Harmful ($\omega = 1$) or Harmless ($\omega = 0$).

Citizen's Payoff:

$$u_C = \begin{cases} v - h\omega & \text{if content remains} \\ 0 & \text{otherwise} \end{cases}$$

- v: the value of the content
- h: the harm
- λ: fraction of harmful content
- **Citizen observes ω, but might not have the decision rights**

Politicians can be one of two Types: Unbiased ($\delta = 0$) or Biased ($\delta = 1$).

Politician's Payoff:

$$u_P = \begin{cases} r + u_C + \delta x & \text{if in office} \\ 0 & \text{otherwise} \end{cases}$$

- r: the non-policy return
- π: the fraction of unbiased politician
- Information Asymmetry: Politician observes type δ, citizen updates beliefs based on policy choices

Model Timeline

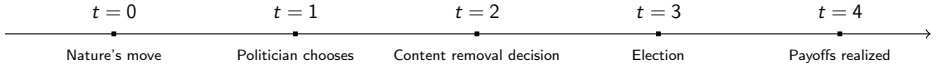


Figure: Timeline of the Political Agency Model

- **In Dictatorship:** Politician's re-election is unaffected by Citizen's voting
- **In Democracy:** Politician's re-election is determined by Citizen's voting
- Perfect Bayesian Equilibrium: Solution concept where beliefs are updated rationally and strategies are consistent with beliefs.

Citizen's Belief and Electoral Dynamics

The posterior belief π_C reflects the citizen's perceived probability of the politician being unbiased: the citizen will vote for the incumbent if $\pi_C > \pi$.

- **In Dictatorship:** Politician's actions are unrestrained by π_C, leading to potential welfare loss due to censorship risk.
- **In Democracy:** π_C is pivotal—politicians want to signal or pretend they are the unbiased type. Democracy introduces a trade-off between policy preferences and re-election incentives.
- **Reputation Building:** Politicians in democracies engage in reputation-building behaviors, influenced by the citizen's belief and electoral proximity.

Strategy for Biased Politician

$$\text{If } \delta = 1 : i = P, x = 1$$

Strategy for Unbiased Politician

$$\text{If } \delta = 0 : i = C, x = \omega$$

- A biased politician always prefers control and faces no electoral constraints.
- An unbiased politician chooses delegation because delegation is more efficient.
- **Censorship Risk**: the biased politician removes the content when he knows the content is no harm to the citizen.
- Delegation is less probable: $\frac{\pi}{2}$

Strategy for Unbiased Politician

$$\text{If } \delta = 0 : i = C, x = \omega$$

Strategy for Biased Politician

$$\text{If } \delta = 1 : i = C, x = \omega$$

- Biased Politicians weigh policy preferences against potential electoral backlash.
- Electoral accountability provides political discipline on the policy choice.
- Delegation is more likely: 1

Content Removal Probability

$$\text{Autocracy: } 1-(1-\lambda)\pi$$

$$\text{Democracy: } \frac{1}{2}(1+\lambda)$$

Delegation Probability

$$\text{Autocracy: } \frac{\pi}{2}$$

$$\text{Democracy: } 1$$

- Autocracy and democracy differ in their approaches to internet content removal and delegation.

Our model explains the three stylized facts.

1. Similar likelihood of content removal in democracy and autocracy under certain conditions.
2. Democracy more likely to delegate content removal to citizens than autocracy.
3. Democracy's internet policy more efficient than autocracy for $\pi \leqslant \frac{1}{2}$.

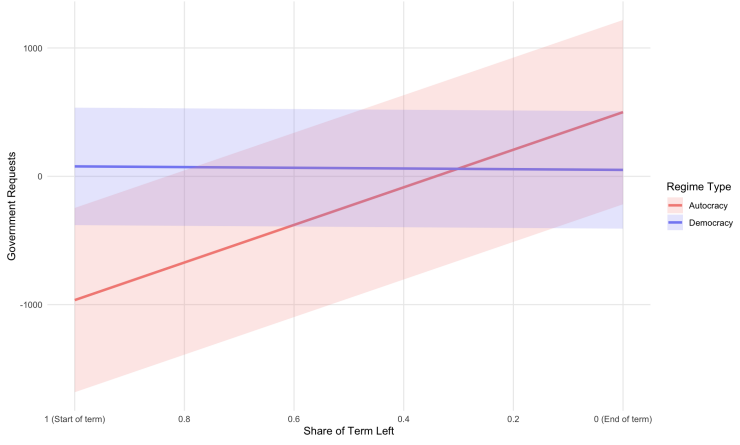
The key to our model is the reputation incentive of the incumbent politician.

The reputation concern is more salient when an election is closer.

- Government takedown requests changes with the election cycles.

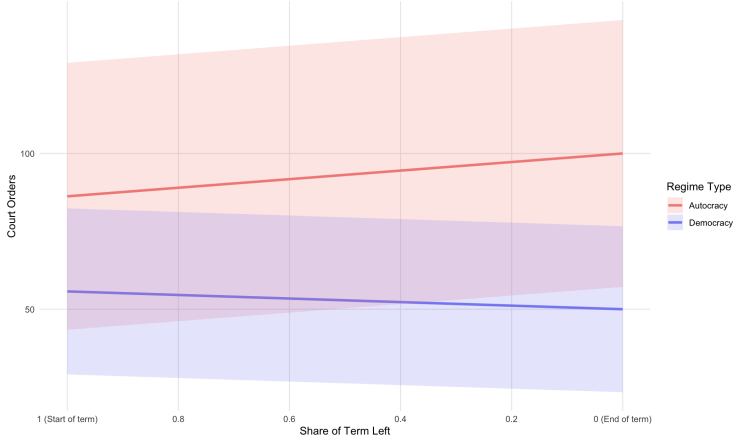
Back to Political Agency Model

Marginal Effects: Government Requests



Back to Government Results

Marginal Effects: Court Orders



Back to Court Orders Results

Detailed Analysis of Results

1. **Regime Differences:**
   - Democracy base effect: -748 requests ($p < 0.05$)
   - Democracies consistently use fewer direct requests
   - Democratic institutions constrain executive power
2. **Electoral Cycle:**
   - Autocracies: 1 unit decrease in term share = 1,344 additional requests
   - Highly significant effect ($p < 0.001$)
   - Robust to multiple specifications and controls
3. **Differential Effect:**
   - Interaction term: +1,368 ($p < 0.001$)
   - Almost perfectly offsets main effect
   - Net effect in democracies = +24 (not significant)

Back to Visual Comparison

Digital Authoritarianism:

- Beyond binary measures of internet freedom
- Systematic evidence of different censorship types
- Technical vs. legal censorship mechanisms
- First comprehensive empirical categorization

Informational Autocracy Theory:

- Empirical validation of Guriev & Treisman's framework
- Digital dimension of informational control
- Strategic censorship vs. reputation management
- Electoral incentives in non-democracies

Key Innovation: First systematic evidence of censorship patterns matching theoretical regime categories

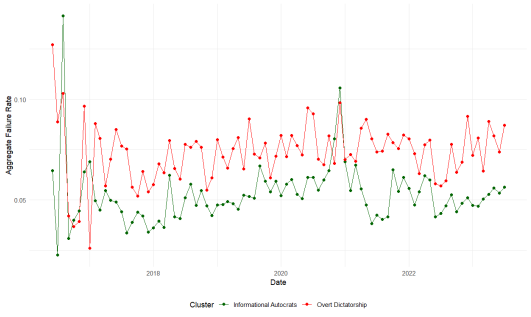
Back to Research Questions

Multiple Data Sources:

- **OpenNet Initiative (ONI) Data:**
  - Technical testing in 74 countries
  - Filtering scores for Political, Social, Security, Internet Tools
  - Scale: 1-4 (minimal to pervasive filtering)
- **OONI Blocking Measurements:**
  - Open Observatory of Network Interference
  - Crowdsourced measurements from 105 countries
  - Network anomaly detection
  - Service-specific testing (WhatsApp, Telegram, etc.)
- **Empirical Studies of Conflict Project (ESOC) Data:**
  - International influence operations
  - Campaign objectives and tactics
  - Cross-country attribution

Back to Data & Methods

Direct vs. Collateral Censorship: Blocking Rates



OONI Blocking Data:

- OD regimes (red) show 2x higher blocking rates
- Consistent pattern over time (2018-2022)
- IA regimes (green) maintain lower visible blocking
- Pronounced spikes during political events

Key Insight: Two fundamentally different approaches to digital control:

1. **Direct Censorship:** Technical blocking at network level
2. **Collateral Censorship:** Delegating removal to platforms

Back to Blocking Differences

Placebo Test: Court Orders vs. Government Requests

	Number of Court Orders			
	(1)	(2)	(3)	(4)
Share of Term Left	-42.3	-46.4	-54.4*	-58.9*
	(51.0)	(54.9)	(30.6)	(31.3)
Controls	No	Yes	Yes	Yes
Country FE	No	No	Yes	Yes
Year FE	No	No	No	Yes

Court Orders Comparison:

- Much smaller electoral effects
- Magnitudes 1/30 of government requests
- Judicial independence maintained
- Only marginally significant in some specifications

Empirical Model:

$$\textit{Government Requests}_{it} = \alpha_i + \eta_t + \beta \cdot \textit{Share of Term Left}_{i,t} + X_{it}\delta + \varepsilon_{it} \quad (5)$$

Back to Electoral Cycles

International Influence Campaign Details

Strategic Complementarity:

Domestic Strategy:

- Platform-mediated content removal
- Maintains appearance of open internet
- Strategic pre-election intensification
- Reputation management priority

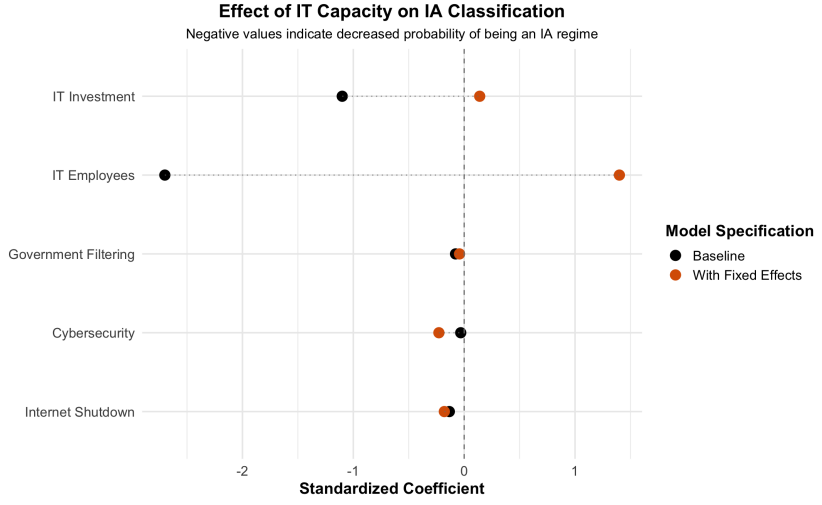
International Strategy:

- Active influence operations abroad
- Content creation rather than blocking
- Multiple objectives:
  - Discredit adversaries
  - Spread disinformation
  - Support allied regimes
  - Showcase domestic stability

Key Finding: Informational Autocracies employ comprehensive information strategy across borders

Back to Influence Campaigns

IT Capacity Effects on Regime Type



Back to IT Capacity

OONI Blocking Data by Category

Services with Largest Blocking Gaps:

- WhatsApp: 0.10 vs. 0.02
- Telegram: 0.09 vs. 0.02
- Facebook Messenger: 0.08 vs. 0.02
- News websites: 0.06 vs. 0.01

Patterns by Content Type:

- Communication tools: Highest blocking rates
- Information sources: Moderate blocking
- VPN services: Lowest gap between regimes
- Technical censorship: Consistent across categories in OD

T-test Results: Highly significant difference across all categories ($p < 2e\text{-}16$)

Back to Censorship Patterns

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