Chinwendu Praise Akalonu*

Content removal: the government-Google partnership

https://doi.org/10.1515/omgc-2024-0020
Received May 31, 2024; accepted August 27, 2024

Abstract

Purpose: This study seeks to understand the relationship between a country's political system and its content removal request to Google. It also investigates the trends in content removal requests to Google over 11 years (2011–2021).
Design: The study uses secondary data derived from 2020 Google Transparency Report and Freedom House Report with information from 89 countries and three Google products – YouTube, Web search, and Blogger.
Findings: Countries with lower freedom scores (categorized as authoritarian) showed overall higher content removal requests as well as higher requests using reasons like national security and government criticism. Countries with higher freedom scores (categorized as libertarian) requested for more content removal using defamation. Results also show an increase in overall content removal overtime from 2011 to 2021.
Practical Implications: This study adds empirical evidence to the discourse on freedom of speech across countries. It also demonstrates the viability of online secondary data sources for empirical research purposes. It has implications for understanding global content moderation and its relationship with freedom of expression.
Social Implications: The study demonstrates the need to address the global decline in democracy across countries (both authoritarian and libertarian countries).
Originality Value: The study is one of the first to use Google's Transparency report for post-publication censorship/ content moderation analysis.

Keywords: content moderation; censorship; freedom of speech; Google transparency report; freedom house

Article Note: This article underwent double-blind peer review.

***Corresponding author: Chinwendu Praise Akalonu**, University of South Carolina System, Columbia, USA, E-mail: cakalonu@email.sc.edu. https://orcid.org/0009-0009-8470-1966

1 Introduction

Content moderation has been defined as the organized practice of screening user-generated content on internet sites, social media, and other online platforms to determine appropriateness (Roberts 2017). There have been considerable debates about the overarching goal and process of content moderation. While acknowledging its benefits in maintaining decorum on online sites, Langvardt (2017) expressed concerns about its adherence to First Amendment principles.

Content removal is a critical component of content moderation, which involves removing illegal or inappropriate information from a website or an online platform. Tech giants like Facebook, Twitter, and Google are empowered by Section 230 in the US to remove content from their sites (Grabowski and Robinson 2021). Reasons for content removal on these platforms can range from child pornography, child endangerment, extremist propaganda, advocacy of drugs, etc. For example, in 2018, Facebook released its community guidelines on content removal from its platform, which included items such as violence and criminal behavior, safety, objectionable content, integrity, and authenticity, respecting intellectual property, and content-related requests (Stjernfelt and Lauritzen 2020). Similarly, Twitter has its own rules that govern content removals, such as content that violates the user agreement, including copyright or trademark violations or other intellectual property misappropriation, impersonation, unlawful conduct, or harassment (Twitter Transparency 2022.).

Governments also play a significant role in content removal by issuing requests to tech giants like Google. Several types of content can be targets of removal requests from the government; these include but are not limited to social media posts, blog posts, website content, entire websites, emails, apps on stores, etc. For example, in 2017, the Chinese government requested the removal of the New York Times app from Apple's iTunes store for publishing a news piece that violated local regulations. The request included the removal of both the English language version and Chinese versions of the app; Apple complied on December 23 (Kerr 2017).

Tech companies and governments around the world are the primary drivers and decision-makers in content removal discourse. These joint efforts raise concerns about the loss of users' fundamental rights to seek information and freely express their opinions online without interference from public authorities (Stjernfelt and Lauritzen 2020). Moreover, the blurred lines between moderation and censorship can contribute significantly to disinformation, polarization, and political control through private tech organizations.

Yet, the extent to which the government and a country's political structure can influence its content removal request to tech giants has not been systematically

studied. This study therefore seeks to explore the relationship between a country's political system and its content removal request to Google. It also investigates the trends in content removal requests to Google over 11 years (2011–2021).

This study aims to deepen our understanding of government requests for content removal patterns by examining the relationship between these requests and the state of democracy and freedom of expression in 86 countries. To the researcher's knowledge, this study is one of the first to use Google's Transparency Report for post-publication censorship and content moderation analysis. This study is significant because it stimulates the overarching discourse on the intersection of digital media law, freedom of speech, and politics.

2 Literature review

2.1 Online content removal by government – censorship or content moderation?

Strandell (2023) makes a distinction between censorship and content moderation. He argues that censorship is carried out by governments and content moderation by private platforms. Content moderation is not a form of censorship since social media sites serve as communities with rules that users are required to abide by when utilizing these platforms. Therefore, social media sites are not obligated to host material or content that they deem unsuitable for their community and other end-users. Yet Walter (2021) acknowledged that although content moderation is not synonymous with censorship, some content moderation practices might include censorship, while other forms, like fact-checking, are not to be considered censorship as they do not suppress the original speech. The ACLU identified some cases that can count as censorship online, such as the deletion of an individual's social media posts or comments by elected officials as an official social media page or restricting access to such elected officials' pages (American Civil Liberties Union n.d.). However, the restriction or deletion of personal accounts of government officials by social network services, like the restriction of Donald Trump's account by Twitter, is content moderation (since it falls under the purview of social media companies). Yet, the Office of the High Commissioner for Human Rights has acknowledged that censorship is commonly enforced on online content platforms through content removal and affects the right to free expression (OHCHR 2021).

Content removal, especially by governments through Google, therefore, falls under censorship and content moderation. Content removal involves demanding a

party remove illegal or inappropriate information from a website or a platform. Internet and social media companies, like Facebook, Twitter, Google, etc., remove content from their sites empowered by Section 230 (Grabowski and Robinson 2021). Reasons for this content removal can range from child pornography, child endangerment, extremist propaganda, advocacy of drugs, etc. In 2018, Facebook released its community guidelines on content removal from its platform, which included items such as violence and criminal behavior, safety, objectionable content, integrity, and authenticity, respecting intellectual property, and content-related requests (Stjernfelt and Lauritzen 2020). Similarly, Twitter (now X) removes content that violates the user agreement, including copyright or trademark violations or other intellectual property misappropriation, impersonation, unlawful conduct, or harassment (Twitter Transparency 2022).

The increasing pressure on social media platforms to disclose their content moderation practices, particularly regarding political content, has intensified scrutiny (McGregor and Kreiss 2019; OHCHR 2021; Sturges 2007). A Pew Research Center study found that three-quarters of US adults perceive censorship of their opposing political viewpoints on social media (Vogels et al. 2020). This, coupled with concerns about potential government overreach in restricting political speech (Walter 2021), has fueled demands for greater transparency.

In response, platforms like Google, Twitter, and Bing have introduced transparency reports and established channels for government content removal requests. These requests can target various content forms, including social media posts, blog articles, entire websites, and even apps (Kerr 2017). For instance, the Chinese government's 2017 demand for the removal of the New York Times app from Apple's iTunes store highlights the scope of government intervention in content control.

2.2 Google's content removal

Being one of the world's largest technology companies, Google dominates the world search engine industry with about 83 % of the market share on today's internet (Statista Research Department 2022). Much of the world's daily 2.5 quintillion bytes of data is produced by Google. Google alone stores over 10 exabytes of the world's data (Balsom 2015); therefore, it has more data in its repertoire than any other search engine company and enough content within its products to make it a force in the discourse on data and content management.

YouTube, the largest video platform in the world and one of Google's products receives over 100 h of user-generated video content per hour for distribution to billions of visitors from around the world, which is more than any cable network (Ha 2018; Roberts 2014). However, being a repository for content comes with

challenges, which include deciding what content to allow on the net and what content to remove based on set criteria. Google can remove content by users that breaches any of its policies or terms: (1) that is service-specific (related to the 105 services listed on its site, e.g., Chrome, Blogger, Google Lens, Google Pay, Google Photo, etc.; these services are governed by Google's General Terms of Service); (2) that violates applicable law; or (3) that could harm users, third parties, or Google (Google Privacy and Terms n.d.). Parties that can remove content include (1) users taking it down themselves, (2) Google taking it down for violating one or more of its privacy policies, and (3) the government of any country requesting a piece of content to be removed from the internet if it breaches one or more local laws, norms, or mores (Google Privacy and Terms n.d.). Since Google primarily operates in the United States, it also operates under its laws and principles of consumer protection, fair competition, balancing rights, and accountability, which shape its global influence and policies on content removal (U.S. Department of Justice 2016).

Google is often pressured by the government and its agencies to remove content (even if the said request does not fall within the purview of Google's removal policy). This pressure and the need for transparency compelled Google to develop its tool for government requests in 2010, as announced in its blog (Drummond 2010). The tool allows government officials to request content removal from Google directly. These requests are made through court orders, written requests from national and local government agencies, and requests from law enforcement professionals. Google reviews these requests to determine their legitimacy, decides if it is applicable, and proceeds to remove such content or to appeal the requests with little known repercussions (Google Transparency Report Help Center n.d.), although countries like China have long banned Google products from their internet space due to the company's unwillingness to comply with its censorship regulations (Mamchii 2024).

Since the birth of the content removal tool, Google has received many requests from government agencies. It continues to publish reports on these removals to increase transparency for its users and to shed light on how the policies and actions of governments and corporations affect privacy, security, and access to information (Google Transparency Report n.d.). It is from this report that the data for this study are derived.

2.3 Is freedom of speech global?

The Universal Declaration of Human Rights is a document that serves as a road map for freedom and equality in the world. It protects the rights of individuals

everywhere (Amnesty International 2022a). The Universal Declaration of Human Rights, Article 19, makes room for freedom of thought and expression for all people to receive and impart information and ideas through any media (United Nations n.d.). Different countries have laws and regulations surrounding freedom of speech or expression. In the U.S., for example, the First Amendment protects free speech. Speech is given special protection from governmental control in the U.S. because of the "discovery of truth" value placed on unhindered expression (Barendt 2005). The priority allocated to freedom of speech varies by country. For example, in Iran, the freedom of speech and press are not sufficiently protected by law. Freedom of expression is only guaranteed if it is nondetrimental to the principles of the Islamic religion (Human Rights Watch n.d.; Iran Chamber Society 2023). This implies that in some countries, freedom of speech exists irrespective of religion; in others, freedom of speech exists only within the confines of religion and other state apparatuses. Yet, the Universal Human Rights Act makes provisions for freedom of expression for all using any media, including the Internet, which exists as a modern medium for human expression. Several studies have found that censorship is most associated with authoritarian governments (Faris and Villeneuve 2008; Sundara Raman et al. 2020; Wulf et al. 2022; Zittrain et al. 2017). Countries like Russia, China, Iraq, Iran, Uzbekistan, etc. that operate these kinds of government systems will carry out more censorship practices than other countries like Finland, the United States, Norway, etc., which are said to operate a more liberal system. Freedom House noted that Chinese users are alleged to have the least internet freedom for the eighth consecutive year (Freedom House 2022). In Freedom House reports, authoritarian countries are associated with lower freedom scores, while libertarian countries are associated with higher freedom scores. Hence, I propose

H1: Countries with lower freedom scores are more likely to request for content to be removed from YouTube, Web search, and Blogger than countries with higher freedom scores.

3 Censorship trends across nations

Defamation laws have long been used to bring action against citizens and the media. For instance, a new Russian law was enforced to punish critics for defaming or slandering the Russian armed forces with a 10- to 15-year prison sentence (Amnesty International 2022b). Similarly, Lebanon has increased its reliance on insult and

defamation laws in a bid to silence activists, journalists, and all those critical of the government (Human Rights Watch 2019). According to the Index on Censorship, defamation is one of the most common reasons to bring legal action against the media in several European countries, such as Cyprus, Bulgaria, Croatia, Germany, the United Kingdom, Malta, and several others (Mhainin 2021). Thus, this study proposes that

H2: Countries with lower freedom scores are more likely to cite "defamation" as the reason for content removal from YouTube, Web search, and Blogger than countries with higher freedom scores.

King et al. (2013) found that social media posts more likely to be censored in China were those posted to spur mobilization or collective action. Censorship is chiefly aimed at stopping or preventing the spread of information that could lead to protests or collective action of any kind, which could affect national security, whether it is in opposition to the government or not. In 2013, Reuters reported that China had cracked down on WeChat, Weibo, and other social media apps. China's President Xi Jinping cited national security as a reason for the censorship call (Carsten and Adam 2013). Similarly, Warlick and Engelken (2017) reported that the Turkish government targeted journalists and other independent voices with charges related to terrorism under the pretext of national security. This study therefore proposes that

H3: Countries with lower freedom scores are more likely to cite "national security" as the reason for content removal from YouTube, Web search, and Blogger than countries with higher freedom scores.

In Ethiopia, those who are in opposition to the government have used online media forms to criticize the activities of the government, and in response, the government has launched internet filtering methods, including shutting down access to popular news sites and blogs (OpenNet Initative 2009). Esarey and Qiang (2008) found that government criticism is discouraged in China since political expression becomes a compromise between bloggers' expression and what the regime allows to be written. The same is reported in Turkey, where the government has been accused of using government criticism as grounds for media censorship and imprisonment of journalists (Human Rights Watch 2018a; Warlick and Engelken 2017). Hence, this study proposes that

H4: Countries with lower freedom scores are more likely to cite "government criticism" as the reason for content removal from YouTube, Web search, and Blogger than countries with higher freedom scores.

3.1 Trends in content removal

In 2018, a Google report called "The Good Censor" was leaked to Breitbart News, showing that the government's request for content removal from Google had increased exponentially, with YouTube being the main target for the requests (Bokhari 2018). Twitter (now X) also reported a 10 % increase in content removal requests – receiving about 47,572 legal demands to remove content specifying 198,931 accounts – a record-breaking number since its first transparency report (Twitter Transparency 2022). With an estimated 4.9 billion people having access to the Internet from the 4.1 billion in 2019 (Reed 2021), the proliferation of unwanted content is likely to be high, which will lead to more content removal requests. Therefore:

H5: The request for content removal has increased over time.

4 Methods

This study utilizes secondary data sources for the analysis. It combines data from the Google Transparency Report with data from Freedom House reports to test the proposed hypothesis. Secondary data sources have been proven to have advantages for academic inquiries, such as eliminating concerns about breaching privacy and providing large amounts of high-quality data for free to researchers (Smith 2008).

4.1 Google transparency report

The Google Transparency Report is a yearly report published by Google about how governments and corporations influence security, privacy, and information access on Google services. The report notes that requests to remove content are obtained from court orders sent to Google. The published report includes the number of requests received per country, the number of requests by product, and the percentage of requests removed. The report is generated within six months.

The report on the government's request to remove content is updated biannually. This research utilizes the report published in 2020. Since this year, most governments around the world have been actively fighting misinformation, which the United Nations Director General, Tedros Adhanom Ghereyesus, has called an "infodemic" (World Health Organization 2020). Therefore, it is likely that governments around the world will be more invested in the removal of content.

Additionally, in 2020, Google transitioned to a more automated content removal process since most human workers needed to be away from the office due to the lockdown. At the time, the process became more automated for content removals, and thus, the researcher believes that the speed and scale of automation will lead to a higher volume of removed content since it can be executed faster with machines.

This study focuses on requests for content removal from 3 different Google products: YouTube, Web Search, and Blogger. These platforms have the highest number of content removal requests (>1,000 requests for content removal by governments from 2011 to 2021). According to the data obtained from the Google Transparency report, YouTube had 49.5 %, Web search had 31.3 %, and Blogger had 6 % of the total requests. Therefore, these Google products were chosen because they are the most important and represent the largest percentage of the overall population of requests for content from Google; therefore, they can provide more insight into the nature of government requests for content removal on Google.

The researcher proceeded to filter information by the Google product of interest, YouTube, Web Search, and Blogger, and entered the numeric total freedom score from Freedom House for each country included in the Google Transparency report. The total number of observations used for 2020 included 1,008 entries; however, two countries – Guadeloupe and Reunion – were removed from the file because there was no freedom score recorded in the Freedom House report for 2020. In all, a total of 1,006 entries were used for this study, with 86 countries represented. These entries are the number of observations in the file. The final file included requests made for three Google products: YouTube, Blogger, and Web Search. Each category contained requests made within 6 months, recorded from 1st January–30th of June and from July 1st–31st, December. For the final analysis, the data file for the six months was combined to form one year.

4.2 Freedom House Report

Freedom House is a non-governmental organization in the United States that promotes political freedom and human rights around the world. The Freedom House Report is an annual report (called Freedom in the World) released by Freedom House on the political rights and civil liberties of countries around the world. The report uses the standard of the Universal Declaration of Human Rights that the U.N. General Assembly adopted in 1948, and it assumes that these standards apply to all countries and regions regardless of their political, social, or economic structures.

This research specifically uses the 2020 Freedom in the World report prepared by 128 in-house and external analysts and almost 50 advisers. The Freedom in the World report contains freedom scores from 210 countries and territories from January 1, 2020, through December 31, 2020 (Freedom House n.d.). However, only freedom scores for the 86 countries captured in the Google Transparency Report of 2020 were used. The Freedom in the World report uses numerical ratings and descriptive texts to report on global political and civil rights in countries and territories. Table 1 below illustrates the Freedom House scoring.

Table 1: Scoring system for political rights and civil liberties.

Status								
		Political rights score						
		0–5	6–11	12–17	18–23	24–29	30–35	36–40
	53–60	PF	PF	PF	F	F	F	F
	44–52	PF	PF	PF	PF	F	F	F
Civil liberties score	35–43	PF	PF	PF	PF	PF	F	F
	26–34	NF	PF	PF	PF	PF	PF	F
	17–25	NF	NF	PF	PF	PF	PF	PF
	8–16	NF	NF	NF	PF	PF	PF	PF
	0–7	NF	NF	NF	NF	PF	PF	PF

"**KEY:** F = Free, PF = Partly Free, and NF = Not Free" (Freedom in the World Research Methodology | Freedom House).

A more detailed description of the methodology used in the report can be found on the Freedom House website.

Though in this study freedom scores are continuous variables ranging from 0–100, it employs the theories of the press to categorize countries, offering a more robust scholarly framework than traditional Freedom House classifications. By adopting theories of the press to classify countries, this research builds on previous studies that have successfully employed this framework to analyze media freedom globally, yet it does not presume that every nation will precisely fit into one of the three categories.

4.3 The marketplace of ideas- a libertarian theory

The marketplace of ideas, or libertarian theory, represents countries categorized as "free" in Freedom House reports. The theory assumes that "a process of robust debate, uninhibited by governmental interference, will lead to the discovery of truth, or at least the best perspectives or solutions for societal problems"

(Ingber 1984: 3). It promotes a liberal view that is firmly against censorship which severely limits free speech and silences truth. The theory holds that "truth should emerge from the free and competitive exchange of ideas" (Blocher 2008: 830). Online, this theory will promote zero or low interference with content.

4.4 Social responsibility of the press

The social responsibility theory suggests that freedom comes with responsibilities, and the press, given special treatment by the government, is to be held accountable to the public for performing crucial mass communication tasks. The press here serves the interests of the public and political system by (1) providing information, discussion, and debate on public affairs; (2) enlightening the public; (3) serving as a watchdog against the government; and so on (Seibert et al. 1956: 74). Online, proponents of the social responsibility theory might argue that social media - companies are responsible to both the public and the government. Thus, moderate content governance will be encouraged. This theory, therefore, represents countries categorized as "partly free" in Freedom House reports.

4.5 Authoritarian theory of the press

The authoritarian theory represents countries categorized as "not free" in Freedom House reports. It suggests that state actors should control the function and operation of the media (Siebert et al. 1984). The goal of the media here is to support and advance the policies of governments to achieve state objectives (Siebert et al. 1984). Service to the state is expected even if media is privately owned, and the government ensures control through patents, guilds, licensing, and, often, censorship. Noncompliance with government requests might revoke media licenses (Bajracharya 2018). Online, this theory will support government control of online content and censorship.

4.6 Measures

4.6.1 Freedom score and total request

H1 tests the association between the two variables: content removal request (dependent variable) and freedom score (independent variable). Content removal requests are measured by the total number of requests recorded in each country's

dataset. Freedom score is measured using the total score (0–100) given for each country in the Freedom House reports.

4.6.2 Reasons for content removal

For H2-H4, the dependent variable, "reason for content removal," is measured using the three different reasons, defamation, national security, and government criticism. The reasons in the dataset are coded as defamation = 1, national security = 2, government criticism = 3, and all other reasons are categorized as "others" = 4. Reasons that are grouped as "others" include privacy and security, child pornography, geographical disputes, and Google's "other" categorization.

4.6.3 Period

H5 is measured using yearly intervals from the start of the reporting year (2011–2021). Content removal requests are analyzed using every country's total request per year. The years, which are at intervals of 6 months, are merged into 12 months. Therefore, instead of 2020-6-30 and 2020-12-3, the year is merged as just 2020.

5 Analysis and results

The dataset containing requests by the government for content removal from Google in 2020 was combined with total freedom score data downloaded from Freedom House for the same year 2020 to test hypotheses 1–4. Hypothesis 5 used data for the whole reporting period, 2011–2021, from the Google Transparency Report to test the difference in content removal requests by year. Since the dataset from Freedom House was used as an independent variable to gauge the relationship between freedom score and content removal request, it was manually combined in the same data file for analysis. After manual input, the data file contained 1,008 observations (rows) from 86 countries captured in Google's Transparency report.

The dataset used to test hypotheses 1–4 contained a total of 40,370 requests made by governments in 2020. The dataset was grouped by the three Google products of interest, YouTube, Web search, and Blogger, with a total of N = 1,006 entries (rows). Each Google product had a varied number of requests made in 2020. YouTube was the highest with 51.9 % of the total requests within the sample, followed by a Web search with 33.1 % of the total requests, and finally, Blogger had 15 % of the total requests within the sample used for the analysis.

Preliminary analysis showed that within the sample used for analysis, Russia had the highest number of requests for any country, with N = 29,712 out of N = 40,370 total requests in 2020. Russia alone requested more than half of the overall content removal from Google. On average, M = 40.13 requests were made in the 2020 year by the government. Surprisingly, a country like China did not request a lot of content removal in 2020. China made 172 requests for content removal, which is low compared to the United States, which had 436 requests. This situation also holds for the data from the entire current transparency report for 2011–2022. For the entire period of the published report, China had 1,252 requests for content removal, while the United States had 10,672, and Russia had 179,070. Within the 2020 datafile, Russia had the highest 29,712, followed by South Korea with 1,827, India with 1,636, and Turkey with 1,291 total requests.

5.1 Freedom scores and request for content removal

To determine if there is a significant association between freedom scores and requests for content removal, a bivariate correlation analysis was applied to the 1,006 cases. The results show that there is a negative correlation between freedom score and request for content removal, $r = -0.136$, $p < 0.001$. This means that as the freedom score increases, the request for content removal decreases, and vice versa. The average freedom score within the given analysis was ($M = 67.12$, $SD = 27.25$), while that of the total request was ($M = 40.13$, $SD = 379.35$). The result supports H1, which means that the lower the freedom score, the more likely a country is to request content removal.

Figure 1 below shows the scatter plot for the correlations between the two variables: freedom score and total request. The plot demonstrates the area of higher concentration to be between 0 and 100 on the *x*-axis. On the *y*-axis, there appears to be a higher concentration between 75 and 100. This is an area that indicates a high freedom score. Therefore, more countries with freedom scores of 75–100 request that fewer than 100 pieces of content be removed. It also indicates that most countries' total number of requests was not higher than 100. Those with the highest number of total requests were those with almost the lowest Freedom Score (more than 2000 requests), such as Russia, which had a single individual request of 9,526, as indicated by the scatter plot.

5.1.1 Freedom scores and reason for content removal

Content removal reasons submitted to Google by governments in 2020 ranged from bullying and harassment to defamation, national security, fraud, and so on. The

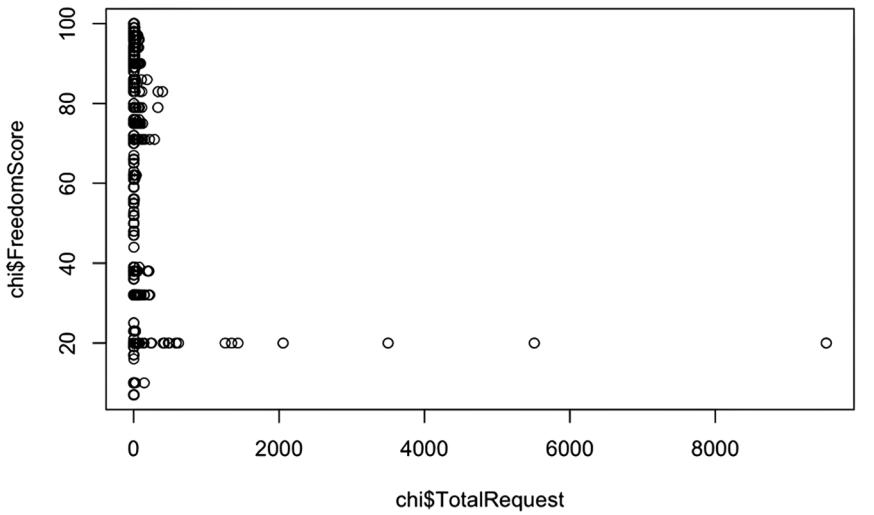

Figure 1: Scatter plot for freedom score and total request.

frequency distribution for content removal requests based on the products analyzed showed that the highest occurring reason for content removal was defamation (see Table 2 below).

To test if there was any significant relationship between the reason for content removal and total request and freedom score, the relationship between freedom score and the total number of removal requests under each reason was analyzed. Since defamation was coded as 1 in the variable reason, to carry out the analysis, the data case reason = 1 was selected as a condition for analysis. A correlation analysis was then applied to test the relationship between Freedom score and total request if reason 1 (defamation) was selected with a total of 179 applicable entries.

The results showed a negative relationship between total request and freedom score for defamation: $r(1) = -0.142$, $p = 0.058$. This means that as the request for defamation increases, the freedom score decreases, and vice versa. However, this result is not statistically significant since $p = 0.058$. The relationship may be a result of chance or a trend in the data. Since the relationship between the total number of requests for defamation reason and freedom score was not statistically significant at a 95 % confidence level, Hypothesis 2, which states "the more authoritarian a country is, the more likely they will request for more content removal using defamation as a reason," could not be supported.

Table 2: Frequency of requested reason.

Reason	Number of requests	Percentage of requests
Adult content	31	3.10 %
Bullying/harassment	45	4.50 %
Business complaints	10	1.00 %
Copyright	82	8.10 %
Defamation	179	17.80 %
Drug abuse	20	2.00 %
Electoral law	16	1.60 %
Fraud	40	4.00 %
Geographical dispute	2	0.20 %
Government criticism	23	2.30 %
Hate speech	35	3.50 %
Impersonation	25	2.50 %
National security	60	6.00 %
Obscenity/nudity	60	6.00 %
Other	50	5.00 %
Privacy and security	144	14.30 %
Reason unspecified	34	3.40 %
Regulated goods and services	55	5.50 %
Religious offense	18	1.80 %
Suicide promotion	13	1.30 %
Trademark	40	4.00 %
Violence	26	2.60 %

To determine a relationship between national security as a reason used for content removal and freedom score, the relationship between freedom score and the total number of removal requests under national security was analyzed. Since national security was coded as 2 in the variable reason, to carry out the analysis, the data case reason = 2 was selected as a condition for analysis. A correlation analysis was then used to determine the relationship between Freedom score and total request if reason 2 (national security) was selected, N = 60. The results demonstrated a significant negative relationship between total request and freedom score for national security ($r = -0.254$, $p < 0.05$.). This means that as the freedom score decreased, the request for national security increased, and vice versa. Hence Hypothesis 3, which states "the more authoritarian a country is, the more likely they will request more content removal using national security as a reason," is supported. However, the relationship is modest and just passed the statistical significance level of 95 %, which may be the result of the low number of cases.

To test the relationship between government criticism as a reason used for content removal and freedom score, the relationship between freedom score and the total number of removal requests under government criticism was analyzed. Since government criticism was coded as 3 in the variable reason, to carry out the analysis, the data case reason = 3 was selected as a condition for analysis. A correlation analysis was then used to determine the relationship between the Freedom score and total requests if reason 3 (government criticism) was selected (N = 23).

The results demonstrated a negative relationship between total, request, and freedom score for defamation ($r = -0.519$, $p < 0.05$). This means that as the number of requests for government criticism increases, the freedom score decreases, and vice versa. The result was also shown to be statistically significant; therefore, hypothesis (H4), which states that the more authoritarian a country is, the more likely they will request more content removal using government criticism as a reason, is supported, even though only 23 entries used government criticism as a reason in the cases.

5.1.2 Change in content removal requests over time

To determine if there is a relationship between year change and content removal requests, a regression analysis was applied. Time was measured using the different year intervals. The data contained yearly requests within an 11-year interval (from 2011 to 2021). Overall, 259,361 total requests within the dataset were used for the analysis to determine a relationship between time (measured by changes in a year) and the increase in total requests by the government. The result showed that there was a significant correlation between year and total request, $r = 0.943$, $p < 0.001$. The result of the regression suggested that year change explained 89 % of the variance, $R2 = 0.890$, $F(1, 9) = 72.57$ ($p < 0.001$). Since time/year predicted 89 % of the variance in the total number of requests, we can conclude that it is highly related to a content removal request. There may be other factors that may also contribute to content removal requests that the model did not account for; however, the model shows that year is a very significant factor. Year significantly predicted Total Request ($M = 23{,}578.27$, $SD = 19{,}075.74$) for content removal ($\beta = 0.943$, $t = 8.519$, $p < 0.001$). Therefore, there is a positive relationship between the independent and dependent variables. This means that as time increased, so also did the request for content removal from Google. Hypothesis 5 was supported. Figure 2 illustrates the change in content removal requests over time.

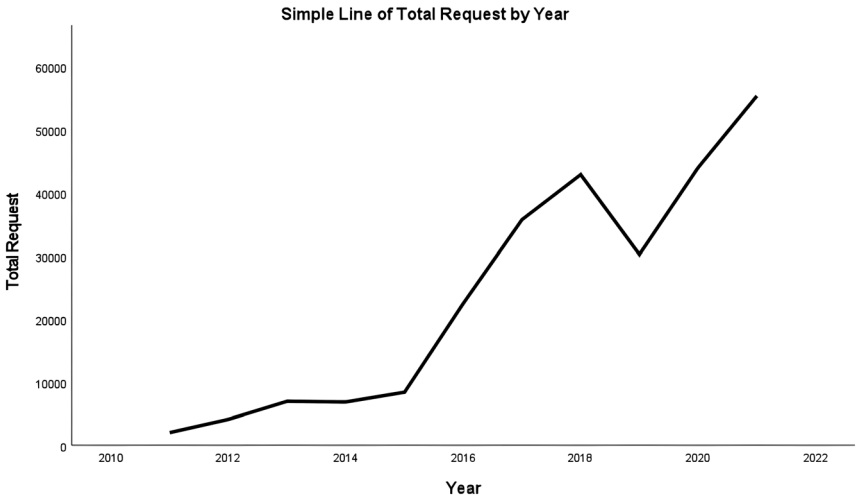

Figure 2: Change in content removal request over time.

6 Discussion

6.1 The chief censor and content removal request

Within the report for the year 2020, China had only 172 total requests for content removal, yet several scholars have found that China was a key figure in censorship studies (Bischoff 2023; King et al. 2013; Lorentzen 2014). Based on its censorship history and current practices, China has requested less than the United States since the launch of the content removal tool. One explanation for this low number is the ban on Google products in China since 2010 (Sheehan 2018). Even though most of China's population circumvents these blockages by using VPNs, it is still plausible that the ban would decrease content removal requests.

Interestingly, China's request to Google for content removal stopped after 2020, and this might be a result of China's Internet service growth. China has developed alternatives like Tencent Video (YouTube), Baidu (Google search), Weibo (Twitter/Blogs), and the short video app Douyin (Reels). Chinese internet users are likely to use only domestic services instead of going through the hassle of using VPNs to access outside news content and social media sites blocked in China. Alternatively, the Chinese government might no longer see the use of Google services as a threat since they now have greater control of their online media and information dissemination processes.

Russia's government has requested the most content removal in 2020. Its removal requests made up more than half of the total requests by governments. Unlike China, Russia still utilizes Google products, which are freely available. Since they do not yet have independently built Indigenous internet products and are still reliant on Google services for audience engagement and social interactions, it is no surprise then that Russia is highly concerned about the content posted to Google, both for domestic Russian users and the worldwide coverage that Google products will give the content across the world.

6.2 Freedom score and total request

The result of the analysis shows that the negative association between freedom score and total request for content removal showed that as one increased, the other decreased. This is similar to the findings of many censorship scholars (Faris and Villeneuve 2008; Sundara Raman et al. 2020; Wulf et al. 2022; Zittrain et al. 2017), who have shown evidence of censorship within certain countries with lower freedom scores in the Freedom House reports. This finding adds validity to the discourse on online censorship in authoritarian governments that operate a controlled press.

Additionally, this finding also shows that liberal countries are slowly but surely following the practices of these authoritarian governments. Freedom House reported a decline in democracy in its report "Democracy is Under Siege," noting a decline in global freedom in democratic countries for the 17th year (Freedom House 2023). This shows that speech freedom does not mean an absence of post-publication censorship since countries with very high freedom scores have considerable levels of censorship. A case in point is South Korea, with a freedom score of 83, which is considered "free" in the freedom house country categorization. Yet, after Russia, South Korea requested the most content removal (1827) in 2020. In comparison, countries like Qatar and Iraq, with freedom scores of 25 and 17, had a total request of 1 and 2, respectively, for the whole reporting year of 2020.

Zittrain et al. (2017) noted that despite its high rank as a leading country in internet speed and adoption of broadband, South Korea has been pervasively blocking websites that show support for North Korea in the conflict between the two countries or blocking content that promotes the unification of the two countries. The situation between South Korea and North Korea creates a pressing question about the role of international relations in content removal practices. Countries in conflict with each other may actively block content related to or affiliated with their rivals; an example is the above-mentioned South Korea with North Korea and the United States with Russia (Zakrzewski 2022).

Alternatively, low content removal requests among some countries with lower freedom scores may be a result of already instated pre-publication censorship mechanisms that prevent unwanted content from being posted. For example, China, Ethiopia, Azerbaijan, Jordan, etc. implement IP-based blocking, while it has been identified that China and Iran implement keyword blocking (Faris and Villeneuve 2008). These pre-publication censorship practices may mean increased self-censorship and lower publication of content that the government deems unfavorable.

6.3 Reasons for content removal requests

Governments around the world use various reasons to request content removal from Google. However, this study focused on defamation, national security, and government criticism because several studies have found that countries use these reasons to silence individuals and the media (Carsten and Adam 2013; Human Rights Watch 2018b; OpenNet Initiative n.d.; Warlick and Engelken 2017). The result of the analysis for H1 showed no statistical significance between occurrences of the three reasons and the freedom scores of the countries using the reason defamation. This means that authoritarian countries were not more likely to request more content removal than liberal countries. H2 postulated the higher use of national security as the reason that slightly passed the statistical significance test at a 95 % confidence level. These two results can be explained by the dominance of Russia in the content removal dataset. Also, the low number of cases within the sample could have caused the insignificant result of defamation as a reason for content removal. However, for H3 (government criticism), the result was significant. A possible explanation can be the dominance of Russia, which is considered a "not free" country within the study. Russia's request was 29,712 out of 40,370, which is more than half of the content removal requests in the sample. Russia, as a "not-free" country, could be responsible for all, or most, of the content removal requests using government criticism. Alternatively, it could be that most countries that used government criticism would be not-free countries and could legitimately use it as a reason to request content removal without fear of being labeled dictators. Human Rights Watch (2018b) and Warlick and Engelken (2017) have noted the tendency of more authoritarian countries to use government criticism to censor the media.

6.4 Changes in content removal requests over time

The results of the analysis for H4 showed an increasing trend of content removal requests among the countries; as time increased, requests for content removal also

increased. This could be the result of several factors. One such factor is the increase in internet users and the resultant explosion of online content production. As noted in the literature, Roser et al. (2015) reported an increase in the share of people online in the world between 2014 and 2016, from 39.79 % to 47.78 %, and projected that by 2018, there would be a 55.8 % increase. According to Statista, in 2022, there were about 5.3 billion active Internet users (Petrosyan 2023). This increase in online content will likely lead to an increase in unwanted content, which will ultimately lead to more content being requested to be removed. Another factor that may have influenced the increase in content removal requests over time may be the growing awareness by governments around the world about Google's tool for content removal requests. It can be argued that in 2011, not a lot of countries and agencies knew about the tool and how to use it compared to 2021. Therefore, increased knowledge about the tool could account for the increase in content removal requests.

Additionally, other government changes in online laws and policies might affect the growth in content removal requests. Google itself reported seeing a significant increase in laws that require information to be taken down from online services (Graff 2021). For example, national security-related laws have been used significantly in 2022 to request content removal (Surfshark 2023).

6.5 Limitations and directions for future research

The limitations of this study are commonly associated with secondary data research (Hox and Boeije 2005; Smith 2008). One of the pitfalls of this study is the structure of the data obtained from the Google Transparency Report. The data made analysis less flexible. In addition, there might be possible issues with the source data, such as double-counting requests for one content from several government agencies. Also, Russia's content requests to Google, which accounted for more than half of the total requests in 2020, skewed the data used for the study. To curb issues with data structure, the researcher had to analyze the data by case rather than by country.

There are also data issues and biases related to Google's transparency reports. Since the data is provided by Google itself, there are concerns about potential bias and selective reporting. Moreover, the report does not provide much detail for in-depth analysis and lacks context for the content requested or removed.

Relatedly, scholars have drawn attention to classifications such as that of Freedom House as politically flawed since they build on hegemonic and ethnocentric prejudices. de Albuquerque (2022) critiqued the Stage of Democracy Development (SDD) model, calling it obsolete, lacking in analytical consistency, and subject to institutional bias. Future researchers must therefore keep this critique in mind when utilizing Freedom House Reports for research purposes.

Additionally, the categorization of countries in Freedom House Reports differs across years because of improved or declined index scores in a reporting year, which did not allow for analysis of countries' freedom scores over two or more years. The researcher managed this by using scores for just one year (2020) for the analysis. This limitation also presents an opportunity for future research, which can focus on comparative studies to test the changes in a country's freedom score and its content removal requests over time.

Future research can also consider studying other platforms' transparency reports for a more balanced and comprehensive report on government content removal across all platforms since social media platforms like Meta, Microsoft, TikTok, Twitter (discontinued), etc. all publish transparency reports that can be useful for such studies. Future studies can also study content removal requests from all Google products since this study focused on YouTube, Search, and blogs. Analyzing all Google products can provide a wholesome picture of government content removals.

6.6 Conclusions

Government requests for content removal are a source of concern that could have serious consequences for democratic processes. Freedom House (2022) noted that more than three-quarters of the world's internet users reside in countries where governments penalize people for exercising their right to free speech online.

Google, as a major source of online content providers for the world, is playing the role of the invisible hand that controls access to content for users of different countries. Yet, it has a role to play in promoting the social good. Google's role in content removal might be perceived by some as a juxtaposition of its unofficial starter motto, "Don't be evil," which has in some way shaped public perception of the company as a provider of unbiased access to information (Sheehan 2018).

While governments may argue that certain content is harmful or threatens national security, removing such content may result in censorship, limiting freedom of expression and access to information. This has serious consequences for democratic processes such as the right to dissent, free speech, and the ability to hold those in power accountable. To limit these consequences, strict policies regarding transparency reports should be set in place. Social media companies should be mandated to follow set guidelines when reporting on content removals since most online platforms' transparency reports are not fully compliant with SCP 2.0 (a framework developed by experts for improved transparency across platforms) (Urman and Makhortykh 2023).

This study has shown that the amount of content removal is growing over time, and this is not just prevalent in autocratic countries. Except for Russia, most of the content removal requests to Google come from countries with moderate to high freedom scores. Countries with low freedom scores have been shown to request fewer content removals. At face value, a country like South Korea, which has a high freedom score, would not be attributed to high content removal from Google; however, as we have seen in this study, the reverse is the case. This is evidence that countries with high freedom scores are slowly but surely catching up to the censorship practices of more autocratic countries. Moreover, with higher Internet penetration, the request for content removal from Google will likely increase.

Overall, this study has shown that ultimately, governments need to strike a balance between their responsibility to protect their citizens and the fundamental rights and values of a democratic society. It has also shown that the power to remove content from the internet lies not solely with governments but also with big tech companies like Google, who decide what content to remove, appeal for, or approve for removal. Internet censorship is, therefore, a joint force between what a government permits and what big technology companies are willing to forgo to preserve the functionality of their platforms.

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