



Internet Monitoring Action Project

iMAP Myanmar 2023

Internet Censorship

Report

By Independent Researchers (Anonymous),
Siti Nurliza Samsudin (Sinar Project) and Kelly Koh (Sinar Project)

About iMAP

The Internet Monitoring Action Project (iMAP) aims to establish regional and in-country networks that monitor network interference and restrictions to the freedom of expression online in 10 countries: Myanmar, Cambodia, Hong Kong, India, Indonesia, Malaysia, Philippines, Thailand, Timor-Leste and Vietnam. Sinar Project is currently working with national digital rights partners in these 10 countries. The project is done via Open Observatory Network Interference (OONI) detection and reporting systems, and it involves the maintenance of test lists as well as the collection and analysis of measurements.

More information available at: imap.sinarproject.org. Any inquiries and suggestions about this report can be directed to team@sinarproject.org.

About Sinar Project

Sinar Project is a civic tech initiative that uses open technology, open data, and policy analysis to systematically make important information public and more accessible to the Malaysian people. It aims to improve governance and encourage greater citizen involvement in the public affairs of the nation by making the Parliament and the Malaysian Government more open, transparent and accountable. More information is available at <https://sinarproject.org>.

How to Use This Report

Recommendations to audience:

- Supporting evidence of internet censorship
- Understanding what is the latest development of internet censorship in the country, in terms of methods of blockings and the websites affected by censorship
- Policy advocacy
- Call for action

This report is not meant to provide a comparison of measurements across countries or measurements among different website categories covered by the iMAP project.

Abbreviations

ALDR	Alcohol & Drugs
ANON	Anonymization and circumvention tools
ASN	Autonomous System Number
COMT	Communication Tools
CTRL	Control content
CULTR	Culture
DNS	Domain Name System
COMM	E-commerce
ECON	Economics
ENV	Environment
FILE	File-sharing
GMB	Gambling
GAME	Gaming
GOVT	Government
HACK	Hacking Tools
HATE	Hate Speech
HOST	Hosting and Blogging Platforms
HUMR	Human Rights Issues
HTTP	Hypertext Transfer Protocol
IGO	Intergovernmental Organisations
ICCPR	International Covenant on Civil and Political Rights
iMAP	Internet Monitoring Action Project
IP	Internet Protocol
ISP	Internet Service Provider
MMED	Media sharing
MISC	Miscellaneous content
NEWS	News Media
DATE	Online Dating
OONI	Open Observatory Network Interference
POLR	Political Criticism
PORN	Pornography
PROV	Provocative Attire
PUBH	Public Health

ALDR	Alcohol & Drugs
REL	Religion
SRCH	Search Engines
XED	Sex Education
GRP	Social Networking
MILX	Terrorism and Militants
TCP	Transmission Control Protocol
TLS	Transport Layer Security

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Key Findings

- Following two years of military rule, the status of internet censorship in Myanmar has increased steadily. As the situation stands today, Myanmar has no internet freedom at all.
- During the research period from 1 July 2022 to 30 June 2023, the study found 177 sites that were confirmed to be blocked by DNS and HTTP interference.
- In April 2022, the Ministry of Telecommunications (MoTC) issued a directive to block websites associated with opposing government entities, such as NUG and CRPH. This action resulted in the largest number of government-blocked websites in this study. The social networking category is found to have the second highest number of blocked websites. This is followed by militant and terrorism websites based on OONI categories.
- The 104 blocked websites mentioned in the previous 2022 report continue to be blocked, as noted in this 2023 report.
- The study found that a higher percentage of likely blocks appear in Rakhine and Chin than in other states and regions.
- Since 3 February 2021, the country's telecom companies have been ordered to block access to Facebook Messenger and WhatsApp. Communication platforms such as Facebook Messenger, Signal, and WhatsApp may experience potential interference; these platforms were inaccessible through certain ISPs on certain days, potentially indicating a blockade.
- The OONI data shows that users in Myanmar can access circumvention tools like Psiphon, Tor, Tor Snowflake, and Vanilla Tor most of the time.

The situation of freedom of internet and online access in Myanmar has been worsening steadily since February 2021. Myanmar is now experiencing the strictest censorship in its history since the country opened up to the world in 2012.

Introduction

The country of Myanmar, also known as Burma, has been under the rule of a repressive military regime for decades. After democratic reforms and the military sharing power with elected lawmakers in 2011, Myanmar entered the digital revolution in 2012, and digital access has grown quickly since then. Increasingly affordable SIMs and smartphones, combined with more internet service providers and high-speed connection access points, led to an increase in the number of internet users in the country. However, even after nearly a decade of sharing power with elected leader Aung San Suu Kyi, the state of internet censorship remained uneven. Myanmar is now repeating the old system of censorship similar to the last decade, which largely prevented online information access, particularly access to websites covering the many human rights abuses after the recent two years of military rule.

In this report, Independent Researchers through iMAP aim to explore the most recent internet censorship trends and events in Myanmar by examining the network interference measurements found in OONI data from July 2022 to June 2023. iMAP has been working in Myanmar for two years to gather evidence on internet censorship by using the OONI tool to identify blocked websites.

Background

Myanmar is the second largest country in Southeast Asia, and it has an ethnically diverse population. Burman (Bamar) is the dominant ethnic group in Myanmar. The country is divided into seven states and seven regions, one union territory, one self-administered division, and five self-administered zones. States are generally divided by ethnic groups, such as Kachin, Shan, Mon, Kayan, Kayin, Chin, Rakhine, and Shan. Most of the population lives in rural areas, which is largely dominated by ethnic minorities. The seven regions can be described as ethnically predominantly Burman. Myanmar has struggled with military rule, civil war, poor governance, widespread poverty, and rights' violations since independence. Due to the military or Tatmadaw ruling that has been in place for the past two years, the country has again found itself in the throes of economic collapse, political crisis, and widespread human rights violations.

	54.38 million
	Burman (Bamar) (68%), Shan (9%), Karen (7%), Rakhine (3%), Indian (2%), Mon (2%), and others (5%).
ation (% of population using the internet)	44.0%
ptions (per 100 inhabitants)	126 (2021 World Bank)
e connections	64.60 million
	15 million
e Net ranking (2022)	12/100; Not free
	Buddhist (88%), Christian (6%), Muslim (4%), animist (0.8%), and others (0.2%).
	89.5%
tion	No

Table 1: The latest Myanmar profile (Sources: [CFR](#), World Bank, and [Data Reportal](#))

Social, Political, and Economic Landscapes

Social Landscape

According to the CIA Factbook and UNDP's HDI profile:

- o **Main languages:** Burmese (official). This language is spoken by two thirds of the population. The minority languages — most of which are using the Burmese script — are Shan, Karen, Kachin, Thamizh, Chin and Mon languages and dialects.
- o **Urbanisation rate:** 31.8% (2022)
- o **Literacy rate:** 89.1% of population of 15 years and above (2019)
- o **Health and education indicators:** The number of physicians per 10,000 people is 6.8, while the number of hospital beds is 10. The pupil-teacher ratio in primary schools is 24:1.

According to the UN Global Human Development Indicators (HDI profile):

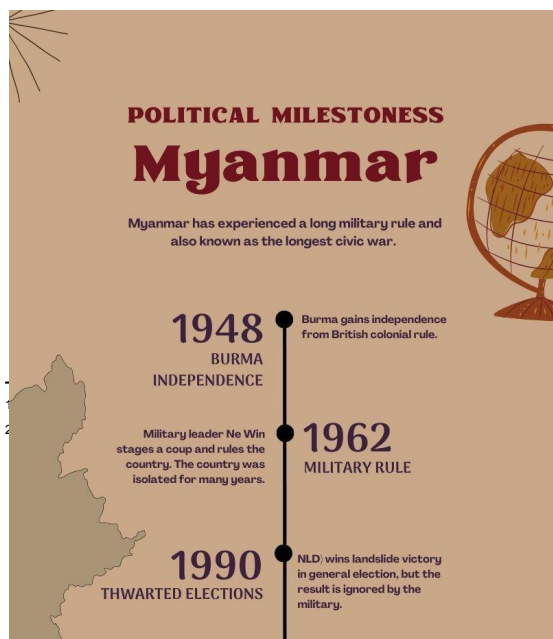
- o **HDI score and ranking:** With a score of 0.583, Myanmar ranks 147th out of 189 countries and is in the range of "medium human development". The country has seen a constant improvement of indicators, although the situation is different in war-affected areas.
- o **Life expectancy:** 67.1 years
- o **Median age:** 29.0 years
- o **GINI coefficient:** 30.7
- o **Gender Inequality Index:** Myanmar ranks 118th, with a score of 0.478.
- o **Unemployment:** While the unemployment rate is very low at 1.6%, 59.1% of all people in the workforce is in vulnerable employment and 48.9% of the workforce is in agriculture. The percentage of youth between 15 and 24 who are neither in school nor in employment is 19.6%.

Following the pandemic crisis, Myanmar has now undergone the political crisis for two years. The people of Myanmar are facing several social issues, including poverty, income inequality, and inadequate access to education, healthcare, and basic services especially in rural areas and conflict zones. The country is also grappling with ongoing conflict and displacement in some regions, impacting social stability and well-being. According to the 2023 UNHCR Report, more than 982,000 Myanmar citizens were displaced, forcing tens of thousands of refugees to flee into the neighbouring countries.¹

There has been significant growth in violence and insecurity around the country following the events of February 2021. Numerous civilians have been killed and injured. Villages, including schools and religious infrastructures, were damaged particularly in the anti-SAC zones of Kachin, Karen, Karenni, Shan States and Magway, and Sagaing regions. The displaced populations have also been blocked from receiving humanitarian aid. UNHCR indicates that 1.35 million IDPs need urgent protection and humanitarian assistance.² Civilians also face a greater information gap as the SAC has blocked access to the internet and media outlets, risking life and death.

Political Landscape

Myanmar (or Burma as it was previously known) has undergone significant political reforms in recent years. Here are some political milestones.



Post 2010: Democracy Reforms

The military generals ruled the country from the early 1960s until 2011. During military rule, there were regular arrests of activists who defended information access, freedom of expression, and human rights. In 2012, the country transitioned to democratisation which seemed to be the end of military rule. Their

¹ <https://www.unhcr.org/global-appeal-2023?page=10>
² <https://www.unhcr.org/global-appeal-2023?page=10>

Sein, a former president of Myanmar, became the country's first civilian president³ in the first half of the century; however, the country was still under military influence. Hundreds of political prisoners were released from house arrest and media censorship, including the chairperson of NLDs Aung San Suu Kyi. The NLDs party began campaigning in 2011, with Aung San Suu Kyi leading the party in negotiations to attain multiparty democracy.

Post 2016: Power Sharing

In 2015, the NLD party won the general election and became the first non-military government, thus ending 54 years of military rule. The NLD government endeavoured to maintain a friendly relationship with the junta after coming to power in 2016. In 2019, the international perception of Aung San Suu Kyi, the State Counselor, was profoundly impacted by the high-profile cases of persecution targeting the Rohingya ethnic minority in Rakhine State. She faced severe criticism for her denial of all accusations of genocide during the proceedings at the International Court of Justice.⁴

Figure 1: Myanmar political milestones

Post 2021: Dictatorship return

Even though Aung San Suu Kyi had a friendly relationship with the military regime, General Min Aung Hlaing took control after a decade of non-military rule. On 1 February 2021, Senior General Min Aung Hlaing and other military leaders staged a coup; they detained and charged de facto civilian leader Aung San Suu Kyi who won the landslide general elections in November 2020. The military claimed that the election was irregular due to unfair voter turnout and detained several NLD party members. In the week after the coup, peaceful protests known as the Spring Revolution took place nationwide and called for the military to relinquish power.⁵ Street demonstrations occurred throughout the country, and civil servants enacted a Civil Disobedience Movement through strikes. A flurry of images, print materials, and graffiti slogans against the military dictatorship were shared physically and via social media. The Human Rights Watch reported that the SAC denied the call for the military to relinquish power and killed at least 1,200 protesters and bystanders, including approximately 75 children, and detained over 8700 government officials, activists, journalists, and civil servants.⁶

An opposition party, consisting of ousted NLD lawmakers, protest leaders, and activists from several minority groups, was formed to counter the SAC and represent a civilian parallel government known as the National Unity Government (NUG). On 7 September 2021, the NUG declared war on the junta and formed an armed division known as the People's Defense Force (PDF).⁷ By 2022, nationwide civil war between ethnic arms groups, PDF, and

³ Chaudhury, D. R. (2021, February 1). *In points: A timeline of Myanmar's politics*

⁴ Banerjee, S. (2022) The Enduring Challenges to Democratic Transition in Myanmar. *Observer Research Foundation*. Retrieved September 30, 2022, from <https://www.orfonline.org/research/enduring-challenges-to-democratic-transition-in-myanmar/>

⁵ Min Naing Soon. (2021, November 2). *The current crisis in Myanmar: The different political positions of the Mon people*. The Transnational Institute. <https://www.tni.org/en/article/the-current-crisis-in-myanmar-the-different-political-position-of-the-mon-people>

⁶ Human Rights Watch (2022). *Myanmar Events of 2021*.

<https://www.hrw.org/world-report/2022/country-chapters/myanmar-burma>

⁷ Mathieson, D. S. (2021, September 7). *Myanmar's shadow government formally declares war*. Asia Times. <https://asiatimes.com/2021/09/myanmars-shadow-government-formally-declares-war/>

SAC was occurring not only in the ethnic territories but also in the cities.⁸ Since the coup, the military has imposed martial law in several townships and severely targeted anti-SAC armed groups. Continued military rule threatens human rights and freedoms of expression and perpetuates persecution against ethnic minorities and women. There is a significant increase in the violence perpetrated against women and girls compared to before the coup. Post coup, women and girls are more likely to become victims of emotional and physical abuse due to increased safety concerns.

Over the past two years of military rule, the widespread violence and conflict has forced thousands of civilians to flee into neighbouring India and Thailand. The military takes completely arbitrary action. For instance, the junta controlled all the telecom sectors and banned social media and media outlets including ethnic minority media. In fact, freedom of expression was already limited before the 2021 coup. Right after the coup, the old system of prior censorship gradually was reinstated, effectively limiting media coverage of the numerous human rights violations being committed. After two years of SAC ruling, freedom of information and expression are further violated, which affects matters of life and death for the people in Myanmar.

Economic Landscape

Indicator	Value		
	2020	2021	2022
GDP (USD billion)	78.93	65.12	59.36
GDP per capita (USD)	1,477.5	1210.5	1,095.7
GDP Growth (annual %)	3.2	-17.9	3

Table 2: GDP landscape from 2020 to 2022 (source: World Bank)

Majority of the Myanmar population depend on agriculture to make a living. Agriculture remains a crucial sector in Myanmar, employing a large portion of the population and contributing to the country's economy. Rice, pulses, beans, and other agricultural products are major exports. Myanmar is rich in natural resources that have attracted international attention, including natural gas, jade, and rubies that are directly controlled by the military.⁹ With regards to connectivity and infrastructure, Myanmar's infrastructure, including roads, electricity, and telecommunication networks, has improved in recent years. But challenges still remain in terms of availability and reliability, particularly in rural areas where there are high rates of poverty.

Due to a combination of economic mismanagement, ongoing conflict, and the isolationist policies adopted by the military junta in the 1960s and 1970s, among other factors, Myanmar has historically faced greater financial challenges compared to its neighbouring countries. A long period of isolationist military rule has left Myanmar economically underperforming. However, after the economic reforms in 2011, the gross domestic product (GDP) per capita

⁸ Maizland, L. (2022, January 31). *Myanmar's troubled history: Coups, military rule, and ethnic conflict*. Council on Foreign Relations. <https://www.cfr.org/background/myanmar-history-coup-military-rule-ethnic-conflict-rohingya>.

⁹ Maizland, L. (2022). *Myanmar's troubled history: Coups, military rule, and ethnic conflict*. Council on Foreign Relations. <https://www.cfr.org/background/myanmar-history-coup-military-rule-ethnic-conflict-rohingya#chapter-title-0-6>

rose to nearly double compared to 2008¹⁰ as the country made liberal moves with global trade and investment. As a result, Myanmar experienced an influx of foreign direct investment (FDI) in sectors such as manufacturing, energy, telecommunications, and tourism. The country's poverty rate also significantly declined. In 2015, the economy significantly grew while the liberalisation of product and factor markets, integration into regional markets, and modernization of economic and financial institutions and systems took place under the civilian government.¹¹

Following the widespread pandemic and political crisis on 1 February, 2021, a state of emergency was declared. This affected economic collapse and resulted in almost half of the population living below the poverty line after two years of military ruling. Many foreign investors withdrew from Myanmar due to significant constraints, civil unrest, and foreign sanctions.¹² The tourism industry and banking systems are near collapse. According to Richard Horsey of the International Crisis Group, Myanmar now “stands on the brink of state failure”.¹³

Legal Environment

After seizing power in a coup two years ago, Myanmar's military rulers declared a state of emergency, which has recently been extended for another six months.¹⁴ Over the past two years, the military authority has been observed to often take completely arbitrary action. Freedom House 2021 reported that Internet freedom in Myanmar collapsed following the February 2021 military coup. Furthermore, several laws were amended and proposed, which both directly and indirectly affect the freedom of expression online, access to information online, online privacy, censorship, and surveillance in the digital space in Myanmar. These are the laws related to censorship in Myanmar.

- Constitution of the Republic of Myanmar (2008)¹⁵
- Draft Cybersecurity Bill (2022)¹⁶
- Electronic Transactions Law (2004,¹⁷ amended 2021¹⁸)
- Telecommunications Law (2013)¹⁹

¹⁰ Maizland, L. (2022). *Myanmar's troubled history: Coups, military rule, and ethnic conflict*. Council on Foreign Relations. <https://www.cfr.org/backgrounder/myanmar-history-coup-military-rule-ethnic-conflict-rohingya#chapter-title-0-6>

¹¹ World Bank. (2022). *The World Bank in Myanmar: Overview*. <https://www.worldbank.org/en/country/myanmar/overview#1>

¹² Maizland, L. (2022). *Myanmar's troubled history: Coups, military rule, and ethnic conflict*. Council on Foreign Relations. <https://www.cfr.org/backgrounder/myanmar-history-coup-military-rule-ethnic-conflict-rohingya#chapter-title-0-6>

¹³ Kurlantzick, J. (2021). *Myanmar is a failing State—and could be a danger to its neighbors*. Council on Foreign Relations. <https://www.cfr.org/in-brief/myanmar-failing-state-covid-19-crisis-global-response>

¹⁴ Al Jazeera. (2023, February 1). Myanmar military rulers extend state of emergency by six months. *Al Jazeera*. <https://www.aljazeera.com/news/2023/2/1/myanmar-military-rulers-extend-state-of-emergency-by-six-months>

¹⁵ Myanmar. Const. 2008.

¹⁶ Draft Cyber Security Law. (2022). <https://freexpressionmyanmar.org/wp-content/uploads/2022/01/Cyber-Security-Bill-2022-EN.pdf>

¹⁷ Electronic Transactions Law. (2004). <https://freexpressionmyanmar.org/wp-content/uploads/2017/07/Electronic-Transactions-Law-EN.pdf>

¹⁸ Electronic Transactions Law 2004, Amendment. (2021). <https://freexpressionmyanmar.org/myanmars-new-electronic-transactions-law-amendment/>

¹⁹ Telecommunications Law. (2013). <https://freexpressionmyanmar.org/wp-content/uploads/2017/07/telecommunications-law-en.pdf>

- Law Protecting the Privacy and Security of Citizens (2017,²⁰ amended 2020²¹)
- Right to Information Bill (2016)²²
- Myanmar Penal Code (1861)²³
- Broadcast Law (2015, amend 2021²⁴)
- Official Secrets Act (1923)²⁵
- Citizens Privacy and Security Protection Law (2017)²⁶
- New Media Law (2014)²⁷
- Peaceful Assembly and Peaceful Procession Law (2011,²⁸ amended 2014,²⁹ and 2016³⁰)

While information restrictions in Myanmar are not unusual, they have been formalised and integrated into the legal system through numerous amendments to the criminal laws³¹. Since the coup, a few existing laws have been amended including the Penal Code and Electronic Transactions Law and suspended sections 5, 7, and 8 of the Law Protecting the Privacy and Security of Citizens. A new Cybersecurity Bill has also been drafted. Largely exercised since the coup, these laws affect the freedom of expression.

Constitution of the Republic of Myanmar (2008)

Among the rights, the 2008 constitution³² somewhat guarantees all citizens the right to freedom of expression under Articles 354 and 365. However, the constitution does not fully protect the right to freedom of expression, and Articles 354³³ (liberty of expression and publication) and 365³⁴ (freedom of artistic expression) do not comply with international standards. Furthermore, Human Rights Watch has stated that it threatens the freedom of expression for journalists and human rights defenders.³⁵

²⁰ Law Protection of the Citizen for the Personal Freedom and Personal Security. (2017).

<https://myanmar-law-library.org/law-library/laws-and-regulations/laws/myanmar-laws-1988-until-now/national-league-for-democracy-2016/myanmar-laws-2017/pyidaungsu-hluttaw-law-noo5-2017-protection-of-the-citizen-for-the-personal.html>

²¹ Law Protection of the Citizen for Personal Freedom and Personal Security 2017, Amendment. (2020).

https://www.myanmar-responsiblebusiness.org/pdf/Law-Protecting-Privacy-and-Security-of-Citizens_en_unofficial.pdf

²² Right to Information Bill. (2016).

<https://freeexpressionmyanmar.org/wp-content/uploads/2017/07/Right-to-information-bill-EN.pdf>

²³ The Penal Code. (1861). <https://freeexpressionmyanmar.org/wp-content/uploads/2017/06/penal-code.pdf>

²⁴ Broadcasting Law 2015, Amendment. (2021).

<https://myanmar-law-library.org/law-library/laws-and-regulations/laws/myanmar-laws-1988-until-now/state-administration-council-2021/myanmar-laws-2021/state-administration-council-law-no-63-2021-second-amendment-law-to-the.html>

²⁵ Official Secrets Act. (1923). https://www.icnl.org/wp-content/uploads/Myanmar_secrets.pdf

²⁶ Law Protection of the Citizen for Personal Freedom and Personal Security 2017, Amendment. (2020).

https://www.myanmar-responsiblebusiness.org/pdf/Law-Protecting-Privacy-and-Security-of-Citizens_en_unofficial.pdf

²⁷ Media Law. (2014). <https://freeexpressionmyanmar.org/wp-content/uploads/2017/07/News-Media-Law-EN.pdf>

²⁸ Peaceful Assembly and Peaceful Procession Law. (2011).

<https://freeexpressionmyanmar.org/wp-content/uploads/2018/02/Peaceful-Assembly-and-Peaceful-Procession-Law-EN.pdf>

²⁹ Peaceful Assembly and Peaceful Procession Law. (2014).

<https://freeexpressionmyanmar.org/wp-content/uploads/2018/02/Peaceful-Assembly-and-Peaceful-Procession-Law-Amendment-2014-EN.pdf>

³⁰ Peaceful Assembly and Peaceful Procession Law. (2016).

<https://www.ilo.org/dyn/natlex/docs/ELECTRONIC/108183/133587/F-1886991084/MMR108183%20Bur.pdf>

³¹ Das, O. P. (2023, July 14). *The media landscape in Myanmar: A post-coup analysis*. Manohar Parrikar Institute for Defence Studies and Analyses. <https://idsa.in/issuebrief/the-media-landscape-in-myanmar-opdas-140723>

³² Myanmar. Const. 2008.

³³ Myanmar. Const. 2008.

³⁴ Myanmar. Const. 2008.

³⁵ Human Rights Watch. (2019, April 11). *Myanmar: Guarantee the right to free expression in the constitution*. <https://www.hrw.org/news/2019/04/11/myanmar-guarantee-right-free-expression-constitution>

Penal Code (1861, amended 2016, 2019 and 2021)

The Penal Code (also known as the Criminal Code) law was tentatively created under a colonial government. It was amended in 2016, 2019, and most recently in 2021.³⁶ Many articles, including ones on defamation, sedition, offence, religion, and incitement, are easily used to suppress debate and punish those who criticise the government. Right after the coup, the SAC amended the Penal Code by adding a new provision for section 505A, broadening section 124A, and adding new sections 124C and 124D. The new amendments attempt to prohibit the rights of free expression, peaceful assembly, and association. Since the military coup, most detainees including ethnic minority Rohingyas have been charged under the amended section 505A. Anyone who “causes fear,” spreads “false news, [or] agitates directly or indirectly a criminal offence against a government employee” is punishable by up to three years in prison.³⁷ On 3 May 2023, the State Administrative Council (SAC) released 2,153 political prisoners under the charge of Penal Code Act 505 A.³⁸

Electronic Transactions Law (2004, 2014 and amended 2021)

Originally enacted in 2004, the Myanmar Electronic Transactions Law³⁹ was amended in 2014 to remove some problematic provisions. On 15 February 2021, after the military coup, the SAC amended this law again without forewarning and opportunity to consult. The new amendment mostly copies the 2021 Draft Cybersecurity Bill, including Articles 9/38, 38a, 38d and 38e, and it further restricts digital rights.

The 2021 amendment extends criminalising anti-regime statements, which curbs information access and freedom of expression. The new crimes and their long prison sentences will create significant risk to the right to freedom of expression especially in the digital space. Dozens of journalists have been forced to flee following the military’s crackdown on press freedoms. According to the Committee to Protect Journalists (CPJ), more than 100 journalists were arrested under criminal charges in 2021.⁴⁰

Draft Cybersecurity Bill (2021)

A draft Cybersecurity Bill was first introduced in 2019,⁴¹ but it was abandoned. This Cybersecurity bill (1.0) was again proposed by the State Administration Council a week after the coup in 2021. On 28 January 2022,⁴² the military revised the draft law (Law 2.0) by requesting feedback from a few stakeholders. Based on the analysis done by Free Expression Myanmar (FEM), the new draft Cyber Law (2.0) repeats and adds on the

³⁶ The Penal Code. (1861).

<https://myanmar-law-library.org/topics/myanmar-labour-health-and-safety-law/penal-code-1861.html>

³⁷ Human Rights Watch. (2021, March 2). *Myanmar: Post-coup legal changes erode human rights*.

<https://www.hrw.org/news/2021/03/02/myanmar-post-coup-legal-changes-erode-human-rights>

³⁸ Amnesty. (2023, May 3). *Myanmar: Follow ‘long overdue’ pardons by releasing all those unjustly detained*.

<https://www.amnesty.org/en/latest/news/2023/05/myanmar-release-all-unjustly-detained-prisoners/>

³⁹ Electronic Transactions Law. (2004).

<https://freeexpressionmyanmar.org/wp-content/uploads/2017/07/Electronic-Transactions-Law-EN.pdf>

⁴⁰ Freedom House. (2022). *2022 Myanmar Country Report*. <https://freedomhouse.org/country/myanmar/freedom-world/2021>

⁴¹ Draft Cyber Security Law. (2022).

<https://freeexpressionmyanmar.org/wp-content/uploads/2022/01/Cyber-Security-Bill-2022-EN.pdf>

⁴² Gan, A., & See, K. (2022, February 12). Myanmar: The introduction of a prohibition on the use of virtual private networks. *Global Compliance News*.

<https://www.globalcompliancencnews.com/2022/02/12/myanmar-the-introduction-of-a-prohibition-on-the-use-of-virtual-private-networks250122/>

repressive provisions of previous drafts (2021), seriously threatening the safety and security of Myanmar's digital space.⁴³ This amendment further threatens privacy, information access, and freedom of expression. The legal adviser for Asia at Human Rights Watch, Linda Lakhdhir, told Human Rights Watch that the proposed cybersecurity law would consolidate the junta's ability to conduct pervasive censorship and surveillance and hamper the operation of businesses in Myanmar,⁴⁴ as this law does not only apply to social media and other content-sharing platforms, but it also applies to digital marketplaces, search engines, financial services, data processing services, and communications services providing messaging or video calls and games.

Other Associations

- Revenge pornography can be charged under the Section 66(d) of the 2013 Telecommunications Law and Electronic Transactions Law, which bans revenge porn. Following the coup, SAC used revenge porn as a political weapon to discredit and shame young female activists opposing the coup.⁴⁵
- Same-sex sexual activity is prohibited under the Penal Code 1861. This law has been in place since the colonial period. After two years of military coup, several LGBT people have been arrested and detained.⁴⁶
- Referring to the military using the terms “junta”, “regime”, and “coup” is prohibited. It can be charged under a new Cybersecurity Law as “misinformation and disinformation that causes public panic”.
- The use of Virtual Private Networks (VPN) is illegal under the new draft of the Cybersecurity Law.

⁴³ Free Expression Myanmar. (2022, January 22). *Military's cyber security bill worse than their previous draft*. <https://freeexpressionmyanmar.org/militarys-cyber-security-bill-worse-than-their-previous-draft/>

⁴⁴ Human Rights Watch. (2022, February 15). *Myanmar: Scrap Draconian Cybersecurity Bill*. <https://www.hrw.org/news/2022/02/15/myanmar-scrap-draconian-cybersecurity-bill>

⁴⁵ Thiha, A. (2021, August 9). Revenge Porn Has Become a Political Weapon in Myanmar. *The Diplomat*. <https://thediplomat.com/2021/08/revenge-porn-has-become-a-political-weapon-in-myanmar/>

⁴⁶ Human Dignity Trust. (n.d.). *Types of criminalisation*. <https://www.humandignitytrust.org/country-profile/myanmar/>

Reported Cases of Internet Censorship

As detailed in the following sections, Myanmar has faced instances of internet censorship and restrictions on freedom of expression, particularly in the aftermath of the coup. These reported cases, especially the blocking of social media sites, are found to persist even during the period of study from July 2022 to June 2023.

Social Media Blackouts

Since 2021, social media sites such as Facebook, including Instagram, WhatsApp, and Messenger have been blocked in Myanmar.⁴⁷ On 5 February 2021, Privacysavvy reported that Twitter and Instagram were also blocked.⁴⁸ Following that, the military junta blocked Wikipedia in all languages on 18 February 2021.⁴⁹

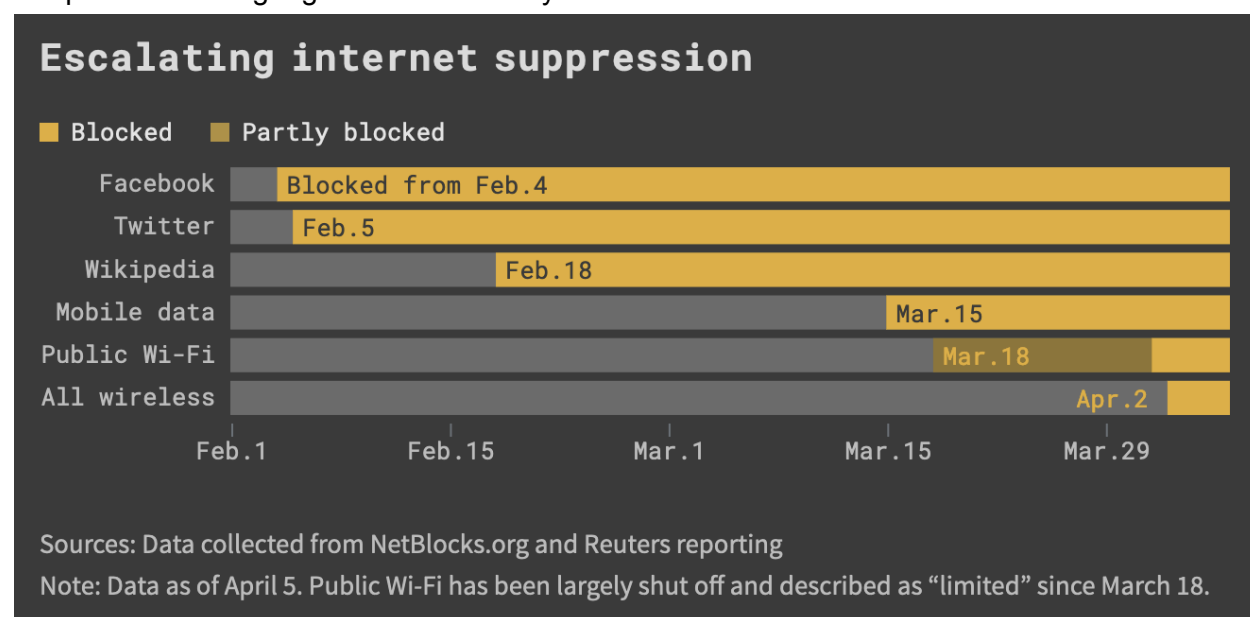


Figure 2: Escalating internet suppression in Myanmar in 2021 (Source: Reuters)

Blocking of Websites

On 8 April 2022, the MoTC secretly ordered the ban of all anti-SAC websites,⁵⁰ including the websites of the National Unity Government (NUG) and Pyidaungsu Hluttaw Representative Committee (CRPH) that emerged to rebel against the military coup. Furthermore, on 30 October 2022, The Irrawaddy reported that the SAC announced via state media to ban the The Irrawaddy News outlet and revoke its licence.⁵¹

⁴⁷ Accessnow. (2022, March 18). *Internet access, censorship, and the Myanmar coup*.
<https://www.accessnow.org/update-internet-access-censorship-myanmar/>

⁴⁸ Mathenge, R. (2022, September 19). *Internet censorship in Myanmar and how to evade it in 2022*. Privacysavvy.
<https://privacysavvy.com/geoblocking/censorship/myanmar-internet-censorship-evade-it/>

⁴⁹ Januta, A., & Funakoshi, M. (2021, April 7). Myanmar's internet suppression. *Reuters*.
<https://www.reuters.com/graphics/MYANMAR-POLITICS/INTERNET-RESTRICTION/rigpdbreepo/>

⁵⁰ Khit Thit Media. (2022, April 19). *Ban anti-SAC websites*.
https://web.facebook.com/385165108587508/posts/1475521106218564?_rdc=1&_rdr

⁵¹ The Irrawaddy. (2022, October 31). *After Repeated Crackdowns, Myanmar Junta Officially Bans The Irrawaddy*.
<https://www.irrawaddy.com/news/burma/after-repeated-crackdowns-myanmar-junta-officially-bans-the-irrawaddy.html>

Surveillance

Following the two-year coup, the military uses multiple approaches to enhance their authority by forcing biometric SIM-card registration,⁵² hacking,⁵³ and heavy public inspection, and additional laws and regulations with heavy punishment have increased its surveillance significantly. On 19 September 2022, the Department of Post and Telecommunications under the junta's Ministry of Transport and Communications announced that any citizen who fails to register their SIM card accurately with their Citizenship Scrutiny Card numbers, will have their SIM card cancelled.⁵⁴ The military regime is trying to inspect the anti-junta and enhance its surveillance, analysts said.⁵⁵

In addition, the ruling military has conducted extensive public inspections, threatening people who own digital tools. According to Soe Myint, the Managing Director of Mizzima Media Group in Myanmar, digital devices can be investigated and threatened any time in areas controlled by the SAC.⁵⁶ Furthermore, those found using VPNs and engaging with any news or content related to anti-military junta could be detained.⁵⁷

Internet outages

Following the coup, the ruling military frequently shut down internet access across the state and region.⁵⁸ Since August 2021, 31 townships across seven regions and states have reportedly experienced internet shutdowns.⁵⁹ Furthermore, the UN reports that in June 2022, 23 townships experienced the throttling of internet speeds.⁶⁰ Since the coup, Internet connectivity disruptions frequently occur across several states and regions, especially in the conflict zones.

⁵² Myanmar National Portal. (2022, September 20). *Statement on systematic purchases and registration of SIM cards*. Ministry of Information. https://myanmar.gov.mm/news-media/news/latest-news/-/asset_publisher/idasset354/content/statement-on-systematic-purchases-and-registration-of-sim-cards

⁵³ The New York Times. (2021, March 1). *Myanmar's Military Deploys Digital Arsenal of Repression in Crackdown*. <https://www.nytimes.com/2021/03/01/world/asia/myanmar-coup-military-surveillance.html>

⁵⁴ Myanmar National Portal. (2022, September 20). *Statement on systematic purchases and registration of SIM cards*. Ministry of Information. https://myanmar.gov.mm/news-media/news/latest-news/-/asset_publisher/idasset354/content/statement-on-systematic-purchases-and-registration-of-sim-cards

⁵⁵ RFA Burmese. (2022, October 3). Myanmar activists say junta will use SIM card registration to target opposition. <https://www.rfa.org/english/news/myanmar/simcards-10032022211504.html>

⁵⁶ The International Press Institute. (2023, February 7). *Two years after the coup: Media and democracy in Myanmar*. The International Press Institute. <https://ipi.media/events/two-years-after-the-coup-media-and-democracy-in-myanmar-feb-7-2023/>

⁵⁷ Lehmann-Jacobsen, E., & Myat The Thitsar. (2022). "News is life and death to us" Understanding media audiences in post-coup Myanmar. *International Media Support*. Retrieved August 14, 2023, from <https://www.mediasupport.org/publication/news-is-life-and-death-to-us-understanding-media-audiences-in-post-coup-myanmar/>

⁵⁸ Access Now. (2022, March 18). *Internet access, censorship, and the Myanmar coup*. <https://www.accessnow.org/press-release/update-internet-access-censorship-myanmar/>

⁵⁹ United Nations. (2022, June 7). *Myanmar: UN experts condemn military's "digital dictatorship"*. <https://www.ohchr.org/en/press-releases/2022/06/myanmar-un-experts-condemn-militarys-digital-dictatorship>

⁶⁰ United Nations. (2022, June 7). *Myanmar: UN experts condemn military's "digital dictatorship"*. <https://www.ohchr.org/en/press-releases/2022/06/myanmar-un-experts-condemn-militarys-digital-dictatorship>

Network Landscape

The internet in Myanmar was introduced in the early 2000s when former president Thein Sein rejected almost all forms of censorship by opening internet access for all. Under the new regime of a civilian government, the first internet connection was established.⁶¹ After 2011, internet accessibility in Myanmar seemed relatively positive until 2019, when ongoing conflict between the military junta and ethnic armed groups in Rakhine state specifically targeted the Rohingya ethnic group. Since then, Free Expression Myanmar reports that digital freedom of expression in Myanmar declined between 2018 to 2020,⁶² but after the coup, internet freedom Myanmar in 2023 is ranked 12 out of 100 or “not free at all”.⁶³

Digital access has grown quickly in Myanmar since its relatively recent entry into the digital revolution in 2011. Increasingly affordable SIM cards and smartphones, combined with more internet service providers and high-speed connection access points has led to an increase in connectivity: as of January 2021, there were 69.43 million mobile SIMs connections⁶⁴ and 23.65 million internet users⁶⁵ compared to the total population of Myanmar of 54.61 million in 2021, amounting to half the population of Myanmar before the military coup. There were **29 million social media users**, equivalent to 53.1% of the total population in January 2021. After two years of military ruling, there were **64.60 million** cellular mobile connections, and **15 million** social media users, equating to **27.6%** of a total population of **54.38 million** in January 2023.⁶⁶ Essentially, the number of social media users has reduced by about half. However, the number of internet users remained stable at **23.93 million**.⁶⁷ The network landscape is illustrated in **Figure 3**.

⁶¹ Beech, H. (2021, March 3). Myanmar's military deploys digital arsenal of repression in crackdown. *The New York Times*. <https://www.nytimes.com/2021/03/01/world/asia/myanmar-coup-military-surveillance.html>

⁶² Freedom House. (2020). *Freedom in the world 2020: Myanmar*. <https://freexpressionmyanmar.org/freedom-of-the-net-2020/>

⁶³ Freedom House. (2023). *Freedom in the world 2023: Myanmar*. <https://freedomhouse.org/country/myanmar/freedom-world/2023>

⁶⁴ Freedom House. (2021). *Freedom in the world 2021: Myanmar*. <https://freedomhouse.org/country/myanmar/freedom-net/2021>

⁶⁵ Datareportal. (2021, February 12). *Digital 2021: Myanmar*. <https://datareportal.com/reports/digital-2021-myanmar>

⁶⁶ Datareportal. (2023, February 13). *Digital 2023: Myanmar*. <https://datareportal.com/reports/digital-2023-myanmar?rq=Myanmar>

⁶⁷ Datareportal. (2023, February 13). *Digital 2023: Myanmar*. <https://datareportal.com/reports/digital-2023-myanmar?rq=Myanmar>

The transformation of digital landscape in Myanmar (Population in million)

Digital status adaptation of the population from 2017 to 2023 in Myanmar.

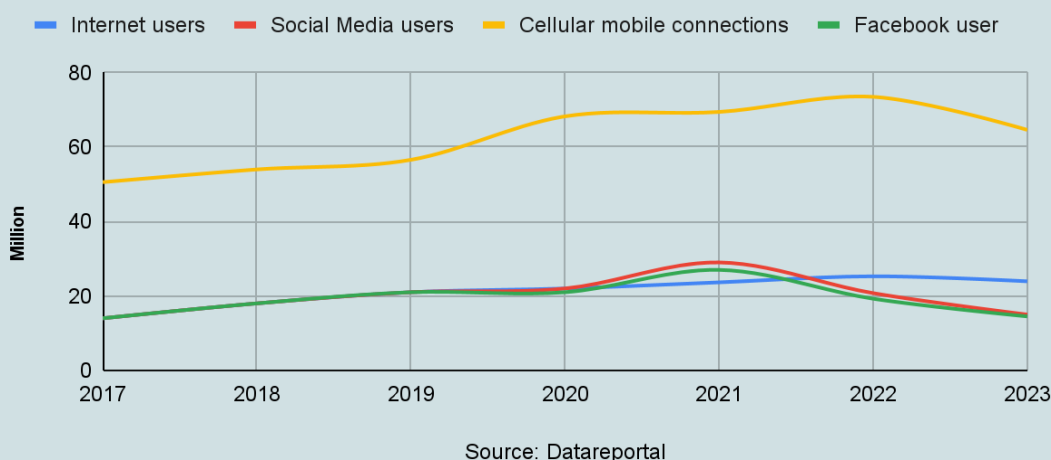


Figure 3: Network landscape in Myanmar 2017-2023 (Population in million)

Myanmar has four main telecommunications network operators, including Myanmar Posts and Telecommunications (MPT), which is a state-owned enterprise under the supervision of the Ministry of Transport and Communication. Ooredoo is a subsidiary of the Qatari Ooredoo Group. According to an announcement from the Ooredoo Group on 8 September 2022, it is planned to be sold to the Singapore vehicle Nine Communications Pte. Ltd, with an enterprise value of \$576 million.⁶⁸ ATOM (previously known as Telenor) withdrew and sold to the M1 Group, which has a master lease agreement with military backed Mytel.⁶⁹ Mytel is operated by Telecom International Myanmar, and its shareholders are Viettel Global Investment, a holding company owned by Vietnam's Ministry of National Defense, and the Myanmar military-owned conglomerate, Myanmar Economic Corporation.⁷⁰ Except for Ooredoo, three out of four telecom network operators have a close relationship with junta. Ooredoo is the last operator in Myanmar not owned or connected to the military junta, but it has taken steps to exit the country.

Similarly, while there are more than 30 internet service providers⁷¹ licensed under the Ministry of Transport and Communications (MoTC), the market is dominated by four main ISPs: Myanmar Net, Myanmar MPT, MyTel, and 5BB.⁷² Freedom House reported that fixed-line internet speeds are slower than average after the coup.⁷³ Since February 2021, all

⁶⁸ Ooredoo. (2022, September 8). *Ooredoo Group announces the sale of its telecom business in Myanmar to nine communications Pte. Ltd at an enterprise value of USD 576 million.*

https://www.ooredoo.com/en/media/news_view/ooredoo-group-announces-the-sale-of-its-telecom-business-in-myanmar-to-nine-communications-pte-ltd-at-an-enterprise-value-of-usd-576-million/

⁶⁹ Klesty, V. (2021, July 8). Telenor quits Myanmar with \$105 mln sale to Lebanon's M1 Group. *Reuters*.
<https://www.reuters.com/business/media-telecom/telenor-sells-myanmar-operations-m1-group-105-mln-2021-07-08/>

⁷⁰ Nora Aung. (2022, June 16). Myanmar regime using Mytel SIM cards to track its own soldiers. *The Irrawaddy*.
<https://www.irrawaddy.com/news/burma/myanmar-regime-using-mytel-sim-cards-to-track-its-own-soldiers.html>

⁷¹ News Media Lists. (n.d.). *Internet providers in Myanmar*. <https://www.newsmedialists.com/isp/myanmar>

⁷² Dataxis. (n.d.). *Fixed broadband and voice - Myanmar*.
<https://dataxis.com/product/market-report/fixed-broadband-and-voice-myanmar/>

⁷³ Freedom House. (2021). *Freedom in the world 2021: Myanmar*.
<https://freedomhouse.org/country/myanmar/freedom-net/2021>

media, internet, and mobile connections have been fully controlled by the State Administrative Council (SAC),⁷⁴ affecting internet speeds and social media platform access, and websites have been banned.⁷⁵ Under the two-year military coup, 43 ISPs have been operating in Myanmar based on OONI data (see **Annex II**).

Even though the number of internet users had rapidly increased in the previous years, the unexpected transition back to high censorship and Internet restrictions has seen periodic blackouts of the internet, inability to use VPNs, reductions in internet speeds, increases in price for mobile data and SIMs cards, poor telecommunication infrastructure, and electricity supply shortages; all of these largely affect internet users. The general impact has resulted in a general reduction of online usage, mainly due to increased fear and insecurity. Additionally, pro-democracy defender or Civil Disobedience Movement (CDM) advocates proactively discourage the use of mobile connections using telco-services that are associated with the military junta, further reducing internet usage and online activities.

⁷⁴ Lehmann-Jacobsen, E. (2021). The military tightens its grip on access to information in Myanmar. *The Diplomat*. <https://thediplomat.com/2021/02/the-military-tightens-its-grip-on-access-to-information-in-myanmar/>

⁷⁵ Lehmann-Jacobsen, E. (2021). The military tightens its grip on access to information in Myanmar. *The Diplomat*. <https://thediplomat.com/2021/02/the-military-tightens-its-grip-on-access-to-information-in-myanmar/>

Findings of internet censorship in Myanmar

All of the findings are based on data collected through OONI from 1 July 2022 to 30 June 2023.

Blocking of Websites

Throughout the one-year period, we tested 1.2 million measurements from 2,669 websites across 43 vantage points of 43 ISPs on OONI. As of 30 June 2023, the test list contained 1,629 websites in the Global Test List and 829 websites in the Myanmar Test List. Based on OONI measurements, the following terms are used in this report:

- **Measured or Measurement Counts:** Refers to the total number of measurements collected through the OONI Probe.
- **Blocked:** Refers to “Confirmed Blocked” in OONI measurements, which are measurements from websites that are automatically confirmed to be blocked (e.g., a block page was served).
- **Likely Blocked:** Refers to “Anomaly” and “Failure” in OONI measurements. Anomalies are measurements that show signs of potential blocking; however, [false positives](#) can occur. Failures refer to failed experiments in OONI testing, although they can sometimes be [symptomatic of censorship](#) (except in India).

	Jul-Sep 2022	Oct-Dec 2022	Jan-Mar 2023	Apr-Jun 2023	Total
Measured	439,255	302,123	259,122	196,068	1,196,735
Blocked	753	355	689	633	2,442
Block rate	0.17%	0.12%	0.27%	0.32%	0.20%
Input	2,570	2,440	2,449	2,485	2,669
ASNs	32	24	27	28	43

Table 3: Summary of OONI web connectivity measurements for Myanmar from 1 July 2022 to 30 June 2023

These measurements were analysed using heuristics as stated in Annex IV. It was found that there were **177** confirmed blocked websites, of which **114** were confirmed by OONI and **63** were confirmed by heuristics. The full list of these confirmed blocked websites is mentioned in Annex I, and the **8 ISPs** blocking the websites and their 8 vantage points are described in red in **Annex II**.

In the 2022 iMAP report, we reported the findings based on the number of measurements by test result categories on OONI, i.e., Confirmed, Anomaly, Failure, and OK. However in this 2023 report, we present the findings by the number and percentage of blocked and likely blocked measurements.

The following table describes measured websites by their categories with percentage of blocked and likely blocked measurements. It is evident that the most commonly blocked

websites are Government websites with a blocked rate of 26.7%. This is followed by Social Networking websites and websites under the Terrorism and Militants category, with blocked rates of 23.1% and 17.9%, respectively.

Category	Category description	OONI Probe Measurements	Number of blocked and likely blocked measurements	Percentage of blocked and likely blocked measurements
ALDR	Alcohol & Drugs	12,447	675	5.4%
ANON	Anonymization and circumvention tools	62,223	8,689	14.0%
COMM	E-commerce	23,137	2,671	11.5%
COMT	Communication Tools	68,036	6,572	9.7%
CTRL	Control content	7,944	340	4.3%
CULTR	Culture	52,633	4,757	9.0%
DATE	Online Dating	7,720	254	3.3%
ECON	Economics	14,614	1,089	7.5%
ENV	Environment	22,225	1,267	5.7%
FILE	File-sharing	21,469	1,350	6.3%
GAME	Gaming	8,497	246	2.9%
GMB	Gambling	14,075	1,721	12.2%
GOVT	Government	45,236	12,096	26.7%
GRP	Social Networking	109,601	25,290	23.1%
HACK	Hacking Tools	12,190	991	8.1%
HATE	Hate Speech	3,714	277	7.5%
HOST	Hosting and Blogging Platforms	69,540	5,266	7.6%
HUMR	Human Rights Issues	149,949	18,410	12.3%
IGO	Intergovernmental Organisations	4,940	149	3.0%
LGBT	LGBT	58,791	6,053	10.3%
MILX	Terrorism and Militants	5,397	966	17.9%
MISC	Miscellaneous content	854	68	8.0%
MMED	Media sharing	60,462	10,092	16.7%
NEWS	News Media	149,716	21,072	14.1%
POLR	Political Criticism	75,201	12,825	17.1%
PORN	Pornography	19,314	3,146	16.3%
PROV	Provocative Attire	5,296	334	6.3%
PUBH	Public Health	37,941	2,185	5.8%
REL	Religion	35,173	4,144	11.8%
SRCH	Search Engines	21,999	1,208	5.5%

Category	Category description	OONI Probe Measurements	Number of blocked and likely blocked measurements	Percentage of blocked and likely blocked measurements
XED	Sex Education	13,094	1,324	10.1%

Table 4: Summary of OONI web connectivity measurements for Myanmar from 1 July 2022 to 30 June 2023 by category

Note: Blocked and likely blocked measurements include “Confirmed Blocked”, “Anomaly”, and “Failures” on OONI measurements.

Based on the web connectivity test results, the most used methods of censorship by ISPs are DNS blocking (dns.confirmed) and HTTP blocking (http.body.confirmed). Out of 177 websites, 123 websites (69%) are blocked with the use of DNS blocking and the 54 (31%) are blocked with HTTP blocking. The following chart illustrates the percentage of websites blocked by the two blocking methods.

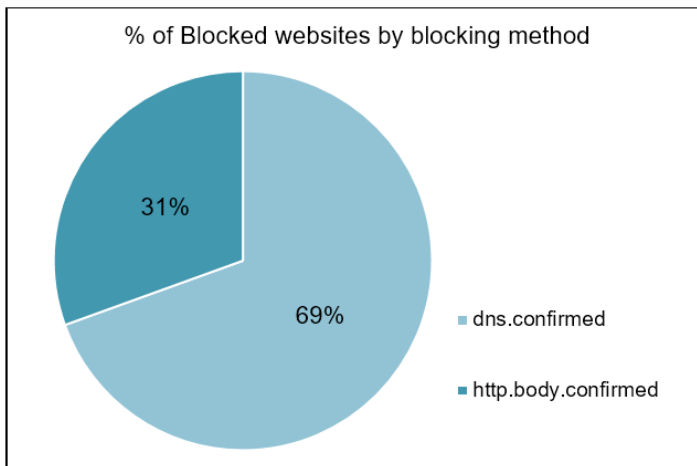
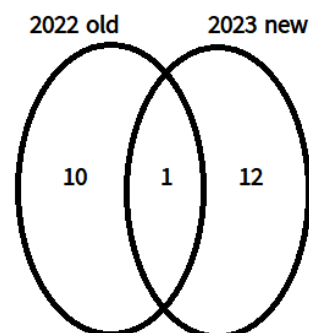


Figure 4: Percentage of websites blocked by different blocking methods

While analysing blocked websites for the 2022 iMAP report, one limitation was the unspecified website categories that were not under the 30 categories of the CitizenLab test lists. So out of 286 blocked websites in 2022, only 112 blocked websites of 11 categories were reported in detail. However, all 286 blocked websites were annexed in the 2022 report. In the 2023 report, all of the blocked websites have been categorised according to the CitizenLab categories, some of them by the researchers manually.

As mentioned above, the measurement results in this study period show that there are 177 confirmed blocked websites under 23 categories (**see Annex I**) with 12 new categories as below. The one website category that is common to both 2022 and 2023 reports is Public Health.

1. Alcohol & Drugs
2. Control content
3. Culture
4. E-commerce
5. Economics
6. Environment



7. File-sharing
8. Gambling
9. Hosting and Blogging Platforms
10. LGBT
11. Provocative Attire
12. Religion

In comparison with the 2022 report findings, among the total 177 blocked websites, 73 new websites of 22 categories are found to be blocked in study period as listed in **Table 5**. The rest (104 websites) remain blocked from the previous study period until now.

Categories	New Blocked Websites in 2023
Alcohol & Drugs	www.marijuana.com
Anonymization and circumvention tools	mullvad.net
	proxy.org
	proxytools.sourceforge.net
E-commerce	www.mpt.com.mm
	www.mumhouse.com
Communication Tools	discord.gg
	www.messenger.com
	www.tialsoft.com
	www.whitepages.com
Control content	www.mes.org.mm
	www.msftconnecttest.com
	www.msftncsi.com
Culture	auntysweet.blogspot.com
	blog.mghla.net
	blog-aunghtut.blogspot.com
	chitsanm.blogspot.com
	www.lwinpyin.com
Economics	www.myanmareregress.org
Environment	myanmarerecosolutions.com
File-sharing	canna.to

Categories	New Blocked Websites in 2023
Gambling	www.betfair.com
	www.luckynugget.com
Government	www.magwaygov.org
	www.nato.int
Social Networking	blogmarks.net
	cdn.fbsbx.com
	edge-mqtt.facebook.com
	lookaside.facebook.com
	pbs.twimg.com
	twitter.com
	web.facebook.com
	www.izapya.com
	www.linkedin.com
Hosting and Blogging Platforms	madyjune.blogspot.com
	mmhan.blogspot.com
	moechaint.blogspot.com
	myanmarstudyabroad.org
	myatthura.blogspot.com
	mymetroworld.blogspot.com
Human Rights Issues	hrlibrary.umn.edu
	myanmar.anglican.org
	www.change.org
	www.rfa.org
LGBT	instinctmagazine.com
	mgaybook.blogspot.com
	mycutestories.blogspot.com
Terrorism and Militants	www.karennationalunion.net
Media sharing	www.instagram.com

Categories	New Blocked Websites in 2023
	www.mediafire.com
	www.shweoe.com
News Media	burmese.dvb.no
	health.thithtoolwin.com
	journals.thithtoolwin.com
	myanmargazette.net
	myanmarnews.net
	ren.tv
	ria.ru
	thutazone.org
	www.bnionline.net
	www.frontiermyanmar.net
	www.kantarawaddytimes.org
	www.mizzima.tv
	www.rfa.org
Political Criticism	minyekyawswar.blogspot.com
	mmmilitary.blogspot.com
	motherland-2009.blogspot.com
	mtmblog.blogspot.com
	myanmarconstitutioncritic.blogspot.com
Pornography	pornhub.com
	www.lesbiansubmission.com
Provocative Attire	www.lasenza.com
Religion	mbc-1813.org

Table 5: New confirmed blocked websites from 1 July 2022 to 30 June 2023

The following sections highlight the blocking of websites by three categories with the highest blocking rates in Myanmar.

Government Websites

During the report period, OONI measurements recorded 123 websites belonging to the Government category. Among them, there are **10 blocked websites** and 8 websites run by the National Unity Government (NUG), which has been declared by the State Administration Council (SAC) as an illegal terrorist organisation. The findings show that two ISPs have blocked these websites: Myanmar Country Co., Ltd. with the network AS134840 and Myanmar Broadband Telecom Co., Ltd. with AS135300. See **Table 6** for blocked websites and related information. During the testing period, ISPs occasionally gave access to the websites on some days.

Blocked Websites	Website Description	ASN	ISP	Blocking method
www.nugmyanmar.org	National Unity Government of the Republic of the Union of Myanmar (NUG)	AS134840	Myanmar Country Co., Ltd.	DNS
www.mohadm.nugmyanmar.org	Ministry of Humanitarian Affairs and Disaster Management under NUG	AS134840	Myanmar Country Co., Ltd.	DNS
www.mohai.nugmyanmar.org	Ministry of Home Affairs and Immigration under NUG	AS134840	Myanmar Country Co., Ltd.	DNS
www.mohr.nugmyanmar.org	Ministry of Human Rights under NUG	AS134840	Myanmar Country Co., Ltd.	DNS
www.moic.nugmyanmar.org	Ministry of International Cooperation under NUG	AS134840	Myanmar Country Co., Ltd.	DNS
www.mol.nugmyanmar.org	Ministry of Labour under NUG	AS134840	Myanmar Country Co., Ltd.	DNS
www.monrec.nugmyanmar.org	Ministry of Natural Resources and Environmental Conservation under NUG	AS134840	Myanmar Country Co., Ltd.	DNS
www.mowycan.nugmyanmar.org	Ministry of Women, Youth and Children Affairs under NUG	AS134840	Myanmar Country Co., Ltd.	DNS
www.magwaygov.org	Domain is expired.	AS135300	Myanmar Broadband Telecom Co., Ltd.	HTTP
www.nato.int	North Atlantic Treaty Organization	AS135300	Myanmar Broadband Telecom Co., Ltd.	HTTP

Blocked Websites	Website Description	ASN	ISP	Blocking method
			Ltd.	

Table 6: Blocked websites under Government category

Social Networking Websites

Social networking websites make up the second most blocked category. From 1 July 2022 to 30 June 2023, 84 social networking websites were recorded by OONI measurements. Out of these, **19 websites** are blocked on 6 AS of 6 ISPs. Some websites are blocked on only one vantage point but some are blocked on more vantage points. **Table 7** states blocked websites of social networking with respect to ISPs. The measurement results also show that those 19 blocked websites were sometimes accessible during the study period, as seen in Figure 5 for the quarters of 2022 and 2023.

Blocked Websites	Myanmar Broadband Telecom Co., Ltd.	Myanmar Net	Atom Myanmar Limited	Myanmar Country Co., Ltd.	Stepping Stone Co., Ltd.	Frontiir Co., Ltd.
	AS135300	AS63852	AS133385	AS134840	AS133440	AS58952
blogmarks.net**	√					
twitter.com*		√	√	√		
www.izapya.com**	√					
www.linkedin.com**	√					
abs.twimg.com*			√		√	
cdn.fbsbx.com*			√			
edge-chat.instagram.com*			√	√		
edge-mqtt.facebook.com*			√	√		
external.xx.fbcdn.net*			√			
fbcdn.net*			√			
i.instagram.com*			√		√	
lookaside.facebook.com*			√		√	
pbs.twimg.com*			√			
scontent.xx.fbcdn.net*			√		√	
static.xx.fbcdn.net*			√		√	
staticxx.facebook.com*			√		√	

Blocked Websites	Myanmar Broadband Telecom Co., Ltd.	Myanmar Net	Atom Myanmar Limited	Myanmar Country Co., Ltd.	Stepping Stone Co., Ltd.	Frontiir Co., Ltd.
	AS135300	AS63852	AS133385	AS134840	AS133440	AS58952
upload.twitter.com*		√				√
video.twimg.com*			√		√	
web.facebook.com*			√	√	√	

Table 7: Blocked websites of Social Networking category

Note: * refers to the blocking method using DNS. ** refers to the blocking method using HTTP.

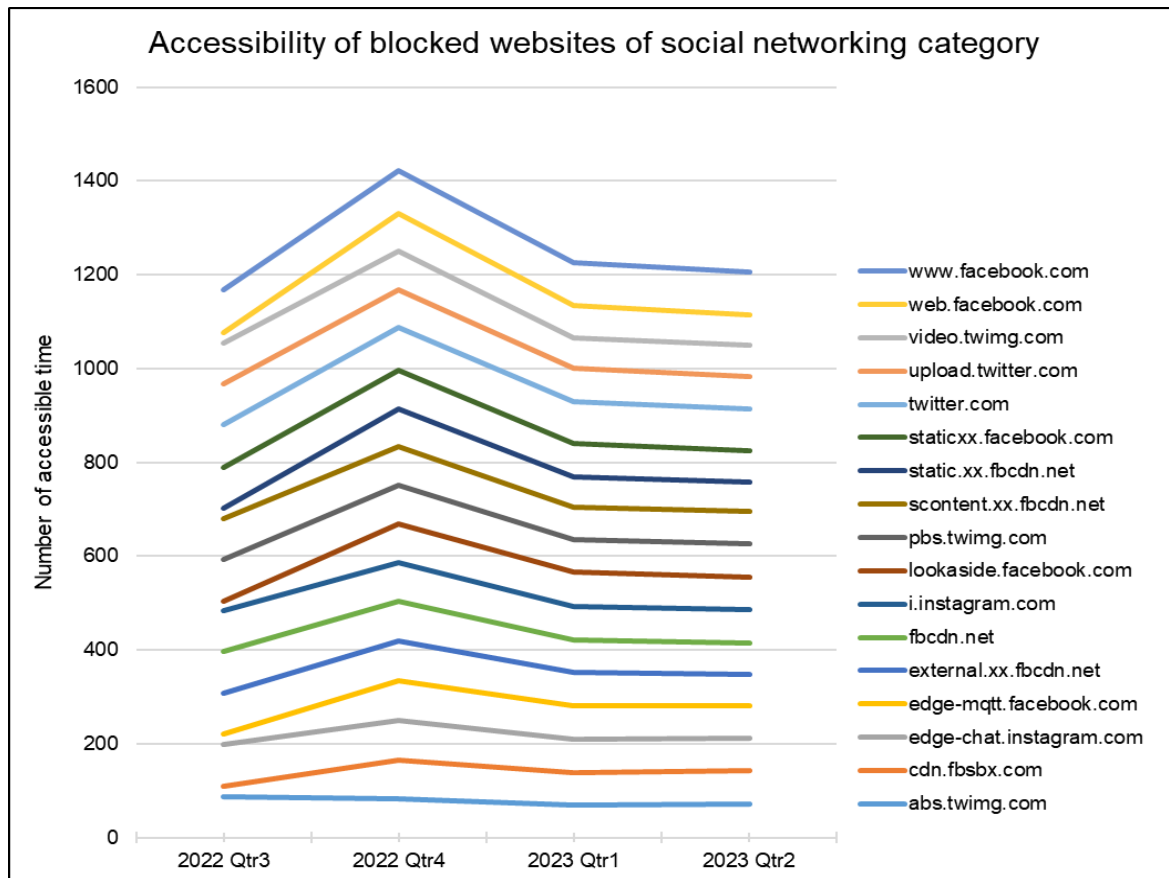


Figure 5: Accessibility of 19 blocked websites under social networking category. Accessibility here refers to the number of OK measurements on OONI.

Terrorism and Militants Websites

According to OONI measurements in the report period, 15 websites classified as Terrorism and Militants websites were recorded. Out of 15, **3 websites** under this category are blocked on 4 vantage points of 3 ISPs. One reason for blocking might be because the pages are about ethnic army forces fighting for their national liberation in Myanmar. The 3 blocked websites are listed with their descriptions, ASNs, ISPs, and blocking methods in **Table 7**.

Like other blocked websites, the measurements state that those 3 websites are sometimes accessible. The green column bars (OK counts) in the chart of **Figure 6** highlights the accessibility of the 3 websites.

Blocked Websites	Website Description	ASN	ISP	Blocking method
www.karennationalunion.net	Karen National Union	AS135300	Myanmar Broadband Telecom Co., Ltd.	HTTP
www.psftnla.org	Palaung State Liberation Front	AS136780	Myanmar Information Highway Limited	DNS
www.arakanarmy.net	Arakan Army	AS134840 AS136780	Myanmar Country Co., Ltd. Myanmar Information Highway Limited	DNS

Table 7: Blocked websites of Terrorism and Militants category

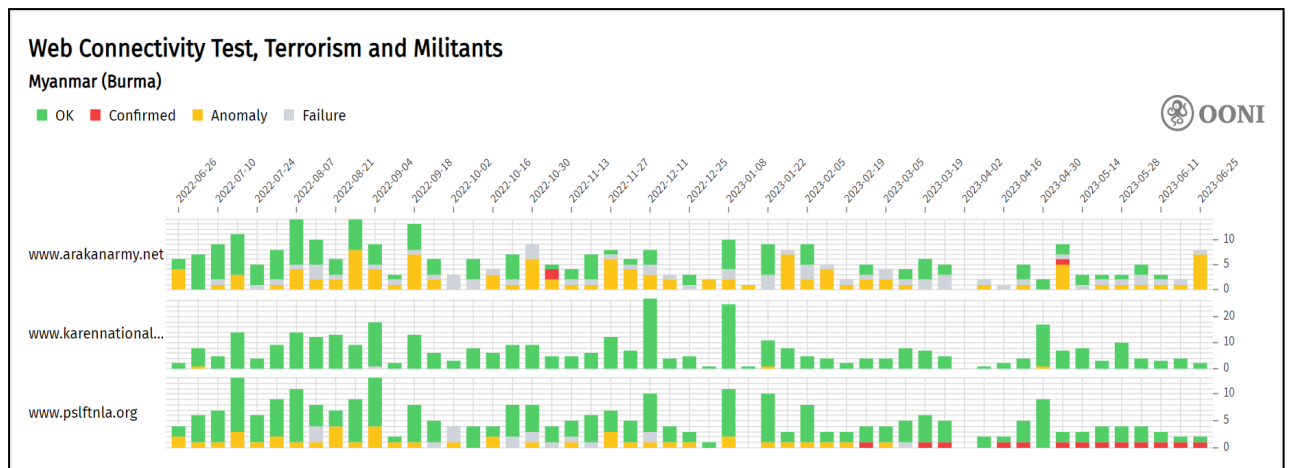


Figure 6: Accessibility (green segment) of three blocked websites under terrorism and militants category

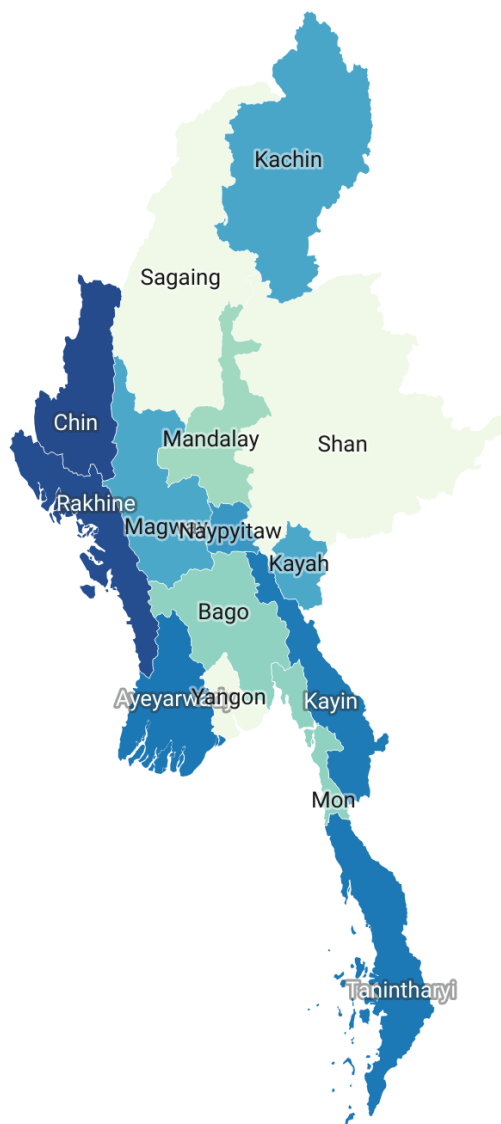
Blocked Websites by Region and State

Status of websites blocked by region and state

This map shows the websites blocked count by region and state in the period of from 1 July 2022 to 30 June 2023.

Percentage of likely blocked

low high



Map: Khun Win. • Source: OONI • Created with Datawrapper

Map 1: Blocked websites by states and regions

During the study period, it was found that there is a high percentage of likely blocked websites in the Chin and Rakhine regions. These two regions are areas of conflict in the country. Overall, the majority of likely blocked sites are found in recent anti-SAC zones. However, it should be noted that this regional analysis is conducted on the assumption that censorship is done consistently by ISPs across regions. This is because OONI measurements only collect information on ASN/ISP; they do not collect geolocation.

Blocking of Instant Messaging Apps

From 1 July 2022 to 30 June 2023, OONI measurements were done for four instant messaging apps.

	Facebook Messenger	Signal	Telegram	Whatsapp
Total Measurements	15,538	7,854	15,505	15,461
Percentage of blocked and likely blocked	61.4%	21.1%	10.1%	46.7%

Note: Failed measurements are discarded from this table.

- The **Facebook messenger** test showed a lot of anomalies with failed DNS lookups and failed TCP connections through 39 ASNs. But it was sometimes accessible.
- Most **Signal** tests were found reachable on 38 ASNs. Some results show that the anomaly presented signs of blocking.
- Almost all **Telegram** tests reported continued access on 40 ASNs during the testing period. It is likely to be blocked in a few days.
- The measurements of WhatsApp test on 40 ASNs show that **WhatsApp** had signs of potential blocking but was accessible from some vantage points on some days.

Blocking of Circumvention Tools

	Psiphon	Tor	Tor Snowflake	Vanilla Tor
Total Measurements	15,590	15,313	4,710	4,640
Percentage of blocked and likely blocked	2.6%	7.9%	8.0%	0.0%

Note: Failed measurements are discarded from this table.

- For almost the entire research period, **Psiphon** worked in the tested network through 32 ASNs and could be used to circumvent internet censorship.
- Nearly all Tor tests described that **Tor** worked on 31 ASNs in Myanmar during the testing period.
- According to test results, **Tor Snowflake** mostly worked on 21 ASNs to circumvent censorship.
- **Tor (Vanilla)** tests showed that the Tor network was reachable from 21 vantage points in Myanmar.

Acknowledgement of Limitations

- **Period of study**

This study's findings are limited to network measurements collected from 1 July 2022 to 30 June 2023 in order to examine the most recent censorship trends and events.

- **Vantage points**

Although the network measurements were collected from 43 vantage points in Myanmar, testing using the OONI software was not done consistently across all networks.

- **Use of input/URL as unit of measurement of websites**

In general, “URL” (or in OONI’s terms – input) and “domain” are interchangeable terms used to refer to a website. In the OONI test list, full URLs are input in the probe to be tested for censorship, similar to a URL starting with “https” or “http” in a browser. The censorship can involve tampering of DNS or HTTP or other types of censorship. Depending on the method, the blocking can either be at the URL or domain level. However when analysing results on OONI, the reader needs to note that there are differences in the numbers with respect to the specific input or domain.

In the 2022 report, domain was used as a unit of measurement of a website so as to reduce duplicates when measuring the number of websites blocked. For this 2023 report, however, input is used instead as it may give more context as to why the web page is blocked. The findings would also be categorised more accurately according to the CitizenLab test lists, which are in URL format. To better understand the findings on the state of censorship, we used percentage of blocked or likely blocked were used instead of actual counts based on OONI test results.

- **Differences in numbers with OONI data**

The findings in this report have been further processed from OONI’s data whereby more confirmed blockings were obtained and false ones eliminated through additional heuristics and manual verification by iMAP researchers based on country or local context. While these heuristics will eventually be added to OONI’s fingerprints, OONI will only process them for future testing.

Additionally, iMAP researchers have categorised blocked websites that were not part of the CitizenLab test lists but were tested on OONI via custom test lists. Hence the figures in this report may differ to results on the OONI Explorer.

- **Testing of instant messaging apps and circumvention tools**

The instant messaging apps and circumvention tools included in this report are limited to those tested on OONI. Therefore, they may not reflect the state of censorship of apps more commonly used in Myanmar.

- **Security issues in Myanmar**

After the coup, a number of online activists emerged, alongside a new test list of potentially blocked websites that included global and local websites. Due to insufficient volunteers to update the test list and run the OONI probe app, there may be some gaps in the findings. Hence, the findings of this study might not cover all the new websites that emerged during the political crisis, especially in the anti-SAC zones as accessing websites from there can be dangerous. After the coup, the military government continued to highly restrict cyber users, who could be placed at risk if they ran the OONI Probe and test lists from local vantage points in Myanmar.

Conclusion

During the two years of the coup, the military has made multiple attempts to reinstate the internet censorship policies and online oppression of the past decade in order to limit access to information for pro-democracy activists. The State Administration Council (SAC) seeks to strengthen its monitoring efforts primarily by controlling one of the online information flows. Any content that opposes or indirectly criticises the military is considered illegal and punishable by law.

In this report, independent researchers through the iMAP project conducted a study on the most recent censorship trends and events in Myanmar. In particular, we looked at network interference in Myanmar by examining blocking websites, instant messaging, and circumvention tools from OONI measurement data from 1 July 2022 to 30 June 2023. Out of a total of 2,477 websites, 177 were identified as confirmed blocked using the largest DNS and HTTP blocking methods. According to the study, the highest number of confirmed blocked websites is observed in the government category, primarily by two ISPs. On 8 April 2022, the MoTC discreetly issued a directive to prohibit any websites that oppose the SAC, including the National Unity Government (NUG) and Pyidaungsu Hluttaw Representative Committee (CRPH). Additionally, social network websites are the second most frequently blocked sites, followed by militant content. Out of a total of 177 websites, 104 websites were blocked sites from last year. During a Facebook messenger test, numerous anomalies were detected, including failed DNS lookups and TCP connections across 39 ASNs. It can be concluded that Facebook messenger is likely blocked most of the time. Signal and Whatsapp have been identified as potential targets of interference, as they may be accessible through certain ISPs on certain days but are more likely to be blocked. Telegram appears to have access across most vantage points. The majority of circumvention tools, such as Psiphon, Tor, Tor Snowflake, and Vanilla Tor, appear to be accessible for users in Myanmar most of the time.

The censorship in Myanmar has been steadily increasing. The [2022 OONI report](#) found 112 blocked sites out of 2,130 by DNS and HTTP level interference rights after about one year of the coup. After two years of the coup, the OONI still found that the military surveillance continues to restrict information flows through blocking 73 new websites, communications, and circumvention tools in 2023. Myanmar is ranked “not free” by Freedom on the Net report. To improve the status of freedom of information and expression in Myanmar, OONI is working to identify internet interference through blocked websites, instant messaging tools, and circumvention tools that people in Myanmar primarily rely on. However, OONI is unable to collect censorship measurements from outside of the country. Hence, it relies on volunteers who are based in the country and are willing to contribute to the data. There are multiple ways to volunteer. Together, we can help identify internet interference by contributing to this study.

Contribute to the study

If you would like to contribute to the OONI measurements, there are several ways to get involved:

- Testing: You may test on [various platforms](#), both on mobile (iOS and Android) and desktop, including on the CLI on Linux platforms. The domains you test can be either randomly selected from the [Citizenlab Test Lists](#) or custom test lists specific to your needs.
- Contribute to the test lists: You can contribute to the test lists on GitHub or on [OONI](#).
- Translation: Translate the OONI Probe to your local language [here](#).
- Join the community: Participate in community discussions on the [OONI's Slack channel](#).

Acknowledgements

First and foremost, we would like to thank the Open Observatory of Network Interference for their work on this project. On behalf of the team, we would like to express our gratitude to local partners, activists, academicians, researchers, and anonymous users in Myanmar for their assistance in running the OONI Probe. Your contributions have truly made this report possible.

Annex I: List of confirmed blockings

Blocked Websites	Categories	ASN	Details
Confirmed by OONI			
www.anonymouse.org	Anonymization and circumvention tools	AS133385	Link
www.aungsanu.com	Political Criticism	AS133385, AS138168	Link
www.burmachannel.website	News Media	AS138168, AS133385, AS136780	Link
www.burmese.dvb.no	News Media	AS133385	Link
www.join.allpornsitespass.com	Pornography	AS134840, AS136780	Link
www.karen.kicnews.org	Human Rights Issues	AS134840, AS133385	Link
www.karennews.org	News Media	AS134840, AS133385, AS136780	Link
www.kicnews.org	Human Rights Issues	AS134840, AS133385	Link
www.medicalsharing.website	News Media	AS133385, AS136780	Link
www.mizzima.com	News Media	AS133385	Link
www.thutazone.org	News Media	AS133385	Link
www.trend.lwinpyin.com	News Media	AS133385, AS136780	Link
www.twitter.com	Social Networking	AS63852	Link
www.athanmyanmar.org	Human Rights Issues	AS133385	Link
www.hotporntubes.com	Pornography	AS58952, AS136780	Link
www.indianpornvideo.org	Pornography	AS136780	Link
www.mizzima.tv	News Media	AS133385	Link
www.mizzimaburmese.com	News Media	AS133385	Link
www.phothutaw.com	News Media	AS134840, AS133385, AS136780	Link
www.pornhub.com	Pornography	AS136780	Link
www.psiftnla.org	Terrorism and Militants	AS136780	Link
www.seemygf.com	Pornography	AS136780	Link
www.thithtoolwin.com	News Media	AS133385	Link
www.thithtoolwin.com	News Media	AS133385	Link
www.trueamateurs.com	Pornography	AS136780	Link
www.xvideos.com	Pornography	AS136780	Link
www.youporn.com	Pornography	AS136780	Link
www.1221cd.org	Political Criticism	AS133385, AS133440	Link
www.7day.news	News Media	AS133385	Link
www.abs.twimg.com	Social Networking	AS133385, AS133440	Link
www.arabxnnx.org	Pornography	AS138168	Link
www.barnyarbarnyar.com	News Media	AS133385, AS138168	Link
www.burmacampaign.org.uk	Political Criticism	AS133385	Link
www.burmese.narinjara.com	News Media	AS138168	Link

Blocked Websites	Categories	ASN	Details
www.cdn.fbsbx.com	Social Networking	AS133385	Link
www.celemedia.club	News Media	AS133385	Link
www.channelmyanmar.org	Media sharing	AS133385	Link
www.coronavirus-map.com	Public Health	AS58952, AS133385	Link
www.coronavirus.app	Public Health	AS58952	Link
www.dailyporn.club	Pornography	AS138168	Link
www.edge-chat.instagram.com	Social Networking	AS63852, AS 58952, AS133385, AS133440	Link
www.edge-mqtt.facebook.com	Social Networking	AS133385, AS133440	Link
www.external.xx.fbcdn.net	Social Networking	AS133385	Link
www.fbcdn.net	Social Networking	AS133385	Link
www.hiburma.net	Human Rights Issues	AS133385	Link
www.hola.org	Anonymization and circumvention tools	AS133385	Link
www.i.instagram.com	Social Networking	AS63852, AS58952, AS133385, AS133440	Link
www.lookaside.facebook.com	Social Networking	AS133385, AS133440	Link
www.maharmedianews.com	News Media	AS133385	Link
www.manporn.xxx	Pornography	AS134840	Link
www.mc.warnaing.website	News Media	AS133385	Link
www.mmrednews.com	News Media	AS133385	Link
www.mohadm.nugmyanmar.org	Government	AS134840	Link
www.mohai.nugmyanmar.org	Government	AS134840	Link
www.mohr.nugmyanmar.org	Government	AS134840	Link
www.moic.nugmyanmar.org	Government	AS134840	Link
www.mol.nugmyanmar.org	Government	AS134840	Link
www.monrec.nugmyanmar.org	Government	AS134840	Link
www.mowycan.nugmyanmar.org	Government	AS134840	Link
www.mrattkthu.com	News Media	AS133385	Link
www.mullvad.net	Anonymization and circumvention tools	AS133385	Link
www.myanmar-now.org ⁷⁶	News Media	AS133385	Link
www.myanmar-now.org ⁷⁷	News Media	AS133385	Link
www.myporngay.com	Pornography	AS134840	Link
www.nenow.in	News Media	AS133385	Link
www.nordvpn.com	Anonymization and circumvention tools	AS133385	Link
www.nugmyanmar.org	Government	AS134840	Link
www.nwayoomyanmar.com	Political Criticism	AS133385	Link

⁷⁶ the same domain with different URL: <https://myanmar-now.org/en/>

⁷⁷ the same domain with different URL: <https://myanmar-now.org/mm/>

Blocked Websites	Categories	ASN	Details
www.openvpn.net	Anonymization and circumvention tools	AS133385	Link
www.opera.com	Communication Tools	AS133385	Link
www.pbs.twimg.com	Social Networking	AS133385	Link
www.progressivevoicemyanmar.org	Human Rights Issues	AS133385	Link
www.protonvpn.com	Anonymization and circumvention tools	AS133385	Link
www.rohingyakhobor.com	News Media	AS133385	Link
www.santhitsa.net	News Media	AS133385	Link
www.scontent.xx.fbcdn.net	Social Networking	AS133385, AS133440	Link
www.speedify.com	Anonymization and circumvention tools	AS133385	Link
www.ssppssa.org	News Media	AS133385	Link
www.static.xx.fbcdn.net	Social Networking	AS133385, AS133440	Link
www.staticxx.facebook.com	Social Networking	AS133385, AS133440	Link
www.strongvpn.com	Anonymization and circumvention tools	AS133385	Link
www.surfshark.com	Anonymization and circumvention tools	AS133385	Link
www.thatinhman.com	News Media	AS133385	Link
www.tipsmyanmarnews.com	News Media	AS133385	Link
www.twitter.com	Social Networking	AS63852, AS134840, AS58952, AS133385	Link
www.upload.twitter.com	Social Networking	AS63852, AS58952	Link
www.video.twimg.com	Social Networking	AS133385, AS133440	Link
www.web.facebook.com	Social Networking	AS133385	Link
www.arakanarmy.net	Terrorism and Militants	AS134840, AS138168	Link
www.bnionline.net ⁷⁸	News Media	AS133385	Link
www.bnionline.net ⁷⁹	News Media	AS133385	Link
www.boommyanmar.com	News Media	AS133385	Link
www.change.org	Human Rights Issues	AS133385	Link
www.dmgburmese.com	News Media	AS133385	Link
www.facebook.com ⁸⁰	Social Networking	AS134840, AS133385	Link
www.facebook.com ⁸¹	Social Networking	AS133385, AS133440	Link
www.frontiermyanmar.net	News Media	AS133385	Link
www.instagram.com	Media sharing	AS63852, AS58952	Link
www.irrawaddy.com	News Media	AS133385	Link
www.isupportmyanmar.com	Political Criticism	AS134840, AS133385	Link

⁷⁸ the same domain with different URL: <https://www.bnionline.net/>

⁷⁹ the same domain with different URL: <https://www.bnionline.net/mm/>

⁸⁰ the same domain with different URL: <https://www.facebook.com/>

⁸¹ the same domain with different URL: <https://www.facebook.com/RTNews>

Blocked Websites	Categories	ASN	Details
www.justiceformyanmar.org	Human Rights Issues	AS133385	Link
www.kantarawaddytimes.org	News Media	AS133385	Link
www.mediafire.com	Media sharing	AS133385	Link
www.messenger.com	Communication Tools	AS133385	Link
www.narinjara.com	News Media	AS133385	Link
www.newsvsinformation.com	News Media	AS133385	Link
www.rfa.org ⁸²	Human Rights Issues	AS133385	Link
www.rfa.org ⁸³	News Media	AS133385	Link
www.rohingyanewsbank.com	News Media	AS133385	Link
www.sbs.com.au ⁸⁴	News Media	AS133385	Link
www.sbs.com.au ⁸⁵	News Media	AS133385	Link
www.thestateless.com	News Media	AS133385	Link
www.watchmyexgf.net	Pornography	AS133385	Link
www.xnxxsexmovies.com	Pornography	AS133385	Link
Re-confirmed by Heuristics			
www.auntysweet.blogspot.com	Culture	AS135300	Link
www.blog-aughtut.blogspot.com	Culture	AS135300	Link
www.blog.mghla.net	Culture	AS135300	Link
www.blogmarks.net	Social Networking	AS135300	Link
www.canna.to	File-sharing	AS135300	Link
www.chitsanm.blogspot.com	Culture	AS135300	Link
www.discord.gg	Communication Tools	AS135300	Link
www.health.thithtoolwin.com	News Media	AS135300	Link
www.hrlibrary.umn.edu	Human Rights Issues	AS135300	Link
www.instinctmagazine.com	LGBT	AS135300	Link
www.journals.thithtoolwin.com	News Media	AS135300	Link
www.madyjune.blogspot.com	Hosting and Blogging Platforms	AS135300	Link
www.mbc-1813.org	Religion	AS135300	Link
www.mgaybook.blogspot.com	LGBT	AS135300	Link
www.minyekyawswar.blogspot.com	Political Criticism	AS135300	Link
www.mmhan.blogspot.com	Hosting and Blogging Platforms	AS135300	Link
www.mmmilitary.blogspot.com	Political Criticism	AS135300	Link
www.moechaint.blogspot.com	Hosting and Blogging Platforms	AS135300	Link
www.motherland-2009.blogspot.com	Political Criticism	AS135300	Link

⁸² the same domain with different URL: <https://www.rfa.org/>

⁸³ the same domain with different URL: <https://www.rfa.org/burmese/>

⁸⁴ the same domain with different URL: <https://www.sbs.com.au/language/burmese/>

⁸⁵ the same domain with different URL: <https://www.sbs.com.au/language/coronavirus?cid=infocus>

Blocked Websites	Categories	ASN	Details
www.mtmblog.blogspot.com	Political Criticism	AS135300	Link
www.myanmar.anglican.org	Human Rights Issues	AS135300	Link
www.myanmarconstitutioncritic.blogspot.com	Political Criticism	AS135300	Link
www.myanmarecosolutions.com	Environment	AS135300	Link
www.myanmargazette.net	News Media	AS135300	Link
www.myanmarnews.net	News Media	AS135300	Link
www.myanmarstudyabroad.org	Hosting and Blogging Platforms	AS135300	Link
www.myatthura.blogspot.com	Hosting and Blogging Platforms	AS135300	Link
www.mycutestories.blogspot.com	LGBT	AS135300	Link
www.mymetroworld.blogspot.com	Hosting and Blogging Platforms	AS135300	Link
www.proxy.org	Anonymization and circumvention tools	AS135300	Link
www.proxytools.sourceforge.net	Anonymization and circumvention tools	AS135300	Link
www.ren.tv	News Media	AS135300	Link
www.ria.ru	News Media	AS135300	Link
www.betfair.com	Gambling	AS135300	Link
www.izapya.com	Social Networking	AS135300	Link
www.karennationalunion.net	Terrorism and Militants	AS135300	Link
www.lasenza.com	Provocative Attire	AS135300	Link
www.lesbiansubmission.com	Pornography	AS135300	Link
www.linkedin.com	Social Networking	AS135300	Link
www.luckynugget.com	Gambling	AS135300	Link
www.lwinpyin.com	Culture	AS135300	Link
www.magwaygov.org	Government	AS135300	Link
www.marijuana.com	Alcohol & Drugs	AS135300	Link
www.mes.org.mm	Control content	AS135300	Link
www.mpt.com.mm	E-commerce	AS135300	Link
www.msftconnecttest.com	Control content	AS135300	Link
www.msftncsi.com	Control content	AS135300	Link
www.mumhouse.com	E-commerce	AS135300	Link
www.myanmaregress.org	Economics	AS135300	Link
www.nato.int	Government	AS135300	Link
www.shweoe.com	Media sharing	AS135300	Link
www.thaicuties.com	Pornography	AS135300	Link
www.tialsoft.com	Communication Tools	AS135300	Link
www.whitepages.com	Communication Tools	AS135300	Link

Blocked Websites	Categories	ASN	Details
www.bestfreetube.xxx	Pornography	AS136780	Link
www.pornhub.com	Pornography	AS136780	Link
www.mmpeaceMonitor.org	Political Criticism	AS133385	Link
www.myanmar-porn.com	Pornography	AS136780	Link
www.pornhub.com	Pornography	AS136780	Link
www.whynotbi.com	Pornography	AS136780	Link
www.zzgays.com	Pornography	AS136780	Link
www.xhamster.com	Pornography	AS136780	Link
www.xxx4hindi.com	Pornography	AS136780	Link

Annex II: List of ISPs

ASN	ASN Name	ASN Description	Ownership/	ASN Registration Country	Measurement Count
AS134840	MCCL-AS-AP	Myanmar Country Co., Ltd.		MM	147,115
AS9988	MPT-AP	Myanma Posts & Telecommunications		MM	78,166
AS133384	GTCL-AS-AP	Global Technology Co., Ltd.		MM	249,122
AS132148	HTI-AS-AP	HORIZON TELECOM INTERNATIONAL COMPANY LIMITED		MM	38
AS135300	MBTCL-AS-AP	Myanmar Broadband Telecom Co., Ltd.		MM	182,363
AS136255	TIMCL-AS-AP	Telecom International Myanmar Co., Ltd.		MM	22,149
AS136442	OCEANWAVE-AS-AP	Ocean Wave Communication Co., Ltd.		MM	193,196
AS58952	FRONTIIRCOLTD-MM	Frontiir Co., Ltd.		MM	38,606
AS136919	FACE24COLTD-AS-AP	FACE24 Co., Ltd.		MM	7,848
AS135371	FORTUNEINTERNATIONAL-AS-AP	Fortune International Ltd.		MM	2,225
AS138168	APN-AS-AP	MyanmarAPN Company Limited		MM	61,551
AS133385	ATOMMYANMAR-AS-AP	Atom Myanmar Limited		MM	7,173
AS136780	MIHL-AS-AP	MYANMAR INFORMATION HIGHWAY LIMITED		MM	140,421
AS136480	MMUNILINK-AS-AP	Myanmar Communication Unilink Company Limited		MM	30,176
AS132167	OML-MM	Ooredoo Myanmar Limited		MM	1
AS63852	FMG-MM	Myanmar Net		MM	1,622
AS133524	GTCL-AS-AP	Global Technology Co., Ltd.		MM	13,348
AS136617	FTCL-AS-AP	Fortune Telecom Company Limited		MM	5,160
AS136783	NETCORE-AS-AP	Spectrum Life Company Limited		MM	5,179
AS45558	MPT-MM-AS-AP	Myanma Post & Telecommunication		MM	341
AS138167	TRUENET-AS-AP	TrueNET Company Limited		MM	23
AS18399	YTCL-AS-AP	Yatanarpon Teleport Company Limited		MM	16
AS135405	TMHTTWTL-AS-AP	Tah Moe Hnye'Chan Thar Tun We Thar Company Limited (WELINK)		MM	5,337

ASN	ASN Name	ASN Description	Ownership/ Registration Country	Measurement Count
AS142644	LINKFAST-AS-AP	Link Fast Company Limited	MM	47
AS141216	GreatGoldenHorse-AS-AP	GREAT GOLDEN HORSE COMPANY LIMITED	MM	127
AS134739	AS-AGBC	AGB Communication Co., Ltd	MM	6,025
AS135307	GTMH-AS-AP	Golden TMH Telecom Co. Ltd	MM	190
AS136975	GNET-AS-AP	Global Technology Group	MM	149
AS132686	ACS-AS-AP	Amara Communications	MM	7
AS134736	NMCL-AS-AP	NTT MYANMAR CO., LTD.	MM	34
AS131167	MEGA-AS-AP	MEGA Network Company Limited	MM	1
AS63998	KMTCL-MM	Kinetic Myanmar Technology Co., Ltd	MM	19
AS139704	AS-AGBC	AGB Communication Co., Ltd.	MM	25
AS137891	BETHEFIRST-AS-AP	Be The First Co., Ltd.	MM	4
AS137424	ISMC-AS-AP	Integral Solutions Myanmar Co., Ltd.	MM	1,033
AS135111	AML-AS-AP	Asia Mega Link Company Limited	MM	7
AS174	COGENT-174	Cogent Communications	US	25
AS139766	PROTOCOL-AS-AP	Protocol Technologies Co.,Ltd t/a KNET	MM	1
AS133440	STIGW-AS-AP	Stepping Stone Co., Ltd. (ST.Net)	MM	100
AS138684	MANAULINKS-AS-AP	ManauLinks Co., Ltd.	MM	755
AS149521	FLC-AS-AP	Fiber Life Company Limited	MM	4
AS149810	AMTC-AS-AP	AnyNet Myanmar Technology Co., Ltd.	MM	1
AS139003	TELCOSPEEDCOLTD-AS-AP	Telcospeed	MM	3

Note: ISPs highlighted in red color are the ones blocking 177 websites.

Annex III: Glossary

DNS	DNS stands for “Domain Name System” and it maps domain names to IP addresses. A domain is a name that is commonly attributed to websites when they’re created. It allows websites to be more easily accessed and remembered. For example, twitter.com is the domain of the Twitter website. However, computers can’t connect to internet services through domain names. They do so through IP addresses: the digital address of each service on the internet. Similarly, in the physical world, you would need the address of a house (rather than the name of the house itself) in order to visit it. The Domain Name System (DNS) is responsible for transforming a human-readable domain name (such as ooni.org) into its numerical IP address counterpart (in this case:104.198.14.52), thus allowing your computer to access the intended website.
HTTP	The Hypertext Transfer Protocol (HTTP) is the underlying protocol used by the World Wide Web to transfer or exchange data across the internet. The HTTP protocol allows communication between a client and a server. It does so by handling a client’s request to connect to a server, and the server’s response to the client’s request. All websites include an HTTP or HTTPS prefix (such as http://example.com/) so that your computer (the client) can request and receive the content of a website (hosted on a server). The transmission of data over the HTTP protocol is unencrypted.
Heuristics	Heuristics obtain further confirmed blockings other than those which are detected based on OONI blocking fingerprints. A more detailed explanation is found here.
ISP	An Internet Service Provider (ISP) is an organisation that provides services for accessing and using the internet. ISPs can be state-owned, commercial, community-owned, non-profit, or otherwise privately owned. Vodafone, AT&T, Airtel, and MTN are examples of ISPs.
Middle boxes	A middlebox is a computer networking device that transforms, inspects, filters, or otherwise manipulates traffic for purposes other than packet forwarding.

	Many Internet Service Providers (ISPs) around the world use middleboxes to improve network performance, provide users with faster access to websites, and for a number of other networking purposes. Middleboxes are sometimes used to implement internet censorship and/or surveillance. The OONI Probe app includes two tests designed to measure networks with the aim of identifying the presence of middleboxes.
TCP	The Transmission Control Protocol (TCP) is one of the main protocols on the internet. To connect to a website, your computer needs to establish a TCP connection to the address of that website. TCP works on top of the Internet Protocol (IP), which defines how to address computers on the internet. When speaking to a machine over the TCP protocol you use an IP and a port pair, which looks something like this: 10.20.1.1:8080. The main difference between TCP and (another very popular protocol called) UDP is that TCP has the notion of a “connection”, making it a “reliable” transport protocol.
TLS	Transport Layer Security (TLS) – also referred to as SSL – is a cryptographic protocol that allows you to maintain a secure, encrypted connection between your computer and an internet service. When you connect to a website through TLS, the address of the website will begin with HTTPS (such as https://www.facebook.com/), instead of HTTP.

A comprehensive glossary related to OONI can be accessed here: <https://ooni.org/support/glossary/>.

Annex IV: Methodology

Data

Data computed based on the heuristics for this report can be downloaded here: <https://github.com/Sinar/imap-data> whereas aggregated data can be downloaded from [OONI Explorer](#).

Coverage

The iMAP State of Internet Censorship Country Report covers the findings of network measurements collected through the Open Observatory of Network Interference (OONI) [OONI Probe App](#) that measures the blocking of websites, instant messaging apps, circumvention tools and network tampering. The findings highlight the websites, instant messaging apps and circumvention tools confirmed to be blocked, as well as ASNs with censorship detected and the applied methods of network interference. The report also provides background context on the network landscape combined with the latest legal, social and political issues and events which might have an effect on the implementation of internet censorship in the country.

In terms of timeline, this first iMAP report covers measurements obtained in a one-year period from 1 July 2022 to 30 June 2023. The countries covered in this round are Cambodia, Hong Kong, Indonesia, Malaysia, Myanmar, Philippines, Thailand, Vietnam, Timor Leste, and India.

How are the network measurements gathered?

Network measurements are gathered through the use of [OONI Probe app](#), a free software tool developed by [Open Observatory of Network Interference \(OONI\)](#). To learn more about how the OONI Probe test works, please visit <https://ooni.org/nettest/>.

iMAP Country Researchers and anonymous volunteers run OONI Probe app to examine the accessibility of websites included in the [Citizen Lab test lists](#). iMAP Country Researchers actively review the country-specific test lists to ensure up-to-date websites are included and context-relevant websites are properly categorised, in consultation with local communities and digital rights network partners. We adopt the [approach taken by Netalitica](#) in reviewing country-specific test lists.

It is important to note that the findings are only applicable to the websites that were examined and do not fully reflect all instances of censorship that might have occurred during the testing period.

How are the network measurements analysed?

OONI processes the following types of data through its [data pipeline](#):

Country code

By default, OONI collects the code which corresponds to the country from which the user is running OONI Probe tests from, by automatically searching for it based on the user's IP address through their [ASN database](#) the [MaxMind GeoIP database](#).

Autonomous System Number (ASN)

By default, OONI collects the Autonomous System Number (ASN) of the network used to run the OONI Probe app, thereby revealing the network provider of a user.

Date and time of measurements

By default, OONI collects the time and date of when tests were run in order to determine when network interferences occur and to allow for time comparison. The time and date data uses UTC as the standard time zone. In addition, the charts generated on OONI MAT will exclude measurements on the last day by default.

Categories

The 32 website categories are based on the Citizenlab test lists: <https://github.com/citizenlab/test-lists>. As not all websites tested on OONI are on these test lists, certain websites would be categorised as unclassified.

No.	Category Description	Code	Description
1	Alcohol & Drugs	ALDR	Sites devoted to the use, paraphernalia, and sale of drugs and alcohol irrespective of the local legality.
2	Religion	REL	Sites devoted to discussion of religious issues, both supportive and critical, as well as discussion of minority religious groups.
3	Pornography	PORN	Hard-core and soft-core pornography.
4	Provocative Attire	PROV	Websites which show provocative attire and portray women in a sexual manner, wearing minimal clothing.
5	Political Criticism	POLR	Content that offers critical political viewpoints. Includes critical authors and bloggers, as well as oppositional political organisations. Includes pro-democracy content, anti-corruption content as well as content calling for changes in leadership, governance issues, legal reform. Etc.

No.	Category Description	Code	Description
6	Human Rights Issues	HUMR	Sites dedicated to discussing human rights issues in various forms. Includes women's rights and rights of minority ethnic groups.
7	Environment	ENV	Pollution, international environmental treaties, deforestation, environmental justice, disasters, etc.
8	Terrorism and Militants	MILX	Sites promoting terrorism, violent militant or separatist movements.
9	Hate Speech	HATE	Content that disparages particular groups or persons based on race, sex, sexuality or other characteristics
10	News Media	NEWS	This category includes major news outlets (BBC, CNN, etc.) as well as regional news outlets and independent media.
11	Sex Education	XED	Includes contraception, abstinence, STDs, healthy sexuality, teen pregnancy, rape prevention, abortion, sexual rights, and sexual health services.
12	Public Health	PUBH	HIV, SARS, bird flu, centres for disease control, World Health Organization, etc.
13	Gambling	GMB	Online gambling sites. Includes casino games, sports betting, etc.
14	Anonymization and circumvention tools	ANON	Sites that provide tools used for anonymization, circumvention, proxy-services and encryption.
15	Online Dating	DATE	Online dating services which can be used to meet people, post profiles, chat, etc.
16	Social Networking	GRP	Social networking tools and platforms.
17	LGBT	LGBT	A range of gay-lesbian-bisexual-transgender queer issues (excluding pornography).
18	File-sharing	FILE	Sites and tools used to share files, including cloud-based file storage, torrents and P2P file-sharing tools.
19	Hacking Tools	HACK	Sites dedicated to computer security, including news and tools. Includes malicious and non-malicious content.
20	Communication Tools	COMT	Sites and tools for individual and group communications. Includes webmail, VoIP,

No.	Category Description	Code	Description
			instant messaging, chat and mobile messaging applications.
21	Media sharing	MMED	Video, audio or photo sharing platforms.
22	Hosting and Blogging Platforms	HOST	Web hosting services, blogging and other online publishing platforms.
23	Search Engines	SRCH	Search engines and portals.
24	Gaming	GAME	Online games and gaming platforms, excluding gambling sites.
25	Culture	CULTR	Content relating to entertainment, history, literature, music, film, books, satire and humour
26	Economics	ECON	General economic development and poverty related topics, agencies and funding opportunities
27	Government	GOVT	Government-run websites, including military sites.
28	E-commerce	COMM	Websites of commercial services and products.
29	Control content	CTRL	Benign or innocuous content used as a control.
30	Intergovernmental Organisations	IGO	Websites of intergovernmental organisations such as the United Nations.
31	Miscellaneous content	MISC	Sites that don't fit in any category (XXX Things in here should be categorised).

IP addresses and other information

OONI does not collect or store users' IP addresses deliberately. To protect its users from [potential risks, OONI takes measures to remove them from the collected measurements](#). However, there may be instances where users' IP addresses and other potentially personally-identifiable information are unintentionally collected, if such information is included in the HTTP headers or other metadata of measurements. For example, this can occur if the tested websites include tracking technologies or custom content based on a user's network location.

Network measurements

The types of network measurements that OONI collects depend on the types of tests that are run. Specifications about each OONI test can be viewed through its [git repository](#), and details about what collected network measurements entail can be viewed through [OONI Explorer](#) or through [OONI's measurement API](#).

In order to derive meaning from the measurements collected, OONI processes the data types mentioned above to answer the following questions:

- Which types of OONI tests were run?
- In which countries were those tests run?
- On which networks were those tests run?
- When were the tests run?
- What types of network interference occurred?
- In which countries did network interference occur?
- In which networks did network interference occur?
- When did network interference occur?
- How did network interference occur?

To answer such questions, OONI's pipeline is designed to answer such questions by processing network measurement data to enable the following:

- Attributing measurements to a specific country.
- Attributing measurements to a specific network within a country.
- Distinguishing measurements based on the specific tests that were run for their collection.
- Distinguishing between “normal” and “anomalous” measurements (the latter indicating that a form of network tampering is likely present).
- Identifying the type of network interference based on a set of heuristics for DNS tampering, TCP/IP blocking, and HTTP blocking.
- Identifying block pages based on a set of heuristics for HTTP blocking.
- Identifying the presence of “middle boxes” within tested networks.

According to OONI, false positives may occur within the processed data due to a number of reasons. DNS resolvers (operated by Google or a local ISP) often provide users with IP addresses that are closest to them geographically. While this may appear to be a case of DNS tampering, it is actually done with the intention of providing users with faster access to websites. Similarly, false positives may emerge when tested websites serve different content depending on the country that the user is connecting from or when websites return failures even though they are not tampered with.

Furthermore, measurements indicating HTTP or TCP/IP blocking might actually be due to temporary HTTP or TCP/IP failures; they may not conclusively be a sign of network interference. It is therefore important to test the same sets of websites across time and to cross-correlate data before reaching a conclusion on whether websites are in fact being blocked.

Since block pages differ from country to country and sometimes even from network to network, it is quite challenging to accurately identify them. OONI uses a series of heuristics to try to guess if the page in question differs from the expected control, but these heuristics can often result in false positives. For this reason OONI only confirms an instance of blocking when a block page is detected.

Upon the collection of more network measurements, OONI continues to develop its data analysis heuristics, based on which it attempts to accurately identify censorship events.

Verifying OONI measurements

Confirmed blocked OONI measurements were based on fingerprints recorded here <https://github.com/ooni/blocking-fingerprints>. These fingerprints are based on either DNS or HTTP blocking. The fingerprints recorded as confirmed blockings are either those implemented nationally or by ISPs.

Hence, heuristics as below were run on raw measurements for all countries under iMAP to further confirm blockings.

Firstly, IP addresses with more than 10 domains were identified. Then each IP address was checked for the following:

Does the IP in question point to a government blockpage?				
Yes	No, page timed out or shows Content Delivery Network (CDN) page.			
				
Confirmed blocking	What information can we get about the IP by doing a whois lookup?			
	Government or Local ISP*	CDN / Private IP		
				
	Confirmed blocking	Do we get a valid TLS certificate for one of the domains in question when doing a TLS handshake and specifying the SNI		
		Yes	No, there were blocking fingerprints found.	No, timed out
				
		False positive	Confirmed blocking	Sampled measurement is analyzed on OONI Explorer.

*Note: In the case of India, there was [evidence](#) of popular websites hosting their site on the ISPs network for quicker loading times as the ISPs sometimes offer such edge networking services. Hence, websites redirected to local websites are only marked as “Potentially Blocked”.

When blocking is determined, any domain redirected to these IP addresses would be marked as “dns.confirmed”.

Secondly, HTTP titles and bodies were analysed to determine blockpages. This [example](#) shows that the HTTP returns the text “The URL has been blocked as per the instructions of the DoT in compliance to the orders of Court of Law”. Any domain redirected to these HTTP titles and bodies would be marked as “http.confirmed”. As a result, false positives are eliminated and more confirmed blockings are obtained.

In the 2022 report, only confirmed blockings based on OONI or new fingerprints were reported.

For this round of reporting in 2023, we further identified confirmed blockings by verifying blockings shown in news reports with OONI measurements. This is because there were blockings that could not be identified using the DNS or HTTP fingerprints. Typically, these websites were redirected to an unknown or bogon IP address, or they had other unknown errors that are ambiguous as to whether they are true or false positives of censorship. Hence, based on the news reports where the blocked websites were cited, confirmed blockings were further found by comparing available measurements on OONI. For this study, we marked them as confirmed blockings if there are more than 30 measurements and an anomaly rate of more than 1% throughout the one-year period of study. In addition, we manually checked the OONI measurements by cross-checking across networks, countries and time periods.