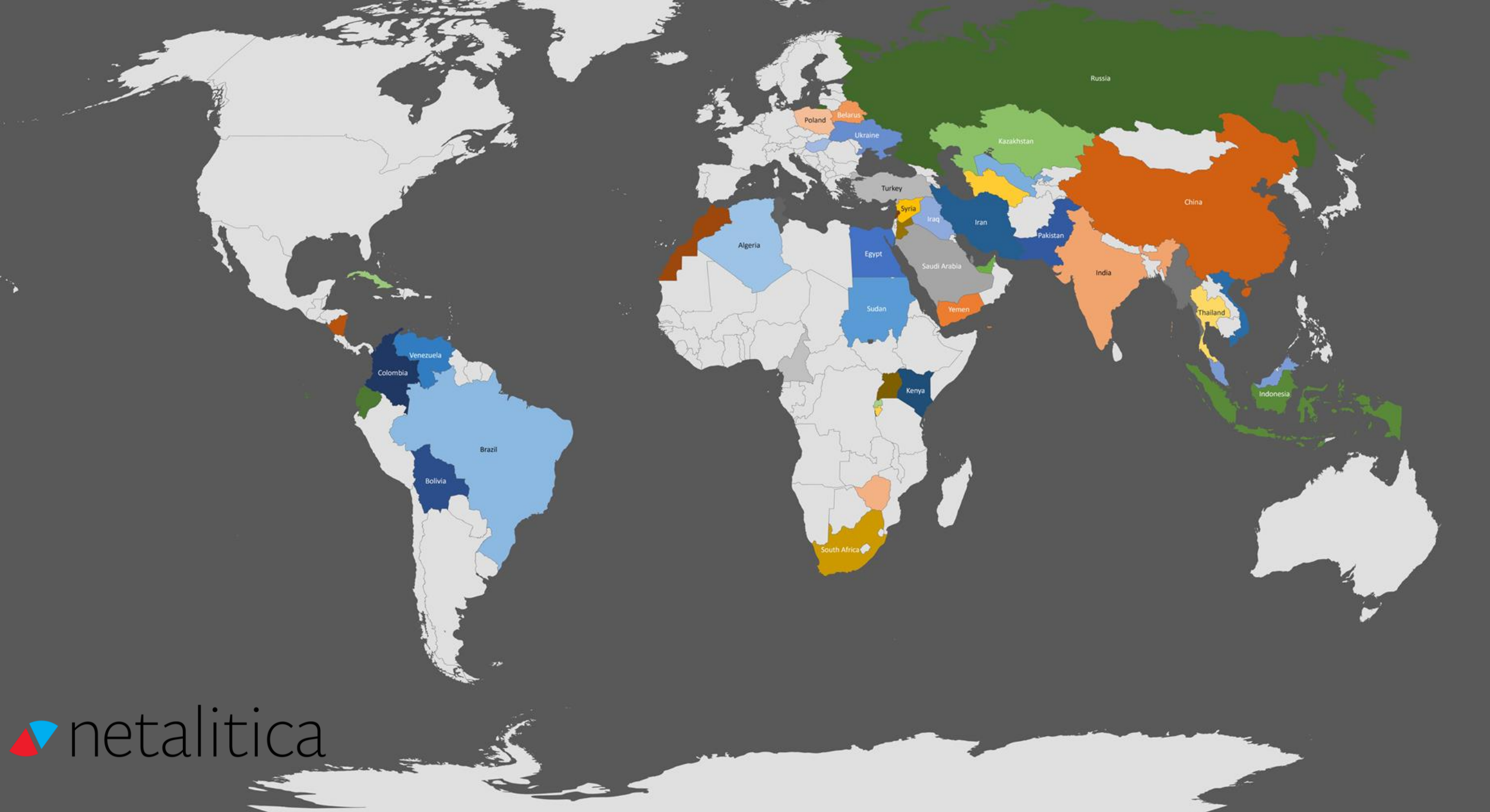


INTERNET CENSORSHIP IN HONG KONG

JANUARY 2020 – DECEMBER 2022



WEBINAR GOALS



-
- Examine Internet censorship in Hong Kong
 - Share preliminary findings from researching the blocking of websites from following categories: *news media; human rights; political criticism; hosting & blogging platforms; communication tools; anonymization & circumvention tools; social networks*
 - Offer basic advice how to use OONI network measurement tools
 - Suggest next steps for advancing research on Internet censorship in Hong Kong

METHODOLOGY

- Netalitica set up [Hong Kong Test List](#) of 615 websites in August 2020 (updated Sep 2022)
- [OONI Probes](#) used to check access to websites from (1) *HK* + (2) *Global* test lists
- Accessibility of 2,500+ websites tested from January 2020 through December 2022
- 1 million+ network measurements collected on 98 ISPs from Hong Kong

TEST LIST

- Machine-readable file of URLs
- Include sample of popular URLs
- Organized into 30 thematic categories

1	url	category_code	category_description	date_added	source	notes
2	http://cloudy.hk/	ALDR	Alcohol & Drugs	2020-07-13	Netalitica	
3	http://renelimited.business.site/	ALDR	Alcohol & Drugs	2020-07-13	Netalitica	
4	http://tobaccodynasty.com/	ALDR	Alcohol & Drugs	2020-07-13	Netalitica	
5	https://daily420.shoplineapp.com/	ALDR	Alcohol & Drugs	2020-07-13	Netalitica	
6	https://www.falltozero.com/	ALDR	Alcohol & Drugs	2020-07-13	Netalitica	
7	http://www.cognaccollection.com/	ALDR	Alcohol & Drugs	2020-07-14	Netalitica	
8	http://www.concordwines.com.hk/dev/	ALDR	Alcohol & Drugs	2020-07-14	Netalitica	
9	http://www.eccvino.com.hk/	ALDR	Alcohol & Drugs	2020-07-14	Netalitica	
10	http://www.mycellarhk.com/	ALDR	Alcohol & Drugs	2020-07-14	Netalitica	
11	http://www.redwine.com.hk/	ALDR	Alcohol & Drugs	2020-07-14	Netalitica	
12	http://www.winemaster.com.hk/	ALDR	Alcohol & Drugs	2020-07-14	Netalitica	
13	http://www.winetown.com.hk/	ALDR	Alcohol & Drugs	2020-07-14	Netalitica	
14	https://cellarmasterwines.com/	ALDR	Alcohol & Drugs	2020-07-14	Netalitica	
15	https://hkwineclub.boutir.com/	ALDR	Alcohol & Drugs	2020-07-14	Netalitica	
16	https://www.datswine.com/hk/	ALDR	Alcohol & Drugs	2020-07-14	Netalitica	
17	https://www.leungyick.com/lyc/	ALDR	Alcohol & Drugs	2020-07-14	Netalitica	
18	https://www.majorcellar.com/	ALDR	Alcohol & Drugs	2020-07-14	Netalitica	
19	https://www.winemart.hk/	ALDR	Alcohol & Drugs	2020-07-14	Netalitica	
20	https://www.wineselection-hk.com/	ALDR	Alcohol & Drugs	2020-07-14	Netalitica	
21	https://openbottle.com.hk/	ALDR	Alcohol & Drugs	2022-07-18	Netalitica	
22	https://vapehongkong.com/	ALDR	Alcohol & Drugs	2022-07-18	Netalitica	
23	https://hk.norton.com/	ANON	Anonymization and circumvention tools	2020-07-10	Netalitica	

TYPES OF TEST LISTS

COUNTRY

- Tested in single country
- URLs relevant to that country
- In local language(s)

GLOBAL

- Tested in all countries
- Globally relevant URLs
(BBC, UN, Gmail, Google)
- Mainly English

CUSTOM

- User-created ([OONI Run](#))

OONI Probe launched

OONI requests HK & Global Lists



Your HK ISP

Control Server
outside HK

Probe compare results of testing access to URLs
on local ISPs & a Control Server



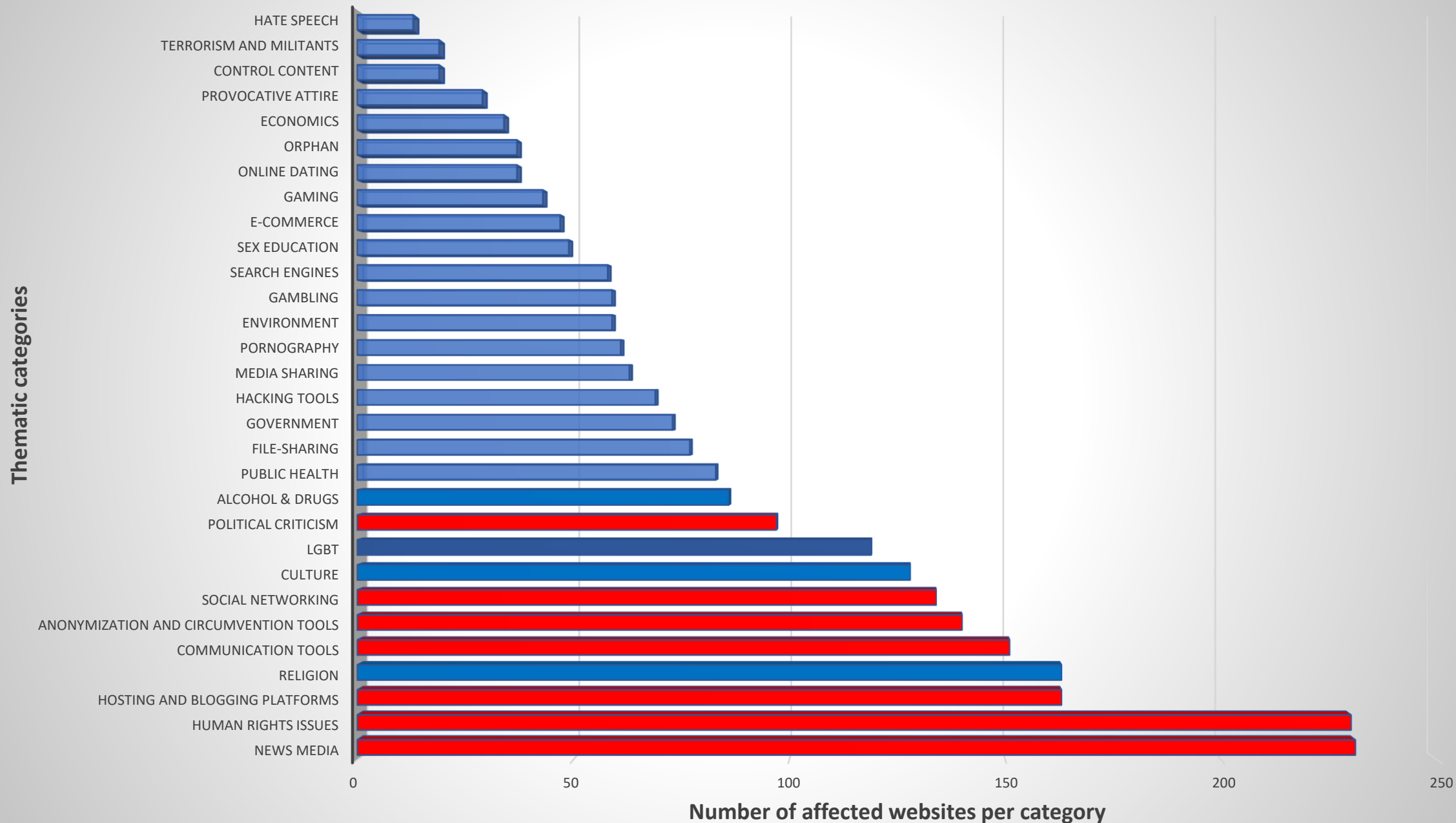
generate report

<https://explorer.ooni.org/>

METHODOLOGY

- Collected measurements are uploaded to [OONI Explorer](#)
- OONI Probe reports 3 types of results:
 - *OK* = successful measurement with no sign of blocking
 - *Confirmed* = automatically determined blocking (when block page served)
 - *Anomaly* = signs of blocking → need to investigate measurements manually
- Network data analyzed with [OONI MAT](#) & Excel

Anomalous Measurements by Category Collected in Hong Kong



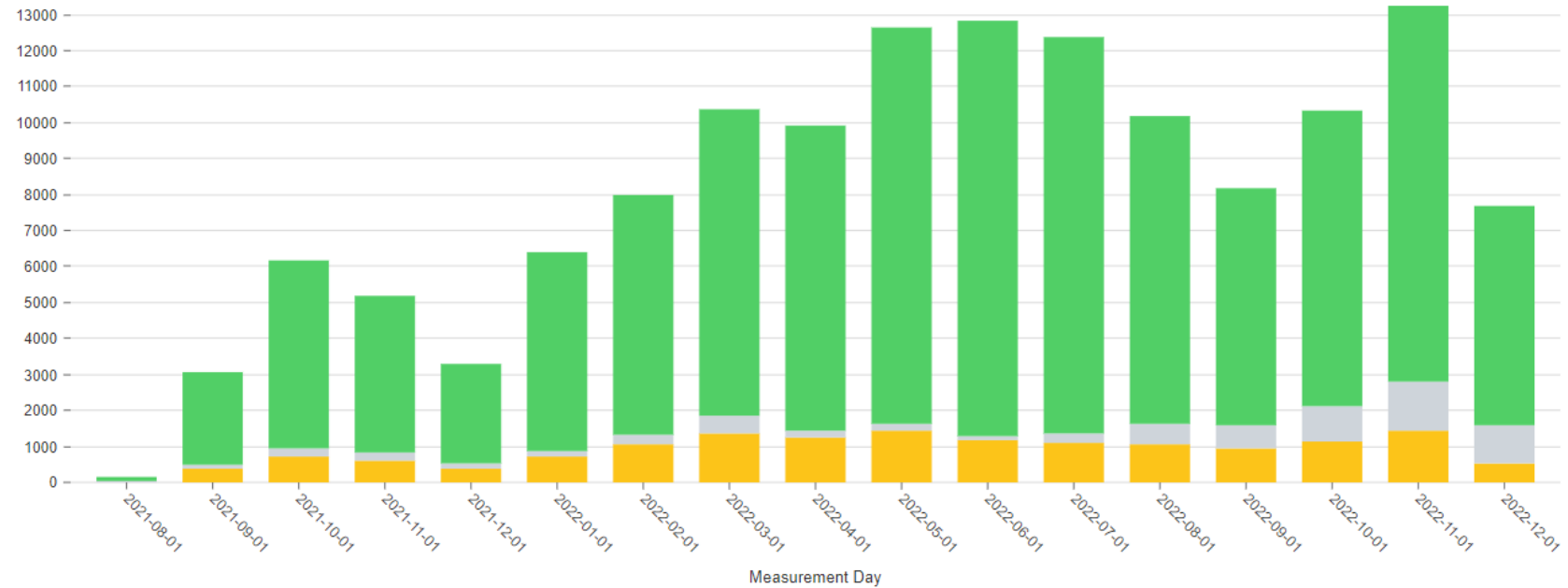
I. DATA ANALYSIS: POLITICAL CRITICISM

- Websites that offer critical political views
- No “Confirmed” blocked URLs
- 839 anomalies re 96 websites
- 4 blocked platforms
- 5 potentially blocked websites

Web Connectivity Test, Political Criticism

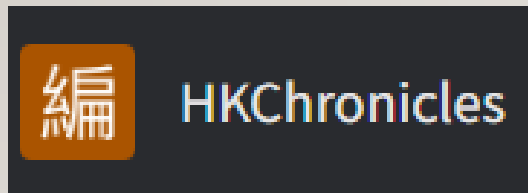
Hong Kong SAR China

OK Confirmed Anomaly Failure



POLITICAL CRITICISM: BLOCKED WEBSITES

- [HK Chronicles](#) - doxing website: blocked by ~17 ISPs
- [8964 Museum](#) - repository Tiananmen Sq. docs: blocked by 14 ISPs
- [2021 HK Charter](#) - pro-democracy exile group: blocked on 2 ISPs
- Dr. [Francis Ti Lui](#) blog: blocked May 2021–June 2022 by 4 ISPs



OONI MAP: HK CHRONICLES (TOP 3 BLOCKERS)

Web Connectivity Test, hkchronicles.com Hong Kong SAR China



OK Confirmed Anomaly Failure



HK CHRONICLES (VIEWPOINTS)

- *HK Chronicles editor-in-chief*: In January 2021, we found visitors from Hong Kong to decrease... Local ISPs blocked our website which involved government cooperation. (Naomi Chan)
- *ISP: HK Broadband Network*: We blocked access to HKC to comply with Asl.43 of NSL
- *HK Police*: Authorities can ask ISPs to block websites that endanger national security

POLITICAL CRITICISM: POTENTIALLY BLOCKED

- Hong Kong Association for Democracy and People's Livelihood ([ADPL](#))
- [Path of Democracy](#) – pro-democracy local group: blocked by 7 ISPs
- [Stand with Hong Kong](#) – pro-democracy group in exile: blocked by 6 ISPs
- [IT Voice](#) – pro-democracy IT professionals: blocked September 2021–November 2022 by 4+ ISPs
- [1 in 99 Percent](#) – pro-democracy blog: blocked July 2021–June 2022 by 4+ ISPs

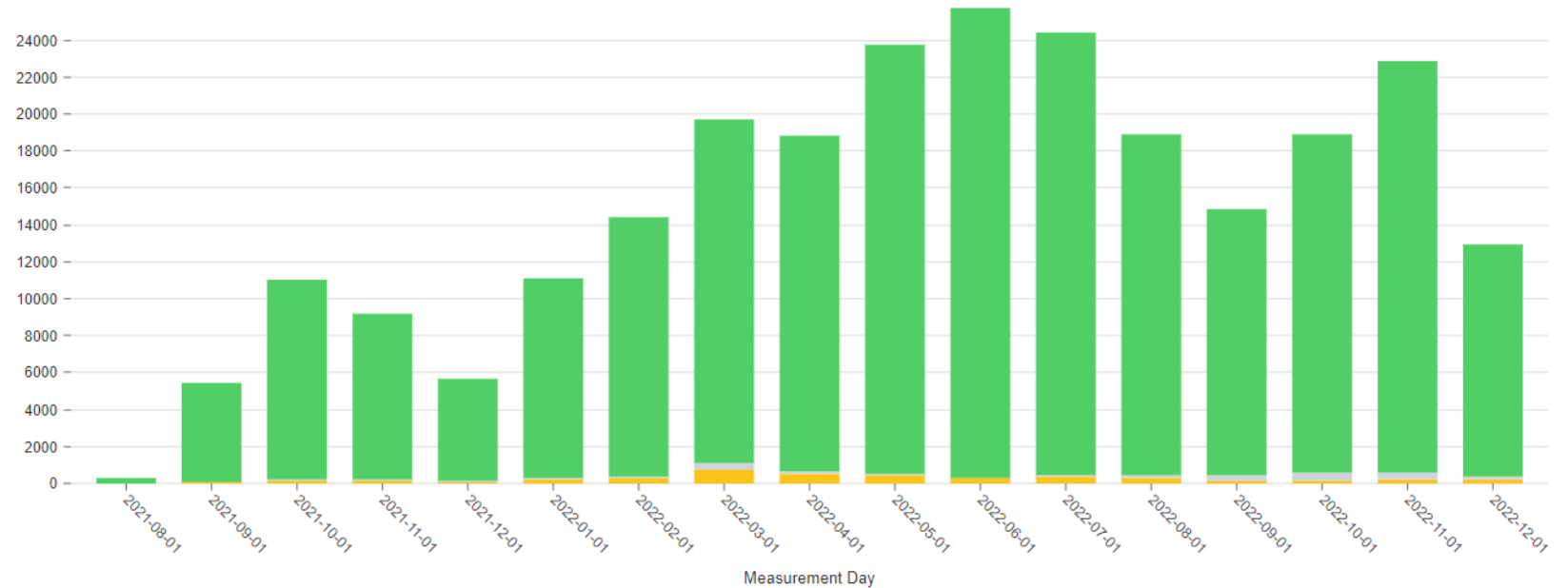


2. DATA ANALYSIS: HUMAN RIGHTS ISSUES

- No “Confirmed” blocked URLs
- 1,264 anomalies re 244 websites
- 3 temporary blocked websites
- 5 potentially blocked URLs

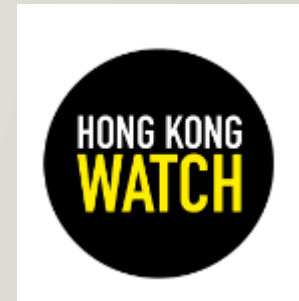
Web Connectivity Test, Human Rights Issues
Hong Kong SAR China

OK Confirmed Anomaly Failure



HUMAN RIGHTS ISSUES: BLOCKED WEBSITES

- [iFeminist](#) - feminism/LGBT: blocked November 2020 - June 2022 by 12 ISPs
- [Civil Rights Observer](#) – reports police power abuse 2019 protests: blocked until Sep'20 by 8 ISPs
- [Hong Kong Watch](#) - UK-based pro-democracy charity: blocked Feb-Dec 2022 by 6 ISPs



HUMAN RIGHTS ISSUES: POTENTIALLY BLOCKED

- [Human Rights in China](#) – diaspora civic rights activist group: anomalies on 9 ISPs
- [Chinese Human Rights Defenders](#) – anomalies on 6 ISPs
- [Rights Exposure](#) – consultancy NGO helping with media campaigns: anomalies on 6 ISPs
- [Association for the Advancement of Feminism](#) – anomalies on 3 ISPs
- [Asian Forum for Human Rights and Development](#) – anomalies on 5 ISPs

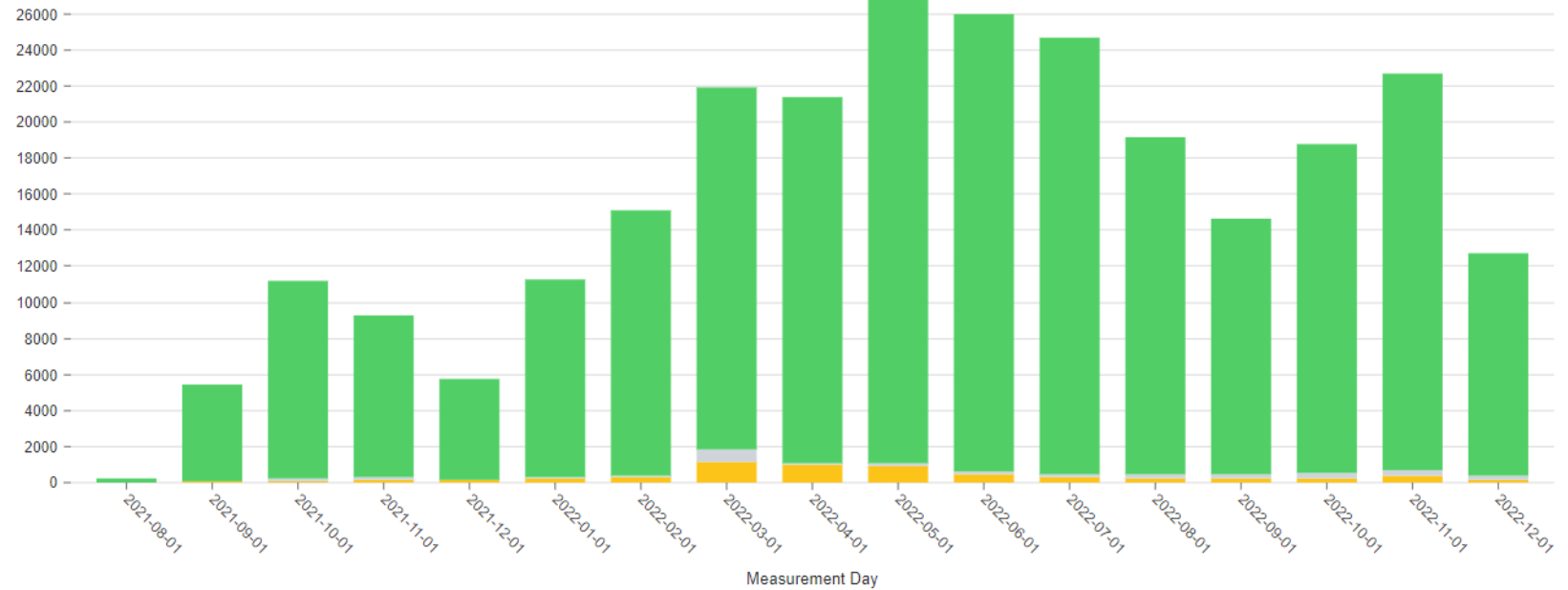


3. DATA ANALYSIS BY CATEGORY: NEWS MEDIA

- No “Confirmed” blocked URLs
- 1,401 anomalies re. 231 websites
- 2 blocked platforms

Web Connectivity Test, News Media
Hong Kong SAR China

OK Confirmed Anomaly Failure



NEWS MEDIA: BLOCKED WEBSITES

- Ifengus.com – provides info about immigration to US: blocked Nov'20-Jan'21 by ~20 ISPs
- [Citizen News \(Zhongxi\)](#) - blocked by ~8 ISPs → disappeared in January 2022



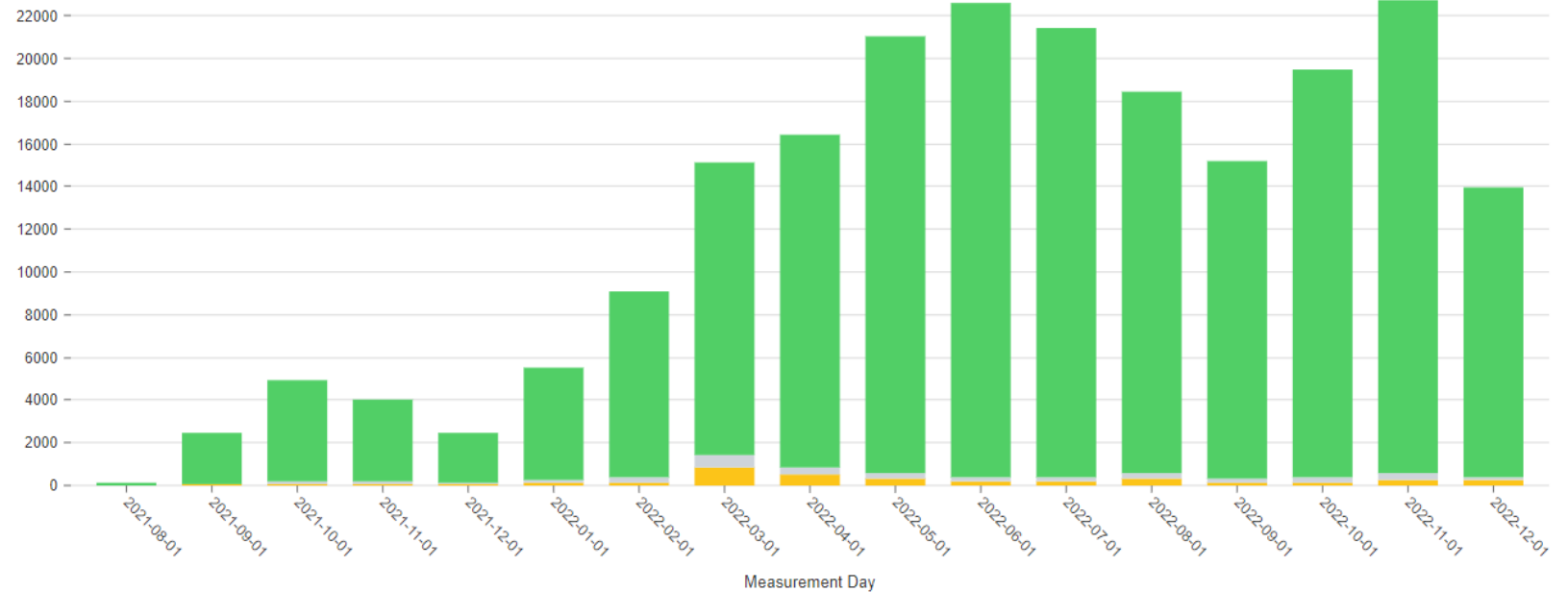
4. DATA ANALYSIS: SOCIAL NETWORKING

- Social networking tools
- No “Confirmed” blocked URLs
- 945 anomalies re. 134 platforms
- No major blocking issues except ISP [China Mobile International](#)

Web Connectivity Test, Social Networking

Hong Kong SAR China

OK Confirmed Anomaly Failure



SOCIAL NETWORKING: BLOCKED PLATFORMS



Inaccessible on *China Mobile International* ISP (Nathosts, AS141677):

- Twitter: inaccessible Mar-May, 2022
- Mastodon – self-hosted micro-blogging: inaccessible Mar-May, 2022
- Pinkong – Chinese political forum hosted in US: inaccessible Mar-May, 2022
- HKGolden: inaccessible Mar-May, 2022
- LIHKG – forum used to discuss anti-extradition bill protests in 2019: blocked Mar-May, 2022
- Twitter, Mastodon, Pinkong, HKGolden, LIHKG – all blocked in China
- → China Mobile International (Nathosts, AS141677) **upstream filtering** March-May 2022?

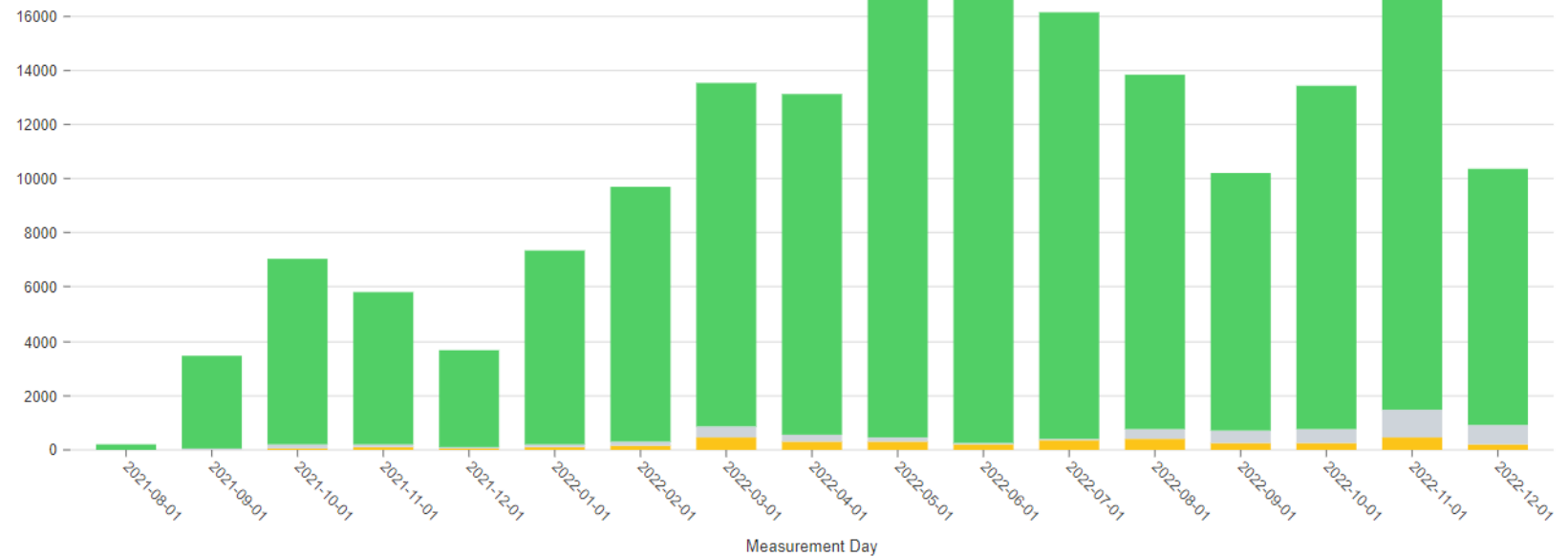


5. DATA ANALYSIS: ANONYMIZATION & CIRCUMVENTION

- Tools for anonymization, circumvention, proxy-services & encryption
- No “Confirmed” blocked URLs
- 1,042 anomalies re. 135 tools
- 5 temporary blocked websites
- Psiphon & Tor work OK

Web Connectivity Test, Anonymization and circumvention tools
Hong Kong SAR China

OK Confirmed Anomaly Failure



5. ANONYMIZATION & CIRCUMVENTION: BLOCKED

- [MassBrowser](#) – build-in circumvention engine: blocked June-Sep 2022 on 8 ISPs
- ISP *China Mobile International* (Nathosts, AS141677) blocked Mar-May, 2022:
 - [Proxy.org](#)
 - [VPN Taiwan](#)
 - [HongKongVPN](#)
 - [VPN Unlimited](#)
 - → upstream filtering?

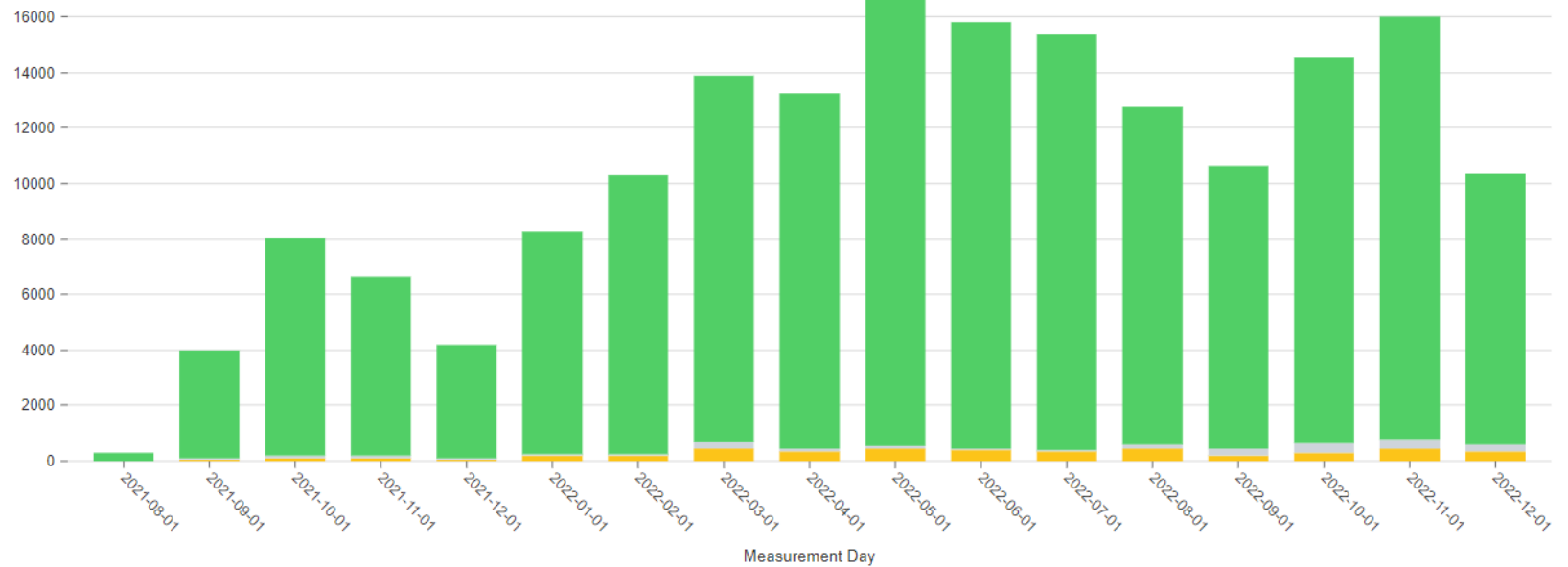


6. DATA ANALYSIS: HOSTING & BLOGGING PLATFORMS

- Web hosting services, blogging and other online publishing platforms
- No blockings detected between January 2020-December 2022

Web Connectivity Test, Hosting and Blogging Platforms
Hong Kong SAR China

■ OK ■ Confirmed ■ Anomaly ■ Failure



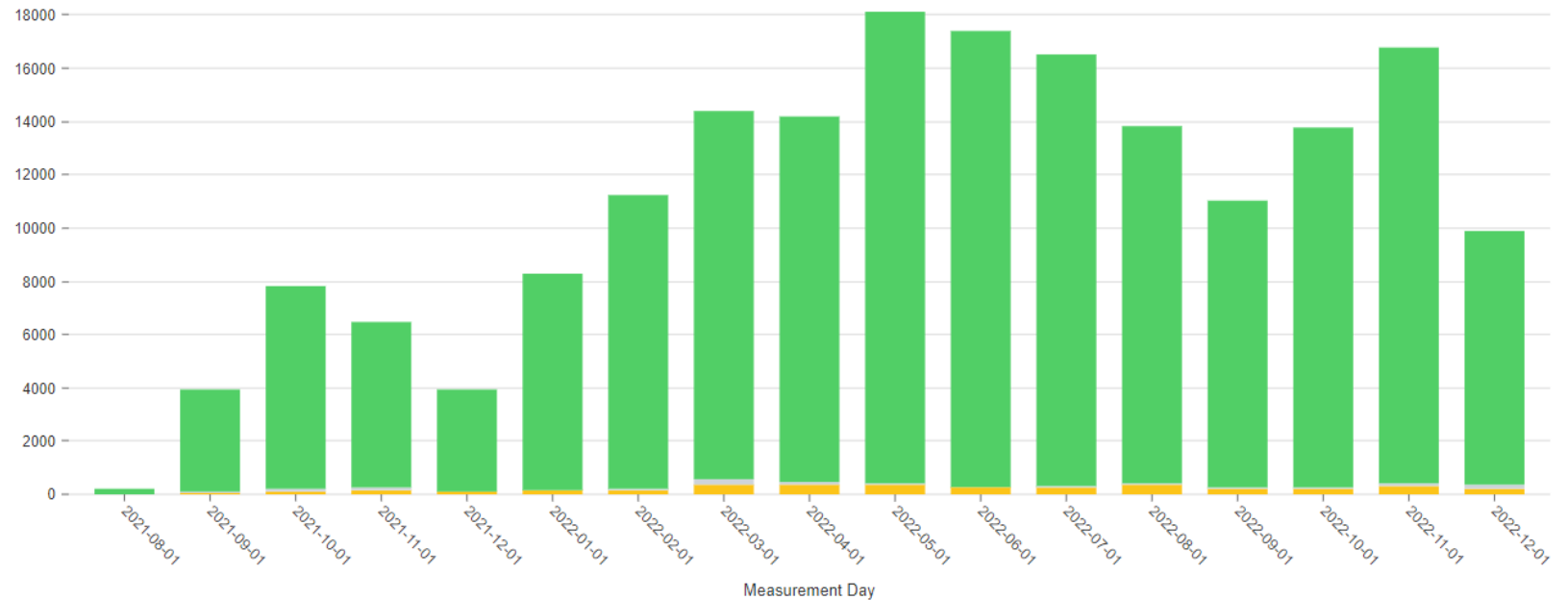
7. DATA ANALYSIS: COMMUNICATION TOOLS

- Webmail, VoIP, instant messaging, chat, mobile messaging apps
- No “Confirmed” blocked URLs
- No blocked websites
- FB Messenger, Signal, Telegram, WhatsApp – work OK

Web Connectivity Test, Communication Tools

Hong Kong SAR China

OK Confirmed Anomaly Failure



MAJOR TAKEAWAYS I

- Blocked websites discovered from: *political criticism, human rights, social networking*
- Blocking justified on the grounds of complying with NSL (2020)
- Although Internet in HK is not subjected to regulations from China, adoption of broad restrictive legislation (i.e. NSL) will gradually stifle Internet freedom
- *Trend*: when a website becomes blocked by many ISPs, it tends to disappear due to audience loss, loss of advertisers → financial problems.
- *Trend*: liberal websites tend to migrate to popular Western content-delivery platforms such as Facebook, YouTube, WordPress, etc.

MAJOR TAKEAWAYS 2

- *China Mobile International* ISP = upstream filtering Mar-May'22? Further analysis necessary
- Researchers do not necessarily need deep technical knowledge to monitor blocking
- Collaborate with local digital rights organizations to confirm blocking
- Outreach to OONI for technical assistance ([OOONI Partnership Program](#))



- Webinar slides available for download at: <https://netalitica.com/conferences-presentations/>
- “Internet Censorship in Hong Kong Trends Report: January 2020 – December 2022” research paper will be available for download on Netalitica website by Sep 30th, 2023
- Igor Valentovitch: ivalentovitch@gmail.com
- Thank you for attending!