PRIVACY COMPANY

Inspection results Google Chrome for Education

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Version management

Version	Date	Remarks
0.1	8 December 2021	Outline with questions
0.2	12 September 2022	First rough draft, completed intro, Q1 and Q6
0.3	14 September	First completed draft
0.4	26 September	Input SIVON and SURF processed with track changes
0.5	29 September	Clean version
0.6	December 2022	Review version
0.7	31 January 2023	Updated report
0.8	17 March 2023	Last input Google about confidentiality processed with comments
0.9	17 March 2023	Compare 0.7 and 0.8 with track changes
1	17 March 2023	Clean version
1.1	29 June 2023	Revision based on new ChromeOS Agreement for the Dutch Education Sector 30 March 2023 - with track changes
1.2	29 June 2023	Clean public version

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Summary

This inspection report on the data protection risks of the use of the managed Google Chrome browser and the use of a managed Google Chromebook is a follow-up on the DPIA performed on the use of Google Workspace for Education. This report was commissioned by SIVON for all primary and secondary education schools in the Netherlands.

The original DPIA on Google Workspace, commissioned by two Dutch universities (the Rijksuniversiteit Groningen and the Hogeschool van Amsterdam), was completed in June 2020, updated in March 2021, and published in May 2021. After negotiations with Google, and a prior consultation of the Dutch Data Protection Authority, an Update DPIA report was published in August 2021. Agreement was reached with Google on a set of contractual, organizational, and technical measures to mitigate the 8 high data protection risks. Three key highlights are:

1. Google contractually agreed to act as data processor for the Diagnostic Data about the individual use of the services by the start of the new school year (21 August 2021), with a contractual permission to 'further' process some Diagnostic Data as independent data controller, to the extent necessary, for certain agreed and limited purposes.
2. As a data processor, Google may only process the personal data for three predefined instructed purposes.
3. Google committed to develop a processor version of managed ChromeOS, and a separate processor version of the Chrome browser on managed ChromeOS. Since this could take Google 2 years, the Update DPIA already provided risk-mitigating technical measures for the schools and universities. SURF and SIVON published technical manuals for the system administrators to apply the most privacy-friendly settings in the Chrome browser.

Processor versions of ChromeOS and Chrome browser mid-August 2023

On 30 March 2023 Google agreed to a new ChromeOS Agreement with the Dutch education sector. Google also published a *Data Processing Amendment to Chrome Agreements*.[1] Based on this agreement, Google acts as data processor for the *Essential Services* in Chrome, with a limited list of permitted purposes for further processing by Google as controller (identical to the Workspace data processing agreement). Google continues to act as data controller for the *Optional Services* in Chrome.

An *Essential Service* is a service that Google has determined is critical for ChromeOS or Chrome-on-ChromeOS to function correctly for Dutch public sector. All other services are classified as *Optional Services*. The list of Essential services in included in Appendix 2 in this report.

The processor agreement includes the use of the updated EU Standard Contractual Clauses (SCC) for the transfer of personal data from the Dutch school or university as controller to Google LLC in the USA as processor.

Google has agreed to develop switches for admins to control access to these services. By default Optional Services that process personal data are switched 'off'. Optional Services that do not process personal data are 'on' by default (but can be disabled).

[1] Google, Data Processing Amendment to Chrome Agreements, Last modified 16 February 2023, URL: https://www.google.com/chrome/terms/dpa_terms.html.

Google will launch the new 'processor' versions of the ChromeOS and browser by mid-August 2023, before the start of the new school year.

The research for this report was performed with the 'controller versions' of the ChromeOS and browser, since the new 'processor' versions of the ChromeOS and browser are not yet available. The device was managed in a test set-up with the Google Workspace for Education license from a primary school in the Netherlands.

Scope of this report

This report does not repeat the general data protection analysis provided in the initial and Update DPIA reports. This report provides some new suggestions for mitigating measures system administrators can take, for the (few) remaining low risks after schools have installed the new 'processor versions' of the ChromeOS and browser (on the Chromebooks). This report does not repeat the mitigating measures recommended since August 2021[2], such as for example, disabling *Additional Services* in Google Workspace, and disabling Google Search as default search engine in Chrome. Before the start of the new school year 2023, SIVON will publish an updated manual for school admins with the advised privacy friendly settings in the processor versions of the ChromeOS and browser.

This report describes what personal data Google processes with the recommended privacy-friendly configuration of the Chrome browser and the Chromebook, based on technical research.

According to this agreement, Google processes many data in a processor role. These changes are reflected in this (updated) version of this report.

Six questions

This report is based on the following six questions:

1. Does Google answer Data Subject Access Requests in an adequate and timely manner? Is essential information missing based on the analysis of the intercepted outgoing data traffic?
2. How effective are the privacy-friendly settings in the Chrome browser in blocking third-party cookies?
3. How can admins enforce privacy-friendly settings for logged-in users?
4. What data does Google collect about the use of Office for the Web apps on a Chromebook without a Google account?
5. Wat data does Google collect when 'Chrome Syncing' is enabled on the Chromebook?
6. What data does Google collect when an app or extension is installed from Google's different app stores? Is it possible to centrally block access to the app stores?

Outcomes

The answer to the first question contains most of the technical analysis. This report originally concluded that Google did not provide an adequate or timely reply to a Data Subject Access Request (DSAR).

Generally, the intercepted outgoing data traffic contained functional, unsurprising data, without any unique device or user identifiers. For example, the Chrome team designed the SafeSites functionality to collect information about visited URLs with a generic, identical key for all users. If there is a probability that a visited website contains pornography, the URL is transferred to the USA. In that case Google stores the IP address with which the user was connected to the internet

[2] See the manual in Dutch published by SURF, URL: https://www.surf.nl/files/2021-08/technische-handleiding-google-workspace-for-education.pdf

for 7 days. The only exception is the use of push messages. If a student authorises a website to send push messages, a unique device and user identifier is shared with Google in the USA. Schools can disable this functionality.

As a result of negotiations with the Dutch education sector, Google will become a processor for the managed ChromeOS and browser with the release of a new version in mid-August 2023. To become more transparent, the Google Chrome team offers, or is developing, five features for the processor version of the managed ChromeOS:

1. Service Data Downloader and Diagnostic Information Tool (second half of 2023)
2. Domain-wide TakeOut tool for admins as processor
3. Individual TakeOut tool for end users as processor
4. Public documentation what data types are collected by which service.
5. Documentation what categories of personal data, relating to what service, are available in the event logs for admins

In its role as data controller, Google has published an improved explanation why it may refuse access to some personal data.

These features are designed to help customers fulfill the DSAR requests they receive in their role as data controllers, to provide a self-service tool to end users, and to allow admins and end users to compare the results with public documentation. Privacy Company has not yet been able to test these features, as the new processor versions of the Chrome browser and OS are not yet available.

Google has also improved its public information about reasons to refuse access to some personal data. As a result of simultaneous talks with the Dutch education sector and the strategic vendor manager for Microsoft, Google and AWS of the Dutch government about data protection improvements for Google Workspace, Google published a detailed explanation about reasons to refuse access for all of its services.[3] These explanations are convincing.

With regard the **second question**, the available privacy-friendly settings seem reasonably effective in limiting the amount and contents of data transferred to Google in the USA. With the exception of the transfer of IP-addresses in SafeSites hits, and IP addresses and identifiers in push messages, the privacy-friendly settings are capable of preventing transfer of personal data to Google in the USA. Chrome is effective in blocking third party cookies, but blocking third party cookies does not offer complete protection against data leakage. During each guest session, which may last a school day, Chrome can send session cookies to third party external advertising networks, and data to Google itself in a role as controller. Admins can prevent such data leakage by enforcing the incognito mode of the Chrome browser, also for guest users.

The answer to the **third question** is that enforcement by admins of the privacy-friendly settings is as effective as use of the settings by students themselves. Google does apply more privacy protective settings for students under 18 years, in the K-12 setting, such as disabling Privacy Sandbox trials. However, schools may never put the burden of privacy protection on the shoulders of minors and students, and should actively protect them against data protection risks. Google is encouraged to apply even more privacy by default settings and develop more central management settings for admins, for example, by blocking traffic related to services as fonts, which Google provides as a controller.

The answer to the **fourth question** is that Chromebooks may be used in a GDPR-compliant way without a Google account, in a centrally managed guest mode. With the managed processor

[3] Google, Information not provided in response to an access request, URL: https://support.google.com/policies/answer/10972441.

ChromeOS and browser, schools can enforce use of the guest mode on the Chromebooks, and block traffic on the local network. If schools decide to use Microsoft Office applications as an alternative to Workspace, the admins do need to apply and enforce privacy friendly settings for the Microsoft Office web apps.

The answer to the **fifth question (about Chrome Sync)** is that Chrome Sync collects many personal data of a sensitive nature, such as logins, passwords, tracking cookies and bookmarks. This section originally flagged a high risk due to a lack of purpose limitation. That risk has been mitigated now that Google has become a data processor for the Chrome Sync data, including the Content and the Diagnostic Data (which Google calls Service Data). However, another high risk relating to Chrome Sync is the transfer of sensitive data to the USA. Though Google allows students to encrypt their personal data with a local passphrase, admins cannot enforce encryption of these data. That means schools cannot centrally protect students' rights to protection of personal data. The Dutch education sector has pleaded with Google to develop centrally managed encryption functionalities, with a school- or student managed key. Google is considering to develop such an option.

As long as schools cannot enforce the use of such encryption, schools must (continue to) block the use of Chrome Sync. However, it is possible that the European Union will succeed in adopting a new adequacy decision for the USA before the start of the 2023 school year. In that case, schools can allow the use of Chrome Sync without this self-managed encryption.

The answer to the **sixth question** is that Google does not provide information about the processed personal data relating to the use of the (managed) Play Store and Chrome Webstore. Not in reply to a DSAR, nor in publicly available documentation. Google is not willing to become a data processor for these services. The lack of transparency, combined with the lack of purpose limitation because Google acts as a data controller, result in a lack of control for the schools and universities. Schools cannot gain a clear insight in the personal data processing by Google when using these app stores. To mitigate this risk schools must continue to block access to all *Additional Services* belonging to Google Workspace, and to the Chrome webstore.

Remedies

Issue	Recommended mitigating measures schools	Mitigating measures taken by Google
DSAR results incomplete	Continue to block access to the Chrome Web Store and the Google Play Store.	Commitment to do an individual assessment of each DSAR
	Use the guidance from SIVON to inform students how to request access with the school, and with Google	Google is a processor for the Domain-wide TakeOut tool for admins
		Google is a processor for the individual TakeOut tool for end users
		Google has agreed to publish documentation what Diagnostic / Telemetry Data the Essential Chrome Services collect, to the extent they collect user or device associated data at all
		Google has published more information about its data retention policies
		Google will offer a Service Data Downloader to admins (second half of 2023)
DSAR refusal explanation insufficient	Use the available admin event logs to provide access to personal data.	The new version of the managed ChromeOS will include services to access the data such as the Service Data Downloader and Diagnostic Information Tool (DIT, a Telemetry Data viewer developed for Workspace)

		Google has published an improved explanation why it may refuse access to some personal data.
		Google has published documentation what categories of personal data, relating to what service, are available in the event logs for admins.
Lack of purpose limitation data Takeout tool	Keep on disabling the Workspace *Additional Services*.	Google has become a data processor for the admin and end user Takeout tools.
Lack of purpose limitation ChromeOS and browser	Sign-up for the new processor agreement.	The processor agreement for the managed ChromeOS and browser contains two limitative lists of purposes, for Google as processor, and for agreed further processing by Google as controller for its legitimate business purposes.
	Do not enable the *Optional Chrome Services*, for which Google continues to act as controller (already disabled for new customers).	
Lack of purpose limitation Sync data outside of Workspace for Education		Based on the processor agreement for the managed ChromeOS and browser, Google is a data processor for Chrome Sync, both for the Content and Diagnostic Data (separate from Workspace for Education, where Sync is already a processor service).
Lack of purpose limitation (Managed) Play Store and Chrome Webstore	Disable access to all *Additional Services* in Workspace, including the (managed) Play Store and the Chrome Webstore. If schools wish to enable students to use selected allowed apps, they must distribute these apps via their own network. For browser extensions they can apply Force install, without users having to visit the Chrome webstore.	
No valid ground for transfer of personal data to the USA	Sign up for the new processor agreement including the new SCC and apply all data minimisation measures from the updated guidance from SIVON	Google has become a data processor for the managed ChromeOS and browser, including the SCC C2P Module 2 for the transfer to the USA.
	Disable SafeSites with a registry setting (consider use of a third party filter).	Google has not replied to the request to allow for local filtering instead of transferring URLs to the USA with the IP addresses.
	In case Workspace cannot be used, Chromebooks can still be used if schools centrally enforce all privacy-friendly settings, including disabling of access to google.com and youtube.com, either by enforcing use of a proxy server to block functionality on the local network, or through manual URL blocking options in the admin console.	Google offers central admin management options for the guest mode on managed Chromebooks, including blocking of third party cookies.
	Disable Sync by setting the policy *SyncDisabled* to *true* or ensure that students use a self-managed local passphrase to encrypt the Sync data	Google is considering the request to develop a policy for admins to centrally enforce use of encryption with locally held keys, in the end user devices.

		In the future: possibly rely on a new adequacy decision for the USA for the transfer of all personal data.
Privacy unfriendly default settings	Enforce the recommended privacy-friendly settings whenever possible.	Privacy Sandbox trials are disabled for users under 18.
		Google has not responded to the request to improve the tracking protection features in the Chrome browser when third party cookies are blocked, the DNT signal is enabled and website preloading is disabled. For example, by blocking traffic to Google services where Google does not act as data processor (such as analytics and fonts).
	Disable the Privacy Sandbox for all users (or select K-12 setting to block by default).	Google will give admins controls to block ads personalization and measurement as part of Privacy Sandbox in the processor version of managed ChromeOS.
Lack of transparency	Disable access to the (managed) Play Store and Chrome Webstore.	Google has not announced any measures.

Introduction

This inspection report on the data protection risks of the use of the Google Chrome browser and the use of a Google Chromebook is a follow-up on the *Data Protection Impact Assessment* (DPIA) performed on the use of Google Workspace for Education. This report was commissioned by SIVON for all primary and secondary education schools in the Netherlands.

The original DPIA on Google Workspace, commissioned by the Dutch universities HvA and RUG, was completed in June 2020, updated in March 2021, and published in May 2021.[4] After negotiations with Google stalled, the Dutch Data Protection Authority was asked for a prior consultation. In June 2021 the Dutch Data Protection Authority (Autoriteit Persoonsgegevens) warned schools and advised the responsible two ministers for Education to stop using Google Workspace before the start of the new schoolyear, 21 Augustus 2021, if the problems could not be solved.[5] Soon after, an agreement was reached with Google on a set of contractual, organizational and technical measures to mitigate the 8 high data protection risks. The Update DPIA report was published in August 2021 with a summary of the results of the negotiations.[6]

Three key highlights of this agreement are:

1. Google contractually agreed to act as data processor for the Diagnostic Data about the individual use of the services by the start of the new school year (21 August 2021), with a contractual permission to 'further' process some Diagnostic Data as independent data controller, to the extent necessary, for certain agreed and limited purposes.
2. As a data processor, Google may only process the personal data for three predefined instructed purposes.
3. Google committed to develop a processor version of managed ChromeOS, and a separate processor version of the Chrome browser on managed ChromeOS. Since this could take Google 2 years, the Update DPIA already provided risk-mitigating technical measures for the schools and universities. SURF and SIVON published technical manuals for the system administrators to apply the most privacy-friendly settings in the Chrome browser.

The 2021 Update DPIA describes the mitigating measures in detail, both the measures agreed by Google, and the measures schools and universities should take to ensure GDPR-compliance. SURF and SIVON published technical manuals for the system administrators to apply the most privacy-

[4] DPIA on the use of Google G Suite (Enterprise) for Education, for the University of Groningen and the Amsterdam University of Applied Sciences, 15 July 2020, update 12 March 2021, URL: https://www.surf.nl/files/2021-06/updated-g-suite-for-education-dpia-12-march-2021.pdf

[5] Letter from both ministers of Education to the Lower House, 8 June 2021, with two attachments: (i) the letter sent by the Dutch Data Protection Authority to SURF and SIVON, and (ii) the letter sent to Minister Slob of Primary and Secondary Education and Media to guarantee privacy in education with regard to the use of Google G Suite for Education, URL: https://www.tweedekamer.nl/kamerstukken/brieven_regering/detail?id=2021Z10202&did=2021D22378

[6] Update DPIA report Google Workspace for Education, 2 August 2021, URL: https://www.sivon.nl/app/uploads/2021/08/Update-DPIA-report-Google-Workspace-for-Education-2-augustus-2021.pdf

friendly settings in the Chrome browser.[7] Based on feedback from the schools they regularly provide updates.[8]

The Update DPIA contained the following list of recommended measures for the Chromebooks and ChromeOS for schools:

Table 1: Applied privacy settings in the Chrome browser in the test set-up

No.	Setting
1.	Disable Google Search as default search provider
2.	Disable Diagnostic Data sharing with Google to improve the ChromeOS
3.	Disable sharing of Diagnostic Data from apps and websites with Google to suggest new content
4.	Require verified access
5.	Centrally select the standard security level for Chromebooks (do not allow end-end users to enable enhanced safe browsing) – See Figure 29 below
6.	Prohibit synchronization of data with the Google account in the Chrome browser (Chrome Sync)
7.	Disable data sharing with Google in the Chrome browser to Make searches and browsing better (uploads all visited URLs)
8.	Disable data sharing with Google in the Chrome browser through autofill of searches and URLs
9.	Disable data sharing with Google to improve features and performance of the Chrome browser
10.	Disable data sharing with Google in the Chrome browser through the Enhanced Spellchecker (centrally prohibit users from turning this feature on)[9]
11.	Block third party cookies and trackers in the Chrome browser and consider the use of an adblocker, see Figure 30 below

The 2021 Update DPIA describes the risks for three age groups of children in more detail (ages 6-9, 9-12 and 13-16), and how the recommended measures mitigate the specific age related risks. These assessments are not repeated in this report.

Scope of this report

[7] Kennisnet, SIVON en SURF, Technische handleiding voor Google Workspace for Education, October 2021, URL: https://www.kennisnet.nl/app/uploads/kennisnet/publicatie/Kennisnet-Technische-handleiding-Google-Workspace-for-Education.pdf.

[8] See the questions and answers on the SIVON website, '*Vragen over de handelingen die schoolbesturen moeten uitvoeren*', URL: https://www.sivon.nl/actueel/veelgestelde-vragen-dpia-google-en-het-ap-advies-over-google-workspace/

[9] As documented in the Update DPIA, if the user enables the Enhanced Spell Check feature in Chrome, Google servers will process the user's text input, which may contain personal data, including for example a login – password combination entered into a website. This feature can be completely disabled by an administrator by setting the policy of *SpellCheckServiceEnabled* to false. Recently, a security researcher wrote a blogpost about the risks of exposing passwords and login names, Otto, Chrome & Edge Enhanced Spellcheck Features Expose PII, Even Your Passwords, 16 September 2022, URL: https://www.bitdefender.com/blog/hotforsecurity/chrome-and-microsoft-edge-spellcheck-feature-can-retrieve-user-passwords/

In the Netherlands, 52% of primary schools and 36% of secondary schools use Google Workspace, as well as some faculties at 4 of the 14 universities, and 4 of the 36 government-funded universities of applied sciences, according to questionnaires from SURF and SIVON in the summer of 2021.

It is plausible that schools that have procured Chromebooks, also use Google Workspace for Education, and the Chrome browser as these tools are available by default on a Chromebook. In fact, Google uses the word Chrome to describe both the browser and the operating system and only has one version number. The ChromeOS (operating system) has a few more options than the browser (Chrome): for example access to applications from Google's Play Store.

However, schools can also decide to use Microsoft Office browser applications and/or another browser on the Chromebook.

This report is based on the following six questions:

1. Does Google answer Data Subject Access Requests in an adequate and timely manner? Is essential information missing based on the analysis of the intercepted outgoing data traffic?
2. How effective are privacy-friendly settings in the Chrome browser in blocking third-party cookies?
3. How can admins enforce privacy-friendly settings for logged-in users?
4. What data does Google collect about the use of Office for the Web apps on a Chromebook without a Google account?
5. Wat data does Google collect when 'syncing' is enabled on the Chromebook?
6. What data does Google collect when an app or extension is installed from Google's different app stores? Is it possible to centrally block access to the app stores?

The results are summarised in six separate sections below.

The report starts with the results of the Data Subject Access Request, as this was in many cases the only way to obtain information about the specific data processing. The outcomes of this request are therefore leading for many other questions.

Methodology and test settings

Privacy Company tested the data processing with the following set-up:

- A paid license was procured for Google Workspace for Education Plus, with the Chrome Enterprise upgrade, by the existing primary school CNS Ede (Stichting Christelijk Nationaal Schoolonderwijs). For this test, the specific domain cnsede-test.nl was created and used.
- Two Google Workspace for Education accounts were created, floor@cnsede-test.nl and floor2@cnsede-test.nl.
- The Google Workspace for Education license was configured for a K-12 school (pupils younger than 18 years).
- Two Chromebooks where used: A Lenovo Chromebook S330 with ChromeOS 101.0.4951.72. and a Lenovo IdeaPad Duet with ChromeOS 101.0.0.0.

Figure 1: Picture of the two test Chromebooks

The data processing was tested in two set-ups:

(i) Signing in with a Google account, using installed Android apps (including selected specific education apps), and:

(ii) Without signing in to a Google account, as 'guest user', visiting websites, including Microsoft Office 365 for the Web applications such as Word.

The second scenario was designed to examine the data protection merits of using an alternative for Google Workspace, without a Google account.

In both tests the devices were configured as recommended by SIVON, with privacy-friendly settings.

In the first (signed-in) set-up a full test was performed with all types of interaction between the two Chromebooks, testing all selected applications and sensors such as the camera. The second test, with the guest user, was more limited. The main difference between the two types of accessing the Chromebook, is that all internet sessions are deleted when a guest user closes the session in the browser. This behaviour resembles the 'Incognito' mode in the Chrome browser.

In both test set-ups, three sets of scripted activities were performed to trigger possible data processing:

1. Through searches, website browsing, bookmarking etc.
2. Google Workspace for Education (accessing the apps Gmail, Drive, Classroom, YouTube, Search and Google Meet)
3. Using Office 365 for the Web (accessing the core Office apps Word, Outlook, Excel, PowerPoint, OneDrive and Teams through the browser)

Test scenarios

The scenarios included visits to websites, downloading and installing.

- Commercial websites: Nu.nl, Bol.com, Coolblue, Facebook and Booking.com
- Government websites: belastingdienst.nl and uwv.nl
- Health websites: thuisarts.nl and haaglandenmc.nl

- Porn websites: nl.pornhub.com and xvideos.com (check to see if Chrome prevents these visits based on the SafeSites default filter, or if they are on the list of unsafe sites in Google's internal database. Google has developed this database to identify unsafe/malicious sites)
- Phishing websites (bitcoin scam and misspelled URLs)
- Downloading of Eicar test virus (check if Chrome prevents this with Safe Browsing default setting)
- Installing an accessibility plug-in in the Chrome browser (*Drawp* for School)
- Using the Play Store to install three Android school applications: *WRTS Woordjes en Begrippen leren*, *Squla* and *Ik Leer Lezen.*
- Logged-in use of the six Google (browser) applications (Gmail, Drive, Classroom, YouTube, Search and Meet in Google Workspace for Education to send and receive an email, use Drive to synchronize files, use Classroom to hand in a report, perform a video meeting and check whether Google detected a leaked password in Safe Browsing standard setting if the option was enabled: investigate hacked passwords.

The scenarios were developed to reproduce everyday actions of school pupils, **on a managed school Chromebook** (this automatically means the **Chrome browser is also managed**), both as a signed-in user with a school Workspace account, and as guest user,. While the activities were performed, the outgoing data traffic was intercepted with mitmproxy.[10]

Privacy Company ensured that the research is reproducible and repeatable. This was achieved by working with written scenarios in which the number of actions is limited. There was a pause of 30 seconds between each action. Screenshots have been made of all actions. All data have been recorded.

Chronology

The scenarios for this report were initially executed between 25 and 28 February 2022 and repeated on 24 and 25 May 2022.

Google was provided with a copy of this report on September 29 2022. Google replied on November 16 with an initial response on the remediation measures. On December 5th, Google provided their review comments on the full report. Along with their comments on the report, Google provided a Cover Note with additional explanations.

Inspection methods

Privacy Company applied six different technical inspection methods:

- Filing a Data Subject Access Request with Google as data controller for the diagnostic data from the Chrome browser and ChromeOS, plus all available information about cookies set in the browser by Google and third parties through visited websites.
- Discussions with Google representatives to obtain more information, under NDA.
- Using Google's public 'Takeout' tool , to extent relevant for Chrome (use not recommended by SIVON, as Google offers this tool as a data controller).
- Interception and decoding of the data traffic from the Chromebooks through a TLS-interception proxy.
- Checking available (audit) logs in the Admin Console about the managed devices, including the managed browser.

[10] In the most recent test Privacy Company used mitmproxy version 8.0.0.

- Accessing locally stored information in the browser (histograms).

Privacy Company tested for a limited period of time. As a result, Privacy Company did not detect all types of outgoing data traffic.

1. Data Subject Access Request

This section answers the question:

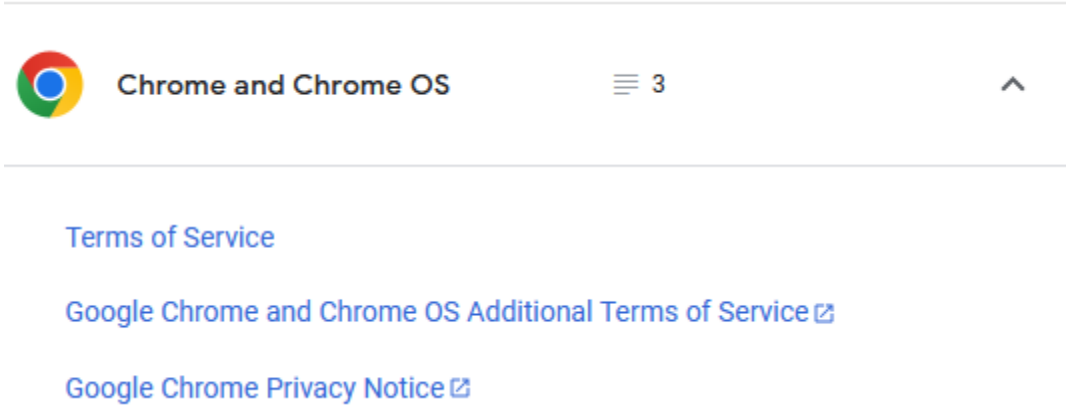
Does Google answer Data Subject Access Requests in an adequate and timely manner?

1.1 Facts

As described in the introduction of this report a Data Subject Access Request (DSAR) was filed with Google after the scripted tests were performed. The request was filed with Google, because Google (still) was the data controller for the data processing via the ChromeOS en Chrome browser, prior to the introduction of a new processor version of managed ChromeOS by mid-August 2023. To understand the implications of this role, this section first outlines the legal context, and then proceeds to describe the applied technical inspection methods.

1.1.1 Purposes of the data processing

Figure 2: Google three applicable terms for the use of Chrome and the ChromeOS[11]



According to Google's (general) Terms of Service, Google's general (consumer) Privacy Policy applies to the data processing by Chrome and the ChromeOS. This means Google legally permits itself to process the personal data for 33 purposes. The list of 33 purposes is included in the Google Workspace DPIA.[12] Additionally, Google's Chrome Privacy Notice contains 16 other purposes for the data processing.[13] In reply to this updated inspection report, Google stated the Privacy Notice is not a separate privacy statement and the Privacy Policy only contains 7 purposes.[14] However, for the purpose of this DPIA all factual specific purposes have been identified, as legally required in the GDPR.

[11] Screenshot captured from Google's overview of terms of service for its different services, URL: https://policies.google.com/terms/service-specific?hl=en. Page last visited 29 June 2023.

[12] DPIA on the use of Google G Suite (Enterprise) for Education, For the University of Groningen and the Amsterdam University of Applied Sciences 15 July 2020, update 12 March 2021, page 93-95, URL: https://www.surf.nl/files/2021-06/updated-g-suite-for-education-dpia-12-march-2021.pdf

[13] Google Chrome Privacy Notice, last modified 11 August 2022, URL: https://www.google.com/chrome/privacy/?hl=en. The Chrome Privacy Notice refers back to all purposes in the general Google Privacy Policy: "*Although this policy describes features that are specific to Chrome, any personal information that is provided to Google or stored in your Google Account will be used and protected in accordance with the Google Privacy Policy*."

[14] Comment from Google in review on this report, December 5th 2022.

Google by default processes the following data through Chrome:

1. Send standard log information to all sites you visit (including Google's services), including your IP address and data from cookies.
1. Intercepting man in the middle types of suspicious activity.[15]
2. Preloading the sites, Android apps and Chrome's omnibox a user visits. "*Preloading allows sites to set and read their own cookies even if you don't visit the preloaded page. In some* (unspecified) *cases preloading will be done in a privacy-preserving way, in which case cookies are not sent on requests and they can only be set once the user navigates to the preloaded page*."
3. Share the location with Google if you use Google Search, or with third parties if the user consents, and send the following information:
    - The Wi-Fi routers closest to you,
    - Cell IDs of the cell towers closest to you,
    - The strength of your Wi-Fi or cell signal,
    - The IP address that is currently assigned to your device.
4. Send information to Google *"to check for updates, get connectivity status, estimate the number of active users*."
5. Download the most recent 'Safe Browsing' list with information about known phishing and malware sites. "*Each site you visit is checked against the Safe Browsing list on your system. If there's a match, your browser sends Google a hashed, partial copy of the site's URL so that Google can send more information to your browser. Google cannot determine the real URL from this information.*"[16] If the option is enabled (not recommended by SIVON) "*Make searches and browsing better / Sends URLs of pages you visit to Google*" and Safe Browsing is enabled, Chrome sends Google the full URL of each visited site to determine whether that site is safe.
6. Store all queries in Google Search in Chrome in the Google Account (if Google Search is the default search engine, not recommended by SIVON).
7. Predict the word(s) a user wants to search for, even before hitting enter in the Search engine, based on the individuals browsing history and what other people are looking for. "*When you search using the omnibox or the search box on the new tab page in Chrome, the characters you type (even if you haven't hit "enter" yet) are sent to your default search engine.*"
8. Propose alternative URLs: "*When you can't connect to a web page, you can get suggestions for alternative pages similar to the one you're trying to reach. In order to offer you suggestions, Chrome sends Google the URL of the page you're trying to reach*."
9. Keep count of the most popular language of visited websites, *to customize your experience in Chrome*.

[15] Google Chrome, Security Key, URL: https://www.google.com/chrome/privacy/whitepaper.html#security-key

[16] Google, Chrome Privacy Notice, How Safe Browsing works, URL: https://www.google.com/chrome/privacy/?hl=en#safe-browsing-practices

10. Safe browsing check: *Each site you visit is checked against the Safe Browsing list on your system. If there's a match, your browser sends Google a hashed, partial copy of the site's URL so that Google can send more information to your browser.*[17]
11. Send usage statistics and crash reports to Google. "*In general, usage statistics do not include web page URLs or personal information, but, if you have turned on "Make searches and browsing better / Sends URLs of pages you visit to Google", then Chrome usage statistics include information about the web pages you visit and your usage of them. If you have enabled Chrome sync, Chrome may combine any declared age and gender information from your Google account with our statistics to help us build products better suited for all demographics.*"
12. Share aggregated, non-personally identifiable information from usage statistics/web pages publicly and with partners — like publishers, advertisers or web developers.
13. Send a unique Adobe Flash identifier to content partners and websites that use Adobe Flash Access to protect content.
14. Provide access to *Additional Service*s such as Google Translate
15. Install three kinds of unique identifiers and use these for:
    - Installation tracking
    - Tracking of promotional campaigns
    - Field trials (A/B testing of features on a percentage of the user base)

Google explains that Chrome stores many data locally, on the end user device, unless Sync is enabled. In that case (if Sync is enabled, discouraged by SIVON), data are stored remotely, on Google's servers, with the Google account. This includes:[18]

- Web surfing data (browsing history)
- Bookmarks
- Tabs
- Personal (Autofill) information and passwords (including payment cards and billing information). "*When you are signed into Chrome with your Google Account, Chrome may offer to save passwords, payment methods and related information to your Google Account*."
- Installed extensions
- Permissions granted to websites
- Cookies
- Data saved by add-ons
- A record of downloads from websites

1.1.2 Applied methods and tools to obtain access

In total, Privacy Company used six methods to obtain access to the personal data processed as a result of the limited tests:

[17] See also Google Safe Browsing, URL: https://safebrowsing.google.com/. "*Chrome and other browsers use Safe Browsing to show users a warning message before they visit a dangerous site or download a harmful app. Our scanning infrastructure also protects the Chrome Web Store from potentially harmful extensions.*"

[18] Depending on the user configuration not all these data types may necessarily be synced. However, not all user configurations were tested in the scope of this report.

1. Data Subject Access Request.[19]
2. Obtain additional information from Google under NDA.
3. Use of Google's Takeout tool[20], to the extent relevant for Chrome (use not recommended by SIVON, as Google offers this tool as a data controller).[21]
4. Analysis of outgoing data traffic.
5. Access available logs in the Admin Console about the managed devices, including the browser.
6. Access information stored locally in the Chrome browser.

During the preparations for the tests, Privacy Company discussed with Google what would be necessary for the company to be able to provide all the necessary information. A *Non-Disclosure Agreement* (NDA) was closed to allow Google to share more information than it would usually do in response to a DSAR.

Privacy Company shared the test scenarios beforehand. Privacy Company offered to perform the tests at a Google office to allow Google to immediately identify the person performing the tests, to verify that the actual tests were indeed performed by Privacy Company. Privacy Company offered these options for Google to establish that the requests for information about the testers would indeed be legitimate. Google indicated that it was not necessary to perform the tests on one of its locations.

1.1.3 Earlier Google commitments

As outcome of the initial and update DPIA on Google Workspace, Google made three commitments with regards to Workspace, to improve access to personal data:

- Google committed to publish in more detail by 21 August 2021 why it generally cannot provide access to Telemetry Data, Website Data and personal data from Google's SIEM security logs, but will consider each request under Article 15 GDPR. Privacy Company found a specific help article called ' Additional information on data withheld for security purposes'.[22]
- Google committed to develop a Domain Wide Takeout capability to individual user level/org unit level before the end of 2022.This tool was not yet available in March 2023.
- Google agreed to provide an inspection tool for admins to inspect the collected Telemetry Data (which Google calls 'Diagnostic Data') before the end of 2022, and provide adequate documentation by Q2 2022.[23] Google also agreed to show SURF and SIVON pilot versions during development. Google showed a pilot version of a tool for the Google Workspace for

[19] Google offers a free form at the URL: https://support.google.com/policies/contact/sar . Users must specify about which Google product they are inquiring, 'Other Google product(s)' or 'All of the above'. Google offers a free text field to specify the request.

[20] Google Takeout, for users with a Google account, URL: https://takeout.google.com/?hl=nl. URL last used for Takeout on 8 September 2022.

[21] Google, Export your data from Chrome, URL: https://support.google.com/chrome/answer/10248834?visit_id=637982577537379680-1365206139&p=chrome_takeout&rd=1. URL last visited 29 June 2023.

[22] Google policies help, Information not provided in response to an access request, URL: https://support.google.com/policies/answer/10972441. URL last visited 29 June 2023.

[23] The Update DPIA report states on p. 15: "*Google will publish a Help Center article detailing categories and purposes of the processing of diagnostic data (including data collected from cloud servers and telemetry events (atoms) from Android and the* ChromeOS *by Q1 2022. The level of detail should be sufficiently high for SURF, SIVON and SLM Rijk to verify Google's compliance in an audit. Google will gradually publish information, as it becomes available, over the next six months.*"

Education, the Diagnostic Information Tool (DIT) on 15 November 2022. However, this tool did not work for Chrome or Chrome Sync, as explicitly confirmed by Google per mail of 8 December 2023. See Figure 3 below.

Figure 3: List of services that are covered by Google's DIT

3. Could Google explicitly list which clients the tool works for? Is it just the browser, or also Android and/or iOS apps?

DIT covers the following Workspace services and, unless otherwise specified, includes web, iOS and Android clients:

- Assignments (Google Workspace for Education only) (web only)
- Calendar
- Chat
- Classroom (Google Workspace for Education only)
- Cloud Search
- Contacts (web)
- Drive & Docs (Docs, Drive, Forms, Sheets, Slides)
- Gmail
- Groups (web only)
- Jamboard
- Keep
- Meet
- Sites (web only)
- Tasks
- Voice

1.2 Technical findings

During testing, multiple systems and services within Google were accessed. Below the results of the six investigation methods are described in more detail.

1.2.1 Data Subject Access Request (DSAR)

In reply to the DSAR, Google initially referred to its (end user) Takeout tool (offering an online possibility for users to retrieve the data from their Workspace account) and the possibility to access their Google account data via the Google dashboard. Though use of the Takeout tool is not recommended by SIVON, as Google offers this tool as a data controller, the outputs were tested, and the results are described in Section 1.2.3 below.

After lengthy discussions Google prepared a [**Confidential**] table with the different relevant services, and if data can be made available and via which process. Google's justifications to refuse access were also marked **Confidential**. The entire process of gaining insight was very time consuming. Ultimately, Privacy Company concluded that more personal data were available than shared in response to a DSAR. In reply to this report, Google stated that more data will become available once Google is a data processor for the managed ChromeOS.

Google provided the table under NDA. Therefore, this information cannot be included in this report.

Table 2: Responses Google to Data Subject Access Request per service[24]
[**Confidential**]

[Conclusions Privacy Company **Confidential].**

1.2.2 Results from discussions with Google

In order to gain more insight and to make it possible to compare the results from the technical tests performed by Privacy Company and the data provided by Google, discussions were held and additional insights were given by Google separate from the DSAR. As a result of the dialogue with Google engineers, Google explained that it did not collect any personal data about [**Confidential** number**]** of the [**Confidential** number of] identified services. These explanations are shown in detail

[24] Table provided by Google on 5 May 2022, **[Confidential].**

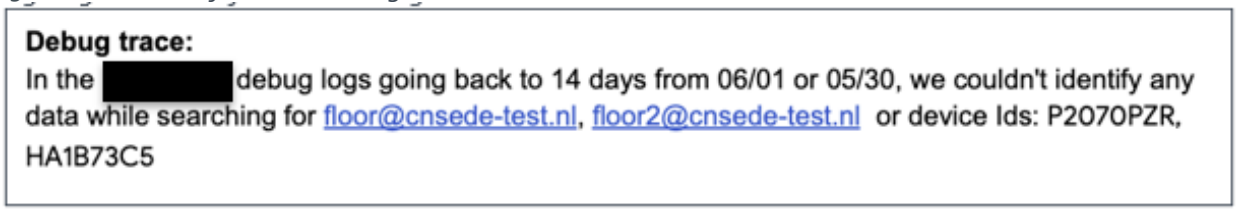
in Table 3 below. Google provided personal data relating to [**Confidential**] relevant services engaged by the use of Chromebooks and the Chrome browser. Normally Google does not provide access to these data in reply to a DSAR.

These [**Confidential**] services were:

[Confidential]

Additionally, Google explained it may collect personal data as part of Debug Traces. However, Google does not provide access to debug traces, as [**Confidential]** and are only used for internal bug analysis.[25] These traces are deleted after a few days (i.e. 14 days for enrollment, 2 days for Translate, etc.). See Figure 4 below. The outcome is not representative, as Google did not initiate this search within the brief period these data were available.

Figure 4: Outcome of access to debug trace



Google's justifications to refuse access

[Confidential Table 3] below shows Google's justification per service, when provided, not to give access to available personal data in response to the further requests for information based on the data inventory under general GDPR obligations.

In **[Confidential** number of**]** out of the [**Confidential** number of] remaining services, where Google did not provide access, Google explained it does not collect any personal data, sometimes due to the chosen privacy-friendly settings. Privacy Company was not able to verify that statement, as Google did not provide any access to the logged data.[26] Privacy Company did not experience any experiments or crashes during the limited testing period, and hence could not inspect the contents of these events. With experiments or crashes there is a higher probability that such events may incidentally collect Content Data or other personal data.

Table 3: Overview of justifications provided by Google to refuse access
[Confidential]

According to Google's brief explanations in the table shared under NDA, **Google does not log or store any personal data about** [**Confidential** number of] **of the** [**Confidential** number of] **identified services,** if the school administrators have followed SIVON's recommendations for a privacy-friendly set-up. These rows are given a green check-mark in Table 3 above.

For 12 other identified services, Google explained [**Confidential**].This does not mean that Google does not store these personal data [but, **Confidential**]. In [**Confidential** number of] cases Google confirmed that it does not collect unique user or device identifiers.

For [**Confidential** number of] of the [**Confidential** number of] services (possibly [**Confidential** number] if this also explains the lack of information about the Play Store), Google's justification not to provide access is [**Confidential**].

[25] Explanation provided by Google on 5 May 2022.
[26] In reply to this report Google explained that revealing random data to Privacy Company would risk security breaches. Google did not provide this reason during the conversations about verification of the statement that these logs do not include personal data.

Google did not provide any information about the interactions with the Play Store, necessary for schools to enable students to download whitelisted specific school applications. In reply to this report, Google pointed to its Takeout tool for students to download Content Data (not the Diagnostic Data). Section 6 of this report describes the intercepted data traffic to play.google.com.

Google has since improved its public information about reasons to refuse access to some personal data. As a result of simultaneous talks with the Dutch education sector and the strategic vendor manager for Microsoft, Google and AWS of the Dutch government about data protection improvements for Google Workspace, Google published a detailed explanation about reasons to refuse access for all of its services.[27]

These reasons include:

1. Information relating to someone else
2. Anonymised data
3. Data Google cannot reliably relate to the requesting data subject
4. Data that could be used to undermine the security of Google's systems
5. Data that could infringe on the rights and freedoms of others (for example, legal privilege)[28]

The reasons Google does not provide separate access to logged data about cookies is that Google maintains it cannot reliably identify the person behind a cookie. Google explains in its Privacy Help Center:

"A user's knowledge or possession of information (e.g. forwarded emails, details of IP addresses from which an account was accessed or cookie IDs), taken alone, is generally insufficient to verify that the user making a request is the individual to whom such data relates.
For example, emails, IP addresses or device information could be obtained by third parties through various means, such as a spouse/partner that shares a device or gains access to an account of their partner forwarding emails to themselves which they subsequently submit in order to hijack an account. Similarly, third parties could alter the contents of automated emails so that they appear to relate to a different account. Similarly, IP addresses and cookie ID, taken alone, are generally inadequate for verification purposes for many reasons, including because they can be shared by a number of different people at the same time."[29]

With regard to the Security Data, Google explains that it does not categorically refuse access to personal data that are used in security logs, as many of these data, such as device fingerprints and IP addresses are available in other copies of the data, used for other purposes. Google only refuses to provide access to what it calls "*sensitive configuration details, commercially sensitive indications of our approach to backup and archiving, and, most importantly, embodies architectural information about our approach to defense-in-depth.*"[30]

[27] Google, Information not provided in response to an access request, URL: https://support.google.com/policies/answer/10972441. URL last visited 29 June 2023.
[28] Idem.
[29] Google Privacy Help Center, URL: https://support.google.com/policies/answer/9581826?hl=en, under 'Can I use other information related to or from a Google account to access data associated with that Google account?'
[30] Google, Information not provided in response to an access request.

Google explains: *"If certain detailed information, about our system defenses, and the data we process through them, such as how low-level data structures are laid out in memory, were to become , it could give potential bad actors valuable signals that could be used to exploit our systems."*[31]

1.2.3 Results Takeout tool

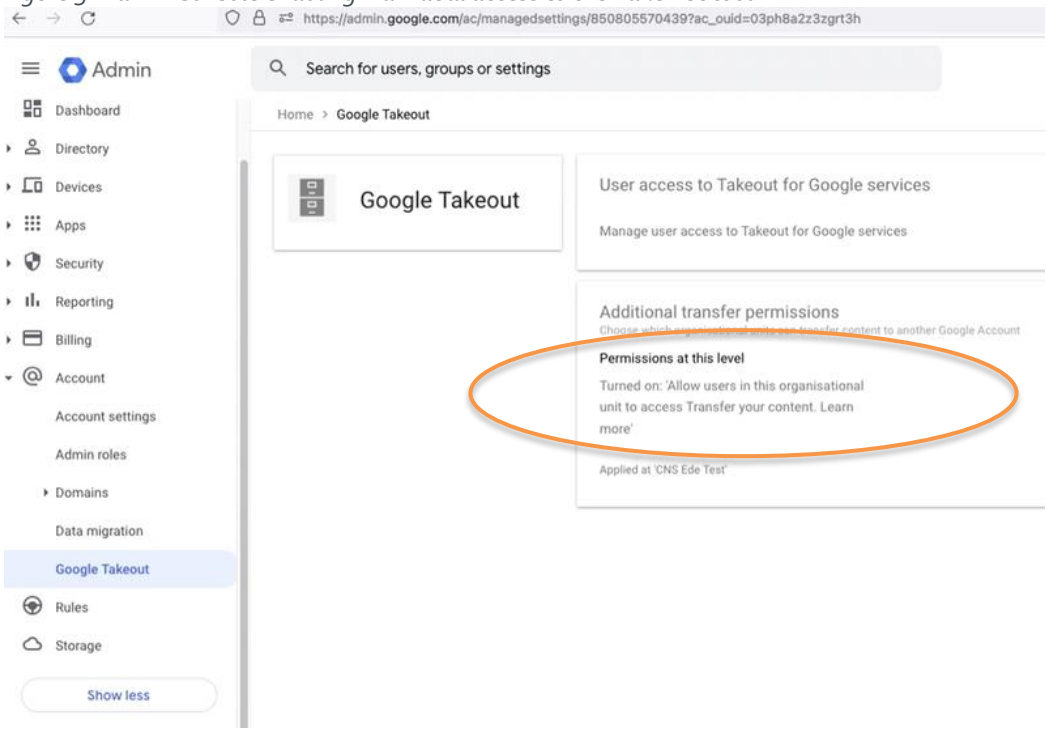
Google Takeout allows students to export copies of Content Data stored by Google to a local zip folder, as a kind of self-service data subject access request. Google explains that some data may not be available for school accounts: "*Why can't I download data from my school or work account? Answer: Google Workspace administrators can manage if users can download data from different products. Find out who your administrator is.*"[32]

The Takeout tool makes both content and metadata available, and produces both personal data processed by Google in a role as data processor, as well as personal data processed by Google in a role as data controller.

In the test set-up, the Takeout tool was disabled, following SIVON's recommendations for a privacy-friendly set-up. Google explained to admins that Takeout was an *Additional Service*, and showed a pop-up with a reference to its consumer Privacy Notice and Terms of Service when a school admin wanted to enable the service.

However, in June 2023 Privacy Company retested in the managed ChromeOS of the test tenant, and established that TakeOut was no longer part of the *Additional Services*.

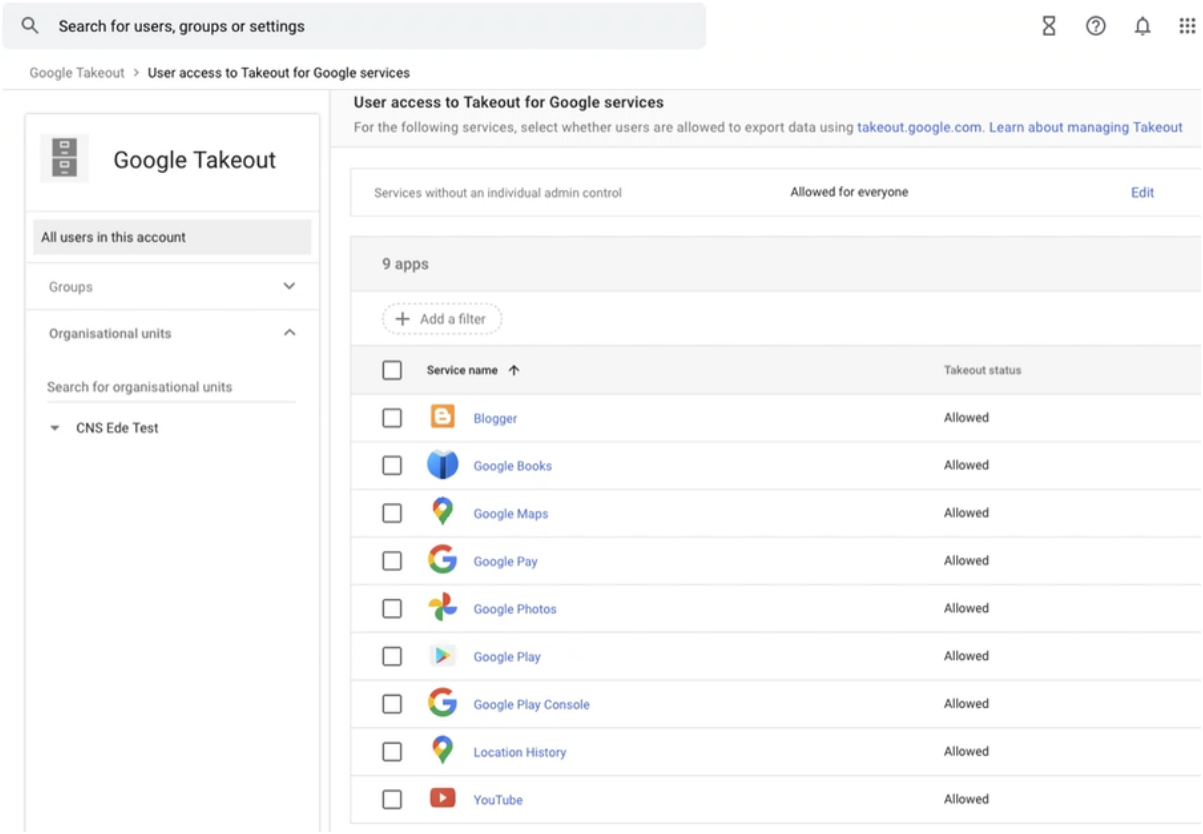
Figure 5: Admin Console enabling individual access to the TakeOut tool



[31] Idem.

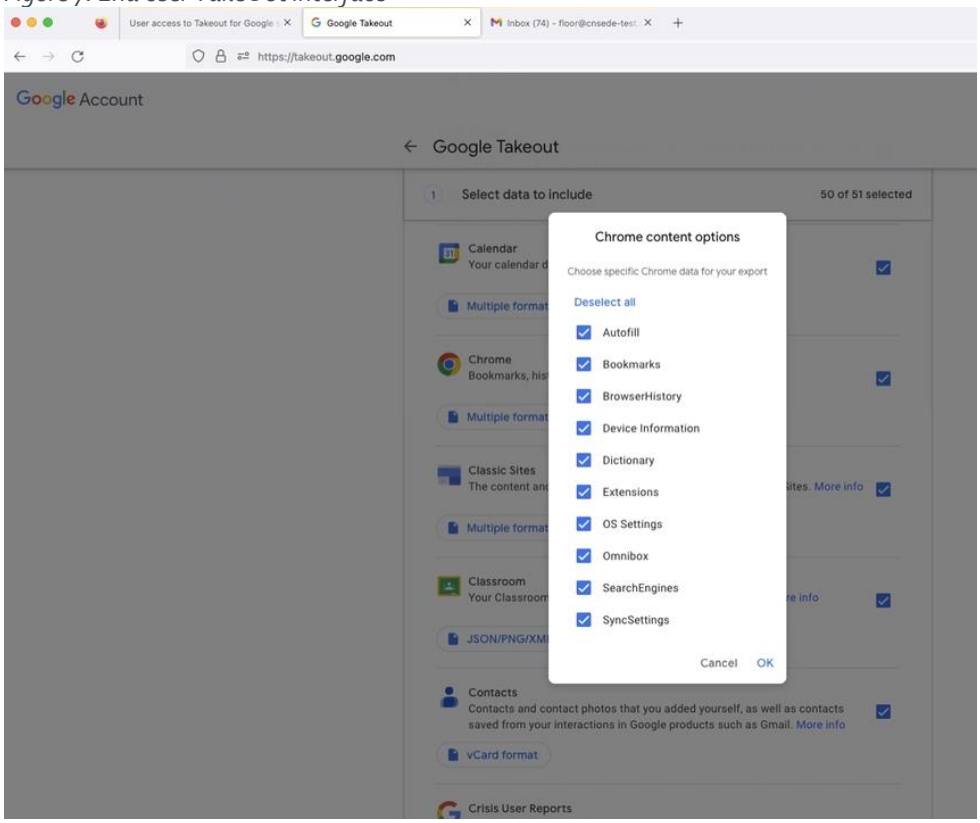
[32] Google Account Help, How to download your Google data, URL: https://support.google.com/accounts/answer/3024190?hl=en. URL last visited 29 June 2023.

Figure 6: Options to allow export of specific services via the Admin Console



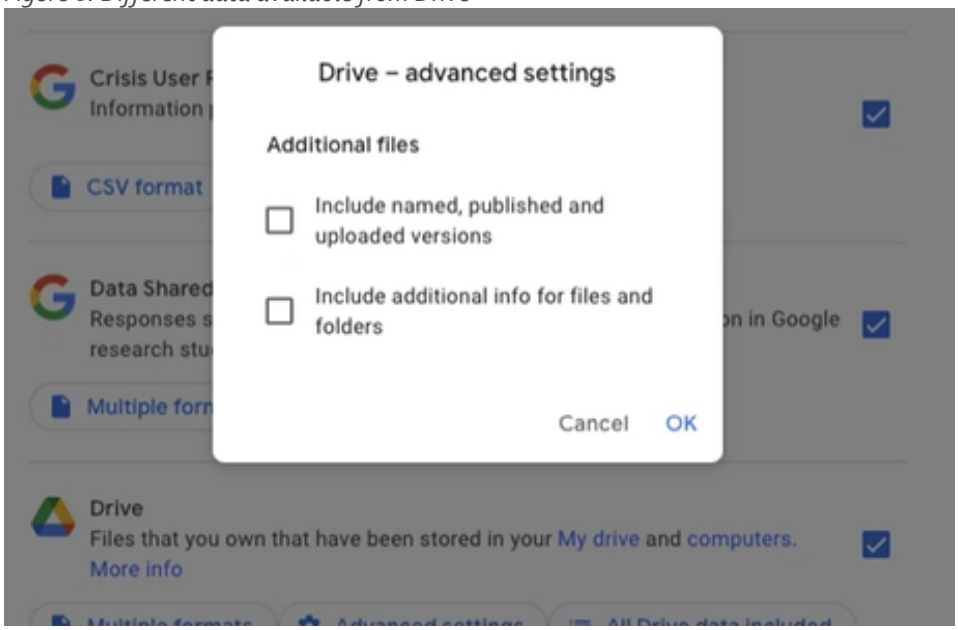
The TakeOut Tool also includes Chrome content options. See Figure 7 below.

Figure 7: End user TakeOut interface



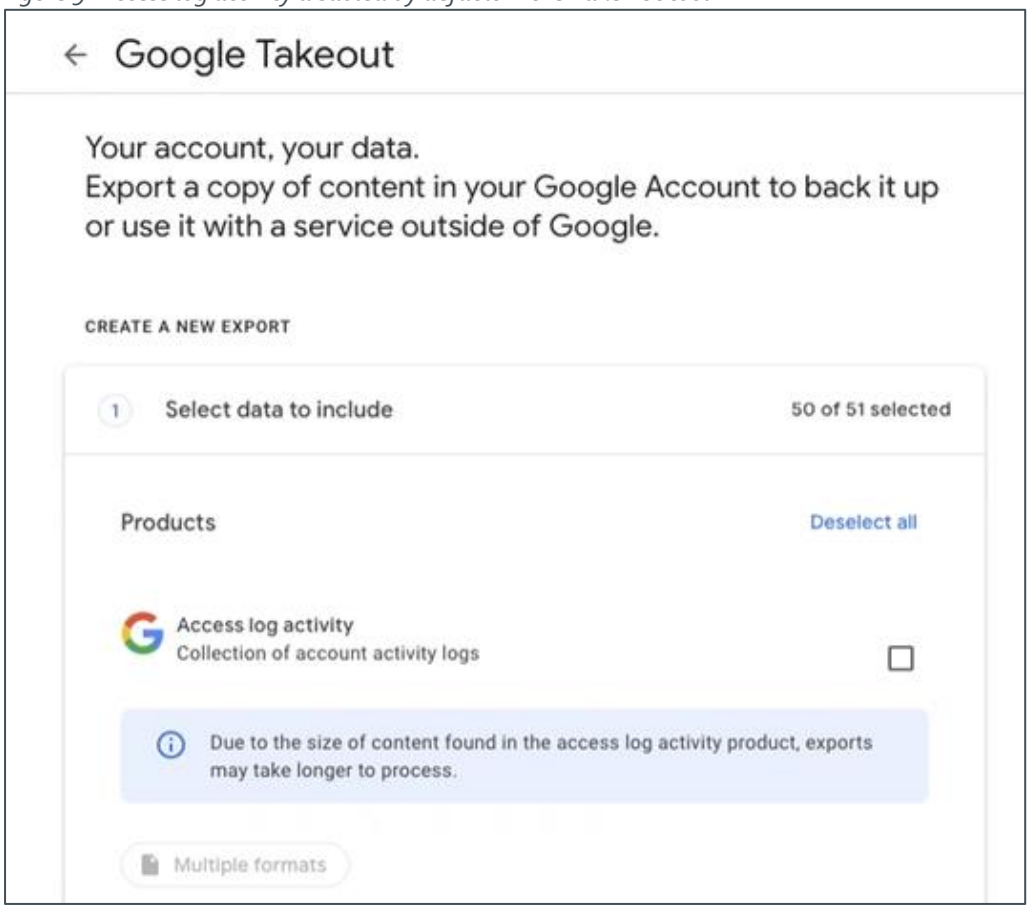
Most services offer different choices, when selected. For example, Google allows students to select different data from Drive.

Figure 8: Different data available from Drive



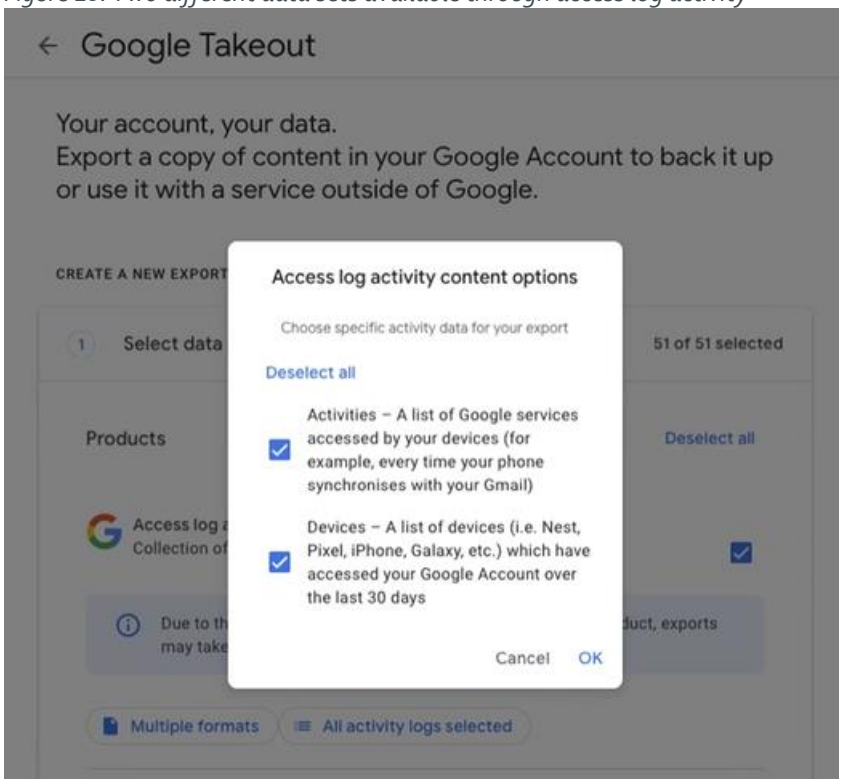
An end user needs to separately select access log activity in the TakeOut tool. These data are disabled by default in the form. See Figure 9 below.

Figure 9: Access log activity disabled by default in the TakeOut tool



When ticking the box with the Access log activity, Google presents two choices, as illustrated in Figure 10 below.

Figure 10: Two different data sets available through access log activity



Privacy Company enabled and exported the access log activity in the Takeout. The output contains a minimised version of access logs and show that a user with a Chromebook or PC accessed a Workspace service such as Gmail or Drive at a certain point in time. Also location info, IP address and other data points were included.

In its standard tool Google makes data about 45[33] services available for Google account holders. Only 5 of these services were relevant for this report about the possibilities for export of the personal data processed by Google as a direct result of using Chromebooks and the Chrome browser.

These five services are:

1. **Access log** activity: Collection of account activity logs

As shown in **Fout! Verwijzingsbron niet gevonden.** below, these logs contain a timestamp and the main activity in a service such as Drive. Location info, IP address and other data points are included as well.

Figure 11: Example of access log

```
112  152211372751,2022-09-09 13:59:26 UTC,2a10:3781:412:1:4ca1:2bff:fe22:3025,,No,,,,Os : ANDROID_OS.,Other,Other,,
113  152211372751,2022-09-09 13:59:25 UTC,2a10:3781:412:1:4ca1:2bff:fe22:3025,,No,,,,Os : ANDROID_OS.,Other,Other,,
114  152211372751,2022-09-09 13:59:24 UTC,2a10:3781:412:1:4ca1:2bff:fe22:3025,,No,,,,Os : ANDROID_OS.,Other,Other,,
115  152211372751,2022-09-09 13:59:24 UTC,45.137.101.242,,No,,,,Os : ANDROID_OS.,Other,Other,Non User Initiated,
116  152211372751,2022-09-09 13:59:24 UTC,2a10:3781:412:1:4ca1:2bff:fe22:3025,,No,,,,Os : ANDROID_OS.,Other,Other,,
117  152211372751,2022-09-09 13:59:23 UTC,2a10:3781:412:1:b16c:4ff6:134:2546,,No,,,,App : CHROME.,Other,Other,,
118  152211372751,2022-09-09 13:59:23 UTC,2a10:3781:412:1:b16c:4ff6:134:2546,,No,,,,App : CHROME.,Other,Other,,
119  152211372751,2022-09-09 13:59:22 UTC,2a10:3781:412:1:b16c:4ff6:134:2546,,No,,,,App : CHROME. App Version : 104.0.0.0. Os : CHROME_OS. Os Version : 14909.132.0. Devi
     PC.,Other,Other,,
```

[33] Google replied that Takeout is available for over 100 services. Since not all the services were used during the technical tests fort his report, not all of the services that are integrated in Takeout were visible.

Figure 12: Overview of available data in Takeout results in the test set-up

2. **Android Device Configuration**

This log shows device attributes, performance data, software versions and account identifiers.[34] See Figure 13 below.

Figure 13: Example of Android Device Configuration log

ANDROID DEVICE CONFIGURATION SERVICE DATA

Device and Account Identifiers

Android ID: 4064136417758544428
MEID(s):
IMEI(s):
ESN(s):
Serial number(s): kukui_cheets:831D8529E5AB053B9789
MAC Addresses:

Friendly name:

Device Attributes

Locale: nl-NL
Timezone: Europe/Amsterdam

Hardware: cheets
Model: kukui
Brand: google
Manufacturer: Google
Device Type: Android
Device sub-type: Tablet
Device: kukui_cheets
Partner client ID: android-google
Product: kukui
Radio Firmware Version:
Bootloader Firmware Version: unknown

Touch Screen Type: Finger
Keyboard Type: Qwerty
Hard Keyboard: true
Navigation Type: No Navigation
Five-Way Navigation: false
Screen Layout: Extra Large
Dynamic Screen Layout: Undefined
Screen Density: 240 DPI
Screen Height: 1920 pixels
Screen Width: 1200 pixels

3. **Chrome** Bookmarks, history, and other settings from Chrome

Figure 14: Example of Chrome bookmarks

```
<!DOCTYPE NETSCAPE-Bookmark-file-1>
<!-- This is an automatically generated file.
It will be read and overwritten.
DO NOT EDIT! -->
<META HTTP-EQUIV="Content-Type" CONTENT="text/html; charset=UTF-8">
<TITLE>Bookmarks</TITLE>
<H1>Bookmarks</H1>
    <DL><p>
        <DT><H3 ADD_DATE="0" LAST_MODIFIED="1653329588495">Bookmark Bar</H3>
            <DL><p>
                <DT><A HREF="https://www.bol.com/nl/nl/" ADD_DATE="13297899803831254"
                ICON_URI="https://www.bol.com/favicon.ico">De winkel van ons allemaal |
                bol.com</A>
            </DL><p>
        <DT><H3 ADD_DATE="0" LAST_MODIFIED="1653329588495">Other Bookmarks</H3>
            <DL><p>
            </DL><p>
        <DT><H3 ADD_DATE="0" LAST_MODIFIED="1653329588495">Synced Bookmarks</H3>
            <DL><p>
            </DL><p>
    </DL><p>
```

[34] Google refers to Chromebooks as Android devices because Android and ChromeOS devices share two components: Dalvik virtual machine and the Play Store, both used to run and install Android applications.

4. Google Account

These files contain data about the registration and login activity. The contents of this log are the same as the user event logs made available to admins. See Section 1.2.4 below.

Figure 15: Example of Google Account logs

2022-05-23 18:13:12 Z	45.137.101.242	Login	Mozilla/5.0 (X11; CrOS aarch64 14526.89.0) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/100.0.4896.133 Safari/537.36,gzip(gfe)
2022-05-23 18:13:12 Z	45.137.101.242	Login	Mozilla/5.0 (X11; CrOS aarch64 14526.89.0) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/100.0.4896.133 Safari/537.36,gzip(gfe)
2022-05-23 18:13:09 Z	45.137.101.242	Login	Mozilla/5.0 (X11; CrOS aarch64 14526.89.0) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/100.0.4896.133 Safari/537.36,gzip(gfe)
2022-05-23 18:12:58 Z	45.137.101.242	Login	Mozilla/5.0 (X11; CrOS aarch64 14526.89.0) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/100.0.4896.133 Safari/537.36,gzip(gfe)
2022-05-23 14:23:30 Z	45.137.101.242	Login	GoogleAuth/1.4 (kukui_cheets R99-14469.41.0); gzip,gzip(gfe),gzip(gfe)
2022-05-23 14:23:13 Z	45.137.101.242	Login	Mozilla/5.0 (X11; CrOS aarch64 14469.41.0) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/99.0.4844.57 Safari/537.36,gzip(gfe)
2022-05-23 14:23:13 Z	45.137.101.242	Login	Mozilla/5.0 (X11; CrOS aarch64 14469.41.0) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/99.0.4844.57 Safari/537.36,gzip(gfe)
2022-05-23 14:23:13 Z	45.137.101.242	Login	Mozilla/5.0 (X11; CrOS aarch64 14469.41.0) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/99.0.4844.57 Safari/537.36,gzip(gfe)
2022-05-09 14:33:41 Z	2a10:3781:412:1:34ff:e467:7bee:5e3	Login	Mozilla/5.0 (Macintosh; Intel Mac OS X 10.15; rv:99.0) Gecko/20100101 Firefox/99.0,gzip(gfe)
2022-04-21 16:31:16 Z	2a10:3781:412:1:4bc:7a3c:e3e8:9799	Login	Mozilla/5.0 (Macintosh; Intel Mac OS X 10.15; rv:99.0) Gecko/20100101 Firefox/99.0,gzip(gfe)
2022-04-14 14:10:30 Z	2a10:3781:412:1:8c2c:2f48:c30d:894b	Login	Mozilla/5.0 (Macintosh; Intel Mac OS X 10.15; rv:99.0) Gecko/20100101 Firefox/99.0,gzip(gfe)
[illegible]	[illegible]	[illegible]	[illegible]

5. Google Play Store

This file contains data about currently installed apps, ratings and orders.[35] According to Google the following potential data categories are integrated in Takeout for Play:

- "*Installs - List of your Google Play app installs and associated data such as timestamps with those installs.*
- *Redemption history - List of your Google Play promo redemptions and associated data such as country IP.*
- *Library - List of your Google Play downloads including music, movies and apps and associated data.*
- *Reviews - Details about your Google Play reviews and associated data.*
- *Purchase history - List of your Google Play purchases and associated data.*
- *Order history - Detailed purchase data regarding your Google Play orders and associated data such as addresses.*
- *Devices - Metadata about your devices that have accessed the Google Play Store.*
- *Subscriptions - List of your Google Play subscriptions.*
- *Play settings - Settings for your Google Play apps and associated data.*
- *Play Points details - Information about your Play Points and associated data.*
- *Promotion history - List of your Google Play promotions and associated data.*"

[35] No data were shown in the Chrome folder about the installed (and deinstalled) extension *Drawp* via the Chrome Web Store. Apparently, these Chrome data are only available if ChromeSync is enabled. This does not mean Google does not log these activities, such as installing an app or extension, in other logs. Possibly these logs are not user or device keyed.

Figure 16: Examples of the two available logs about use of the Google Play Store

1.2.4 Results events logs

As shown in Table 4 below, Google provides personal data about the use of Chromebooks and the Chrome browser in four different admin logs. These are:

1. Admin log events
2. Device log events
3. Takeout log events
4. User log events

Previously, these logs were called audit logs, but Google has renamed them to log event data.[36]

Table 4: Overview available personal data in admin logs[37]

Log name	Data available	In scope	Explanation
Access Transparency log events	No	No	
Admin log events	Yes	Yes, may include status changes of Chromebooks	
Assignments log events	No	No	

[36] Google Workspace Admin Help, Improved audit and investigation experience, URL: https://support.google.com/a/answer/11339435#zippy=%2Cmajor-changes%2Cdata-sources . URL last visited 29 June 2023.

[37] Idem. Google explains that this long list of logs is only available in Enterprise Plus and Education Plus licenses. "Admins with Cloud Identity Premium, Enterprise Standard, and Education Standard will also have access to the investigation tool, but only for the following data sources: Chrome log events, Device log events, OAuth log events, Rules log events, User log events, and Voice log events."

Calendar log events	No	No	
Chat log events	No	No	
Chrome log events	No	Unknown, not yet available	Google published a new page about available log events for admins for security monitoring, but these data were not available when the tests for this report were performed[38]
Classroom log events	No	No	
Context-aware access log events	No	No	
Currents log events	No	No	
Data Studio log events	No	No	
Device log events	No	Yes	May contain data from ChromeOS security events, similar to Chrome Log events. However, during the tests no security events occurred that were significant enough to trigger a logged event[39].
Directory Sync log events	No	No	
Drive log events	Yes	No	
Graduation log events	No	No	
Groups enterprise log events	No	No	
Groups log events	No	No	
Keep log events	No	No	
LDAP log events	No	No	
Meet log events	Yes	No	
OAuth log events	Yes	No	
Password Vault log events	No	No	
Rule log events	No	No	
SAML log events	No	No	

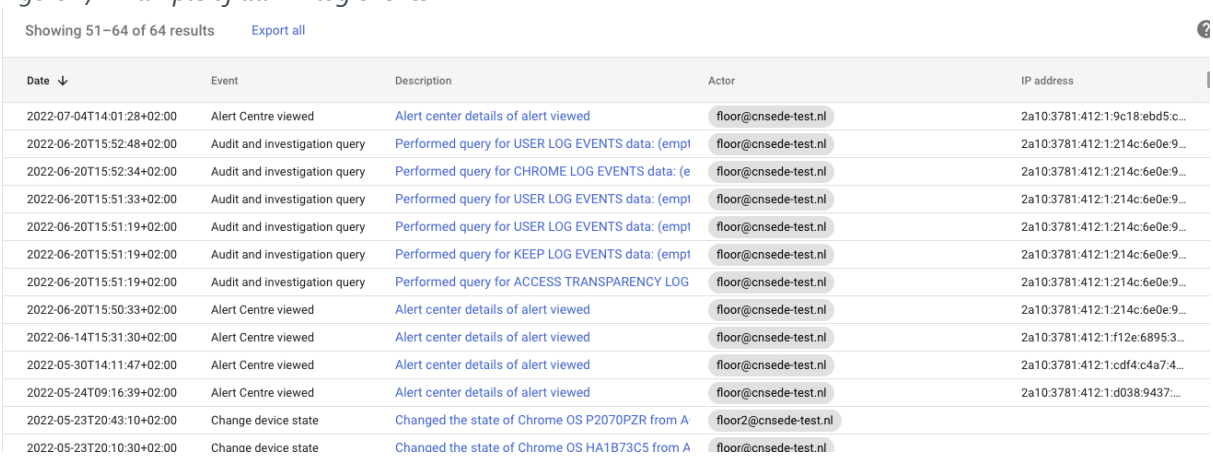
[38] Google Workspace Admin Help, Chrome log events, URL: https://support.google.com/a/answer/11478284?hl=en. URL last visited 29 June 2023. None of the events described on this page were visible in the tests. The documentation seems adequate for this purpose, and the contents seem logical.

[39] Google, Device log events, Security investigation tool, URL: https://support.google.com/a/answer/11478791?hl=en. URL last visited 29 June 2023.

Takeout log events	Yes	Yes, if a user attempts to takeout Chrome data	
User log events[40]	Yes	Yes	

Below, examples are shown from the different logs with personal data about interactions with the Chromebook and the Chrome browser. The first category, admin log events, shows behaviour of admins, with a description of the logged activity, the date, e-mail address and IP address. As shown in the bottom two lines of the logs, this log also shows when an admin changes the status of a Chromebook.

Figure 17: Example of admin log events



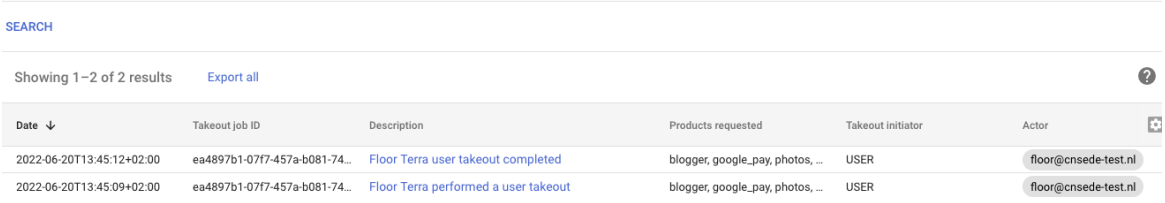
Showing 51–64 of 64 results Export all

Date ↓	Event	Description	Actor	IP address
2022-07-04T14:01:28+02:00	Alert Centre viewed	Alert center details of alert viewed	floor@cnsede-test.nl	2a10:3781:412:1:9c18:ebd5:c...
2022-06-20T15:52:48+02:00	Audit and investigation query	Performed query for USER LOG EVENTS data: (empt	floor@cnsede-test.nl	2a10:3781:412:1:214c:6e0e:9...
2022-06-20T15:52:34+02:00	Audit and investigation query	Performed query for CHROME LOG EVENTS data: (e	floor@cnsede-test.nl	2a10:3781:412:1:214c:6e0e:9...
2022-06-20T15:51:33+02:00	Audit and investigation query	Performed query for USER LOG EVENTS data: (empt	floor@cnsede-test.nl	2a10:3781:412:1:214c:6e0e:9...
2022-06-20T15:51:19+02:00	Audit and investigation query	Performed query for USER LOG EVENTS data: (empt	floor@cnsede-test.nl	2a10:3781:412:1:214c:6e0e:9...
2022-06-20T15:51:19+02:00	Audit and investigation query	Performed query for KEEP LOG EVENTS data: (empt	floor@cnsede-test.nl	2a10:3781:412:1:214c:6e0e:9...
2022-06-20T15:51:19+02:00	Audit and investigation query	Performed query for ACCESS TRANSPARENCY LOG	floor@cnsede-test.nl	2a10:3781:412:1:214c:6e0e:9...
2022-06-20T15:50:33+02:00	Alert Centre viewed	Alert center details of alert viewed	floor@cnsede-test.nl	2a10:3781:412:1:214c:6e0e:9...
2022-06-14T15:31:30+02:00	Alert Centre viewed	Alert center details of alert viewed	floor@cnsede-test.nl	2a10:3781:412:1:f12e:6895:3...
2022-05-30T14:11:47+02:00	Alert Centre viewed	Alert center details of alert viewed	floor@cnsede-test.nl	2a10:3781:412:1:cdf4:c4a7:4...
2022-05-24T09:16:39+02:00	Alert Centre viewed	Alert center details of alert viewed	floor@cnsede-test.nl	2a10:3781:412:1:d038:9437:...
2022-05-23T20:43:10+02:00	Change device state	Changed the state of Chrome OS P2070PZR from A	floor2@cnsede-test.nl	
2022-05-23T20:10:30+02:00	Change device state	Changed the state of Chrome OS HA1B73C5 from A	floor@cnsede-test.nl	

As explained in Table 4 above, no log files were available with device logs, as these logs only show significant security events, and no such events occurred during the brief testing period.

The Takeout log events show admins what users performed a Takeout, for what products/services. This log did not include any information about use of services such as the Play Store.

Figure 18: Example of Takeout log events



SEARCH

Showing 1–2 of 2 results Export all

Date ↓	Takeout job ID	Description	Products requested	Takeout initiator	Actor
2022-06-20T13:45:12+02:00	ea4897b1-07f7-457a-b081-74...	Floor Terra user takeout completed	blogger, google_pay, photos, ...	USER	floor@cnsede-test.nl
2022-06-20T13:45:09+02:00	ea4897b1-07f7-457a-b081-74...	Floor Terra performed a user takeout	blogger, google_pay, photos, ...	USER	floor@cnsede-test.nl

The fourth relevant source of information is the user log events. These logs show when a user has signed in, how, with what IP address, and if the log-in is suspicious from a security perspective.[41]

[40] This is Google's new name for the combined old Login and User accounts audit logs.

[41] Google, About admin alerts for suspicious login activity, URL: https://support.google.com/a/answer/7102416?hl=en. URL last visited 29 June 2023.

Figure 19: Example of user log events[42]

Date ↓	Description	Login type	IP address	Is suspicious	Sensitive action name
2022-05-24T10:47:31+02:00	Floor Terra logged in	Google password	2a10:3781:412:1:f124:2394:2...	False	
2022-05-24T09:16:37+02:00	Floor Terra logged in	Google password	2a10:3781:412:1:d038:9437:...	False	
2022-05-23T20:45:26+02:00	floor2@cnsede-test.nl logged in	Exchange	45.137.101.242	False	
2022-05-23T20:45:08+02:00	floor2@cnsede-test.nl logged in	Google password	45.137.101.242	False	
2022-05-23T20:13:12+02:00	Floor Terra logged in	Exchange	45.137.101.242	False	
2022-05-23T20:12:58+02:00	Floor Terra logged in	Google password	45.137.101.242	False	
2022-05-23T16:23:13+02:00	Floor Terra logged in	Exchange	45.137.101.242	False	
2022-05-09T16:33:41+02:00	Floor Terra logged in	Google password	2a10:3781:412:1:34ff:e467:7...	False	
2022-04-21T18:31:16+02:00	Floor Terra logged in	Google password	2a10:3781:412:1:4bc:7a3c:e3...	False	
2022-04-14T16:10:30+02:00	Floor Terra logged in	Google password	2a10:3781:412:1:8c2c:2f48:c...	False	
2022-04-11T11:28:05+02:00	floor2@cnsede-test.nl logged in	Google password	185.213.106.92	False	
2022-03-31T15:18:56+02:00	Floor Terra logged in	Google password	2a10:3781:412:1:78ae:695f:2...	False	
2022-03-28T10:08:49+02:00	floor2@cnsede-test.nl logged in	Google password	185.213.106.92	False	
2022-03-16T09:54:50+01:00	Floor Terra logged in	Google password	185.213.106.92	False	

1.2.5 Analysis outgoing traffic

Google's DSAR results were compared with intercepted outgoing traffic from the Chromebook. Overall, the outgoing traffic did not contain any surprises. Most of the intercepted events contained functional instructions to Google's servers to respond to user requests, without a unique user or device identifier. The contents of such events are illustrated with the first two types of events, the Update Request and SafeSites. In the traffic to SafeSites a long identifier was observed, but Google explained this identifier is a Chrome-wide API key that does not link to a specific device or user. However, Google does collect the IP-address of the user in case of a SafeSites 'hit', and stores this for 7 days.

Only in one case the outgoing traffic did contain unique user and device identifiers in combination with visited URLs, in Cloud Device Messenger. For push messages, the identifier is a unique device and user identifier. This traffic is sent to Google in the USA.

Additionally, log traffic to play.google.com was observed. This traffic is described and analysed in Section 6 of this report.

Update request

Via an Update request many apps on the Chromebook simultaneously ask Google if an update is available. As shown in Figure 20 below, the request contains many App identifiers. These identifiers are not presented in a human readable format.

In Appendix 1 with this report, the full contents of this intercepted event are shown. The event does not contain a unique user or device ID. As shown in Figure 21 below the most revealing information only contains a request and session ID. However, because this is internet communication, Google automatically collects the IP address from the end user.

[42] The column 'sensitive action name' is empty but refers to certain actions that Google classifies as suspicious. Google, Protect Google Workspace accounts with security challenges, URL: https://support.google.com/a/answer/6002699?hl=en . URL last visited 29 June 2023.

Figure 20: Example of Update check

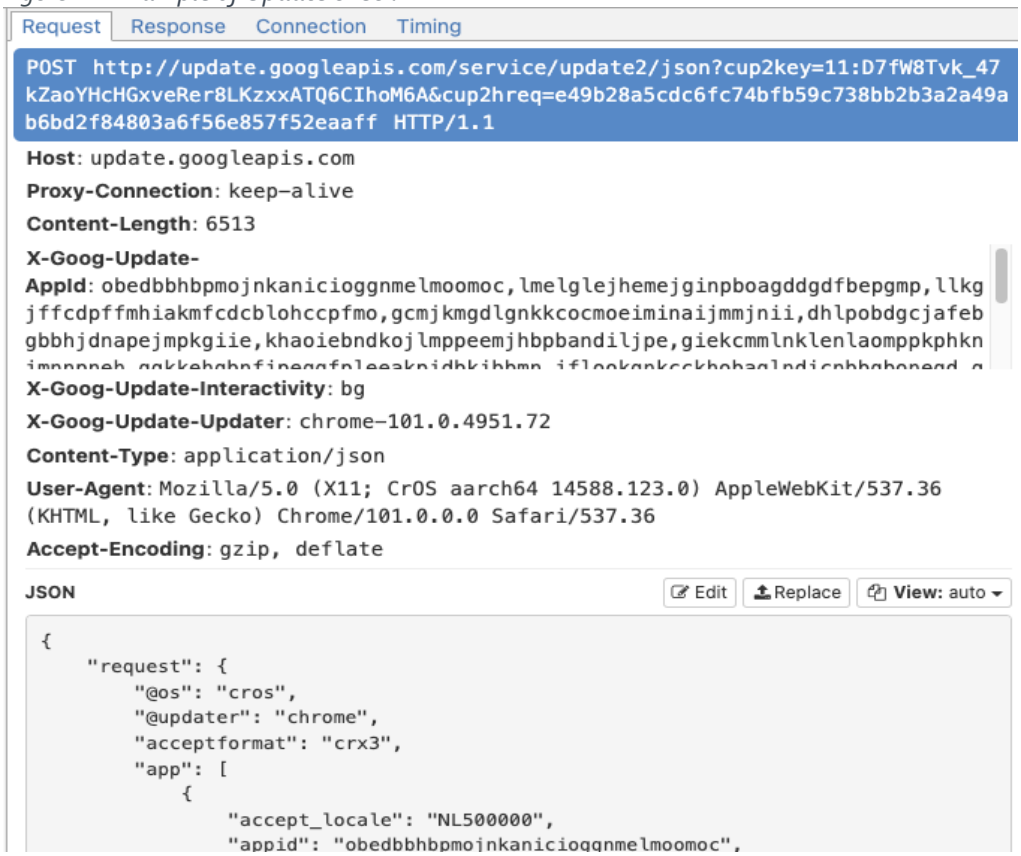


Figure 21: Snippet from the contents of the Update request in Appendix 1


```
"ismachine": false,
"lang": "nl",
"nacl_arch": "arm",
"os": {
 "arch": "aarch64",
 "platform": "ChromeOS",
 "version": "14588.123.0"
},
"prodversion": "101.0.4951.72",
"protocol": "3.1",
"requestid": "{3a3b5155-1867-4495-9822-7a127d8f7ee5}",
"sessionid": "{e99a7543-825f-482b-b7dc-3dca3ca60f4f}",
"updaterversion": "101.0.4951.72"
}
```


SafeSites

The second example of outgoing data traffic with a long identifier and the visited URL is SafeSites. Chrome has built-in functionality to prevent users from seeing explicit content (pornography, violence, and gore). This functionality is called SafeSites.[43]

Though the identifier looks like a unique user identifier, Google explained in reply to this report that this is a global (generic) key for every Chrome user. Initially, Google stated that SafeSites does not

[43] Chrome, SafeSites Filter Behavior, URL: https://chromeenterprise.google/policies/#SafeSitesFilterBehavior, last visited 29 June 2023.

store the individual IP address of users when a flagged URL is sent to Google in the USA.[44] However, later Google explained that these IP addresses are logged for usage analysis, debugging purposes and bug analysis and stored for 7 days.

SafeSites is different from SafeSearch. SafeSearch only blocks explicit content in the results of Google Search. According to Google's current public information about SafeSearch, when pupils are signed in with their Workspace Account the SafeSearch mode is automatically enabled.[45] SafeSearch does not prevent pupils from manually entering a URL with adult content, or clicking on a hyperlink that leads to extreme violence. [46] This is where SafeSites helps. SafeSites uses the SafeSearch API to detect pornographic contents.

In the Update DPIA report, the data processing by SafeSearch and SafeSites was not separately inspected. During the tests for this verification report, even though Google Search was not used, some traffic was observed to Google's Safe Search domain. Google later explained that SafeSites uses the SafeSearch API to help classify the content as adult or not.

SafeSites checked a direct visit to a specific page from an objective health information site created by the Dutch GPs (https://www.thuisarts.nl), providing information about a specific health problem of hay fever. Such a URL can be used to infer health information about the visitor. See Figure 22 below.

As shown in Figure 23 below, another (directly visited) URL that was checked by Google was a page from the national tax authority about reparations.[47] Visits to these pages can also be construed to infer sensitive information about the visitor.

Next to the generic key that is similar for all Chrome browsers, Google also automatically collects the IP address that connects the device from the end user to the internet.

[44] Google reply to this updated report, 5 December 2022, comment A29 and the Covernote, section 1. However, to substantiate this explanation, Google initially referred to a URL with information about SafeSearch, the safety settings that exclusively apply to use of the Google search engine, not to the Chrome browser.

[45] Google Update DPIA, p. 15.

[46] Google writes: "***Important**: SafeSearch only works on Google search results. It won't block explicit content you find on other search engines or websites that you go to directly.*" URL: https://support.google.com/websearch/answer/510, last visited 29 June 2023.

[47] The national tax authority created this page to compensate people incorrectly profiled as fraudsters with surcharges (toeslagen) by an algorithm.

Figure 22: Example of SafeSearch request to thuisarts.nl

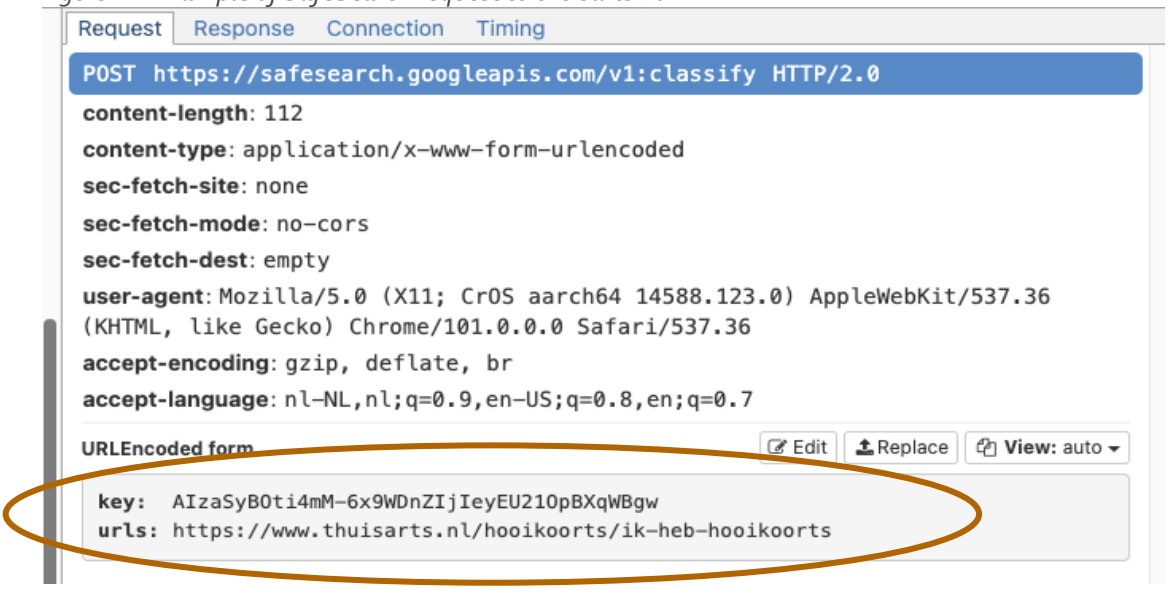
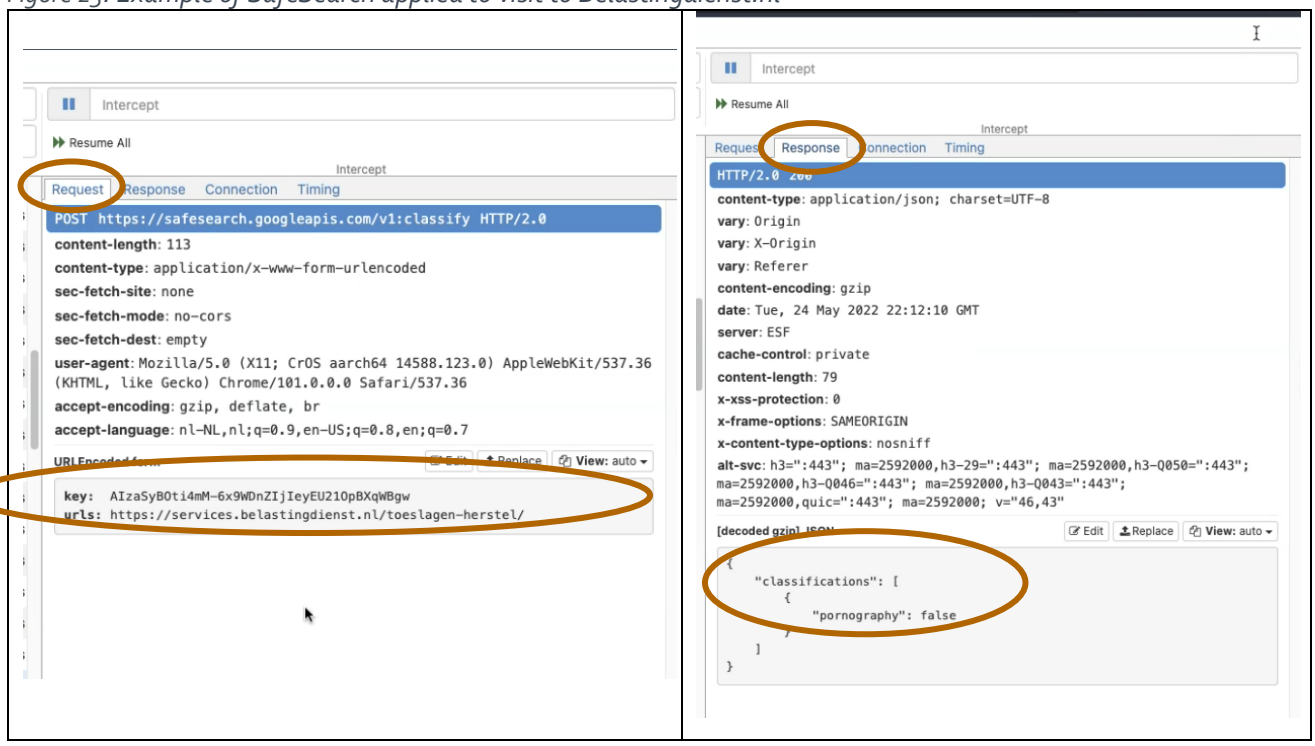


Figure 23: Example of SafeSearch applied to visit to Belastingdienst.nl[48]



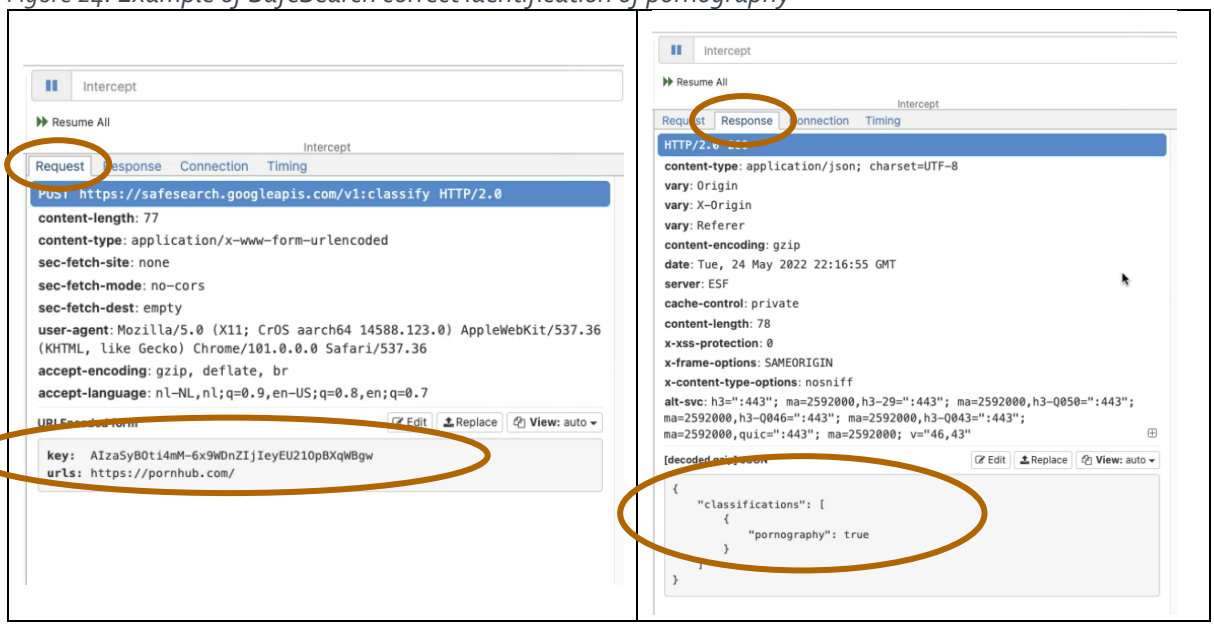
SafeSites only sent outgoing traffic to Google in a minority of visited URLs. In reply to this report, Google explained that on the Chrome browser, a network call is made to the Safe Search API with a given URL (cleaned) to check the classification of the site. Results are cached for one hour by the Chrome Browser so an API call may not be made on repeated site visits.[49]

The SafeSites filter, executed under the SafeSearch Google API, did correctly label the two tested porn websites as pornography.

[48] Screenshot made in Chromebook of signed-in user, 24 May 2022.

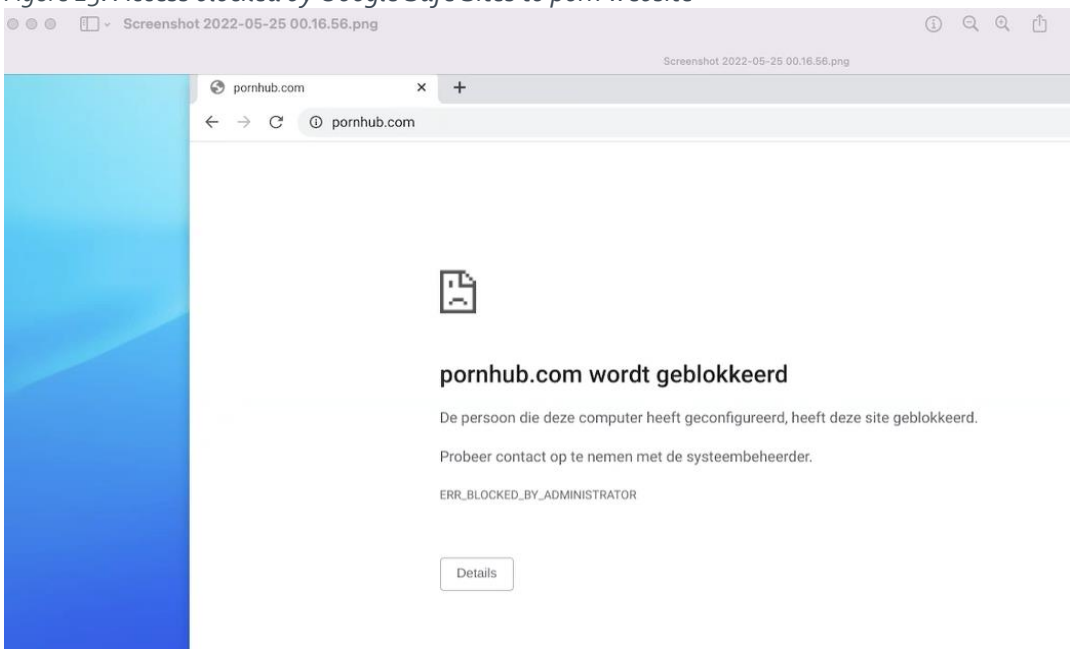
[49] Google first reply to this updated report, 5 December 2023, Comment A37.

Figure 24: Example of SafeSearch correct identification of pornography



The website Pornhub was also listed on Google's list of Unsafe sites for students. If a student would try to surf to this website, access would be blocked, as shown in Figure 25 below. It is not clear if this website is listed as unsafe because of possible malware, or because of the adult content. If Google blocks access because of the adult content, it appears Google mixes Safe Browsing and SafeSearch in Workspace for Education, i.e., filtering for security purposes and filtering for moral purposes.

Figure 25: Access blocked by Google Safe Sites to porn website



As explained above, Google has enabled SafeSearch by default in Workspace for Education. Following the recommendations from the 2021 Update DPIA, the functionality of Safe Browsing was disabled in the test tenant, to mitigate the risk of the transfer of personal data with URLs to Google in the USA. However, if Safe Browsing is disabled, Google will not automatically detect access to

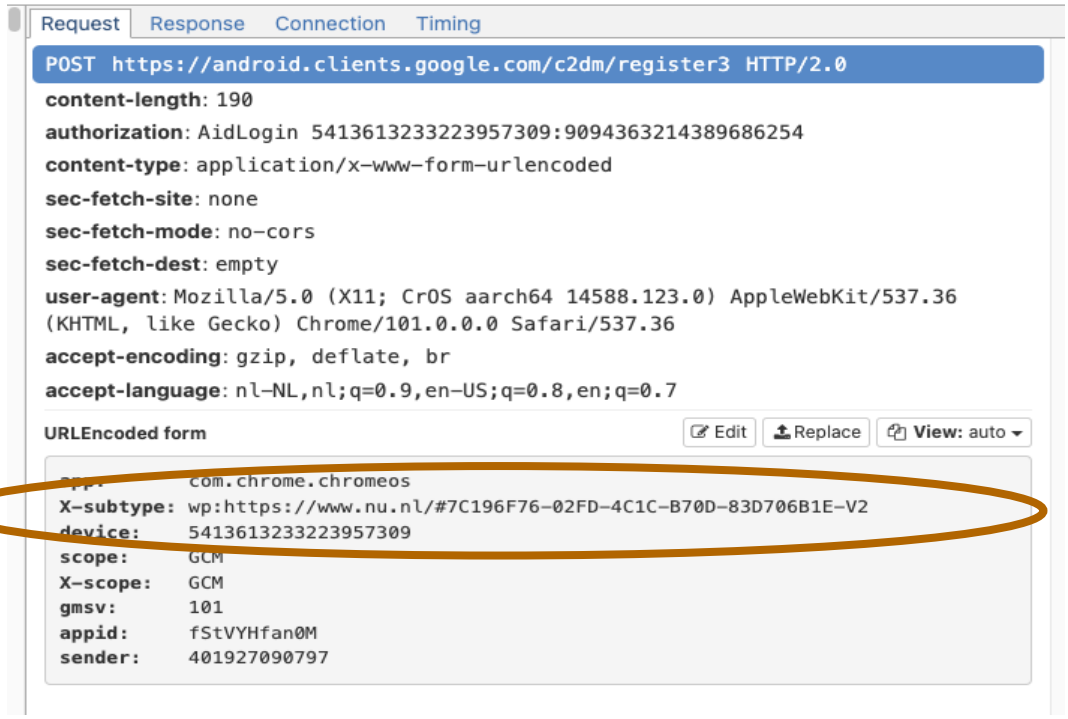
malware and viruses. As shown in Figure 26 below, with Safe Browsing disabled (but SafeSearch enabled) access to the (test) Eicar virus was not blocked.[50]

Figure 26: SafeSearch does not block access to known virus.

Push messages

The first type of traffic is related to the use of *push* messages by websites. As shown in Figure 27 below, the Chrome browser sends a request to Google when a website wants to send *push* messages to its visitor.

Figure 27: Example of request sent by the Cloud Device Messenger from the website nu.nl



The example shows a request sent by the Dutch news website https://www.nu.nl. The highlighted two rows contain the URL and the unique device identifier from the device on which the Chrome

[50] Google explains in its review of this report (December 5th, comment A41): "*We are aware of the EICAR files and have intentionally chosen not to block them, primarily for two reasons:*
1. We cannot block distribution of these files because that would prevent users from downloading them to test the AV engines on their device.
2. We do not want to treat test files as malware because that may lead to us mistakenly classifying security related websites as malware hosts."

browser is used. This traffic is different from the regular functional traffic from a browser when visiting a website. This request enables websites to ask users once, in their browser, for authorisations to send *push* messages to the user. Google retains this permission as long as it is not revoked by the user. Users and administrators can prevent sharing this information with Google in the USA by disabling all *push* requests.

1.2.6 Results data stored locally in the Chrome browser

End users can see a sample of specific UMA telemetry data by visiting chrome://histograms.[51] These data are pure analytical data. Google explains to developers: "*A histogram is a chart that groups numeric data into bins, displaying the bins as segmented columns. They're used to depict the distribution of a dataset: how often values fall into ranges*."[52] In the Chromium information, Google explains developers can use three types of histograms: enumerated histograms, count histograms (for arbitrary numbers), and sparse histograms.[53]

Figure 28: Example of Chrome histogram showing cookie statistics from the test set-up

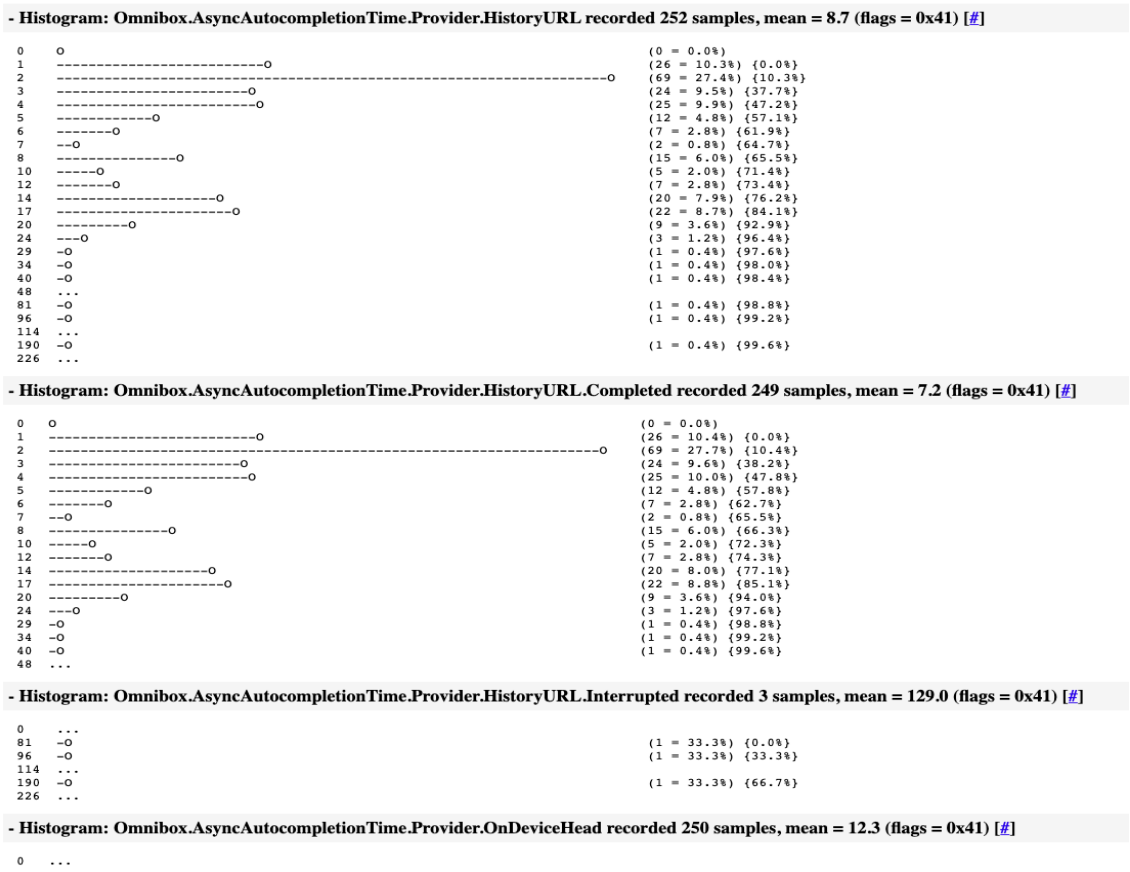


Figure 28 above shows what such histograms look like. These histograms reveal the level of detail Chrome collects locally about all activities in the browser, including autofill of URLs through the

[51] Any Chrome user can look-up these statistics by typing chrome://histograms/ in the URL bar.

[52] Google Charts, Histogram, URL: https://developers.google.com/chart/interactive/docs/gallery/histogram. URL last visited 29 June 2023.

[53] Google, Histogram Guidelines, URL: https://chromium.googlesource.com/chromium/src/+/master/tools/metrics/histograms/README. URL last visited 9 September 2022 (only accessible after admin login).

Omnibox. These data would be sent to Google in the USA if the admin or user had enabled ChromeSync, against the SIVON and SURF recommendations.

1.3 Assessment

As described above, all avenues were tried to attempt to gain more insight in the factual data processing. This included a formal data subject access request, a time consuming confidential procedure with NDAs to obtain some more written responses from engineers, inspection of the admin audit logs and other available avenues, such as using the TakeOut tool and viewing the browsing history in the Chrome browser, and viewing histograms in the browser. Regardless of its data protection role, Google should retrieve the personal data. As a controller, Google had to provide access unless an exception applies.

In spite of Google's commitment to collaborate, and repeated meetings with different Google representatives and lawyers, **Google as controller only provided access to personal data collected in [Confidential** number of**] of the [Confidential** number of**] identified services**. This means Privacy Company was not able to verify Google's explanations about **[Confidential** number of**]** out of the **[Confidential** number of**]** services, while access to the personal data in the **[Confidential** number of**]** services was only granted after lengthy discussions, and under NDA.

The data inventory did not always provide clear or full insight in the processed data, which made it impossible to fully assess the data and conclude to what extent personal data are processed or not. Google did not provide samples of such logs without personal data for verification. Google provided different confidential justifications for not providing access.

Google explained that it does not log or store any personal data about **[Confidential** number of**]** of the **[Confidential** number of**]** identified services, if the school administrators followed SIVON's recommendations for a privacy-friendly set-up. These rows are given a green check-mark in [**Confidential**] Table 3 above.

For **[Confidential** number of**]** other identified services, Google explained **[Confidential]**. In **[Confidential** number of**]** cases Google later stated that it does not collect any user or device identifiers.

According to Google, this report conflates the DSAR process and the Data Inventory. The data subject, however, has the right to access to his or her personal data as processed by Google. Based on identifiers that were provided several times by Privacy Company during the process, identification or selection of the relevant data was possible and Google should have therefore provided the data in reply to the DSAR. The data qualify as personal data. A refusal to provide access to personal data must be based on legitimate exceptions defined in the GDPR, and in national implementation legislation.

To the extent Google would want to argue that it would be disproportionate to retrieve individual personal data from large unindexed datasets, and hence rely on the exception of Article 11(2) jo. 12(2) of the GDPR[54], relevant jurisprudence from a German appellate court indicates that proportionality needs to be assessed in relation to the size/scale of the data processing.

The court explained: "*To the extent the defendant argues that it is economically impossible for large companies which, like the defendant, manage a large amount of data, to query and secure personal data in the data, with the resources at their disposal, this does not hold water. It is up to the defendant, when*

[54] Both provisions specify that the controller can only refuse to provide access if the controller demonstrates that it is not in a position to identify the data subject.

processing electronic data, to organise the data in accordance with the legal order and, in particular, to ensure that data protection and ensuing data protection rights of third parties are taken into account."[55]

In other words, the lack of access to personal data processed by at least **[Confidential** number of**]** of the **[Confidential** number of**]** services (possibly more, as Privacy Company was not able to verify Google's statement that other services do not collect personal data) does not mean Google does not store these personal data, only that it requires (a lot of) effort to search for these data in the datasets in reply to an individual data subject access request. In view of Google's global operations and technical know-how with regard to the searching of extremely big unstructured datasets, it is hard to understand how indexing these datasets would be impossible.

For **[Confidential** number of**]** of the **[Confidential** number of**]** services (possibly **[Confidential** number of**]** if this also explains the lack of information about the Play Store), Google provided as reason for the lack of access that **[Confidential]** This justification overlaps twice with the reason that **[Confidential]**.

However, **[Confidential] was** not a valid reason to refrain from providing access to personal data upon request of an individual. The GDPR contains a limited set of exceptions (Restrictions) on the obligation to provide access to data subjects. **[Confidential]** is not one of these reasons.

Privacy Company used all other available tools to understand what personal data Google processes about the use of the ChromeOS and browser.

The Takeout tool only provided limited access to some personal data about the use of the Chromebook and Chrome browser, similar to the data provided to school administrators in **event logs**. These tools show user log-ins, as already described in the DPIA report on Workspace. On a Chromebook, log-in to a Google account automatically means sign-in to the Chrome browser. No log events are provided about the guest user.

Google did provide access to the category of 'website visits' under the heading 'My activity'. Access should include technical logging about information logged by Google's own services, such as Google Drive. This technical logging was not provided in response to the DSAR. In advance Privacy Company discussed with Google what information Google needed to provide the required access, namely: the unique device identifier and the unique user identifier. Google did not request additional identifiers. In spite of those preparations Google refused access because it could not reliably identify the users of the services. The Update DPIA concluded it was up to the Dutch Data Protection Authority to assess whether this argument is convincing if a student complains about the lack of access.

Google did not provide detailed information about the interactions with the Play store. Some logs were provided as part of confidential disclosure, but it is unclear whether this is complete. [**Confidential**]. Google did not provide any information via the DSAR and only listed the names of the installed apps, date and time of install, data and time of last update, and details of the device on which the app is installed via the Takeout tool. Use of the (managed or unmanaged) Play Store (an *Additional Service*) is the easiest way for schools to enable students to download whitelisted specific school applications. Not using the Play Store means schools have to push applications to the Chromebooks via a local network.

The analysis of the **intercepted outgoing data traffic** shows that most events do not contain unique device or user identifiers. This confirms one of Google's justifications not to provide access to personal data: because Google does not collect unique device or user identifiers.

[55] OLG Köln, Urteil vom 26.07.2019, par. 81, URL: https://openjur.de/u/2177719.ppdf. Translation by Privacy Company.

However, in the outgoing traffic one type of event was observed where Google did collect unique user and device identifiers in combination with visited URLs: in relation to the use of *push* messages.

Another type of event, related to the use of SafeSites, does not contain unique user or device identifier in the contents of the events, but Google does automatically collect the IP address of the user with each event. Google stores these IP addresses for 7 days. .Google explained that the identifier related to SafeSites is a Chrome-wide API key. The example above of the visit to the website of the Belastingdienst shows that SafeSites scans all manually entered websites and assesses whether or not it contains pornography. The Safe Search API performs tasks for the SafeSites functionality. When this inspection was performed, no publicly available information could be found in which Google informed schools about SafeSites, or information about the default enabling of the service. Google only provides generic definitions of the content it qualifies as 'explicit' in SafeSearch. Google does not publish information about its filtering practices in Workspace for Education licenses for K-12 schools. Google does not publicly explain what exact data it collects through SafeSites. Google does not offer a setting in the Admin Console to block the SafeSites functionality in Chrome, though there is such a functionality via registry keys.[56] In reply to this report, Google has explained it processes the IP addresses and URLs for 3 purposes: for usage analysis, debugging purposes and bug analysis.

In its role as data controller for the Chromebooks and the Chrome browser, Google does not offer geolocalisation options to the schools. All personal data about the use of Chrome are processed in the USA. Google did not announce any changes in this respect for the new processor version of the managed ChromeOS. The URLs of visited websites are Content Data, that deserve the highest level of protection, as they are a summary of the read or viewed content. Use of Google's filtering service may have freedom of speech implications, and possibly prevent children from accessing educational materials wrongly classified as adult content. As Google stores the IP-addresses for 7 days, and Google possibly collects other information about the device and/or browser that may in combination be sufficiently unique to identify a specific user, the URLs may reveal very sensitive information about individual visitors. If these functionalities are not actively disabled by the school system administrators, the information about the visited websites is transferred to the USA, a third country without an adequate data protection regime. Though school administrators probably will not hesitate to block *push* messages, they may not want to block SafeSites for ethical reasons, as schools do need to protect students against pornography. They should consider use of third party filters that do not export these data to a third country.

As a result of the negotiations with the Dutch education sector, Google agreed to become a data processor for the Essential Services in the managed ChromeOS and browser, starting with the new version to be released by mid-August 2023. These Essential Services include SafeSites. As a processor, based on Article 32 (3) under e of the GDPR, Google is obliged to assist data controllers and provide all necessary information to fulfill their obligations to respond to data subject access requests.

To comply with this obligation, the Google Chrome team offers, or is developing, five features for the processor version of the managed ChromeOS:

1. Service Data Downloader and Diagnostic Information Tool (second half of 2023)
2. Domain-wide TakeOut tool for admins as processor
3. Individual TakeOut tool for end users as processor
4. Public documentation what data types are collected by which service
5. Documentation what categories of personal data, relating to what service, are available in the event logs for admins

[56] See: https://chromeenterprise.google/policies/#SafeSitesFilterBehavior , last visited 29 June 2023.

The Service Data Downloader will contain user-email or device serial number-keyed Service Data, including Chrome Sync data. This will include data from server generated service logs, and data sent from the end user device as Telemetry Data.

The Domain-wide takeout contains user-email keyed Customer Personal Data from Chrome/OS services that Google processes as data processor (i.e. *Essential Services*). The takeout includes user content data from Google Play, but not any Diagnostic Data.

The individual TakeOut allows end users to obtain direct access to Content Data and to some Diagnostic Data. This tool used to be an *Additional Service*, with Google as data controller. Therefore, schools were advised to disable this feature.

Google has agreed to publish new documentation about the processor managed ChromeOS to explain which data types are collected by which service, including diagnostic / telemetry data collected by these services to the extent they collect user or device associated data.

Google has published detailed information about the available audit logs for admins and the availability of event logs for security purposes.[57]

As a result of simultaneous talks with the Dutch education sector and the strategic vendor manager for Microsoft, Google and AWS of the Dutch government about data protection improvements for Google Workspace, Google published a detailed explanation about reasons to refuse access for all of its services (including Workspace).[58]

These reasons include:

- Information relating to someone else
- Anonymised data
- Data Google cannot reliably relate to the requesting data subject
- Data that could be used to undermine the security of Google's systems
- Data that could infringe on the rights and freedoms of others (for example, legal privilege)[59]

Privacy Company assesses these explanations as convincing. As established in the Update DPIA report, it is up to the supervisory authority, the Dutch Data Protection Authority, to assess whether a school (in its future role as data controller for the Essential ChromeOS and browser services) complies with the requirements of the GDPR in reply to data subject access requests, if a user complains that the access would be insufficient.

Conclusions

The answer to the first question was that Google as controller for the managed ChromeOS and browser did not provide an adequate or timely reply to a data subject access request.

Though the intercepted outgoing data traffic generally contained functional, unsurprising data, one type of request did contain unique device or user identifiers. All requests automatically send the IP address to Google with which the user is connected to the internet. These events contain highly sensitive information about the visited URLs, and must be treated as personal data.

As a result of negotiations with the Dutch education sector, Google will become a processor for the managed ChromeOS and browser with the release of a new version in mid-August 2023. To become more transparent, the Google Chrome team offers, or is developing, five features for the processor version of the managed ChromeOS:

[57] Google, Chrome log events, URL: https://support.google.com/a/answer/9393909
[58] Google, Information not provided in response to an access request, URL: https://support.google.com/policies/answer/10972441.
[59] Idem.

1. Service Data Downloader and Diagnostic Information Tool (second half of 2023)
2. Domain-wide TakeOut tool for admins as processor
3. Individual TakeOut tool for end users as processor
4. Public documentation what data types are collected by which service.
5. Documentation what categories of personal data, relating to what service, are available in the event logs for admins

In its role as data controller, Google has published an improved explanation why it may refuse access to some personal data. Taken together, these measures seem sufficient to provide adequate transparency to end users and admins of the managed ChromeOS and browser.

1.4 Remedies

Issue	Recommended mitigating measures schools	Mitigating measures taken by Google
DSAR results incomplete	Continue to block access to the Chrome Web Store and Google Play Store.	Commitment to do an individual assessment of each DSAR
	Use the guidance from SIVON to inform students how to request access with the school, and with Google	Google is a processor for the Domain-wide TakeOut tool for admins
		Google is a processor for the individual TakeOut tool for end users
		Google has agreed to publish documentation what Diagnostic / Telemetry Data the Essential Chrome Services collect, to the extent they collect user or device associated data at all
		Google has published more information about its data retention policies
		Google will offer a Service Data Downloader to admins (second half of 2023)
DSAR refusal explanation insufficient	Use the available admin event logs to provide access to personal data.	The new version of the managed ChromeOS will include services to access the data such as the Service Data Downloader and Diagnostic Information Tool (DIT, Telemetry Data viewer)
		Google has published an improved explanation why it may refuse access to some personal data.
		Google has published documentation what categories of personal data, relating to what service, are available in the event logs for admins.
Lack of purpose limitation data Takeout tool	Keep on disabling the Workspace *Additional Services.*	Google has become a data processor for the admin and end user Takeout tools.
Lack of purpose limitation ChromeOS and browser	Sign-up for the new processor agreement.	The processor agreement for the managed ChromeOS and browser contains two limitative lists of purposes, for Google as processor, and for agreed further processing by Google as controller for its legitimate business purposes.
	Do not enable the *Optional Chrome Services* for which Google continues to act as controller (already disabled for new customers).	

2. Effectivity of privacy settings in Chrome

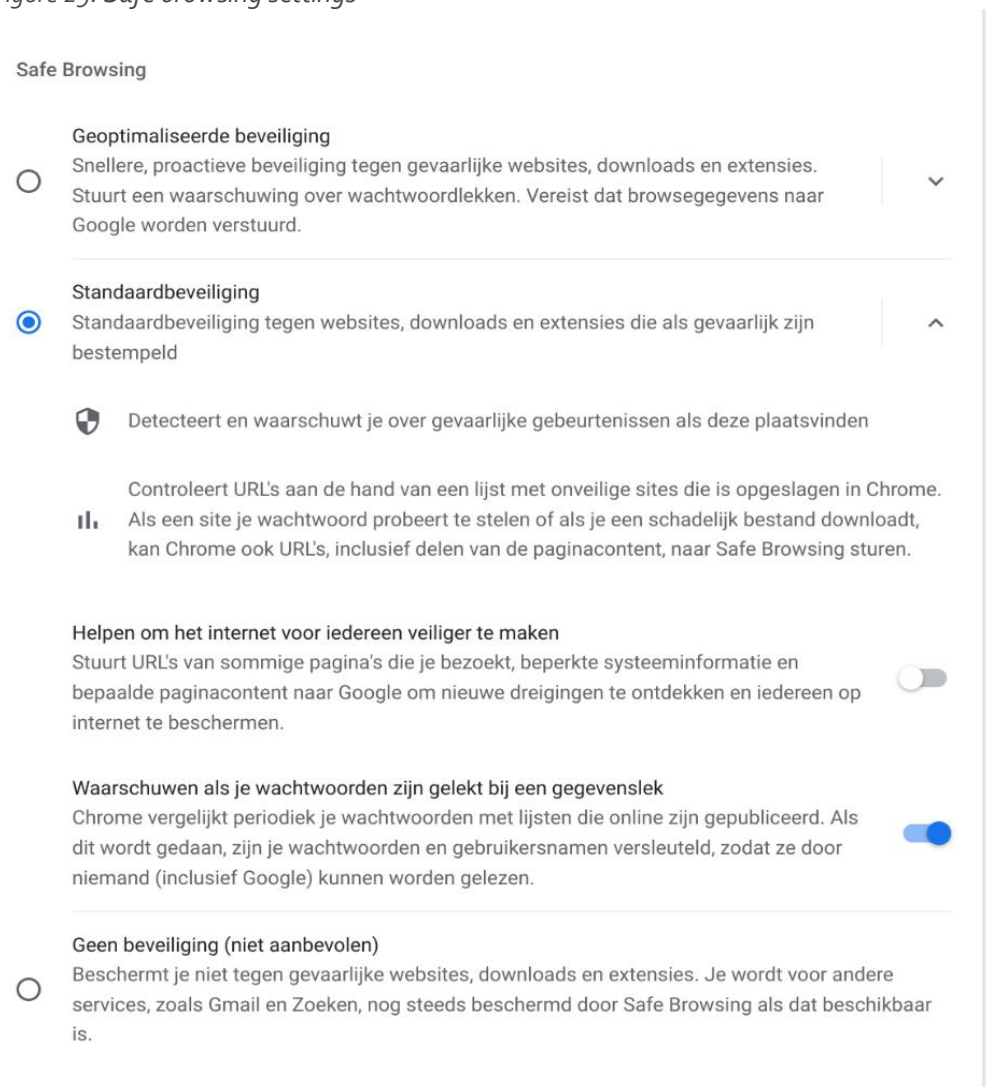
This section answers the second question:

How effective are the recommended privacy-friendly settings in the Chrome browser and on the Chromebook?

2.1 Facts

As data controller for Chrome and the Chromebooks, Google permits itself to process personal data for 33 purposes (described in its consumer Privacy Policy and the Privacy Notice), plus the 16 extra purposes mentioned in Section 1.1 for Chrome. To mitigate the risk of unlawful further processing of student data (including data from children), the Update DPIA recommended 11 privacy-friendly settings to minimise the data processing in the Chrome browser. See Table 1 in the Introduction to this report. This section describes privacy-friendly settings users themselves can apply, and tests if these settings are effective, in particular regarding cookies. The next section describes the options for system administrators to centrally enforce privacy-friendly settings.

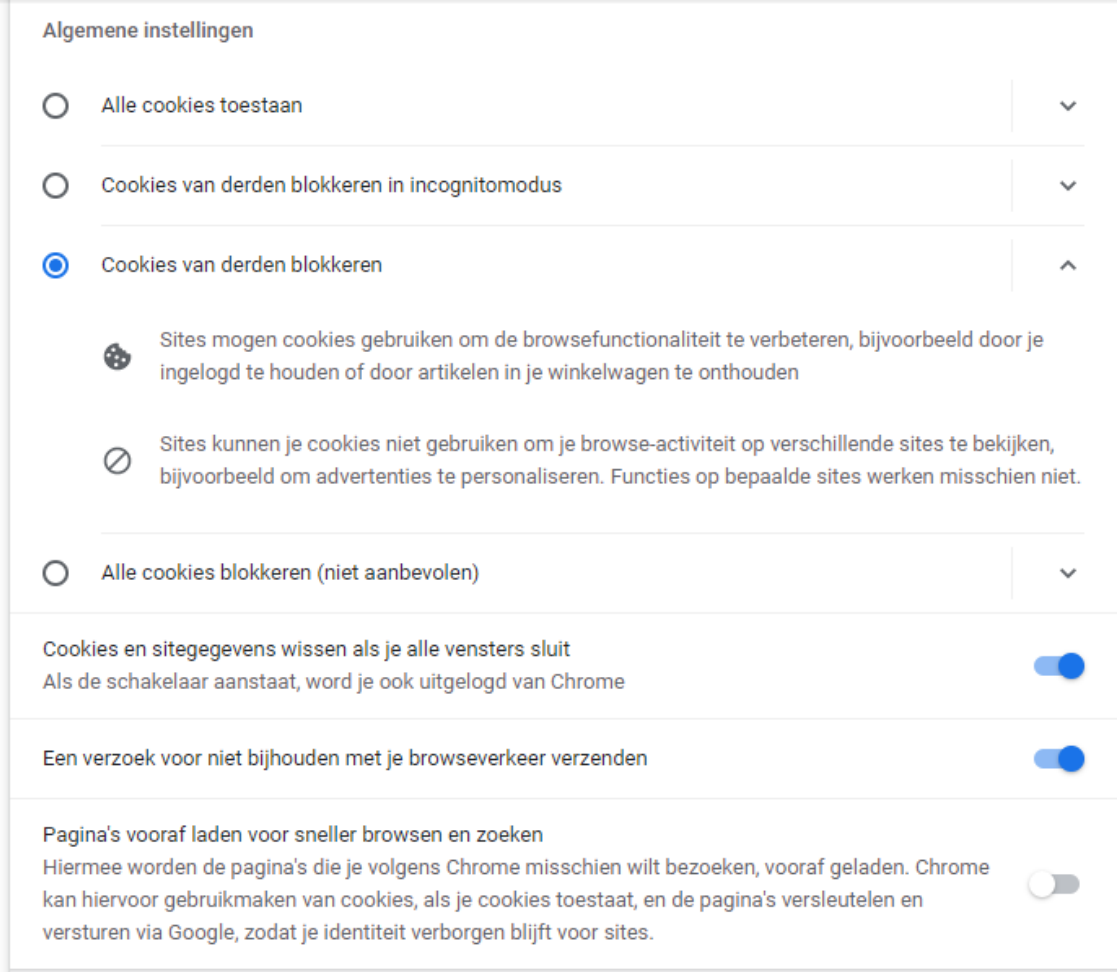
Figure 29: Safe browsing settings



One of the recommended settings is about Safe browsing: to only use the 'standard' level, and not the 'enhanced' security level. At the enhanced level, all web surf data are transferred to Google in the USA. See Figure 29 above (in Dutch).

Another important setting in the browser relates to the acceptance of cookies. As shown in Figure 30 below, SIVON recommends blocking third party cookies, enabling the Do Not Track signal, deleting all cookie and site data when the browser windows are closed, and disabling of preloading of websites. Preloading includes cookies, so if this functionality would remain enabled, previously visited websites could read cookies every time Chrome is used, when those websites are not even visited.

Figure 30: Recommended privacy friendly settings in (Dutch) menu for end users



Google had originally enabled the new functionality of Privacy Sandbox in Chrome by default, as shown in Figure 31 below. The screenshot refers to FLoC (FLoC (Federated Learning of Cohorts), developed by Google as alternative to tracking cookies.[60] Google planned to assign people to a cohort with presumed similar preferences, a 'Cohort'. Google announced this idea in March 2021, and explained it wanted to use recent browsing history and apply machine learning to infer interests in ads. The proposal was strongly criticised by the US digital rights NGO EFF as a 'terrible idea'[61] as

[60] Wikipedia, Federated Learning of Cohorts, URL: https://en.wikipedia.org/wiki/Federated_Learning_of_Cohorts.
[61] EFF, Google's FLoC Is a Terrible Idea, 3 March 2021, URL: https://www.eff.org/deeplinks/2021/03/googles-floc-terrible-idea.

advertising based on browsing history would be more privacy invasive than use of tracking cookies. In July 2021, Google quietly suspended development of FLoC. Since Chrome 93, released in August 2021, the FLoC feature is inactive. When Privacy Company retested in June 2023, the functionality was removed from Privacy Sandbox. It is replaced with the so-called Topics API.[62] This option allows Google to select users for experiments with browser-based ad personalisation, based on interests and visited sites. See Figure 31 below.

Figure 31: Privacy Sandbox functionality enabled in Chrome (

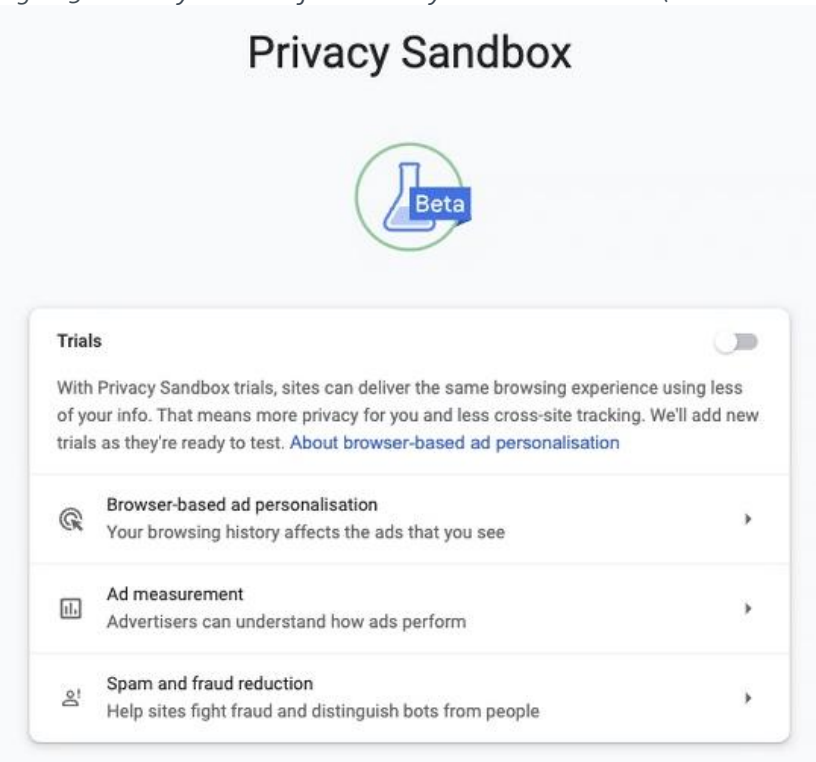
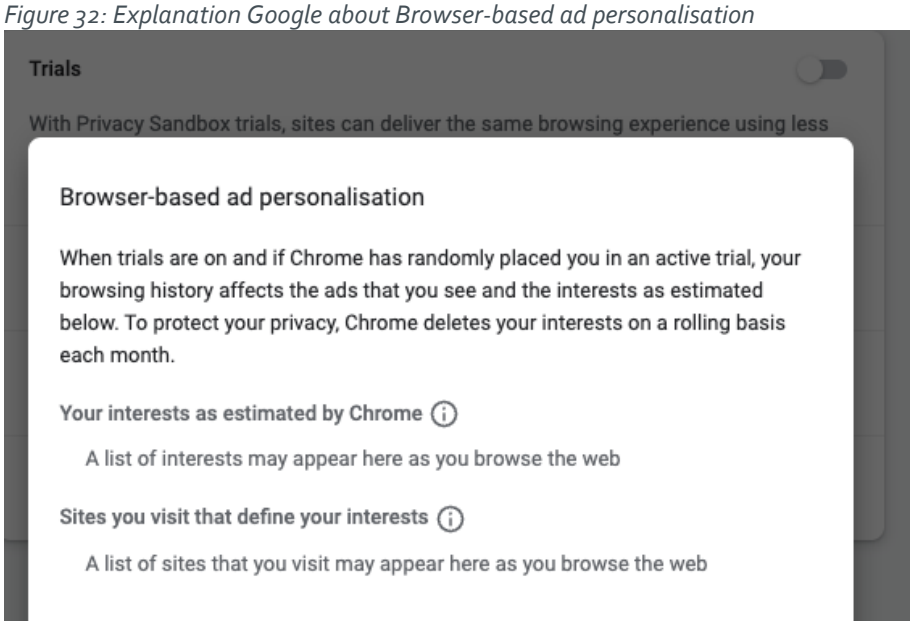


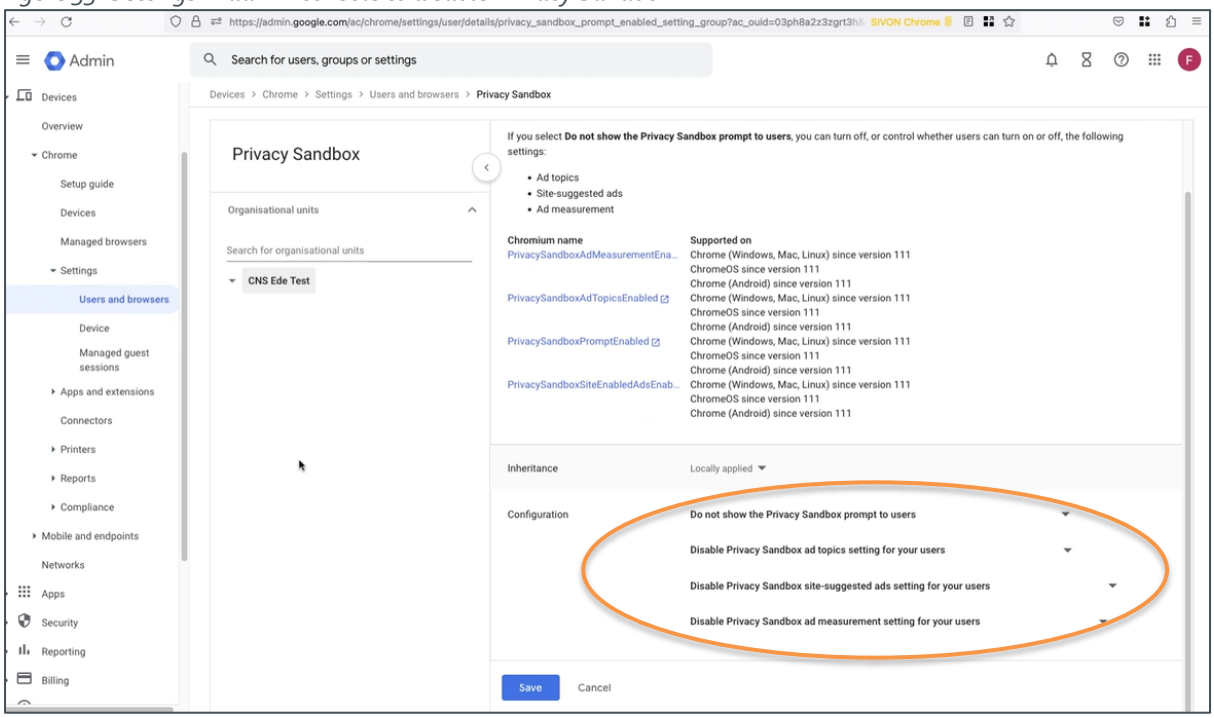
Figure 32: Explanation Google about Browser-based ad personalisation



[62] See for an explanation in Dutch Tweakers, Google stopt met FLoC en stelt Topics-api voor als cookievervanging, 25 January 2022, URL: https://tweakers.net/nieuws/192438/google-stopt-met-floc-en-stelt-topics-api-voor-als-cookievervanging.html.

SIVON recommends to schools with existing managed Chromebooks to disable Privacy Sandbox completely. For new customers with a K-12 setting Google will disable Privacy Sandbox by default.

Figure 33: Settings in admin console to disable Privacy Sandbox



2.2 Technical findings

Chrome was configured as privacy-friendly as possible, in line with SIVON's recommendations after the 2021 Update DPIA. Two tests were performed. In the first expansive test a logged-in user visited 14 websites, used 6 Workspace apps, 3 school apps and 1 extension. The second limited test was performed as guest user on the Chromebook, without logging-in to a Google account. In this test only Microsoft Office web apps were used.

2.2.1 Outgoing data traffic

As shown in Section 1.2.5, the outgoing traffic did not contain any surprises, with the two exceptions discussed in the answer to the first question, SafeSearch and *push* messages. In Section 6 about the Play Store, other surprising traffic to play.google.com is discussed, outside the scope of this Section.

Most of the intercepted events contained functional instructions to Google's servers to respond to user requests, without a unique user or device identifier. When the browser was configured to block third party cookies, Chrome only accepted first party cookies. However, third party cookie blocking does not protect against first party tracking cookies. With Chrome's default cookie settings, third party cookies are only blocked **if the user has selected the Incognito mode of the browser**. When visiting one specific Dutch news website with this default setting, 77 tracking cookies were set, even though the Do Not Track signal was enabled, and website preloading was disabled. Additionally, the browser was configured to automatically delete all cookie and site data when the browser windows was closed.

2.2.2 Cookies

The tests were designed to answer three questions:

1. Does Chrome have settings to block third-party cookies?

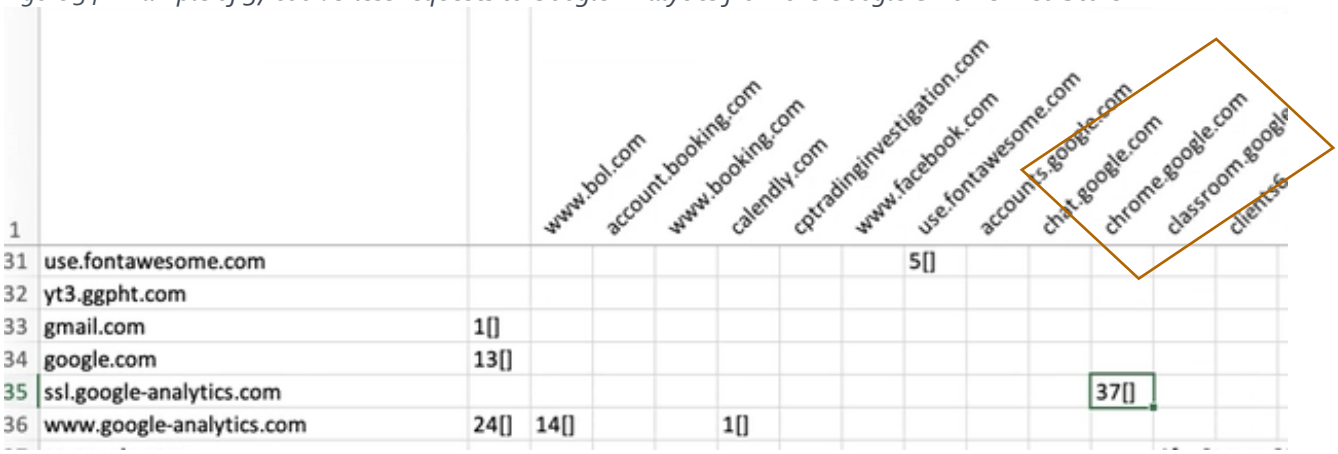
2. If Chrome is configured to block third party cookies, does this effectively prevent outgoing requests with unique identifiers in the cookies?
3. Do these settings prevent exposure to advertising network?

Can Chrome block third party cookies?

Yes, managed Chrome has settings to block third party cookies.[63] However, Google itself is not a third party. And Google happens to also be one of the, if not the, largest advertising networks in the world.

The tests show Google itself rarely uses cookies. Instead it retrieves information from the end user device by adding parameters to the URL. This is for example the case with Google's own use of Google Analytics in the Chrome Web Store. As shown in Figure 34 below Google sent 37 requests from the browser of the 'signed in' user to its own Google Analytics service. In this case, Google is a controller for the Analytics data.

Figure 34: Example of 37 cookie-less requests to Google Analytics from the Google Chrome Web Store



1		www.bol.com	account.booking.com	www.booking.com	calendly.com	cptradinginvestigation.com	www.facebook.com	use.fontawesome.com	accounts.google.com	chat.google.com	chrome.google.com	classroom.google	clients6
31	use.fontawesome.com							5[]					
32	yt3.ggpht.com												
33	gmail.com	1[]											
34	google.com	13[]											
35	ssl.google-analytics.com										37[]		
36	www.google-analytics.com	24[]	14[]			1[]							

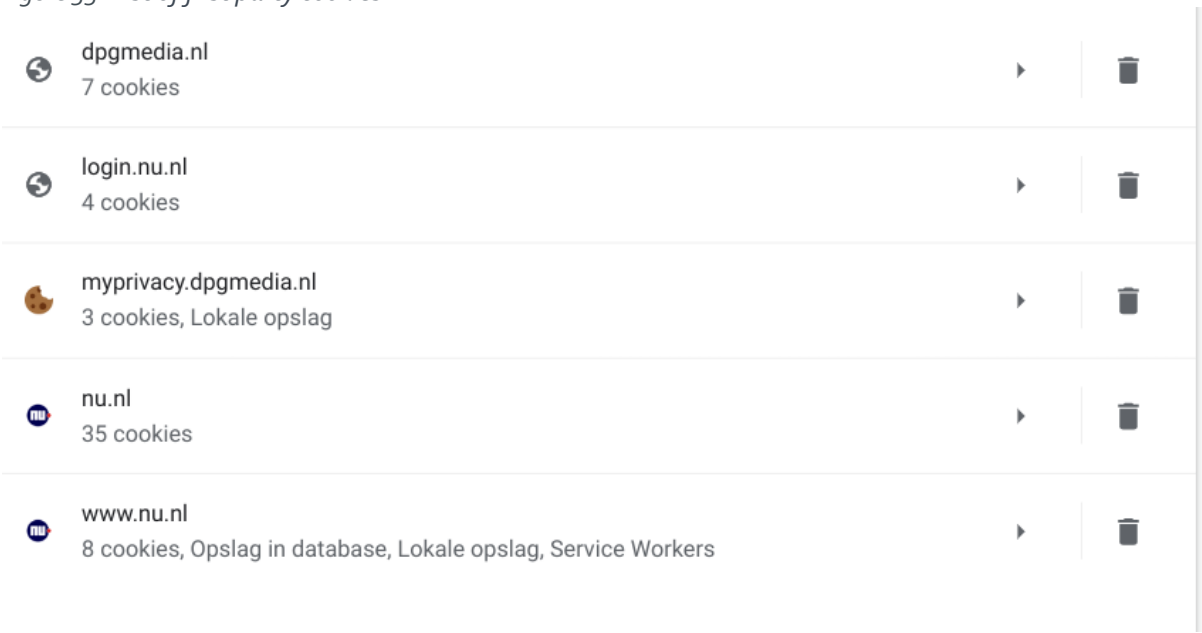
Can Chrome prevent outgoing requests with unique identifiers?

To test Chrome's effectivity in preventing 'reading' of the unique identifiers in third party cookies, a test was performed with a large Dutch news website, https://www.nu.nl/ This website contains many commercial ads. The website shows a consent pop-up for different types of cookies, but for the purposes of this test, all cookies were accepted. The website was visited twice on the same day: with Chrome's default cookie-settings, and with the recommended privacy-friendly settings.

With third party cookie blocking enabled, five domains placed a total of 57 cookies. See Figure 35 below. All domains are first party, because DPG Media owns them, nu.nl's owner.

[63] Google refers to https://chromeenterprise.google/policies/#BlockThirdPartyCookies.

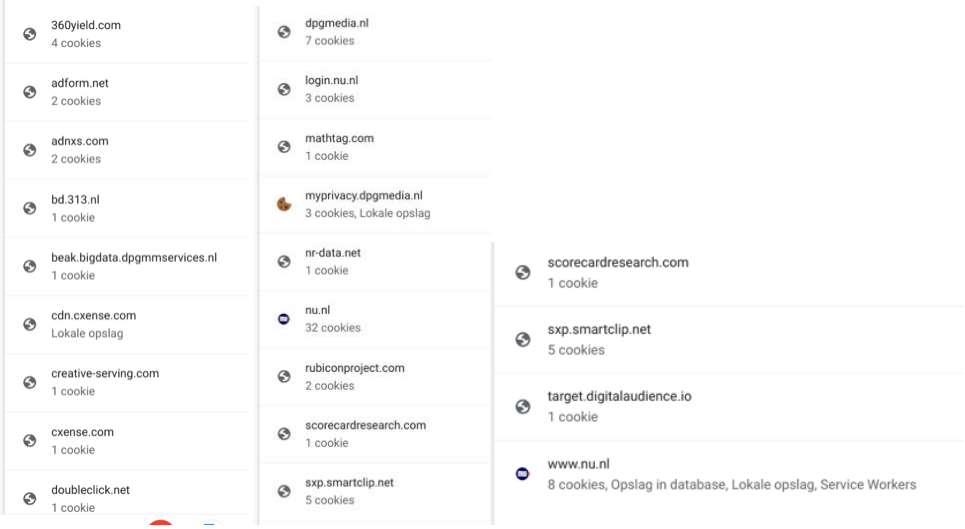
Figure 35: List of first party cookies



After repeating the same test while allowing third party cookies, 20 external domains placed 77 cookies. See Figure 36 below. One advertising platform fully relied on local storage without cookies to track visitors.

Of course, the number of 77 tracking cookies is just an example, relating to a single website, on a specific moment in time. The number of tracking cookies differs per website, and per second, in view of the advertising flash trade in unique user identifiers.

Figure 36: List of 20 third party domains serving cookies



Can Chrome prevent exposure to advertising networks?

The tracking protection settings cannot prevent exposure to advertising networks. As shown above, the blocking of third party cookies does not protect against first party advertising networks.

Chrome includes a protective measure against cookies for guest users: if they end the web session, all cookies are automatically deleted. Logged-in users can individually choose to use the Incognito mode in Chrome to achieve the same result: erasure of cookie data if the browser is closed. See Section 3 of this report for options for admins to centrally enforce the Incognito mode.

However, even this automatic deletion when the browser windows is closed cannot completely prevent tracking. It does help against tracking over time, but does not prevent advertisers from profiling the student based on the activities deployed that day, for example, with retargeting. If a student visits two websites with commercial advertisements, the second website may already contain ads for content shown on the first website, like shoes or bitcoins. Additionally, Internet tracking is more subtle than blocking third party cookies. Deleting tracking cookies does not help against other tracking technologies. Any party receiving a request can use the IP address, in combination with information about the browser and/or device configuration, to recognize a unique visitor.

2.3 Assessment

Overall, the privacy-friendly settings seem reasonably effective in limiting the amount and contents of data transferred to Google in the USA. With the exception of SafeSites and *push* messages[64], the privacy-friendly settings are capable of preventing transfer of sensitive URL information to Google in the USA. The problems with SafeSites and *push messages* are assessed in Section 1.3, and not repeated here. The traffic to play.google.com will be described in Section 6.

Chrome is effective in blocking third party cookies. There are high data protection risks related to personalised advertising, because of the inference of preferences based on surfing behaviour, the invisible *real time bidding* to show ads to people with specific profiles.. The high risks relate to the lack of transparency of the data processing, in particular because of the unknown quantities of third parties that may participate in the advertising space auctions, and the unknowable purposes for which they may further process the personal data. Because of these high risks, the European legislator has changed the opt-out requirement for tracking cookies to an opt-in requirement, back in 2009.[65]

The European Court of Justice has explicitly confirmed the opt-in requirement, with the following summary about the rationale for this strict protection:

"*protect the user from interference with his or her private sphere, regardless of whether or not that interference involves personal data. That interpretation is borne out by recital 24 of Directive 2002/58, according to which any information stored in the terminal equipment of users of electronic communications networks are part of the private sphere of the users requiring protection under the European Convention for the Protection of Human Rights and Fundamental Freedoms. That protection applies to any information stored in such terminal equipment, regardless of whether or not it is personal data, and is intended, in particular, as is clear from that recital, to protect users from the risk that hidden identifiers and other similar devices enter those users' terminal equipment without their knowledge.* [66]

The risks of profiling are higher when it involves minors, due to their vulnerable nature. In the new EU Digital Services Act, providers of online platforms are prohibited from *presenting advertisements based on profiling using personal data of the recipient of the service when they are aware with reasonable certainty that the recipient of the service is a minor*.[67]

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[64] In the limited test with the guest user, no requests were received from Microsoft Office web apps to send push messages.

[65] Citizens' Rights Directive 2009/136/EC, updating the ePrivacy Directive 2002/58. URL: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32009L0136&from=EN.

[66] Court of Justice of the European Union, Case C-673/17, Bundesverband der Verbraucherzentralen und Verbraucherverbände — Verbraucherzentrale Bundesverband eV v Planet49 GmbH, 1 October 2019, ECLI:EU:C:2019:801, par. 69-70.

[67] EU Digital Services Act, consolidated text 15 July 2022, Recital 52b, URL: https://www.europarl.europa.eu/doceo/document/TA-9-2022-0269_EN.html#title2

The DSA explains the rationale behind the new requirement for advertising repositories: "*Advertising systems used by very large online platforms and very large online search engines pose particular risks and require further public and regulatory supervision on account of their scale and ability to target and reach recipients of the service based on their behaviour within and outside that platform's or search engine's online interface. (…) emerging risks brought about by the distribution of advertising online, for example in relation to illegal advertisements or manipulative techniques and disinformation with a real and foreseeable negative impact on public health, public security, civil discourse, political participation and equality.*"

However, blocking third party cookies does not offer complete protection against data leakage to advertising networks. During a browsing day, information leaks to external third party advertising networks. Additionally Chrome does not protect against Google itself, in a role as data controller for the ChromeOS and the Chrome browser, and for all *Additional Service*s such as Search and YouTube that can be visited by students. And finally, tracking is not only based on cookies, but also on other data streams, such as the combination of an IP address with a unique browser and device configuration, and on URL parameters. These data streams may also involve transfers of personal data to third countries without an adequate data protection regime.

Conclusions

Though Chrome is effective in blocking third party cookies, the browser does not offer protection against first party tracking, or against tracking by third party advertisers during a session, which may last a school day. Google will disable Privacy Sandbox experiments for users under 18, but Google has not responded to the request to improve the tracking protection features in the Chrome browser when third party cookies are blocked, the DNT signal is enabled, and website preloading is disabled. The use of cookies may involve transfer of personal data to third countries such as the USA.

2.4 Remedies

Issue	Recommended mitigating measures schools	Mitigating measures taken by Google
No valid ground for transfer of personal data to the USA	Sign up for the new processor agreement including the new SCC and apply all data minimisation measures from the updated guidance from SIVON	Google has become a data processor for the managed ChromeOS and browser, including the SCC C2P Module 2 for the transfer to the USA.
		In the future: possibly rely on a new adequacy decision for the USA for the transfer of all personal data.
	In case Workspace cannot be used, Chromebooks can still be used if schools centrally enforce all privacy-friendly settings, including disabling of access to google.com and youtube.com, either by enforcing use of a proxy server to block functionality on the local network, or through manual URL blocking options in the admin console.	Google offers central admin management options for the guest mode on managed Chromebooks, including blocking of third party cookies.
Privacy unfriendly default settings	Enforce the recommended privacy-friendly settings whenever possible.	Privacy Sandbox trials are disabled for users under 18.
		Google has not responded to the request to improve the tracking protection features in the Chrome browser when third party cookies are blocked, the DNT signal is enabled and website preloading is disabled. For example, by blocking

		traffic to Google services where Google does not act as data processor (such as analytics and fonts).
	Disable the Privacy Sandbox for all users (or select K-12 setting to block by default).	Google will give admins controls to block ads personalization and measurement as part of Privacy Sandbox in the processor version of managed ChromeOS.

3. Available privacy-friendly settings for admins

This section answers the third question:

How can admins enforce privacy-friendly settings for logged-in students?

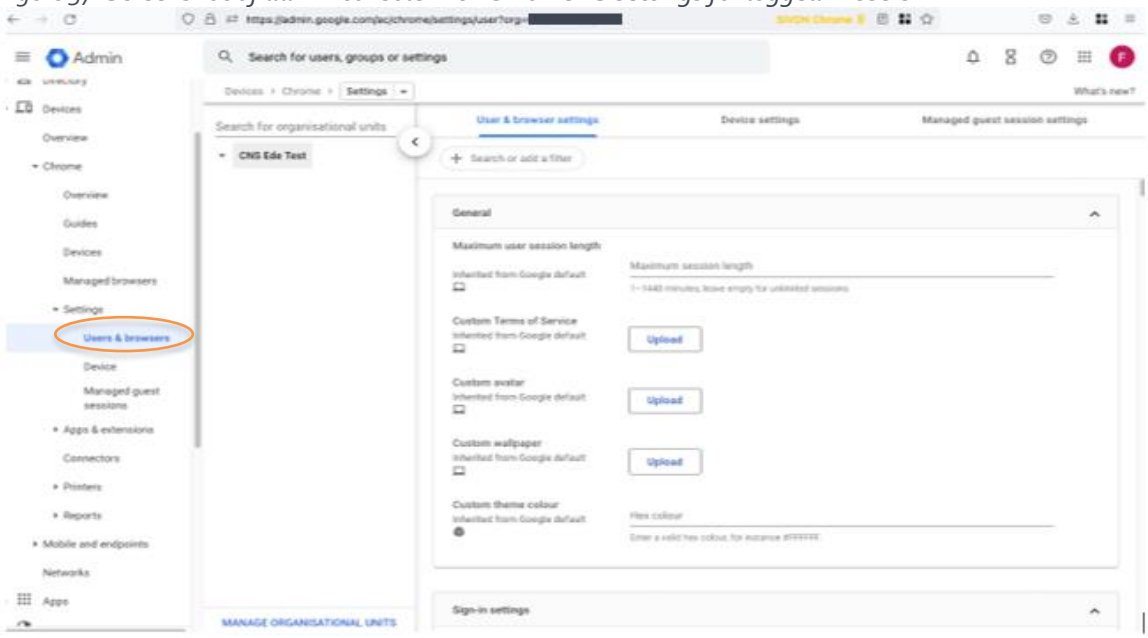
3.1 Facts

As a data controller for the managed Chrome and the Chromebooks, school admins can enforce privacy-friendly settings through the Google Admin console. These settings can be configured before providing the Chromebook to the student and can be changed remotely.

Admins need to follow the guidance from SIVON and SURF issued after the Update DPIA.[68]

Some settings can be centrally enforced. Some other settings allow the user of the device to overrule a setting chosen by the admin.

Figure 37: Screenshot of admin console with ChromeOS settings for logged in users[69]

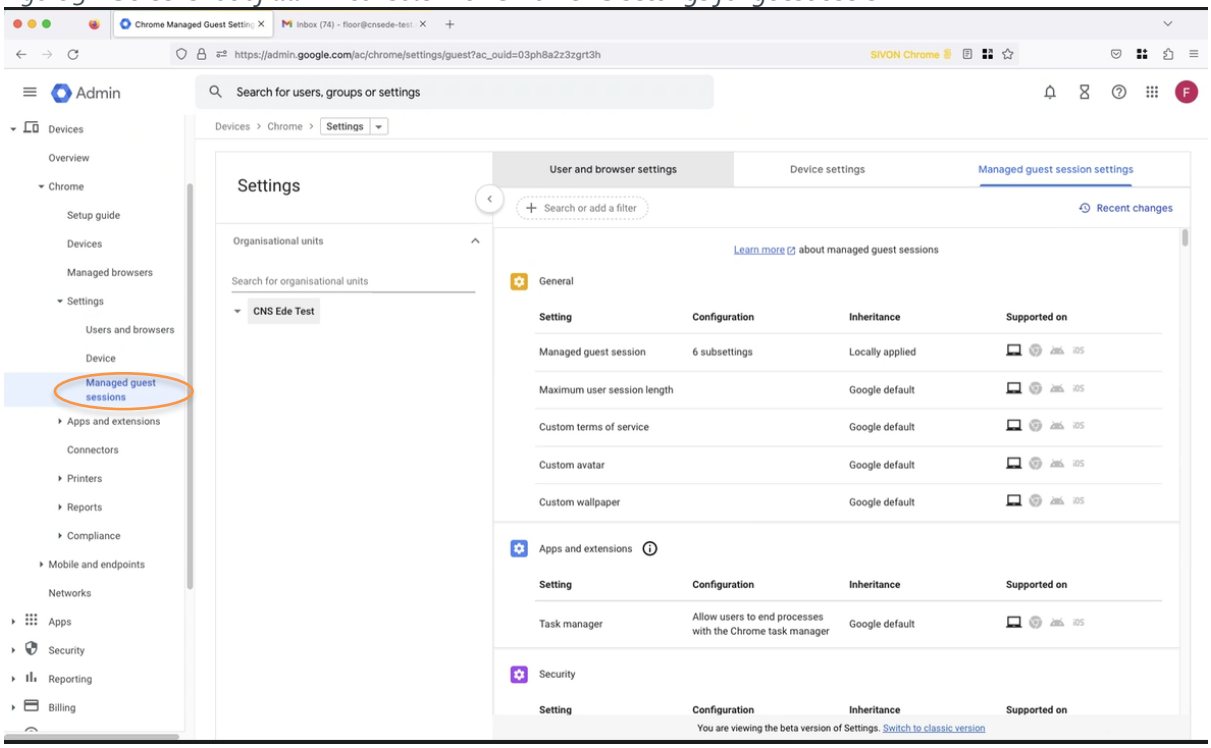


Google has developed similar controls for Managed guest sessions, see Figure 40 below.

[68] Manual SURF, in Dutch only, URL: https://www.surf.nl/files/2021-08/technische-handleiding-google-workspace-for-education.pdf

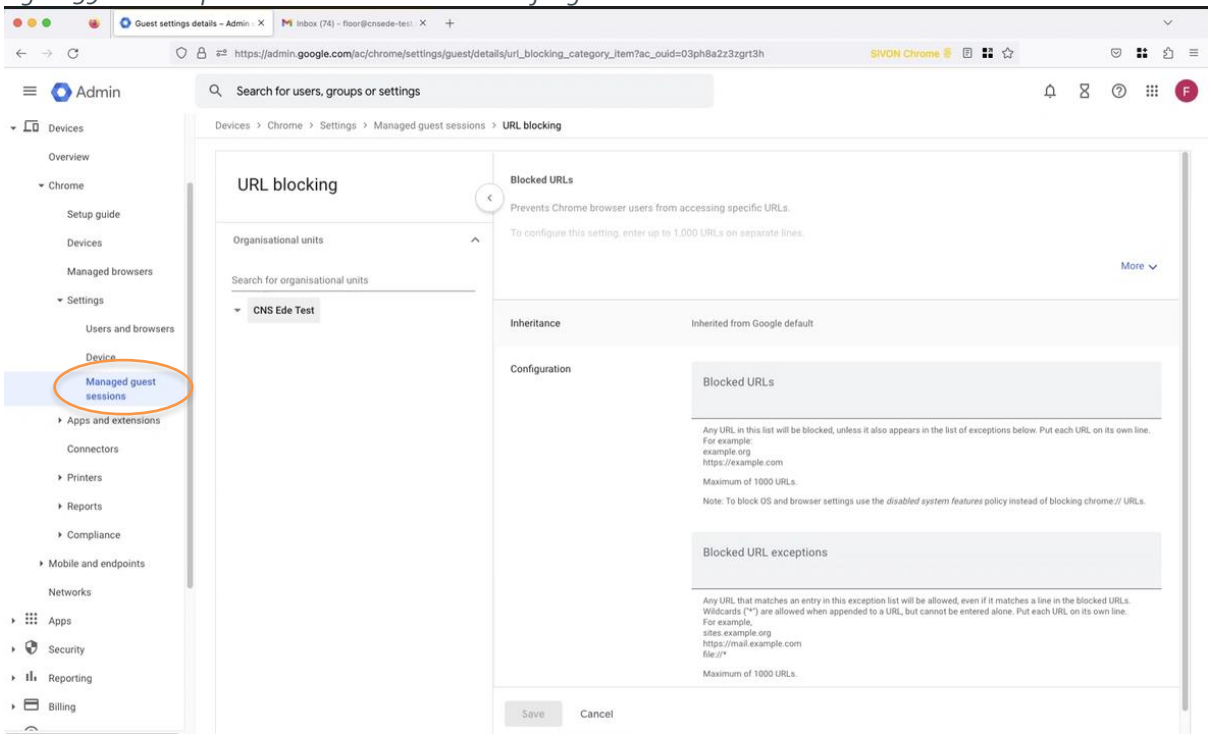
[69] The admin console can be accessed through https://admin.google.com/ac/chrome/settings/[user?org=[unique id of the organisation]

Figure 38: Screenshot of admin console with ChromeOS settings for guest users



Admins can choose to block and allow URLs for guest users, with the use of wildcards. See Figure 39 below.

Figure 39: Admin options to block and allow URLs for guest users



As shown in Table 5, admins can apply many policies to minimise the data processing by Google in the Chromebook. Even though the ChromeOS and the Chrome browser are to a large extent the

same, a few separate settings were applied in the Chrome browser (see Figures 36 through to 44 below).

In the test set-up all recommendations from SIVON were followed. Many functionalities were disabled, as indicated by the values 'FALSE', '0' (zero) or 'off'. Schools need to follow the updated guidance from SIVON in case of doubt about these settings. These settings were chosen when Google still qualified as a data controller, and data minimisation was essential to prevent high risks related to a loss of control over the data.

Table 5: Overview of all possible policy settings for Chromebook, with the values used in the test set-up

Name	Level	Scope	Source	Value
AllowDinosaurEasterEgg	mandatory	user	sourceEnterpriseDefault	FALSE
AllowKioskAppControlChromeVersion	mandatory	machine	cloud	FALSE
ArcBackupRestoreServiceEnabled	mandatory	user	sourceEnterpriseDefault	0
ArcEnabled	mandatory	user	Cloud	TRUE
ArcGoogleLocationServicesEnabled	mandatory	user	sourceEnterpriseDefault	0
ArcPolicy	mandatory	user	cloud	{"apkCacheEnabled":true,"applications":[{"packageName":"com.hr.mauricehouke.iklerlezen","installType":"AVAILABLE"},{"packageName":"nl.squla.unitab","installType":"AVAILABLE"},{"packageName":"nl.wrts.mobiel","installType":"AVAILABLE"}],"availableAppSetPolicy":"WHITELIST","apkCacheForWhitelistedAppsEnabled":true,"playDeviceLocalPolicyEnabled":true,"playLocalPolicyEnabled":true,"playDirectInstallDisabled":true,"playEmmApiInstallDisabled":true,"playStoreMode":"WHITELIST_NOT_ENFORCED"}
AssistantOnboardingMode	mandatory	user	cloud	Education
AttestationEnabledForDevice	mandatory	machine	cloud	TRUE

AttestationEnabledForUser	mandatory	user	cloud	TRUE
CaptivePortalAuthenticationIgnoresProxy	mandatory	user	sourceEnterpriseDefault	FALSE
CastReceiverEnabled	mandatory	user	sourceEnterpriseDefault	FALSE
ChromeOsLockOnIdleSuspend	recommended	user	cloud	FALSE
ChromeOsMultiProfileUserBehavior	mandatory	user	sourceEnterpriseDefault	primary-only
ChromeOsReleaseChannelDelegated	mandatory	machine	cloud	TRUE
DeviceBlockDevmode	mandatory	machine	cloud	TRUE
DeviceGuestModeEnabled	mandatory	machine	cloud	FALSE
DeviceLocalAccounts	mandatory	machine	cloud	[{'id': 'publicaccount.@ogjdgxs4f7ik3f', 'type': 0}]
DeviceSystemWideTracingEnabled	mandatory	machine	sourceEnterpriseDefault	FALSE
DeviceUnaffiliatedCrostiniAllowed	mandatory	machine	cloud	FALSE
DeviceWiFiFastTransitionEnabled	mandatory	machine	cloud	TRUE
DnsOverHttpsMode	mandatory	user	sourceEnterpriseDefault	off
EasyUnlockAllowed	mandatory	user	sourceEnterpriseDefault	FALSE
EmojiSuggestionEnabled	mandatory	user	sourceEnterpriseDefault	FALSE
EnableSyncConsent	mandatory	user	cloud	FALSE
FastPairEnabled	mandatory	user	sourceEnterpriseDefault	FALSE
ForceGoogleSafeSearch (function is SafeSites)	mandatory	user	cloud	TRUE
ForceMaximizeOnFirstRun	mandatory	user	cloud	TRUE
HeartbeatEnabled	mandatory	machine	cloud	FALSE
IncognitoModeAvailability	mandatory	user	cloud	1
InstantTetheringAllowed	mandatory	user	cloud	FALSE
IsolatedAppsDeveloperModeAllowed	mandatory	user	sourceEnterpriseDefault	FALSE

KioskCRXManifestUpdateURLIgnored	mandatory	machine	cloud	TRUE
LacrosAvailability	mandatory	user	sourceEnterpriseDefault	lacros_disallowed
LacrosSecondaryProfilesAllowed	mandatory	user	sourceEnterpriseDefault	FALSE
LidCloseAction	mandatory	user	cloud	1
LoginDisplayPasswordButtonEnabled	mandatory	user	sourceEnterpriseDefault	FALSE
LogUploadEnabled	mandatory	machine	cloud	FALSE
NearbyShareAllowed	mandatory	user	sourceEnterpriseDefault	FALSE
NetBiosShareDiscoveryEnabled	mandatory	user	sourceEnterpriseDefault	FALSE
NTLMShareAuthenticationEnabled	mandatory	user	sourceEnterpriseDefault	FALSE
NTPCustomBackgroundEnabled	mandatory	user	sourceEnterpriseDefault	TRUE
PasswordManagerEnabled	mandatory	user	cloud	FALSE
PhoneHubAllowed	mandatory	user	sourceEnterpriseDefault	FALSE
PinUnlockAutosubmitEnabled	mandatory	user	sourceEnterpriseDefault	FALSE
PluginVmAllowed	mandatory	machine	cloud	TRUE
QuickUnlockModeAllowlist	mandatory	user	sourceEnterpriseDefault	[]
ReportCRDSessions	mandatory	machine	cloud	FALSE
ReportDeviceActivityTimes	mandatory	machine	cloud	TRUE
ReportDeviceAudioStatus	mandatory	machine	cloud	TRUE
ReportDeviceBacklightInfo	mandatory	machine	cloud	FALSE
ReportDeviceBluetoothInfo	mandatory	machine	cloud	FALSE
ReportDeviceBoardStatus	mandatory	machine	cloud	FALSE
ReportDeviceCpuInfo	mandatory	machine	cloud	TRUE
ReportDeviceCrashReportInfo	mandatory	machine	cloud	FALSE
ReportDeviceFanInfo	mandatory	machine	cloud	FALSE
ReportDeviceGraphicsStatus	mandatory	machine	cloud	FALSE
ReportDeviceHardwareStatus	mandatory	machine	cloud	TRUE
ReportDeviceLoginLogout	mandatory	machine	cloud	FALSE

ReportDeviceMemoryInfo	mandatory	machine	cloud	TRUE
ReportDeviceNetworkConfiguration	mandatory	machine	cloud	TRUE
ReportDeviceNetworkInterfaces	mandatory	machine	cloud	TRUE
ReportDeviceNetworkStatus	mandatory	machine	cloud	TRUE
ReportDevicePeripherals	mandatory	machine	cloud	FALSE
ReportDevicePowerStatus	mandatory	machine	cloud	FALSE
ReportDeviceSecurityStatus	mandatory	machine	cloud	FALSE
ReportDeviceStorageStatus	mandatory	machine	cloud	TRUE
SafeSitesFilterBehavior	mandatory	user	cloud	1[70]
ShowFullUrlsInAddressBar	mandatory	user	sourceEnterpriseDefault	FALSE
SmartLockSigninAllowed	mandatory	user	sourceEnterpriseDefault	FALSE
SmsMessagesAllowed	mandatory	user	cloud	FALSE
SuggestedContentEnabled	mandatory	user	sourceEnterpriseDefault	FALSE
UserDisplayName	mandatory	user	cloud	Guest session
VoiceInteractionHotwordEnabled	mandatory	user	cloud	FALSE
WifiSyncAndroidAllowed	mandatory	user	sourceEnterpriseDefault	FALSE

3.2 Technical findings

This section shows with screenshots how admins can centrally enforce privacy-friendly settings for all students. There are additional recommended settings, to disable use of the Chrome Web Store and the Play Store: these are described in Section 6. Some settings are already privacy-friendly by default, such as use of Auto-suggest, Handwriting recognition and voice input (the voice assistant), and options for user and device reporting.

[70] To disable SafeSites, this setting has to be set to 0 (zero).

Figure 40: Privacy-friendly default settings for Kiosk on Chromebook

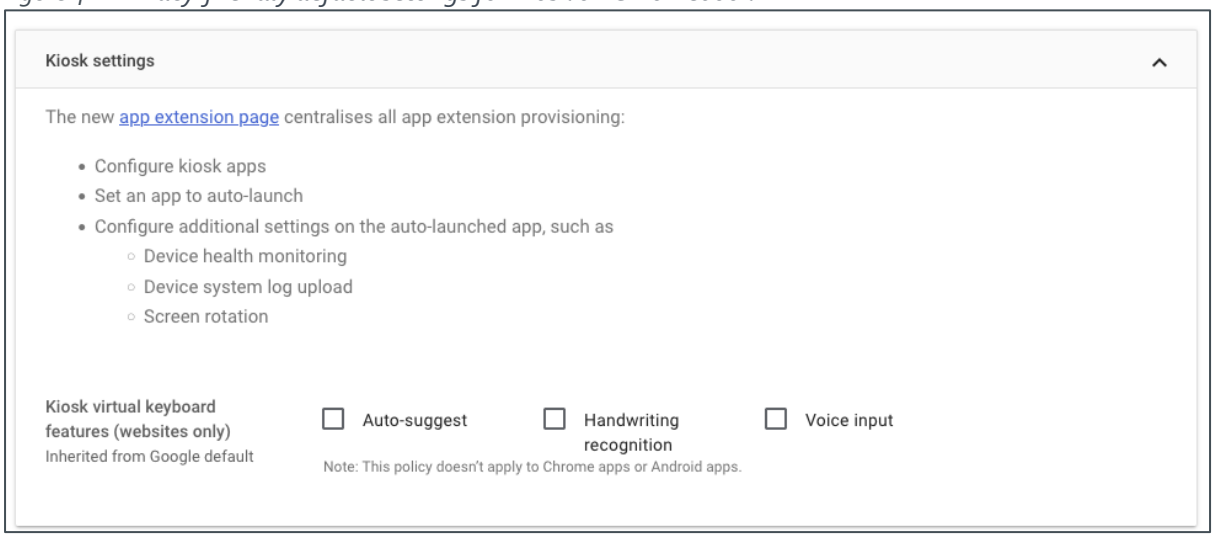
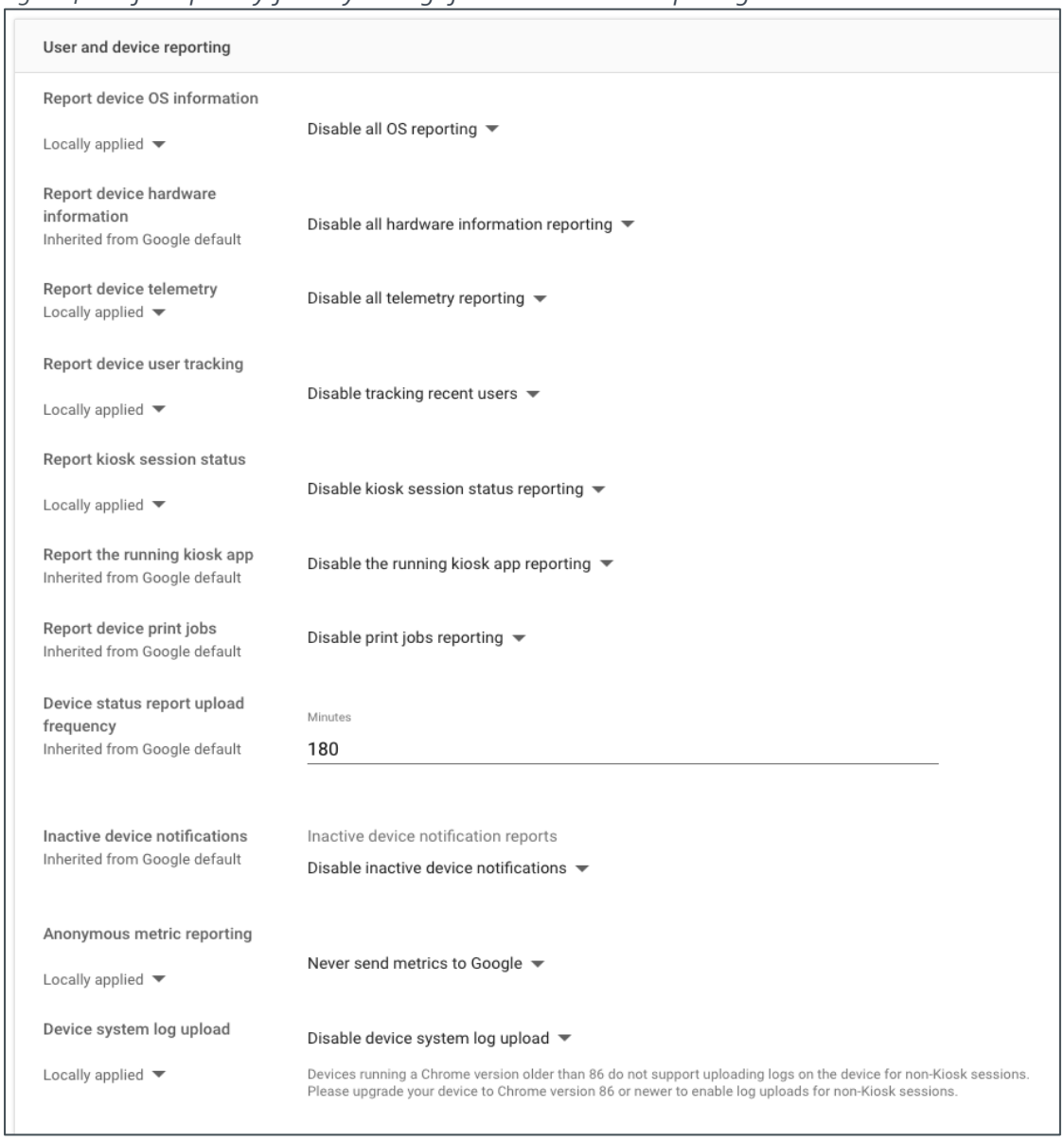
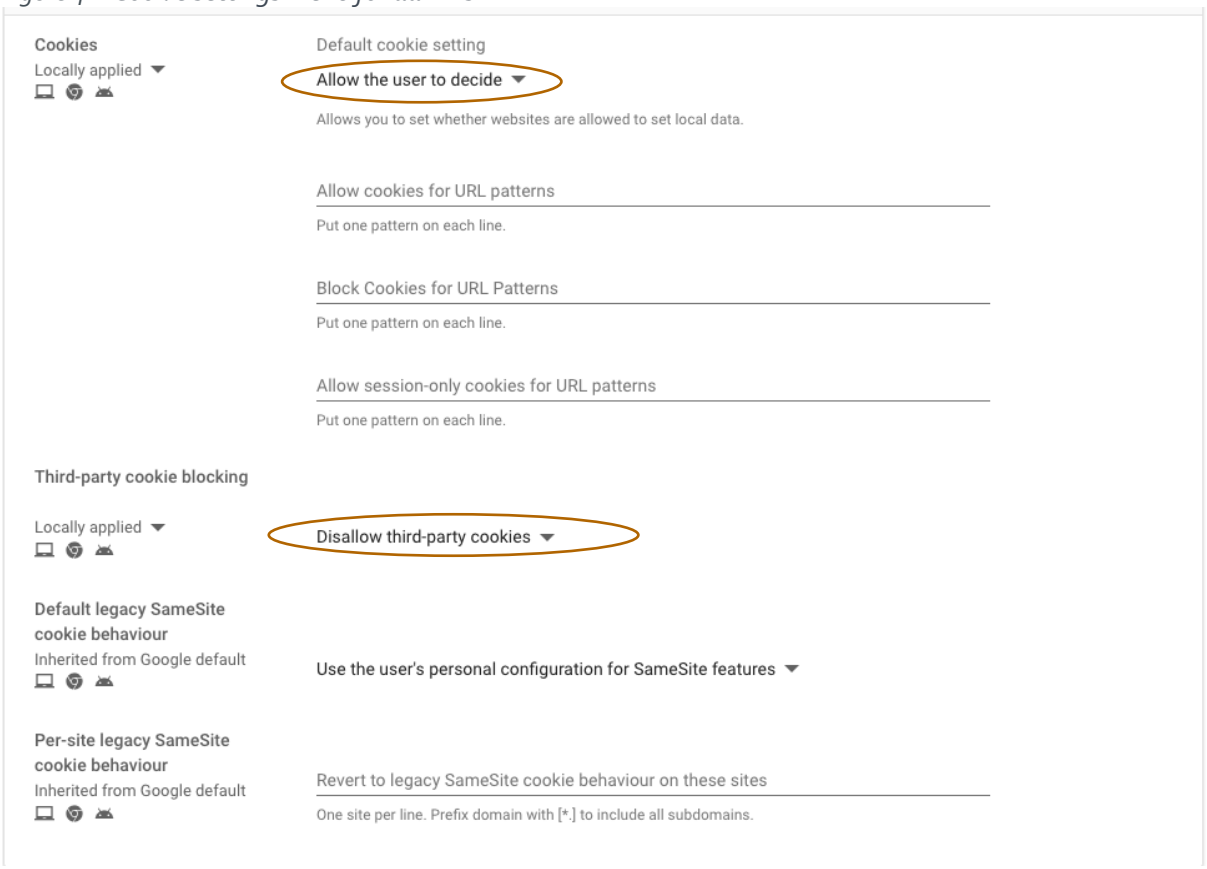


Figure 41: Default privacy-friendly settings for user and device reporting



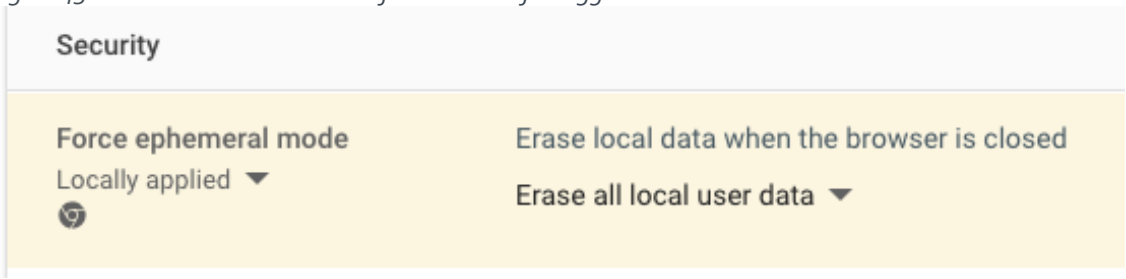
Admins can allow students to choose to allow non-session cookies, for example to prevent renewed signing-in every time the browser is opened. This may be a necessary soft setting in combination with the prohibition on the use of Chrome Sync as long as there is no EU adequacy decision for the USA, and Google does not offer centrally managed encryption options for Chrome Sync (with a student or school controlled key).

Figure 42: Cookie settings menu for admins



System administrators can force cookie deletion for all logged-in users, with the policy setting *Force ephemeral mode*. See **Fout! Verwijzingsbron niet gevonden.** below.

Figure 43: Force automatic deletion of cookie data for logged-in users



Admins are advised to Force Incognito mode (See Figure 44 below), to ensure all cookie and website data are automatically deleted once the browser window is closed. This is also possible for guest users.

Figure 44: Enable incognito mode for logged-in students in the browser

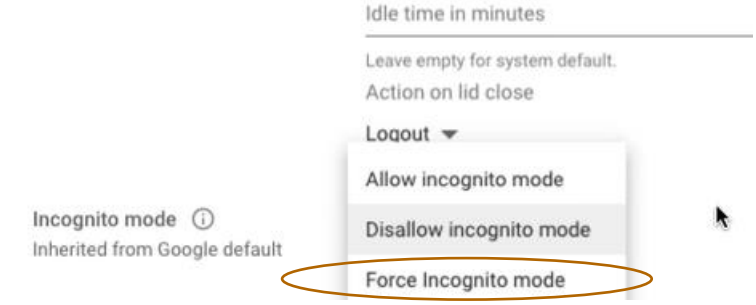
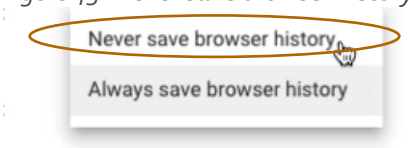
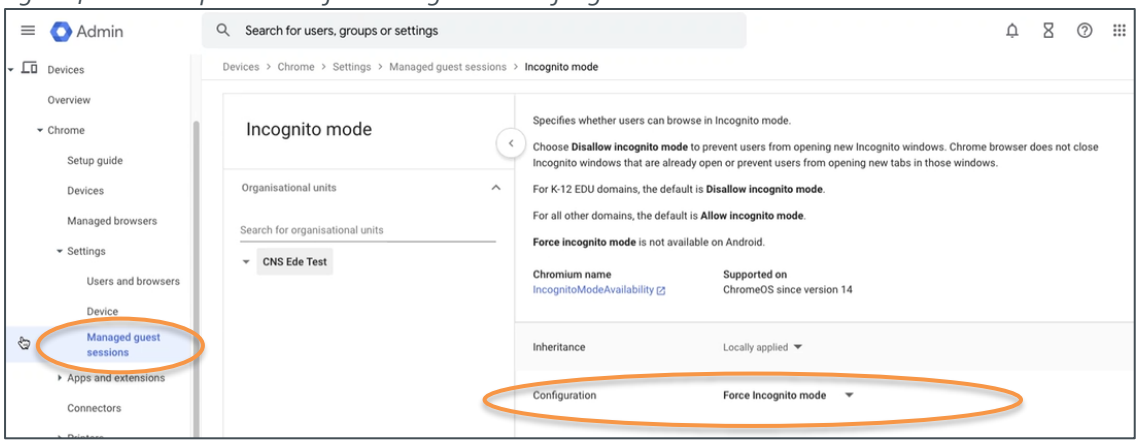


Figure 45: Never save browser history



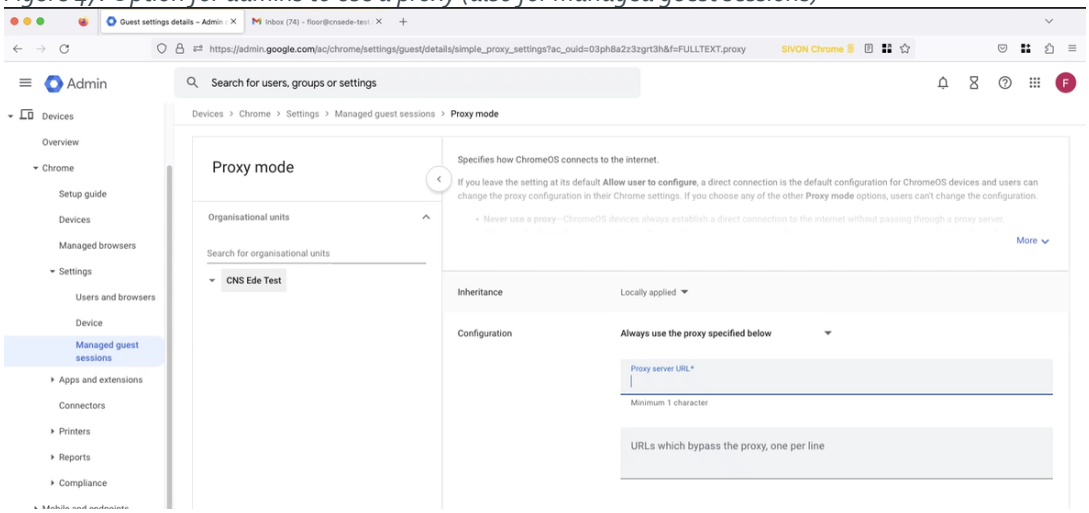
The forced application of the incognito mode is also available for guest users. See **Fout! Verwijzingsbron niet gevonden.** below.

Figure 46: Admin options to enforce Incognito mode for guest users



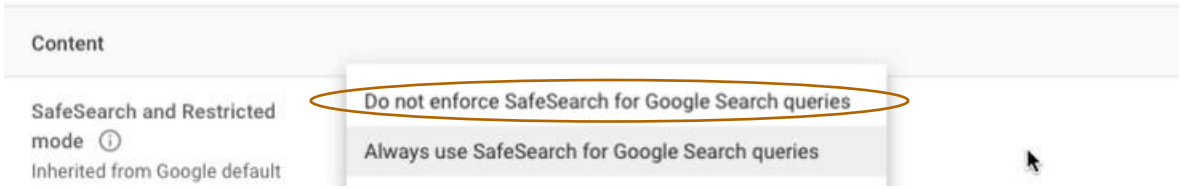
As explained in Section 1.2.5, SafeSites sends some URLs to Google in the USA even if access to Google Search is blocked. Therefore admins are advised to disable this functionality entirely (by setting the value for SafeSitesFilterBehavior to 0), to prevent transfer of sensitive data to the USA, currently still a third country without adequate data protection regime. Schools may want to consider using a proxy, or another third party filter to prevent minors from accessing pornography.

Figure 47: Option for admins to use a proxy (also for managed guest sessions)



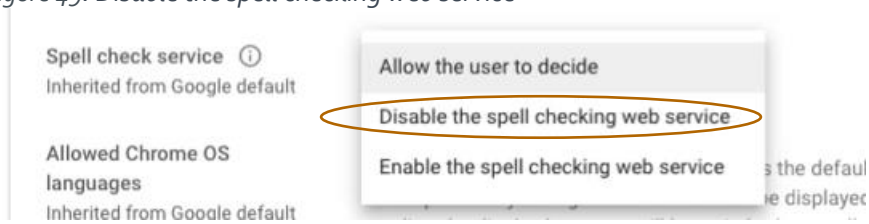
School can also disable SafeSearch in the Google search engine. See Figure 48 below.

Figure 48: Disable SafeSearch



Admins are advised to disable the Enhanced spell checking web service to prevent data transfers of content data to the USA. They can use the local spell checking instead.

Figure 49: Disable the spell checking web service



Depending on the type of school, admins may want to block use of the camera. They are advised to block any change of browser settings, and block use of the Chrome Web Store.

Figure 50: System features: options to block change of browser settings, use of Web store, and use of Camera

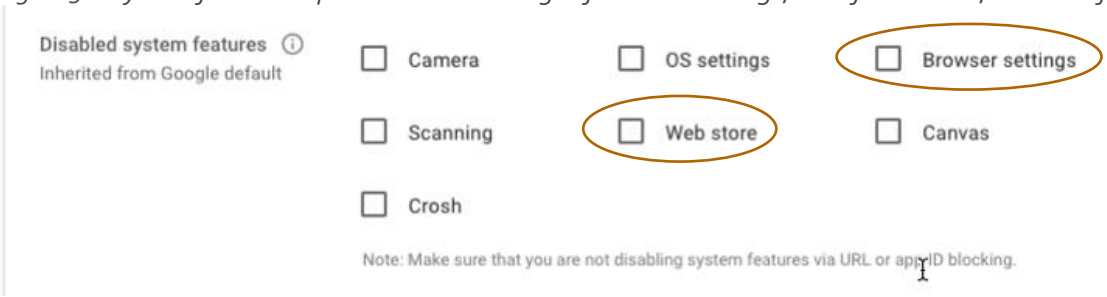


Figure 51: Settings for the Omnibox search provider

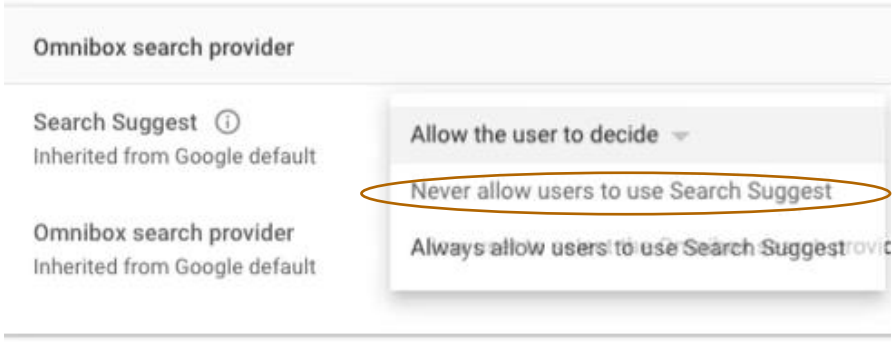
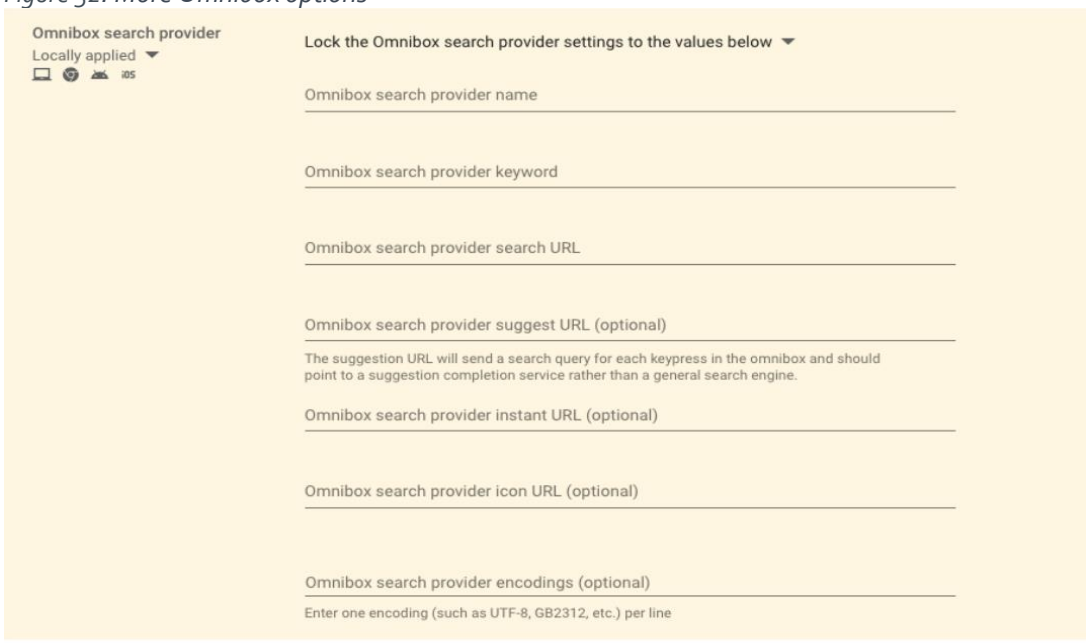


Figure 52: More Omnibox options



3.3 Assessment

Overall, enforcement by admins of the privacy-friendly settings is as effective as use of the settings by students themselves, as described in Section 2.3. After the release of the processor version of the managed ChromeOS and browser by mid-August 2023, schools should follow the updated guidance from SIVON which privacy protective settings are still necessary to mitigate data protection risks.

3.4 Remedies

Issue	Recommended mitigating measures schools	Mitigating measures taken by Google
Privacy unfriendly default settings	Enforce the recommended privacy-friendly settings whenever possible.	Privacy Sandbox trials are disabled for users under 18.
		Google has not responded to the request to improve the tracking protection features in the Chrome browser when third party cookies are blocked, the DNT signal is enabled and website preloading is disabled. For example, by blocking traffic to Google services where

		Google does not act as data processor (such as analytics and fonts).
	Disable the Privacy Sandbox for all users (or select K-12 setting to block by default).	Google will give admins controls to block ads personalization and measurement as part of Privacy Sandbox in the processor version of managed ChromeOS.

4. Use of Microsoft Office for the Web on Chromebook

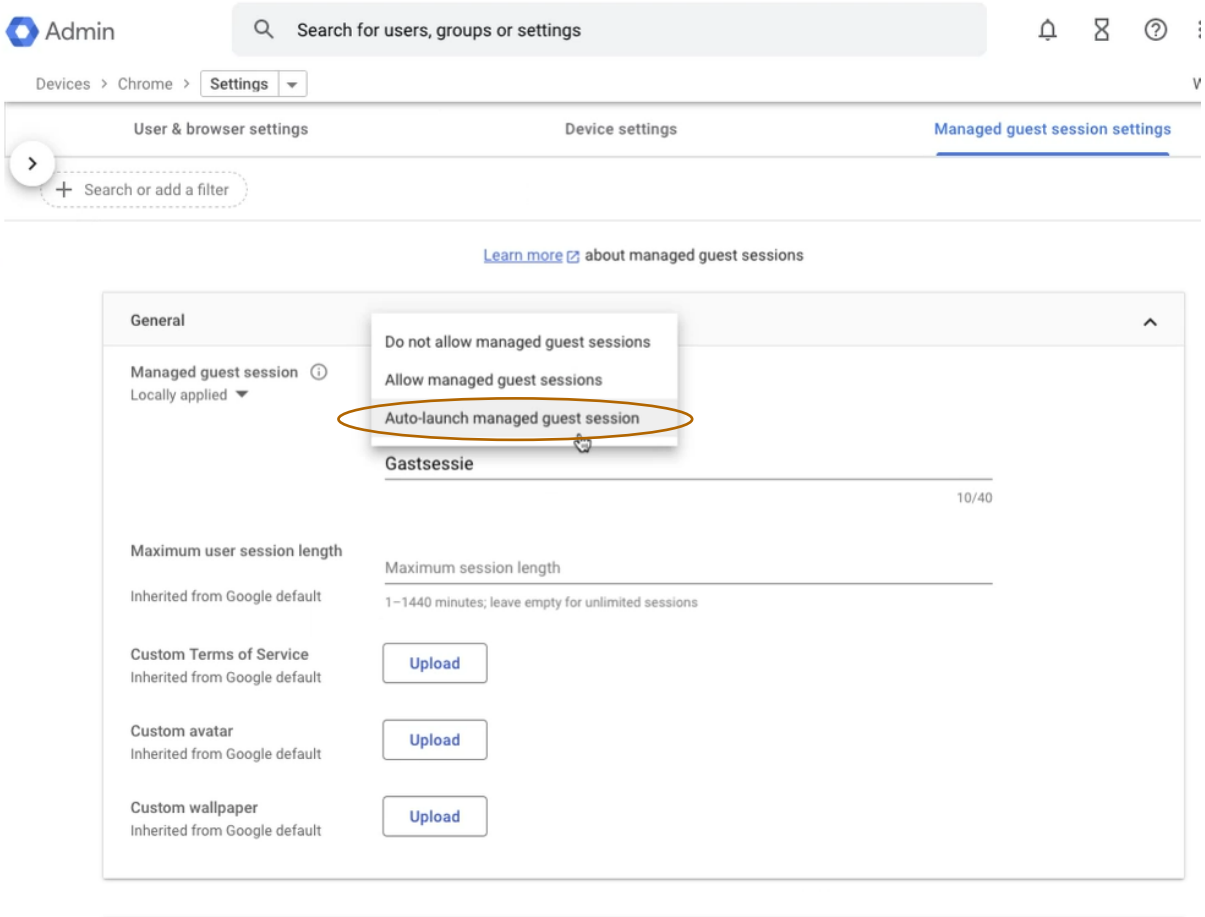
This section answers the fourth question:

What data does Google collect about the use of Office for the Web apps on a Chromebook without a Google account?

4.1 Facts

This section answers the question if schools can use Chromebooks without Google Workspace services, with Microsoft Office applications as an alternative. This means the Chromebook needs to be accessed as 'guest' user, without a Google account. As explained in Section 3, school admins can enforce the launch of the Chromebook in a guest user status.[71]

Figure 53: Enforce auto launch of Chromebook as guest user



[71] Google, Managed guest session devices, URL: https://support.google.com/chrome/a/answer/3017014?hl=en-GB.

4.2 Technical findings

Privacy Company intercepted all traffic from the Chromebook with the 'guest user' (not logged in to a Google account). The guest user accessed Microsoft Office 365 applications such as Outlook, Teams (including video chat), Sharepoint and Word via the Chrome browser (Office for the Web). This did not result in any surprising outgoing traffic: Google collects the same information about Office web apps as from any other visited website: analytics about the functioning of its browser. However, different from the options for admins to enforce cookie-settings for logged-in users, the guest status does not give admins any options to enforce cookie settings. It is up to the end-user to decide how to deal with cookies.

In the test set-up the default guest cookie settings were used. These do not block third party cookies, only if the user selects Incognito mode. This resulted in a total number of 42 domains that set cookies on the device with the guest user. As described in Section 3 above, Privacy Company recently noted that Google also offers a setting to enforce the Incognito mode for guest users.

Table 6: Cookies set by Microsoft Office web apps in Chrome with guest user

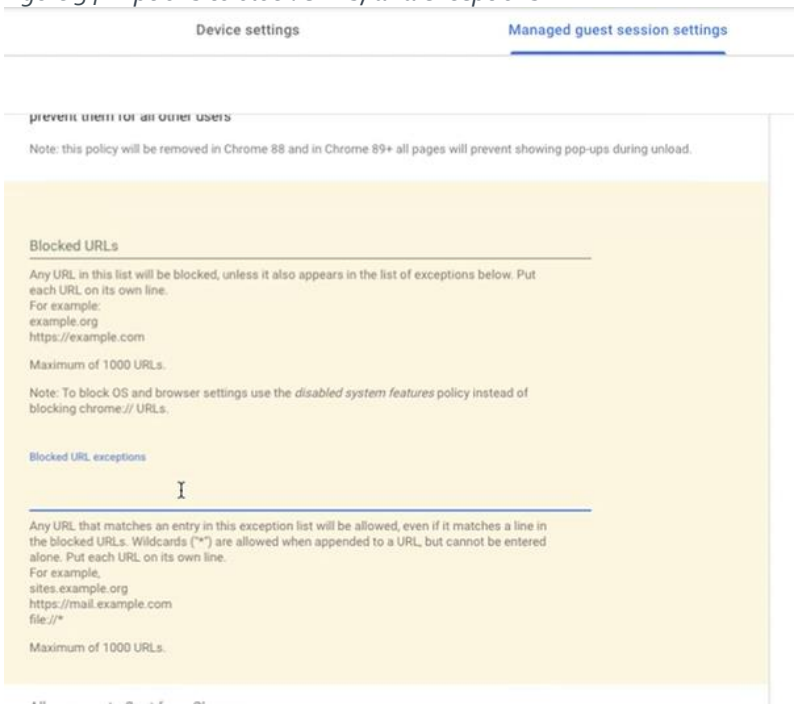
Type of cookie set by Office web apps	**Number (per domain)**
Advertising	16
Other	
Functional	24
Analytics	
Diagnostic	
Total	**42**

The 16 advertising cookies were caused by embedded use of search engine Bing in the Microsoft Office web apps and use of Microsoft's main login page (www.office.com).

Another difference with the logged-in status on Chromebooks is that for guest usage, Google does not offer standard choices to block use of its own *Additional Services*, such as Search or YouTube. In other words, if a student uses Google Search as a guest user, or logs in via YouTube on his or her personal Google account, Google is still able to collect identifying and content data, in spite of the enforced guest user status. The resulting collection of personal data depends on the behaviour of the individual minor or student: there is no setting or policy in Chrome to prevent students from logging-in to a Google website or in the Chrome browser with their personal Google account.

Admins may restrict access to specific Google websites through additional technical restrictions, such as blocking traffic on the network, or creating a blocklist. However, as shown in Figure 54 below, such URL blocking requires a disproportionate effort from admins, and is hard to maintain up-to-date. Admins cannot use a wild card to block ranges of URLs, such as *.google.com: they can only use wild cards to allow traffic from domains.

Figure 54: Options to block URLs, and exceptions



In reply to this report Google referred to a URL with information how admins can block any of the URLs that schools want to block.[72] However, schools cannot use this tool to fully block all trackers or URL parameters. As Google explains on the referred website: "*Note: This policy does not apply to in-page JavaScript URLs with dynamically loaded data. If you blocked example.com/abc, then example.com could still load it using XMLHTTPRequest. Additionally, this policy does not prevent web pages from updating the URL shown in the omnibox to a blocked one using the JavaScript History API.*"

4.3 Assessment

As long as personal data are transferred to the USA, there is a high probability that the data processing is not compliant with the GDPR. Therefore, this question tried to assess if schools could continue to use the Chromebooks in a guest mode, without logging in to a Google Account. As a possible alternative for Workspace for Education, some Microsoft Office for the web applications were tested. These web apps were selected, and not installed apps, to prevent users from having to visit Google's Play Store to download the apps.

The answer is that the Chromebooks can be used with forced guest user launch, but use of the Microsoft Office for the web apps does result in the use of Microsoft tracking cookies, and admins cannot block first party tracking cookies with central settings in Chrome.

Additionally, use of the guest status does not prevent students from using popular *Additional Services* like YouTube and Search. Admins can theoretically block access, on the local network, or through URL blocking, but this would require a disproportionate effort from the admins. Additionally, blocking visits to specific URLs is not effective because the blocklist does not affect URLs requested by Javascript, as explained by Google in public documentation (see footnote 72 below).

Compared to guest usage, the use of Google accounts in Google Workspace for Education offers two privacy benefits: the possibility to centrally enforce blocking of third party cookies, and to centrally block access to *Additional Service*s.

[72] Response from Google to this report, 22 February 2023, URL: https://chromeenterprise.google/policies/#URLBlocklist.

In sum, Chromebooks may be used in a GDPR compliant way without a Google account (without Google Workspace), in guest mode, but it will require a significant effort from admins to block traffic on the local network as long as Google does not offer central management tools for guest usage of the Chromebooks. If schools decide to use Microsoft Office applications as an alternative to Workspace, the admins need to apply and enforce privacy friendly settings for the Microsoft Office web apps.[73] .

4.4 Remedies

Issue	Recommended mitigating measures schools	Mitigating measures taken by Google
No valid ground for transfer of personal data to the USA	Sign up for the new processor agreement including the new SCC and apply all data minimisation measures from the updated guidance from SIVON	Google has become a data processor for the managed ChromeOS and browser, including the SCC C2P Module 2 for the transfer to the USA.
		In the future: possibly rely on a new adequacy decision for the USA for the transfer of all personal data.
	In case Workspace cannot be used, Chromebooks can still be used if schools centrally enforce all privacy-friendly settings, including disabling of access to google.com and youtube.com, either by enforcing use of a proxy server to block functionality on the local network, or through manual URL blocking options in the admin console.	Google offers central admin management options for the guest mode on managed Chromebooks, including blocking of third party cookies.

[73] See the recommended privacy friendly settings for Microsoft Office in the DPIAs for SLM and SURF at: https://slmmicrosoftrijk.nl/downloads-dpias/

5. Chrome Sync on Chromebook

This section answers the fifth question:

Wat data does Google collect when Chrome Sync is enabled on the Chromebook in the privacy-friendly settings recommended by the previous DPIA on Google Workspace for Education?

5.1 Facts

The Update DPIA report on Workspace for Education describes when Chrome collects personal data, and that this may include Customer Content Data if an end user uses Chrome Sync.[74]

Chrome Sync is a feature that allows end users to have the same settings, bookmarks and historical data available on all of their synced devices with a Chrome browser. This means local data are shared with Google. Chrome Sync is not the same as the generic sync functionality in Workspace, to synchronise mail, calendar and contacts with the Microsoft Outlook e-mail client, also on iOS, Windows and MacOS devices.[75]

Google is a data processor for Chrome Sync when the school has signed up to the SIVON terms for the use of Google Workspace for Education, as Chrome Sync is included in the list of Core Services.[76] Chrome Sync is also explicitly included in the new processor agreement for the ChromeOS and browser as an Essential Service, for use by schools that do not use Workspace for Education.

As quoted from Google's explanations in the Update DPIA report, Google collects the following personal data when Chrome Sync is enabled:

- Installed apps and extensions, including their settings
- Personal autofill data (including physical addresses)
- Bookmarks
- Browsing history, including which webpages are currently open
- Local Chrome and ChromeOS settings
- If enabled: Login credentials (username and password pairs) and credit card information.
- If the user enables the Sync feature, Google will process the following personal data (excluding Customer Data mentioned above):
    - The Google Account ID
    - Connected Wifi networks and passwords (ChromeOS only).
    - Usage statistics

Google also explained the user can control which types of data are synced, and may exclude certain categories of data. These exclusion options were not tested.

Users can encrypt the Sync data with a custom passphrase, stored locally. If they do, the data are not readable by Google. While this has not been tested, it is feasible that the keys are not stored in, or

[74] Google Workspace Update DPIA report, 2 August 2021.

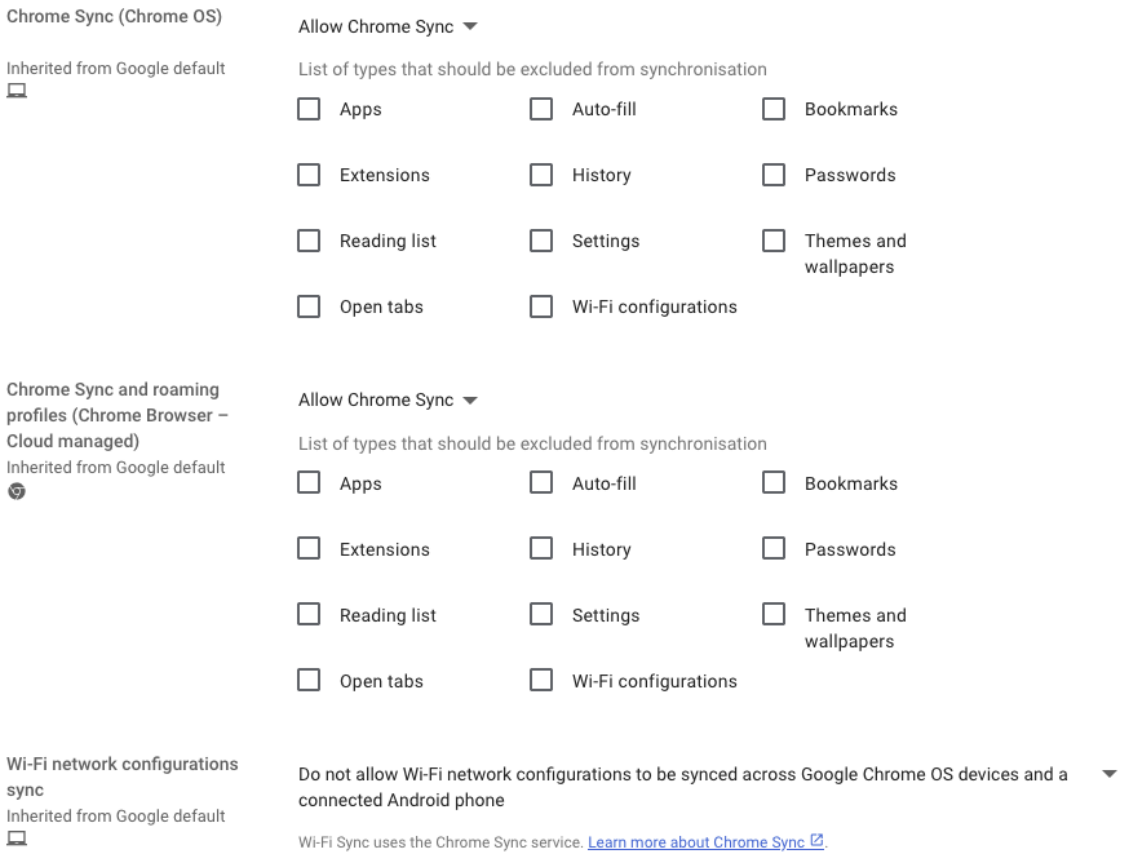
[75] Google, Get started syncing Google Workspace data, URL: https://support.google.com/a/answer/1366863?hl=en#zippy=%2Cindex-of-sync-options

[76] Google Services Summary, https://workspace.google.com/intl/en/terms/user_features.html

accessible from, Google's cloud. The user must enter the passphrase again when using a new browser. Use of this encryption currently cannot be enforced: users choose if they want to use it, or not. There is no central setting or policy for admins to enforce the use of encryption.

The main risk when enforcing encryption is users forgetting their passphrase and losing access to Sync data. Privacy Company discussed several possible solutions for improved management of passphrases with Google. Google considers developing a centrally managed encryption functionality, but Google did not share any (plans for a) specific solution or timeline.

Figure 55: Admin panel with sync settings.



If users do not use encryption, the synced personal data are accessible in readable format in the USA.

5.2 Technical findings

System administrators can completely disable Chrome Sync by setting the policy SyncDisabled to true. Specific categories of data can be excluded from Chrome Sync by the administrator, by configuring the policy *SyncTypesListDisabled*. It follows from the intercepted network traffic, as described in Section 1, that these settings are indeed effective. During the test no personalisation features were observed as a result of the (very limited) tests with Sync.

As described in the first section of this report, Google explained that Sync data are stored with a unique user ID. Google did not provide access to any personal data about the syncing in reply to the DSAR, as explained in the first section of this report. In reply to this report, Google explained that Sync data are part of Takeout, but use of this tool is not recommended by SIVON, as Google offers

this tool as a data controller.[77] Google did provide some additional information under NDA, [**Confidential**].

Figure 56: Sample of Chrome Sync data provided under NDA
[**Confidential**]

5.3 Assessment

This section of the report was designed to assess if use of Sync could be allowed if all other conditions were set to privacy-friendly, due to the strong demand from school admins and their IT implementation partners. They complained to SIVON and SURF that disabling of Sync was highly undesirable.

Even though Google acts as data processor for Chrome Sync when schools use Google Workspace for Education, and will act as a data processor for Chrome Sync in the new processor version for schools that do not use Google Workspace for Education, the technical findings show that there are two serious data protection risks for students if the functionality is enabled: (i) loss of control through unlawful access by US law enforcement and secret services and (ii) lack of a full response to a Data Subject Access Request.

5.3.1 Unlawful access

Sync is designed to transfer sensitive Content Data to Google's cloud computers in the USA, a third country without adequate data protection regime.[78] This transfer results in a high data protection transfer risk for students. There are three possible mitigating measures for this risk: schools can (continue to) block the use of Sync, the US will receive a new adequacy decision from the European Commission, or Google can apply encryption measures that prevent Google from decrypting the data.

The test show that it is possible to block the use of Sync. The European Commission expects its draft adequacy decision to be adopted in the summer of 2023, after advice from the EDPB[79], the European Parliament[80] and the Council (of Member States). This will be the third adequacy decision from the EU, after Safe Harbour (terminated by the European Court of Justice in 2015) and Privacy Shield (terminated by the ECJ in 2020). It is likely that Max Schrems will once again put the new US guarantees to the test of European fundamental rights in a third procedure at the ECJ. Therefore, use of encryption offers the most effective and future proof protection against the risk of unlawful access.

Google's current encryption does not exclude the risk of unlawful access (by EU standards) to the personal data by US secret services. Google has given the data protection risks of these transfers

[77] Reply Google 22 February 2023. Google wrote: "*The data available in Takeout included separate subfolders of bookmark data, autofill data, sync settings, search engine data, extensions, dictionary and browser history each of which had various detailed data points.*"

[78] If the Council of Ministers agrees with the draft decision from the European Commission to declare the United States a country with an adequate data protection regime, schools may transfer personal data to a recipient in the USA without additional measures such as self-controlled encryption. Such an adequacy decision is not likely to be adopted before July 2023. See: https://ec.europa.eu/commission/presscorner/detail/en/ip_22_7631, and a blog from Lexology about the expectation from the Irish DPC that this adequacy decision will be taken by mid July 2023, Green Light for EU-US Transfers? Adequacy Decision for USA is in Sight, 29 June 2023, URL: https://www.lexology.com/library/detail.aspx?g=0e4b36c2-1b8a-451e-9d69-3d0b6a18f7c2.

[79] Press release EDPB, EDPB welcomes improvements under the EU-U.S. Data Privacy Framework, but concerns remain, 28 February 2023, URL: https://edpb.europa.eu/news/news/2023/edpb-welcomes-improvements-under-eu-us-data-privacy-framework-concerns-remain_en

[80] European Parliament, LIBE committee draft with 92 amendments, 9 March 2023, URL: https://www.europarl.europa.eu/doceo/document/LIBE-AM-745289_EN.pdf.

some consideration, and allows students to encrypt the data with a local passphrase. However, admins cannot enforce encryption of these data, and hence, take responsibility to protect students' rights to protection of personal data. To prevent the high data protection risks resulting from the transfer to the USA, Google should provide admins with a central configuration option to ensure that all students encrypt the data with a self- or school-controlled key.

5.3.2 Results Data Subject Access Request

Google did not provide adequate or complete access to the personal data processed by Chrome Sync. Though Google makes some Sync data available through its Takeout tool, as explained above, Google only offered Takeout as a controller *Additional Service*. This has been solved, and Google offers Takeout as a processor service.

However, there are two additional problems with Takeout. Google does not provide any guarantee that the Takeout offers a complete download of all available data at Google relating to the individual use of Chrome Sync, Content and Diagnostic Data.

With regard to Content Data, it cannot be excluded that Google logs some historical information about for example bookmarks, or login credentials, or autofill address information. Google does not provide a public explanation about the contents of its logs or its retention policy. Via the Takeout tool students can see a snapshot of currently available 'static' Content Data, such as bookmarks. This makes the Takeout tool very useful to comply with data portability requests, but does not include historical Content Data. It is possible that Google does not store any historical information, but this cannot be excluded, as Google does not provide a public explanation about its retention policy for these specific data.

Google did provide Diagnostic Data about Sync after lengthy discussions [**Confidential**]. Google said these data will all be included in the audit logs as part of the Workspace and Chrome remediations. Google has also committed to include the Chrome Sync Data in the new Service Data Downloader, that will be available after the release of the new processor version of managed ChromeOS and browser, by mid-August 2023.

Conclusions

For now, schools are still advised to disable Chrome Sync, to prevent the high data protection risks resulting from the transfer of these sensitive data to the USA (currently a third country without adequate data protection regime),. There may be a political solution for the transfer risks to the USA, if the EU adopts a new adequacy decision for the USA. This could already happen by mid July 2023, according to the Irish Data Protection Commissioner.

Alternatively, and for the long term, Google is considering the request to develop a central configuration option to ensure that all students encrypt the data with a school- or student managed key.

5.4 Remedies

Issue	Recommended mitigating measures schools	Mitigating measures taken by Google
DSAR results incomplete	Use the guidance from SIVON to inform students how to request access with	Google is a processor for the Domain-wide TakeOut tool for admins
		Google is a processor for the individual TakeOut tool for end users

	the school, and with Google	Google has agreed to publish documentation what Diagnostic / Telemetry Data the Essential Chrome Services collect, to the extent they collect user or device associated data at all
		Google has published more information about its data retention policies
		Google will offer a Service Data Downloader to admins that will include Chrome Sync data (second half of 2023)
Loss of control due to transfer of sensitive personal data to the USA	Disable Sync by setting the policy *SyncDisabled* to *true* or ensure that students use a self-managed local passphrase to encrypt the Sync data.	Google is considering the request to develop a policy for admins to centrally enforce use of encryption with locally held keys, in the end user devices.
		In the future: possibly rely on a new adequacy decision for the USA for the transfer of all personal data.

6. Use of Play Store and Chrome Web Store

This section answers the sixth question:

What data does Google collect when an app is installed from Google's three different app stores? Is it possible to centrally block access to the app stores?

6.1 Facts

Google offers three different app stores:

1. Google Play, accessible from Android devices and Chromebooks, available in two flavours: general and *managed* Google Play
2. Chrome Web Store for the Chrome browser
3. Google Workspace Marketplace

Only the first two stores, Google Play and the Chrome Web Store, were tested. The Workspace Marketplace is out of scope of this Chrome report, as it relates to Google Workspace.

6.1.1 Google Play

Google Play is a general online store, accessible for everybody with an Android or ChromeOS device. Google writes: "*Google Play provides 2 million apps & games to billions of people around the world*"[81] Organisations can use a managed version of Google Play, to control the installation of applications on work/school devices. Google explains: "*If your device is managed by your company or has a work profile, any apps you need for work have been preapproved by your administrator. To get to them, you need to make sure your Android device is set up with a managed Google Play account. Then, you can install any apps you need*."[82]

Both Google Play and Managed Google Play are so called *Additional Services* in Google Workspace for Education. Google acts as data controller for these services. According to its standard data processing terms, Google only acts as a data processor for the limited category of "Customer Data" in Managed Play.[83] The improved data processing agreement for Workspace with the Dutch schools and universities does not apply to the personal data collected by Google when an end user downloads an app from (managed) Google Play.

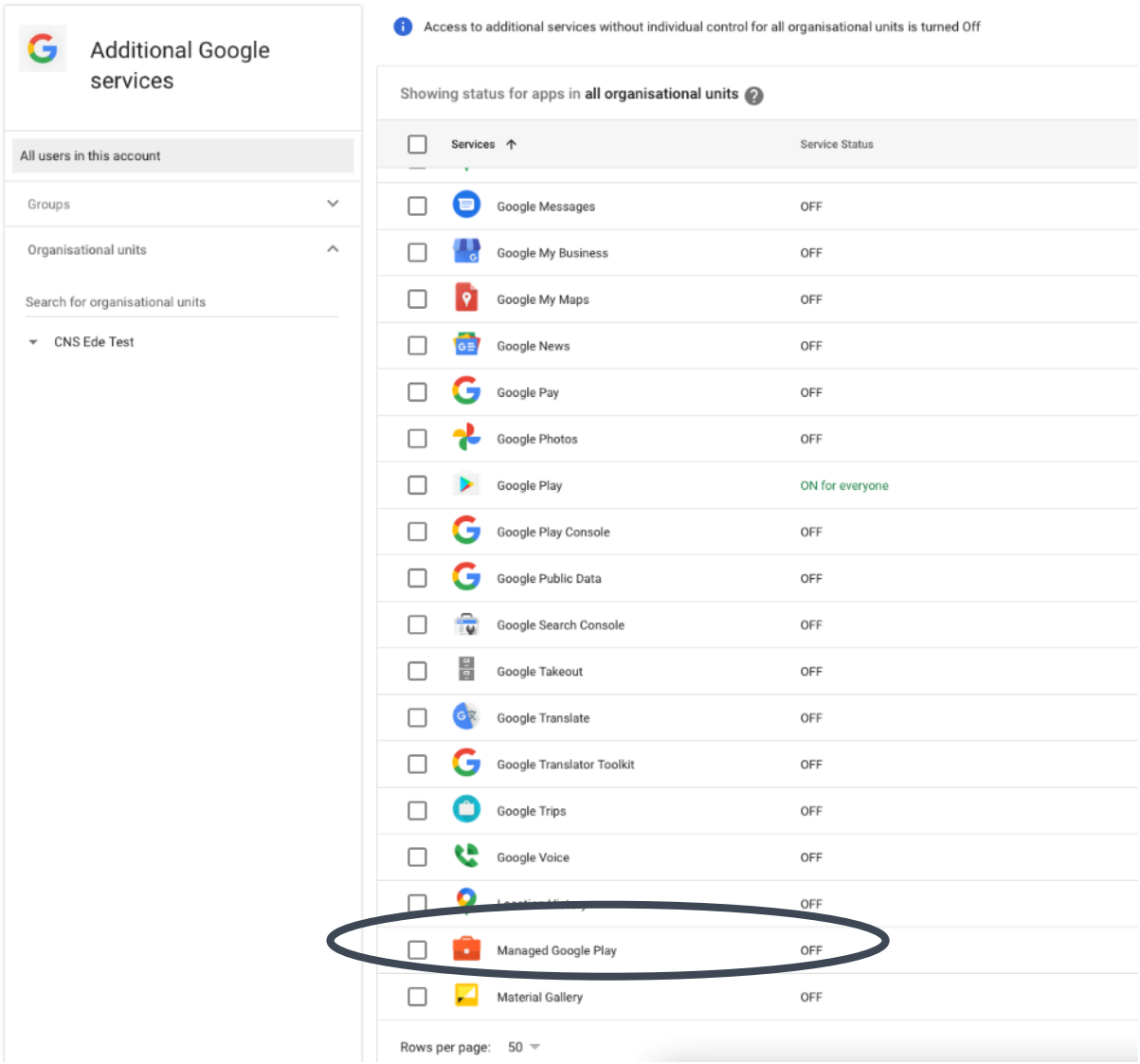
Privacy Company has asked Google repeatedly for clarification about the applicable terms for Managed Google Play but did not receive a clear answers, other than the reference to the Managed Play Agreement[84] and its associated data processing terms.[85] In reply to this report, Google confirmed: "*Google acts as a data processor for Managed Play for the customer data provided to Google*

[81] Google, How Google Play works, URL: https://play.google.com/about/howplayworks/ last visited 29 June 2023. Based on a footnote provided by Google on that page, the number of apps dates from June 2021.
[82] Google, Using Google Play in your organization, URL: https://support.google.com/googleplay/work/answer/6137769?hl=en, last visited 29 June 2023.
[83] Android, Android Enterprise Data Processing and Security Terms, version May 2022, URL: https://www.android.com/enterprise/data-protection/terms/ /
[84] Google, Managed Google Play Agreement, 23 March 2021, URL: https://www.android.com/enterprise/terms/
[85] Android Enterprise Data Processing and Security Terms

in its provision of the services. Google is also a data controller for Google Play and for usage logs of users interacting with the Managed Play version of the store."[86]

The Managed Play Agreement is incorporated by reference via an enterprise's customer's Workspace Terms.[87] As shown in Figure 57 below, Google lists this service as an *Additional Service* in the admin console of the specific Workspace for Education tenant.

Figure 57: EDU admin Console listing Managed Google Play as Additional Service[88]



When an admin wants to enable Managed Google Play, Google asks the admins to agree to the conditions that Google's general Privacy Policy applies, and that the school must have parental consent from any student under the age of 18. See Figure 58 below.

[86] Comment Google 22 February 2023.
[87] See: https://workspace.google.com/terms/user_features.html - see section "Additional Products".
[88] Screenshot made in the admin console of the school test account, 7 September 2022.

Figure 58: Applicable terms for Managed Google Play[89]

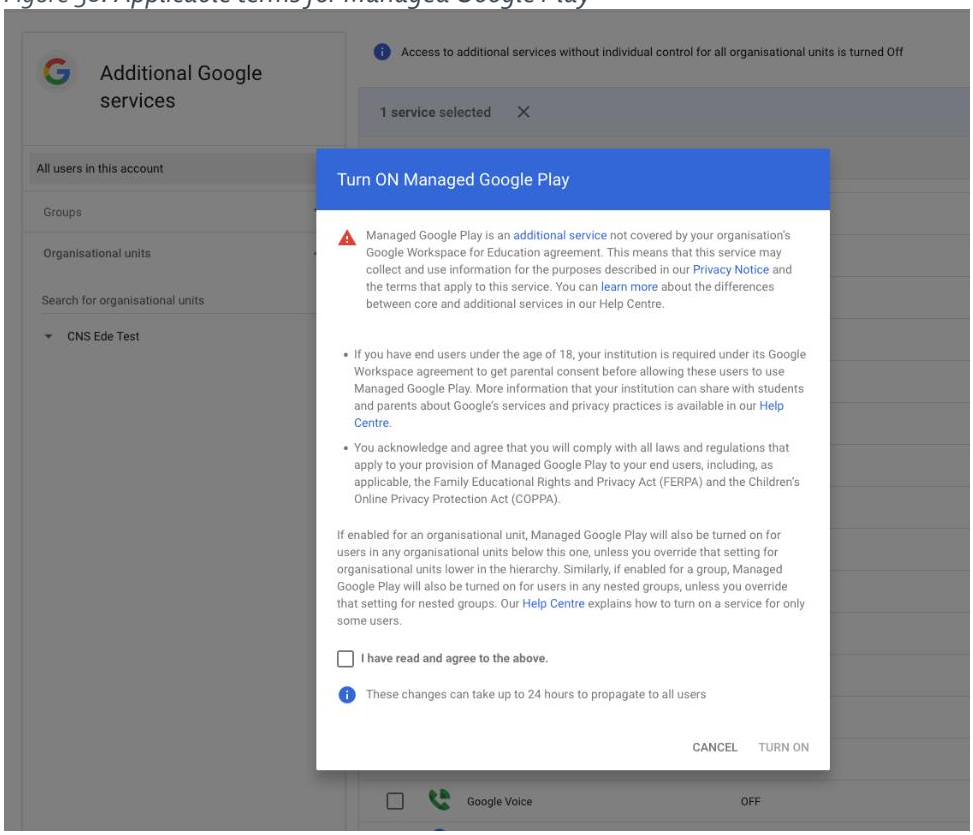
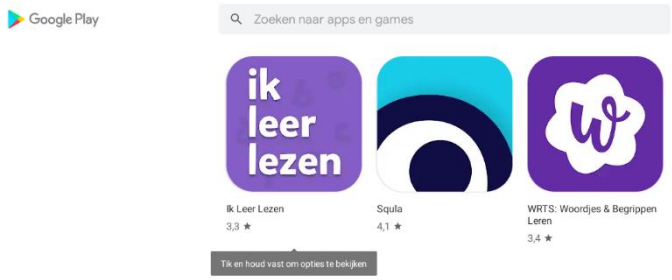


Figure 59: Screenshot of the Play Store with allowed and installed apps

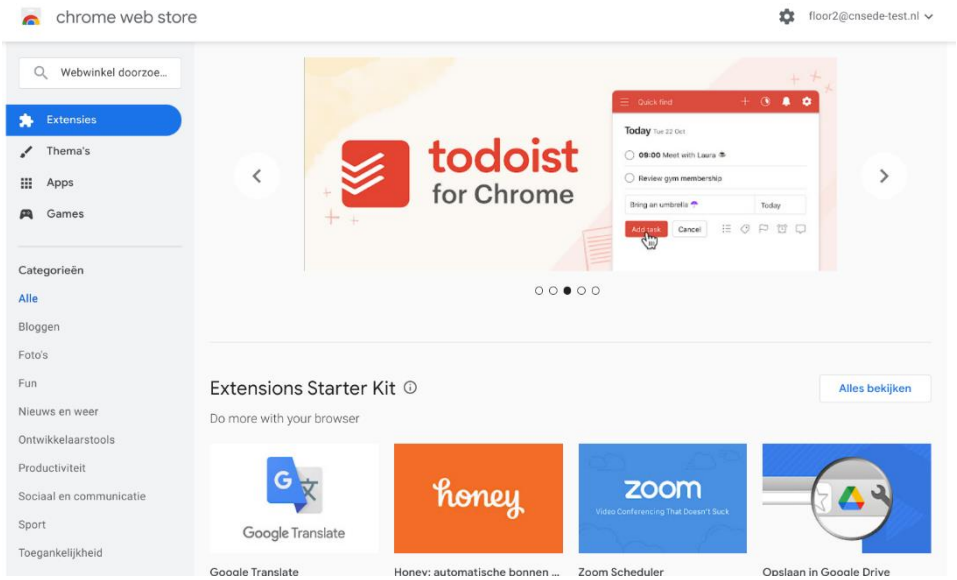


6.1.2 Chrome web store

The Chrome browser contains a separate app store, as shown in Figure 60 below. In the Chrome Admin Console, the Chrome Web Store Toggle is by default turned off.

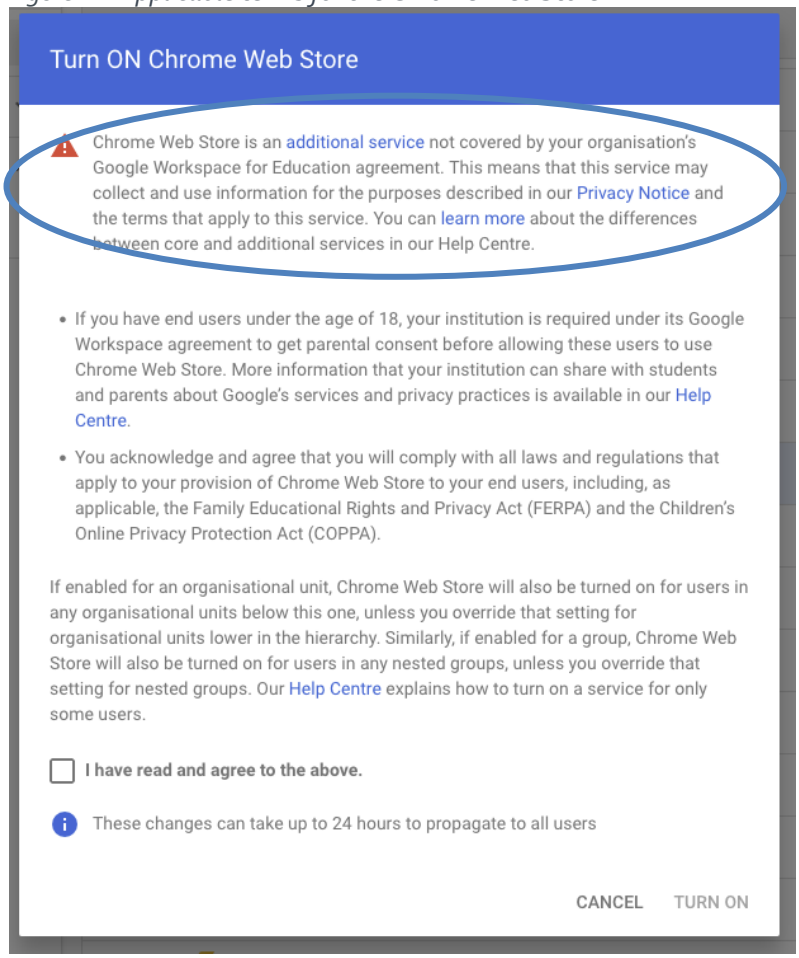
[89] Screenshot made from the Admin Console in the school tenant used for testing for this report, 7 September 2022.

Figure 60: Screenshot of the Chrome Web Store with installed extension



When an admin wants to enable the Chrome Web Store, just as with Managed Google Play, Google asks the admins to agree to the conditions that Google's general Privacy Policy applies, and that the school must have parental consent from any student under the age of 18. See Figure 61 below.

Figure 61: Applicable terms for the Chrome Web Store



System administrators can completely block access to the two app stores on the managed Chromebooks. However, this is not a desirable solution. Schools and universities want to enable students to use specific allow-listed applications and services, such as the specific tested school app and the readability plug-in.

Figure 62: Recommended setting to block Chrome Web Store

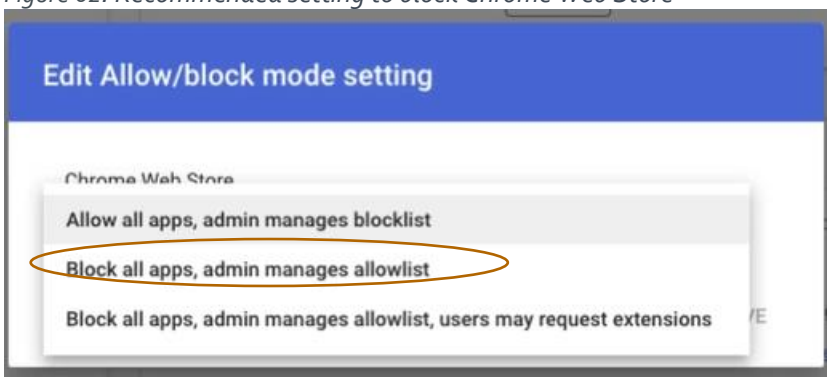
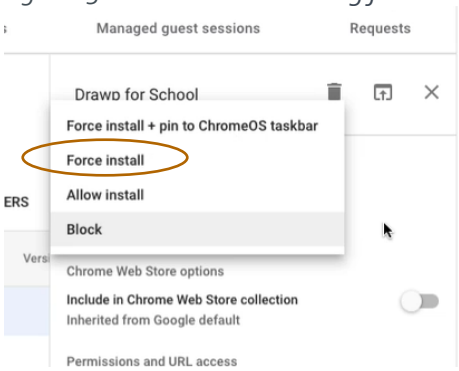


Figure 63: Recommended setting for Force install of browser extensions



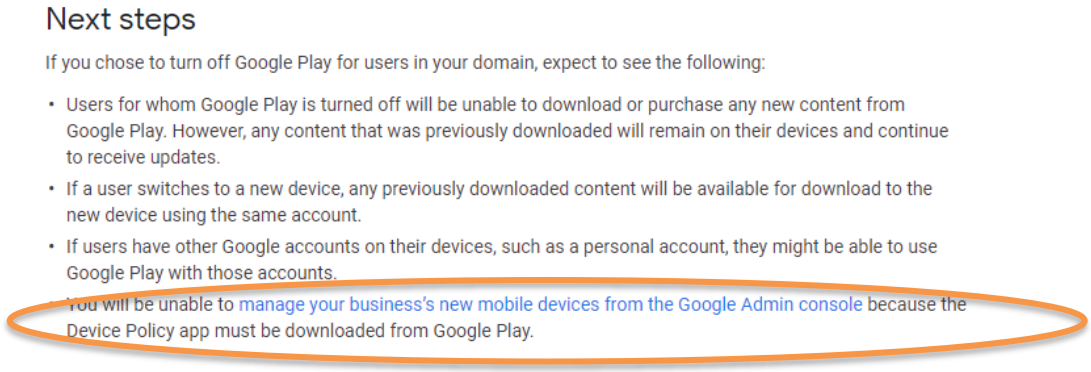
As described in the Workspace DPIA there are serious disadvantages for schools when they disable access to the Play Store. As Google explained to admins in public guidance:

> "*If you chose to turn off Google Play for end users in your domain, expect to see the following: (...)You will be unable to manage your business's new mobile devices from the Google Admin console because the Device Policy app must be downloaded from Google Play.*"

Google changed the contents of this undated page, and the quoted sentence was removed.[90] A screenshot of the original explanation is provided in Figure 64 below.

[90] Google Workspace Admin Help, Turn Google Play on or off for end users, under 'Next steps', URL: https://support.google.com/a/answer/7080240?hl=en The original quote can still be verified through the Internet Archive, at URL: https://web.archive.org/web/20210304171638/https://support.google.com/a/answer/7080240?hl=en

Figure 64: historical content on Google's public documentation about Google Play



Next steps

If you chose to turn off Google Play for users in your domain, expect to see the following:

- Users for whom Google Play is turned off will be unable to download or purchase any new content from Google Play. However, any content that was previously downloaded will remain on their devices and continue to receive updates.
- If a user switches to a new device, any previously downloaded content will be available for download to the new device using the same account.
- If users have other Google accounts on their devices, such as a personal account, they might be able to use Google Play with those accounts.
- You will be unable to manage your business's new mobile devices from the Google Admin console because the Device Policy app must be downloaded from Google Play.

Google describes in its Privacy Policy the personal data it collects about the use of the Play Store:

"*The information we collect includes unique identifiers, browser type and settings, device type and settings, operating system, mobile network information including carrier name and phone number, and application version number. We also collect information about the interaction of your apps, browsers, and devices with our services, including IP address, crash reports, system activity, and the date, time, and referrer URL of your request.*

We collect this information when a Google service on your device contacts our servers — for example, when you install an app from the Play Store or when a service checks for automatic updates. If you're using an Android device with Google apps, your device periodically contacts Google servers to provide information about your device and connection to our services. This information includes things like your device type, carrier name, crash reports, and which apps you've installed."[91]

6.2 Technical findings

For the purpose of this DPIA, three specific apps were installed from the Play Store:

1. WRTS Study Languages & Vocabulary
2. ABC I learn to read
3. Squla

Privacy Company observed two types of network traffic related to the Play Store. The data that is being send directly by Play Store software installed on ChromeOS is send with certificate pinning enabled. This traffic can't be decrypted by the mitmproxy software without alterations to the Play Store software. When the traffic was analysed for one of the two logged-in test users, in total almost 5.000 outgoing data requests were observed, all to Google domains. The highlighted row 8 in Table 7 below shows that 150 of these requests were sent to play.google.com. The use of the URL https://play.google.com/log indicates with the word 'log' that these outgoing requests are not functional requests, to for example install an app. Such a request would be followed by an answer, but that is not the case with these requests. These requests appear to be part of a (separate) logging functionality.

Table 7: Top 10 outgoing requests signed-in test user

No.	Domain	Amount
1.	docs.google.com	457
2.	fonts.gstatic.com	430

[91] Google general Privacy Policy.

3.	ssl.gstatic.com	405
4.	www.google.com	388
5.	lh3.googleusercontent.com	229
6.	drive-thirdparty.googleusercontent.com	175
7.	www.gstatic.com	168
8.	play.google.com	150
9.	meet.google.com	147
10.	mail.google.com	123
	Total intercepted requests first test user	**4.927**

Docs.google.com receives most of the outgoing traffic request. This is logical because Google uses this domain for the core tested Workspace applications (such as docs, spreadsheet, presentation). Additionally, the first time Google Docs is used, Google tries to cache large parts of the applications resources in the browser, causing a lot of outgoing requests. Similarly, the requests to meet and mail.google.com were a logical result of the test scenarios.

The second, third and seventh row describe outgoing requests to the gstatic.com domain, a place where Google stores static content like images and fonts. Google acts as an (independent) data controller for Google Fonts and Google Play. With regard to the fonts, Google explains: "*Requests to the Google Fonts Web API are made to resource-specific domains, such as fonts.googleapis.com or fonts.gstatic.com. Font requests are separate from and don't contain any credentials sent to google.com while using other Google services that are authenticated, such as Gmail. (…) IP addresses are not logged or stored on Google's servers and are not analyzed for any purpose. The Google Fonts Web API logs details of the HTTP requests (requested URL, user agent, and referrer).*"[92]

Outgoing traffic to google.com is due to the sign-in, as well as the use of Gmail (google.com/mail), and advertisements (google.com/ads/measurement)

The domains lh3.googleusercontent.com and drive-thirdparty.googleusercontent.com contain static content such as images stored by the user in his or her personal storage space, including user avatars and icons of apps downloaded from the Play Store, but also all 'third party' public icons of file types such as 'spreadsheet'. Many of these outgoing requests were caused by the many screenshots made during the tests, which were synced to Google Drive.

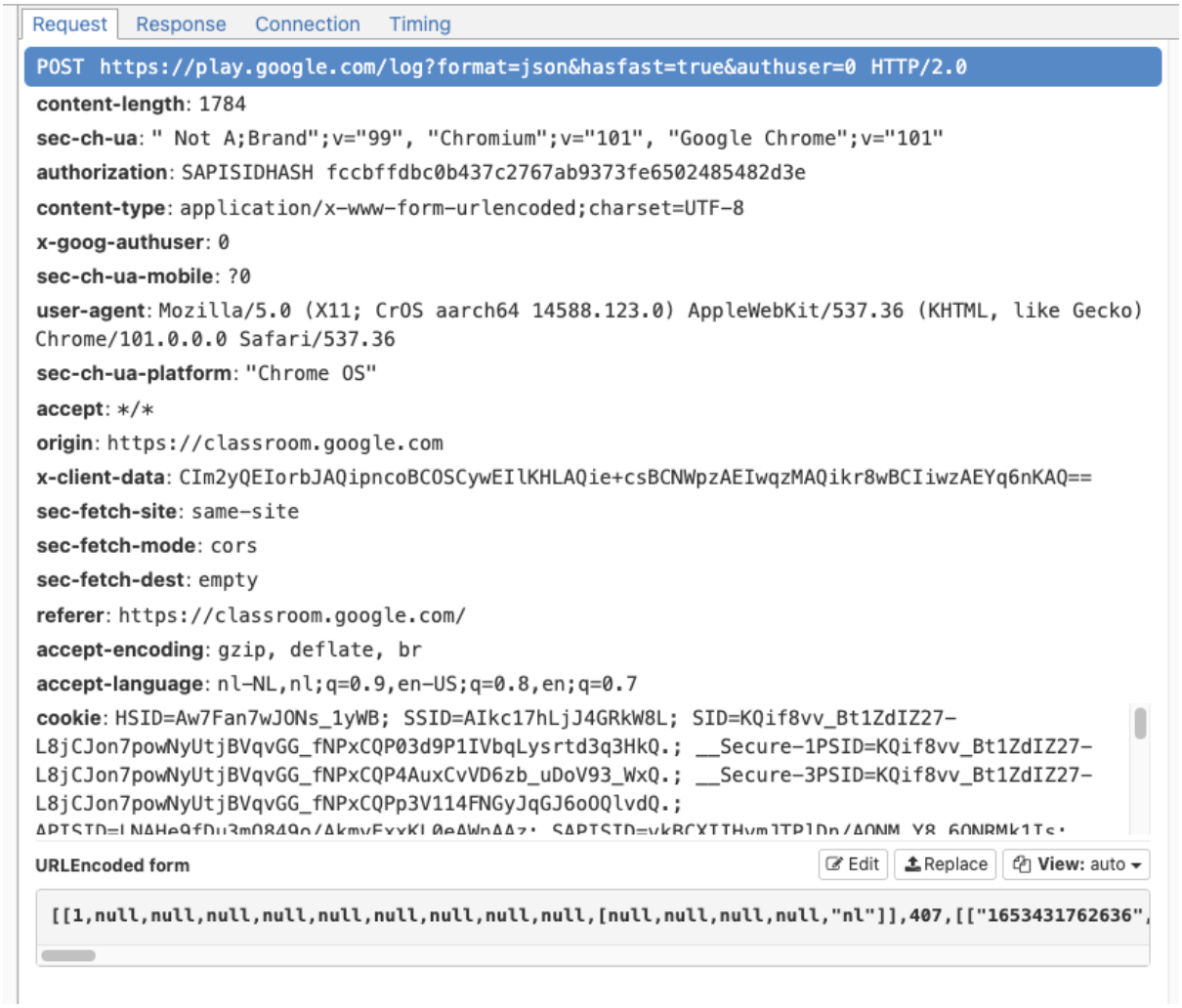
Data being send by other applications to Play Store online services can be observed. However the data is encoded in a format that Privacy Company was not able to understand. The data is being send in combination with SID and HSID cookies that contain encrypted versions of the Google account ID. Privacy Company was not able to link this data to any data received through any of the data access procedures.

The traffic to https://chrome.google.com/webstore (the Chrome Webstore) is different from the observed log traffic to play.google.com. The Chrome webstore uses Google Analytics to collect logs about installed extensions, while other applications such as Workspace apps use play.google.com to log information about use. In other words, the domain play.google.com has a dual functionality: both

[92] Google, Privacy and Data Collection, What does using the Google Fonts Web API mean for the privacy of my users, URL: https://developers.google.com/fonts/faq/privacy.

as an app store, and as a collection point for log information about the use of Workspace and other apps.

Figure 65: Outgoing request to Play Store logging functionality



The request contains form data sent to play.google.com. Privacy Company has used all commonly available conversion tools,[93] but has not been able to understand the meaning of these data. The format is unknown.

[[1,null,null,null,null,null,null,null,null,null,[null,null,null,null,"nl"]],407,[["1653431762636",null,[],null,null,null,null,"[265,1653431762635000,\"!b2ylbCHNAAZ4vKt9WLxCWaYQP4JPcE07ACkAIwj8Rl7Rbl-v9zf19BFDB8tLmsZxDKsz6CCfPXRxbVTcrsyaxwtIQgIAAAI6UgAAABZoAQeZBBEF9tsirRccCVL6-lKDQaFBMzXLQ6PrxdENADuxtPIgnLgkJ9nwyp4gcD2aWOgtBfQon801giJkLiDWsEs3t4pR7FZ211wB2ZlK7EDVJdYdJaMxCTucTU71J-XO2s060-9i1I2LLMSkdTf8KZt5_jiliR6RW8o6NBNWMhjTX4WWCtOrtnM0v78titYOSfaL1VvfkCPj8MnmpXN5rCBU95piOG_0R8RF4b7kM7pJ-MqK-2pkzDbUeoraX6QiA8t582E_ndoiiEenZ5Sm_Blg0pB9MkA-CgwNuHU3-neClsbP1T-TDNl7Blx0S-NeC5okajopVkeBtwngsOHSezeaAOKRO9xhtWAp3J5X_OllmFeedW1d5x6wuM5nuYEQoC4_AHMeRmLpjU-ko_6hAwlgrNx7EHFSoeyZgeT0mkohpr6Rmeoat7CJhnMEcrKAR5ati2_oU6ERoVDhDpdc2idyJvu8d2pNIJAKkRZnW8j4rTkzsn7UKfzHHmO9wj-_bgN-eQjDN7gX7s4Yqcs-

[93] For example Cyberchef, URL: https://gchq.github.io/CyberChef/.

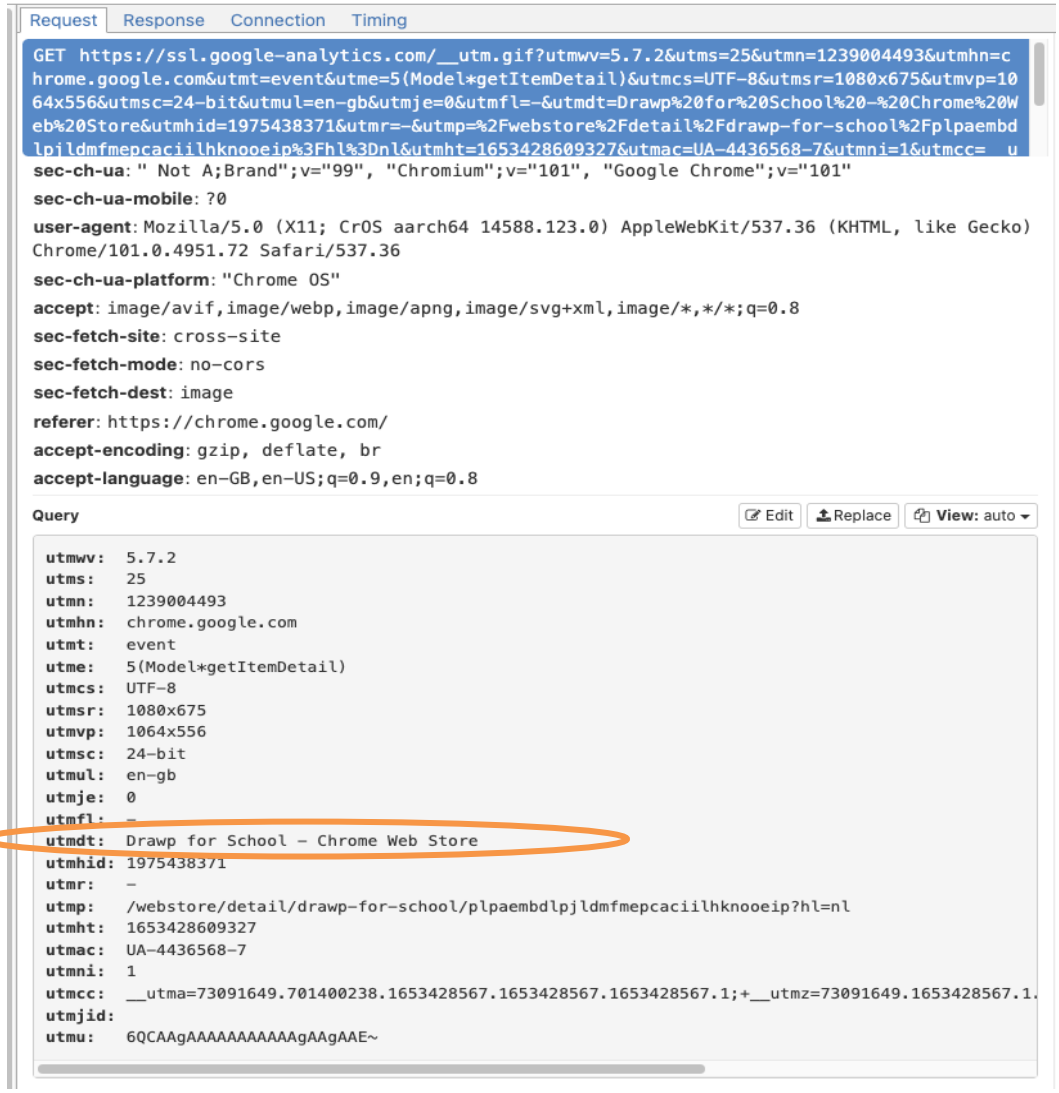
VvpjMCVZ9Qd8LUU5G2mg7s5AWdg8SUJthzscZBsrHAIr6cXpVTiFASxbM0hUvW_sKtR_CMpv8RDj7A1Zl5WE-vzjbD7DytkcQINaXwN5Cg3q6pBPMHIeVHS7OlTpngx6ugQT_8eqI2Cbgkt5-1h1Cl4wOlEqCLAWzoamcKhwu3SEyec9i8gLxBr8FF22oAfvycEQfLbY_IIVtTX8isYDVwA5g5oivTVQX7aCgneVhKcEcp3gehr5ULesjIv1cimmoWtZoRh15w07smWsO-N_ztBrquB5cqRmol3mKhpY_p5OIXrxnNBgR373UmVcZ53E-K0BPe4ojoZLRL2frrSnCXEz_Vhc6U2zyqAPFGV5tlL7tdtKzMJKIlxcc3ZHWYUL7JFydh2PfXIY8pNJFEWRBcJ6cSmHohE3vvxNxlBvpQgqbeWwsF1TiGuRmuNEe4BamniusNhZtatsH9uTJ3dmXvzRa_UF4lE5NtyOOh7me4owBagHioAIenzRK_4S1e5XDdi1Myh1G0dj8-Tahob7CDgz6VTxHGvBngnmVSX60lTywD833i5_jg4kgXIbVxqYQVARQRY4cHYAHh22OjoY6SnTDnR3c7U6NmJIsv3p8PGN5NZsOZ7jjNwMRaZIil8KQviMoQ3y6KyQ5rDtjrk8t-RD3ucX1iXEsAUBmZYitVK4N3dy4iIjBcvsg0XUdR8Ry9ESxUsxaMYNwZeL6Ij5Xg15uBbmAEPGj-kcMYMTxCh9WcYfV0SUZoOSVc2hvxxiYSFxmlYgiNoaWMpPMtBrYRfEg4u8RwC7cNAl8yptPHzykIWmjzB6M6_ChVKTGuJN3ZzxGp8o5rIM4h6BSz4ljjXQqPL56ts\",1573961099,false]",null,null,null,null,null,null,-7200,null,null,null,null,[],2,null,null,null,null,null,[]]],"1653431762637",[]]:

Additionally the browser plugin Drawp was installed from the Chrome Web Store.

As described in Section 1 of this report, Google did not provide sufficient information collected by the Chrome browser and ChromeOS, including device information from the Chromebook with Android apps that accessed the Play Store and the Chrome Store.

As shown in Figure 58 below, Google collects many analytical data about the use of the Chrome Web Store.

Figure 66: Google Analytics data collection on Chrome webstore



The request contains unique identifiers. They may relate to the user or the device, or be an identifier of the Chrome Web Store: Google did not explain.

6.3 Assessment

Google provided little information about the data it processes when a user downloads an app from the Play Store. Only if the school admin had enabled Takeout, against the recommendations of SIVON[94], a student could get access to information such as the names of installed apps with a timestamp and name of the device. As described in Section 1, Google has become a data processor for the domain-wide TakeOut, and for the individual TakeOut. However, that does not change anything to the (limited) output from these tools regarding these two app stores.

Google did not provide personal data about the interactions with the Play Store and the Chrome Web Store in response to the data subject access request, and not under the further agreements and NDA that were concluded between Privacy Company and Google before the testing took place. In discussions about missing data from the DSAR that Google did provide under NDA, Google pointed out that [**Confidential**]. However, this is not a valid exception in the GDPR on the obligation to

[94] As explained above, when Privacy Company tested Google acted as data controller for Takeout, not as a data processor.

provide access to data subjects. (see also Section 1 of this report with the assessment of the results of the data subject access request).

Google also does not publish technical documentation about the factual data processing through its Play and Chrome app stores.[95] Though Google mentions broad examples of possible processing in its general legal documents and Chrome whitepaper, these non-limitative descriptions do not provide the data controllers with the necessary insights in the factual data processing. Without such detailed descriptions, the schools as data controllers cannot comply with their obligation under articles 13 and 14 of the GDPR.

School administrators can choose to enable the *Managed* Play Store. In a Managed Play Store, students only have access to a limited list of school-approved apps.[96] This reduces the risk of data processing by apps that are not considered compliant or trusted by the schools. However, as described above, Google acts as data controller for all data in the general Play Store and for the Diagnostic Data about the use of the managed Play Store. Google is not willing to offer an option to schools in the Netherlands to conclude a complete data processor agreement for the use of the Managed Play Store, only for the use of the Content Data.[97]

In its public documentation on the Managed Play Store Google refers to standard Android Enterprise terms, which directly link to the Managed Play Agreement.[98] These terms only describe a role as processor for Google for the Content Data ("*Customer Data*") provided by customers, not for any of other personal data Google processes about observed behaviour and the usage of the services. Privacy Company asked Google on 3 August 2022 for clarification. Though Google confirmed it had received the question and committed to answer, it did not do so. A reminder was sent on 31 August 2022. Google confirmed receipt of the reminder, but to date did not provide any additional information. Google only repeated: " *Managed Google Play, which is the service that allows an organization to configure how its users interact with Google Play and apps, is currently a data processor product with respect to user-generated data*."

Conclusions

Google acts as an independent data controller for the general Play Store and the Chrome Webstore, and for many relevant personal data in the Managed Play Store. Google does not provide sufficient information about the processed personal data in reply to a DSAR, nor in publicly available documentation. The lack of transparency, and the lack of purpose limitation, result in a lack of control for the schools and universities. As data controllers, they cannot gain a clear insight in the personal data processing by Google when using the app stores. Schools cannot engage Google as a data processor for the general Play Store at all, and only for a minor set of data in the Managed Play Store. Therefore schools must continue to block access to the Google Play Store and all other *Additional Services* belonging to Google Workspace, as well as to the Chrome webstore. If schools wish to enable

[95] Google states in its second review on this report (22 February 2023) that documentation about Play is available in legal documents, such as the Play Terms of Service and the Managed Play Enterprise Agreement, as well as the Data Processing Agreement for Managed Play, as well as its general consumer Privacy Policy, Terms of Service and Chrome Web Store Terms of Service. Google also refers to one paragraph about Installed Applications and Extensions in its Chrome Whitepaper, at URL: https://www.google.com/chrome/privacy/whitepaper.html#installedapps.

[96] Obviously, if access to *.google domains is not blocked on the school network, students can also choose to install additional apps from the standard Play Store with their personal account, for example, on an Android phone. This type of data processing is out of scope of this report, as Google acts as data controller for the subsequent data processing.

[97] Google, Android Enterprise Data Processing and Security Terms, version May 2022, URL: https://www.android.com/enterprise/data-protection/terms/, URL last visited 29 June 2023.

[98] https://www.android.com/enterprise/terms/. URL last visited 29 June 2023 .

students to use selected allowed apps, they must distribute these apps via their own network. For browser extensions they can apply Force install, without users having to visit the Chrome webstore.

6.4 Remedies

Issue	Recommended mitigating measures schools	Mitigating measures taken by Google
DSAR results incomplete	Continue to block access to the Chrome Web Store and the (managed) Google Play Store.	Google has not announced any measures.
	Use the guidance from SIVON to inform students how to request access with the school, and with Google	Commitment to do an individual assessment of each DSAR
Lack of purpose limitation (Managed) Play Store and Chrome Webstore	Disable access to all *Additional Services* in Workspace, including the (managed) Play Store and the Chrome Webstore. If schools wish to enable students to use selected allowed apps, they must distribute these apps via their own network. For browser extensions they can apply Force install, without users having to visit the Chrome webstore.	Google has not announced any measures.
Lack of transparency	Continue to block access to the Chrome Web Store and the (managed) Google Play Store	Google has not announced any measures.
No valid ground for transfer of personal data to the USA	Continue to block access to the Chrome Web Store and the (managed) Google Play Store.	In the future: possibly rely on a new adequacy decision for the USA for the transfer of all personal data.

Appendix 1 - example of telemetry event


```
{
 "request": {
 "@os": "cros",
 "@updater": "chrome",
 "acceptformat": "crx3",
 "app": [
 {
 "accept_locale": "NL500000",
 "appid": "obedbbhbpmojnkanicioggnmelmoomoc",
 "brand": "LEAO",
 "cohort": "1:s6f:",
 "cohorthint": "Auto",
 "enabled": true,
 "ping": {
  "ping_freshness": "{f8bc7457-b685-476e-9fd9-c327238a9182}",
  "rd": 5621
 },
 "updatecheck": {},
 "version": "0.0.0.0"
 },
 {
 "appid": "lmelglejhemejginpboagddgdfbepgmp",
 "brand": "LEAO",
 "cohort": "1:lwl:",
 "cohorthint": "Auto",
 "enabled": true,
 "packages": {
  "package": [
  {
   "fp": "1.7e232b96b1c7578a83f96e1da1617aa42032a2c83249016f0cfdc8bf6ae2817a"
  }
  ]
 },
 "ping": {
  "ping_freshness": "{aca9ff9f-9656-4287-a9ba-c4de0401570a}",
  "rd": 5621
 },
 "updatecheck": {},
 "version": "331"
 },
 {
 "appid": "llkgjffcdpffmhiakmfcdcblohccpfmo",
 "brand": "LEAO",
 "cohort": "1::",
 "enabled": true,
 "packages": {
  "package": [
```

```
 {
  "fp": "1.ab8d70a60ce0fba1355fad4edab88fd4d1bccc566b230998180183d1d776992b"
 }
 ]
},
"ping": {
 "ping_freshness": "{53adc0ad-4d83-4f23-bea0-9fa0e040e424}",
 "rd": 5621
},
"updatecheck": {},
"version": "1.0.0.13"
},
{
"appid": "gcmjkmgdlgnkkcocmoeiminaijmmjnii",
"brand": "LEAO",
"cohort": "1:bm1:15ir@0.01",
"cohorthint": "M54AndUp",
"enabled": true,
"packages": {
 "package": [
 {
  "fp": "1.53b83738fad69a9f3db36848834a1d5003880033cae857eadfc37d3802dfcb8c"
 }
 ]
},
"ping": {
 "ping_freshness": "{9d08fcd7-5478-4981-8516-0342659f21ec}",
 "rd": 5621
},
"updatecheck": {},
"version": "9.35.0"
},
{
"appid": "dhlpobdgcjafebgbbhjdnapejmpkgiie",
"brand": "LEAO",
"cohort": "1:z9x:",
"cohorthint": "Auto",
"enabled": true,
"packages": {
 "package": [
 {
  "fp": "1.0c24e9bd976adffa987e08fc54dc0950c84cf18f9cdb4c5caabc6acf24887c4f"
 }
 ]
},
"ping": {
 "ping_freshness": "{dc769e75-fb88-4285-a210-cfc0ed7d83a6}",
 "rd": 5621
},
"updatecheck": {},
"version": "20220505"
```

```
},
{
"appid": "khaoiebndkojlmppeemjhbpbandiljpe",
"brand": "LEAO",
"cohort": "1:cux:",
"cohorthint": "Auto",
"enabled": true,
"packages": {
 "package": [
 {
  "fp": "1.ceb1b04b94c02b88ddb93b325097308bea486af07647b1153ed2a07845053e9d"
 }
 ]
},
"ping": {
 "ping_freshness": "{99287e02-45a0-4ec7-a73e-f5b0428b9c4e}",
 "rd": 5621
},
"tag": "default",
"updatecheck": {},
"version": "50"
},
{
"appid": "giekcmmlnklenlaomppkphknjmnnpneh",
"brand": "LEAO",
"cohort": "1:j5l:",
"cohorthint": "Auto",
"enabled": true,
"packages": {
 "package": [
 {
  "fp": "1.fd515ec0dc30d25a09641b8b83729234bc50f4511e35ce17d24fd996252eaace"
 }
 ]
},
"ping": {
 "ping_freshness": "{2d007017-a942-4984-bb7a-11daac49f2f8}",
 "rd": 5621
},
"updatecheck": {},
"version": "7"
},
{
"appid": "ggkkehgbnfjpeggfpleeakpidbkibbmn",
"brand": "LEAO",
"cohort": "1:ut9:",
"cohorthint": "M80AndAbove",
"enabled": true,
"packages": {
 "package": [
 {
```

```
  "fp": "1.5d5c833beaac6d34279ab33de6e30b72442f0ef461ed77fdece3e41162113a3b"
 }
 ]
},
"ping": {
 "ping_freshness": "{4ecb828c-2d0b-4e18-a3db-07e09b6f32c3}",
 "rd": 5621
},
"updatecheck": {},
"version": "2022.5.9.1141"
},
{
"appid": "jflookgnkcckhobaglndicnbbgbonegd",
"brand": "LEAO",
"cohort": "1:s7x:",
"cohorthint": "Auto",
"enabled": true,
"packages": {
 "package": [
 {
  "fp": "1.244dd54bf05bc6d5846229fab4d310d90ef9981df38c7e5c0248dd58e4f4c80c"
 }
 ]
},
"ping": {
 "ping_freshness": "{a7e2ef34-b447-4f62-83c9-98516cb48cf1}",
 "rd": 5621
},
"updatecheck": {},
"version": "2818"
},
{
"appid": "ghiclnejioiofblmbphpgbhaojnkempa",
"brand": "LEAO",
"cohort": "1:u89:",
"cohorthint": "Auto",
"enabled": true,
"packages": {
 "package": [
 {
  "fp": "1.7d3877e316c2768e8b73b05402bb100dd6f9d028c35dc7534da305434a95fe4c"
 }
 ]
},
"ping": {
 "ping_freshness": "{9bfe43af-2687-4f65-8666-9f03aa41a414}",
 "rd": 5621
},
"targetversionprefix": "20210201.1$",
"updatecheck": {},
"version": "20210201.1"
```

```
},
{
"appid": "imefjhfbkmcmebodilednhmaccmincoa",
"brand": "LEAO",
"cohort": "1:zor:",
"cohorthint": "Auto",
"enabled": true,
"packages": {
 "package": [
 {
  "fp": "1.b2a78ac928cac320f63d1d3a30cbe178b8eee34ad2fdd15bff783bd87e4cd32e"
 }
 ]
},
"ping": {
 "ping_freshness": "{961636bd-713d-492f-aa34-a9097a53b1b3}",
 "rd": 5621
},
"tag": "default",
"updatecheck": {},
"version": "27.8"
},
{
"appid": "efniojlnjndmcbiieegkicadnoecjjef",
"brand": "LEAO",
"cohort": "1:1339:",
"cohorthint": "M98 and below",
"enabled": true,
"packages": {
 "package": [
 {
  "fp": "1.e68c7956e34dd20dee2e0f6750d6be6731a86610e9f86fb2d48a7c884af756d0"
 }
 ]
},
"ping": {
 "ping_freshness": "{d6a5a98a-e659-4896-863c-d7ce187ae043}",
 "rd": 5621
},
"updatecheck": {},
"version": "159"
},
{
"appid": "laoigpblnllgcgjnjnllmfolckpjlhki",
"brand": "LEAO",
"cohort": "1:10zr:",
"cohorthint": "Auto",
"enabled": true,
"packages": {
 "package": [
 {
```

```
  "fp": "1.29661be65c8fb50d3d4df2fe040a1cc6dd525f50a95850aae6a191301c3de744"
 }
 ]
},
"ping": {
 "ping_freshness": "{2133ea0b-12c5-4761-8810-f24ccd7bbe27}",
 "rd": 5621
},
"updatecheck": {},
"version": "1.0.7.1652906823"
},
{
"appid": "pdafiollngonhoadbmdoemagnfpdphbe",
"brand": "LEAO",
"cohort": "1:vz3:",
"cohorthint": "Auto",
"enabled": true,
"packages": {
 "package": [
 {
  "fp": "1.54b93e249d02a0f9061e8f70866d4668a0260db9ae43483810ab78f97f3eaa2a"
 }
 ]
},
"ping": {
 "ping_freshness": "{868369d3-88df-47f3-8814-82e6c2581e8a}",
 "rd": 5621
},
"updatecheck": {},
"version": "2021.8.17.1300"
},
{
"appid": "ojhpjlocmbogdgmfpkhlaaeamibhnphh",
"brand": "LEAO",
"cohort": "1:w0x:",
"cohorthint": "Auto",
"enabled": true,
"packages": {
 "package": [
 {
  "fp": "1.478aa915e78878e332a0b4bb4d2a6fb67ff1c7f7b62fe906f47095ba5ae112d0"
 }
 ]
},
"ping": {
 "ping_freshness": "{f3643d37-55b8-4ff4-8e39-ae7837f6852a}",
 "rd": 5621
},
"updatecheck": {},
"version": "1"
},
```

```
{
"appid": "jamhcnnkihinmdlkakkaopbjbbcngflc",
"brand": "LEAO",
"cohort": "1:wvr:",
"cohorthint": "Auto",
"enabled": true,
"packages": {
 "package": [
 {
  "fp": "1.49e47cf0ae4b872ac05999ae7aedd84e3fb0155d68d02098876ff42d23814bf6"
 }
 ]
},
"ping": {
 "ping_freshness": "{9f049e3d-bb58-4a6a-8806-744c51fb4cf8}",
 "rd": 5621
},
"updatecheck": {},
"version": "104.0.5080.0"
},
{
"appid": "eeigpngbgcognadeebkilcpcaedhellh",
"brand": "LEAO",
"cohort": "1:w59:",
"cohorthint": "Auto",
"enabled": true,
"packages": {
 "package": [
 {
  "fp": "1.c64c9c1008f3ba5f6e18b3ca524bc98dcd8acfae0a2720a8f1f3ef0f8d643d05"
 }
 ]
},
"ping": {
 "ping_freshness": "{fbddaf0e-7660-4ca0-a262-31d33148e9a0}",
 "rd": 5621
},
"updatecheck": {},
"version": "2020.11.2.164946"
},
{
"_internal_experimental_sets": "false",
"_v2_format_plz": "true",
"appid": "gonpemdgkjcecdgbnaabipppbmgfggbe",
"brand": "LEAO",
"cohort": "1:z1x:",
"cohorthint": "General release",
"enabled": true,
"packages": {
 "package": [
 {
```

```
    "fp": "1.c51d23bc0653142853b0d9dc8ba00f504aaae8a2a5b290e539b8790d88c0dcbe"
   }
   ]
  },
  "ping": {
   "ping_freshness": "{41ac91e8-86a6-4265-8fa1-1ee78fbf9c67}",
   "rd": 5621
  },
  "updatecheck": {},
  "version": "2022.2.15.1"
  }
 ],
 "arch": "arm",
 "dedup": "cr",
 "hw": {
  "avx": false,
  "physmemory": 4,
  "sse": false,
  "sse2": false,
  "sse3": false,
  "sse41": false,
  "sse42": false,
  "ssse3": false
 },
 "ismachine": false,
 "lang": "nl",
 "nacl_arch": "arm",
 "os": {
  "arch": "aarch64",
  "platform": "ChromeOS",
  "version": "14588.123.0"
 },
 "prodversion": "101.0.4951.72",
 "protocol": "3.1",
 "requestid": "{3a3b5155-1867-4495-9822-7a127d8f7ee5}",
 "sessionid": "{e99a7543-825f-482b-b7dc-3dca3ca60f4f}",
 "updaterversion": "101.0.4951.72"
 }
}
```

Appendix 2 – Essential Chrome Services

Essential Services (Google data processor)

ChromeOS services

Enterprise Management

- Enrollment / Device Verification: Enterprise Enrollment is a process that marks a device as belonging to a particular organization and enforces the device policies admins set in the Google Admin console.
- Policy Management: Policy Management allows admins to push policies and settings to their devices or their managed Google Account (Chrome profile).
- User & Device Reporting: User & Device Reporting allows admins to see insights about the ChromeOS devices in their organization.
- Kiosk Mode: Kiosk mode is a session that runs a single Chrome/ Android app, after admins enroll a ChromeOS device into an organization and turn on Kiosk mode.
- Managed Guest Sessions: With managed guest sessions, multiple users can share the same ChromeOS devices without having to sign in to their Google Account.

Workspace

- Google Drive Syncing: Google Drive Syncing allows you to easily access files stored on Google Drive directly on your Chromebook.

Device Service

- Location Service: Location Service on Chromebook estimates a user's geolocation based on a combination of nearby WiFi access points and/or IP addresses assigned to Chromebooks. This is then used for tasks such as setting timezones, providing websites in the correct language, and alerting users to possible unauthorized log-ins.

User Services

- Spell-Check (Basic): Spell check helps you review and correct your spelling on your devices. You can check for spelling errors on your computer when you enter text into input fields on the web.
- Application Platform Metrics: Application Platform Metrics collects pseudonymous ChromeOS app usage.
- Calculator: The Calculator app provides you with simple calculation functions on ChromeOS devices.
- Camera app: A built-in camera app to provide high-quality camera experiences across the ChromeOS ecosystem.
- Canvas app: A built-in drawing app for Chromebooks users to express themselves, play around, and grow as artists.
- Cursive app: A built-in notebook app for Chromebooks to provide an experience that matches paper's speed and latency.

Chrome browser services

User Services

- Translate: When you come across a page written in a language you don't understand, you can use Google Translate to translate the page.
- Chrome Sync: Chrome Sync saves your bookmarks, history, passwords and other settings to your Google Account, so that you can easily log-into other devices without needing to recalibrate the browser from scratch.
- Safe Browsing: SafeBrowsing helps protect you against known phishing, social engineering, malware, unwanted software, malicious ads, intrusive ads, and abusive websites or extensions with DP-compliant hash-based URL detection. Google plans to make client-side detection and other advanced SafeBrowsing features data processor-compliant after August 2023.
- Safe Sites: Safe Sites uses Safe Search API to inspect URLs users attempt to visit for explicit content (the content of the webpage itself is not transferred and analysed by Google).

Update Service

- Chrome Update: Chrome Update ensures that the latest version of Chrome is distributed to you, with the latest security updates and protections.
- Chrome Variations: Chrome Variations is the Chrome experimentation framework used to roll out or roll back a feature and to ensure it's working as intended.
- ChromeOS and Chrome browser shared services
- User Metrics: User Metrics sends usage statistics to Google.
- Crash Reports: Crash Reports are used by Google to identify and prioritize fixes for Chrome.

Appendix 3 – File listing of takeout request

Path	Filename	Size	Sha256 hash
./Takeout	archive_browser.html	855.78 KiB	b732e5454c784d1080b1a36b54b47fb87aef0272c37767d743c3f177d3e779fe
./Takeout/Maps/Requests for services	Requests for services.json	1.00 B	01ba4719c80b6fe911b091a7c05124b64eeece964e09c058ef8f9805daca546b
./Takeout/Maps/Electric vehicle settings	Electric vehicle settings.json	37.00 B	37627d68d0b073d9bbc0336c4a5d865f2664e91cb9b7e026264ff932aae02021
./Takeout/Maps/Added dishes, products, activities	Added dishes, products, activities.json	25.00 B	c83c101528fdb2480aef7ccbe2df5a03aca4e7563974 0b67ca2a3f9097fa9fe9
./Takeout/Maps/Questions and answers	Questions and answers.json	75.00 B	7b3ecf16898e553b69bf2663969c5ae46f6c3caa52fd863caecb1c93000cb903
./Takeout/My Activity/YouTube	My Activity.html	139.39 KiB	d6da4599e3d1d12fbc5dc113f7da7da16f9b3c0644e6f072577403f9cc7d6506
./Takeout/My Activity/Drive	My Activity.html	141.12 KiB	24c8ddbfc28df9cd9602b67fdb3d75dd16fc355e16f82d8deca5c983bd3ceeef
./Takeout/My Activity/Takeout	My Activity.html	143.11 KiB	2554216b5754ede49f3509874f79576dd51c4fbd6d5a4dc4c115930a9566e1a3
./Takeout/Calendar	floor@cnsede-test.nl.ics	184.00 B	d6ac33339d3d2a81036ad972e2d0ee96b5de7f2cbc14d5842ce86ec8ec0b8a44
./Takeout/Calendar	Werkstukken Levensbeschouwing.ics	617.00 B	314373707332f98544c8c5752dd26f98819e57d1f93be132122721018c9789b0
./Takeout/Hangouts	Hangouts.json	25.00 B	fd192be5ae256207f6bd7354564181f211cd970e22c44574bcdb3b0d53553721
./Takeout/Access log activity	Activities , A list of Google services accessed by.csv	533.80 KiB	a1813edeba0c7dc75134b0590228346d64cd1b7a02c837be7fac378c5b07173a
./Takeout/Access log activity	Devices , A list of devices (i.e. Nest, Pixel, iPh.csv	353.00 B	f9176183c16b2cc16956594e0702f51b329c86957e37110f6f280ea74267dd34
./Takeout/Google Account	floor@cnsede-test.nl.SubscriberInfo.html	11.87 KiB	76eb4e24c24ebb3a84385e16cd3dc9158e7d3f9bd7fa1a3d3ed5d6c735746a8b

./Takeout/Google Workspace Marketplace	README	379.00 B	a80e20ea9217e86115f3df9e5c1f76b38036b56a2eaf23180ed92d93d82ffafd
./Takeout/Google Business Profile	businessPersonalization.json	3.00 B	8eb95bcbc15453093 1e15fc418c8b1fe9910956714095520 99ea1aa596999ede
./Takeout/Google Business Profile/account-106310593005654752941	data.json	100.00 B	51d7f6ed8c56fdf04673a5c78b8b9c0f649fc86c7a48374cc928b868a956a5af
./Takeout/Mail	All mail Including Spam and Trash.mbox	6.48 MiB	12f286c0fc96a3deedfc2dba150bd3972662f0ed6bf374e7cbbc46234a55af88
./Takeout/Contacts/All Contacts	All Contacts.vcf	914.00 B	a5946657fbc404248909f87ba83e93fa7477891d66344438c7a4e076f5750a63
./Takeout/Contacts/Starred in Android	Starred in Android.vcf	0.00 B	e3b0c44298fc1c149afbf4c8996fb92427ae41e4649b934ca495991b7852b855
./Takeout/Google Shopping/Collection Point	Collection Point.txt	33.00 B	16a21d43ec3a4bc2b3dfa428582cfcefe0c8b85b38a617121cf9170b988e6d53
./Takeout/Google Shopping/Merchant Reviews	Merchant Reviews.txt	34.00 B	9f6180fd6f22236685e95641b250ba106c63fe3f0c480ce5d49827416c6235f8
./Takeout/Google Shopping/Order Preferred Contact Emails	Order Preferred Contact Emails.txt	21.00 B	532917ba5cfc0b86e4644fc27eaf3d10fff4db8baa06de26f3583469b7573740
./Takeout/Google Shopping/Loyalty	Loyalty.txt	40.00 B	44fe219be8fd1e7eb2e8387a0701c5909332c1903953ee06c2f42916ece529a9
./Takeout/Google Shopping/Addresses	Addresses.txt	33.00 B	16a21d43ec3a4bc2b3dfa428582cfcefe0c8b85b38a617121cf9170b988e6d53
./Takeout/Google Shopping/Product Reviews	Product Reviews.txt	34.00 B	9f6180fd6f22236685e95641b250ba106c63fe3f0c480ce5d49827416c6235f8
./Takeout/Google Shopping/Orders	Orders.txt	0.00 B	e3b0c44298fc1c149afbf4c8996fb92427ae41e4649b934ca495991b7852b855
./Takeout/Google Shopping/Person Collecting	Person Collecting.txt	33.00 B	16a21d43ec3a4bc2b3dfa428582cfcefe0c8b85b38a617121cf9170b988e6d53

./Takeout/Home App	HomeApp.json	43.00 B	8e88ae0bff979a142e989131c3f901e9734b93d76d0a2d45585500447189002
./Takeout/Home App	HomeHistory.json	3.00 B	8eb95bcbc15453093 1e15fc418c8b1fe99109567140955 2099ea1aa596999ede
./Takeout/Home App	GoogleNestConnect.json	54.00 B	8734a4047d581a3277ff93164e4b8df5aa655718oc281990a0b3d9513f41ecao
./Takeout/Home App	SoundSensing.json	46.00 B	556abad90f1b14cee24b76fd3e3d023e10d82254365f4811176079ae75438b3b
./Takeout/Home App	GoogleNestPartnerConnections.json	66.00 B	5188689334fab9f413e8a31365ffa39ebc3afd6a0ec3df207e75a06bbaaf3095
./Takeout/Home App	SecurityAlarmClips.json	55.00 B	aef023b9de0e311aa4f8c1f2dd73821cb68e592a9ae79eedc860845dc86659a3
./Takeout/Google Play Movies _ TV	Notification Preferences.json	2.00 B	44136fa355b3678a1146ad16f7e8649e94fb4fc21fe77e8310c060f61caaff8a
./Takeout/Google Play Movies _ TV	Streaming Services.json	2.00 B	44136fa355b3678a1146ad16f7e8649e94fb4fc21fe77e8310c060f61caaff8a
./Takeout/Google Play Movies _ TV	Watchlist.json	2.00 B	44136fa355b3678a1146ad16f7e8649e94fb4fc21fe77e8310c060f61caaff8a
./Takeout/Google Play Movies _ TV	Ratings.json	2.00 B	44136fa355b3678a1146ad16f7e8649e94fb4fc21fe77e8310c060f61caaff8a
./Takeout/Google Play Movies _ TV	Linked Services.json	2.00 B	44136fa355b3678a1146ad16f7e8649e94fb4fc21fe77e8310c060f61caaff8a
./Takeout/Google Play Store	Installs.json	2.32 KiB	bbbefa9360661832253a2a9bafd8eb3b01316184068c6e40e72320891a46c9c5
./Takeout/Google Play Store	Library.json	516.00 B	3f789665f85c6f607e16977d14e8974a64e722c8a0da214d36b9a5e9469d48ea
./Takeout/Google Play Store	Devices.json	1.48 KiB	e582256d0e7a4504a296858a77debbf965be7dd44e72a7d3a63273e87d28c4fa
./Takeout/Classroom/Classes/Werkstukken	Class data.json	4.81 KiB	8b6e9e6b49e463feb44da28d7647de95c97a9172abb298487cf991f99eca266b
./Takeout/Google Pay/Saved items including loyalty _ gift cards	Loyalty Gift Cards and Offers.pdf	68.92 KiB	f6c8b922165aabb887cb5fd7554cd400cf99b7c8f530e5534c8a49f673b13816

./Takeout/Google Pay/Money remittances and requests	Money remittances and requests.csv	67.00 B	633f2663629146 9be849d6f342bd1ff3c1c20ea5b99385a1962b0a4c620c9645
./Takeout/Profile	Profile.json	139.00 B	3e5c8893ebed5ebb772840048 0ad7f631f12bc20438f99d38272f1973e0f39b4
./Takeout/News	magazines.txt	0.00 B	e3b0c44298fc1c149afbf4c8996fb92427ae41e4649b934ca495991b7852b855
./Takeout/News	followed_sources.txt	0.00 B	e3b0c44298fc1c149afbf4c8996fb92427ae41e4649b934ca495991b7852b855
./Takeout/News	followed_topics.txt	0.00 B	e3b0c44298fc1c149afbf4c8996fb92427ae41e4649b934ca495991b7852b855
./Takeout/News	followed_locations.txt	0.00 B	e3b0c44298fc1c149afbf4c8996fb92427ae41e4649b934ca495991b7852b855
./Takeout/News	articles.txt	0.00 B	e3b0c44298fc1c149afbf4c8996fb92427ae41e4649b934ca495991b7852b855
./Takeout/Chrome	Autofill.json	30.00 B	369d33ad5d9e28b808ae7cd3a45f6c11022a722c417ccd5ecc2aca4ab17ab571
./Takeout/Chrome	BrowserHistory.json	29.00 B	48ebfb17143bb8edd4e84256e828188934839f3b9b604c379c3984ec5fa8c1bb
./Takeout/Chrome	SearchEngines.json	7.09 KiB	dad7265180d93a47b10311029a5dc63755c56bf1e3e82617a07a2ecd6b3ac3d1
./Takeout/Chrome	SyncSettings.json	4.79 KiB	fd71685c3e8324fb20aab48658bd2868f473b673369a7a280be0595dc9852b8a
./Takeout/Chrome	Bookmarks.html	800.00 B	83c24f0b103a4dcd2f7b8dcc61e5af05ac97f682ffb0e2d4af8ec64cd12f233c
./Takeout/Chrome	Extensions.json	54.00 B	e89a0d4ac9efdc8c19e82821b653c2b150be4cd413e7157c59d698426786fe33
./Takeout/Chrome	Dictionary.csv	0.00 B	e3b0c44298fc1c149afbf4c8996fb92427ae41e4649b934ca495991b7852b855
./Takeout/Drive	DSAR status.xlsx	20.33 KiB	a72befe72a47f4acc48c84ea7f6faca9b965bf2d0dbbb82f4dbe5efce6d6e84f

./Takeout/Drive	Screenshot 2022-09-09 15.55.06.png	321.65 KiB	67206cc1a058b9929f87d1058223c9d47503a69750b5a00fb30b699709be5b83
./Takeout/Drive	bmj-jcru-kfr - 25 feb. 2022.pdf	87.33 KiB	c45f9cc797ef073efcf3c6290355efe9bbb1ac01f09a28cf0c581056977a653f
./Takeout/Drive/screenshots	Screenshot 2022-02-25 11.17.34.png	876.31 KiB	c87e90f1fe9a41372dfb20b026d6d73ecfd438259e09265a8db0a4cab403ecf1
./Takeout/Drive/screenshots	Screenshot 2022-02-25 11.20.49.png	575.05 KiB	87c7e4bfbbc2c73343651 50a7fe2ce9f7bf45e26401e8d847777301a1821eefe
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.41.12.png	371.00 KiB	b725806c82891cd585cd7ca4671b5197feddf9a41c0ddf2861acc088eaf0f4fe
./Takeout/Drive/screenshots	Screenshot 2022-02-25 11.10.14.png	212.61 KiB	18caac5b8d33cbc33d6a9f32153007af22da53864a6ff2e00b91503c5e531d87
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.43.17.png	368.29 KiB	a03d338614e10f025bfc4f5a97410 06e5eedebac6775de4a826601657019e4e
./Takeout/Drive/screenshots	Screenshot 2022-03-01 13.10.19.png	696.97 KiB	19809d4a6b07a2f6c3259bcab8e4b623447240odd3951b9fbcba635d62d09cff
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.20.03.png	2.63 MiB	ecda950256od46b38603f30bb5640a2fa34c710826330 5c703d220790322bf1f
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.40.50.png	368.34 KiB	3db0f16e5d4aca4ed2fc0c71a43c684899d046ea2010f6278da431f3fa4e3ab2
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.54.25.png	306.22 KiB	b32267306dcdc946c7337a0df4f49038d28d02989d886cc76d670271c4603ec8
./Takeout/Drive/screenshots	Screenshot 2022-02-25 11.19.26.png	484.93 KiB	f4fd8919f47a52370d91b71722b4281d21b1f89b0037d8963908bde71ef6948a
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.09.40.png	154.97 KiB	b4f450879cf8517ae0aff0317e432d1172715253e2d608b8eab6ab07d3622da7
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.46.19.png	279.58 KiB	3af7cbc82cf2aa2787b8566387061983ba4359e3c360e0911957c4aa254487e9

./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.46.30.png	285.75 KiB	d05fa7d9e65725a0cdea5ebf9475bc61db2b792539cb4897a5ee82125b2899c4
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.44.35.png	305.48 KiB	1137405f42b1fcef368ec21e9f4edf2253ec1ff4e5a2f15af8e27400821edacd
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.08.15.png	144.63 KiB	9eed66929b6ffc4448e4299bf732227c6e9c44ce94e38ec6c2d2d0f4197206f9
./Takeout/Drive/screenshots	Screenshot 2022-02-25 11.21.37.png	1.02 MiB	785dabfa446dcac9286b63fc5534de4ec19dfbc5aa09e116dda34e2bd2f8f20b
./Takeout/Drive/screenshots	Screenshot 2022-03-01 13.18.52.png	146.21 KiB	d57b8d8ce8b574056cd437d626609299b302a11d7be80dcf638aeb536764fdc5
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.58.35.png	280.46 KiB	8c78bed7bcf5040df784a9f87ea567f3dc9b0a704b2d72a0a8a523aed074cfe7
./Takeout/Drive/screenshots	Screenshot 2022-02-25 11.23.37.png	95.04 KiB	ce75c7ffbfc093ee9370bde50289487b51ef50ad7f2618c262d3771c60757c28
./Takeout/Drive/screenshots	bio-voortplanting (1).png	61.08 KiB	611781f584ddc9cbf5223a67da075e6f307fa3a0b57e059b17d23debe702eed4
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.48.30.png	344.27 KiB	6d6ac87adecf05860d15a4cf2a8eac54b70b0c0ed9e31650f678fb6d148e5bdd
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.44.18.png	265.22 KiB	58a05a9877d026e49aade8b8241266d6d05c9a874b24e08f846fd8e29e9351f2
./Takeout/Drive/screenshots	Screenshot 2022-02-25 11.21.26.png	427.08 KiB	a219f7f16aa173cc8929fc6538205f1597376e81101417986ffa25a7b4cbf0c0
./Takeout/Drive/screenshots	Screenshot 2022-02-25 09.38.59.png	174.54 KiB	85f0a45ee04e66b20a5c115b5022c1fc39784e7ccca3f6c437c511aaead0b00c
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.29.23.png	169.77 KiB	3a7e9f659ecbc8ff3cc85a07cf0553c8478d6e4e7b9e32444f01499f3114caef
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.54.37.png	118.64 KiB	5927b0ee349ab563b9c5a01e0422658151b9c47cf1b4b595f0b60b3a1ace3603

./Takeout/Drive/screenshots	Screenshot 2022-02-25 11.10.04.png	165.65 KiB	2d46e87773dea2baab614599af174d0d81bc2f4a58af76c357ba190e404546a9
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.16.06.png	876.95 KiB	b6fa3e45bf1f07bd7e1b3236b55e2cbbd0f100fc36d47b51eb534f5f26902e50
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.09.46.png	370.60 KiB	df6c57657e89bd61cfe92155a8369b2d9acedc9fc8fda9d4f6849b856d6f8ebe
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.31.56.png	278.70 KiB	b428c4e4f3d2bdb246ef6dd8521fa6e3dfaa3c0a8ae4e716e30a354787e18978
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.42.47.png	300.13 KiB	0cb376a834615d557d68714997ed63d53e80c2f1aa349aceb835a77076cc4485
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.51.06.png	277.67 KiB	b638d080495a8dbb06b935fe8cc08b708249e2dcd4ee8e8cccf16bc625514a65
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.09.53.png	294.53 KiB	290ddeeb35c5c90a8a0abfbac34f491ca8992f67387e278b0340425245d62400
./Takeout/Drive/screenshots	Screenshot 2022-03-01 13.17.29.png	145.15 KiB	4a690b92780c0c8272719485b963b3fd5f83ee95601aaba931e6c75ddb572541
./Takeout/Drive/screenshots	Screenshot 2022-03-01 13.09.01.png	271.19 KiB	d544786f7ffaa48f10a122d11cb0bca3cbf22cbdf69005f9f76bb9eb139d70dd
./Takeout/Drive/screenshots	Screenshot 2022-03-01 13.14.23.png	225.05 KiB	2b3c07276fd15ec5d6edf61e7c049a1bc31b66ff2280152835 59c8ea8adec5be
./Takeout/Drive/screenshots	Screenshot 2022-02-25 11.13.27.png	217.77 KiB	565249edc1759fc0bc2f4ff8f130347c0395343a7dc70f5bb51bbc92146d2d43
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.39.40.png	729.72 KiB	c46c8d92ed5bee8128509328eb977039d30827fa9a39157e5eb9c65af3eda6a9
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.52.24.png	265.32 KiB	994c1da753b1a3f0796929dde1a7e87cdeee10c7f66b4a5d4142af1703c542de
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.48.40.png	252.75 KiB	b58280f407b24fc535e2a5521a45d80953c90695e059123cc5ab3bf31f49e5ab

./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.51.49.png	235.42 KiB	6e520d533d1c804d60bfb4793b78d8fd5c0d99e33b5afdc9704712c99fb49169
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.10.28.png	233.12 KiB	275b0902a0d08f8c3f8a0ba2f01a8fb4655a238bd2151b53753bb86b3720a23f
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.42.20.png	329.91 KiB	a73a273c4789e2ddc01c21fa30ee8ceb41f07e5115f5e080df35a2faf28165f7
./Takeout/Drive/screenshots	Screenshot 2022-03-01 13.18.22.png	174.24 KiB	86a2c3dc9596e13aea4bb0d7ef2cd9f382d4002ee4a9e0d0ec640e3ee1a62ebb
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.21.20.png	143.72 KiB	9fcfe6e70c2d7533f90781f9662635b02900e1b0f0bfc0ed6084e04d248228e6
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.39.55.png	199.67 KiB	bb0e70abf21a67caaf427052bf66958718e31c1f88a79e9aaeb1d2dd45a352a5
./Takeout/Drive/screenshots	Screenshot 2022-03-01 13.10.46.png	224.18 KiB	62ee4a6c3ffd84b2c25719f6ae00bab1ae3b740c7f5d54b3198a3bc8674db2a2
./Takeout/Drive/screenshots	Screenshot 2022-03-01 13.26.45.png	548.11 KiB	fc64d1cf04ff8bc7d93c233d1709d792d24ef7f5fa4eeaac566d86e010e46373
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.54.46.png	118.03 KiB	f748474a595708f95a5aae91f70f83c511b69f89a4ae89555a5dc11b6d93cf09
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.44.57.png	255.26 KiB	cbbe9911958968cc198421d1b4eabdde316a057afc385a1a1ce8a276b8b6ccb7
./Takeout/Drive/screenshots	Screenshot 2022-02-25 11.20.29.png	201.13 KiB	b11e846349cf25cb5b0e34dd2db769b7b771f292a7cf871df33fe5ed045d8efb
./Takeout/Drive/screenshots	Screenshot 2022-02-25 11.16.14.png	876.78 KiB	56aa1da051f4270f76c4e6afb1caac60373a307cd9032bba063694c37a96be88
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.10.17.png	344.75 KiB	ca2965d5c322f2bde32cba8f1d157e5669656c6fb77e8ef47c9cb29fd95a6d3c
./Takeout/Drive/screenshots	Screenshot 2022-02-28 16.04.16.png	2.54 MiB	d66f1570e24b3632733e29658957e035d13db22706bea730ea5ba646fcec4483

./Takeout/Drive/screenshots	Screenshot 2022-02-25 11.17.55.png	1.05 MiB	0c3d7d0e6570b026cacd27cfcb3316fb521191177417ed3d724b6e45bc893239
./Takeout/Drive/screenshots	Screenshot 2022-02-25 11.14.38.png	350.60 KiB	edc06e90975ca28159807d7166b92e6f686b7f2c36880dbf17b973494e4fec93
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.12.06.png	278.08 KiB	1b9587e11aee3ef77214a10a0aa622800085f6461a5b45926372f582229d9198
./Takeout/Drive/screenshots	Screenshot 2022-03-01 13.13.10.png	258.76 KiB	51a80863317779d929cb04968cc9294bbfa325a643eafod1fcbc8fae696c228f
./Takeout/Drive/screenshots	Screenshot 2022-02-25 11.21.44.png	953.14 KiB	de32a3062f82e0156bcfeaed861d11ba493cbc8292d173096def333c32712666
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.47.03.png	279.38 KiB	e77bb1c495658f9a5a1e8394f0e2f6288edd86d29d0d1894678521e6a10b1b93
./Takeout/Drive/screenshots	Screenshot 2022-02-25 09.26.11.png	361.04 KiB	fd700ab624a565e00b5e4a9bd17f150eabc000521 64b2a82cbe6f2ad686bea5
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.57.12.png	234.85 KiB	a6ab959d7d5874825cce0f6e1bed99e696d85613f8b50381f8d426464c73fffe
./Takeout/Drive/screenshots	Screenshot 2022-02-25 11.03.24.png	303.38 KiB	4ab423ca32da6ec023b47c98c39cca8d113ae41840f8de91270c291387f6c094
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.07.37.png	377.19 KiB	2a0aaeb3263978743c274aa90e9088b413a0f887e373c70cdcfb3d41c662f877
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.31.22.png	218.43 KiB	9c5a1df12a0220b1ca90a947ec9ec609e0463f3c20e0c845784f126a649beb5a
./Takeout/Drive/screenshots	Screenshot 2022-03-01 13.11.01.png	222.35 KiB	e158b00382483ba2673a176f9b4796e6a8cafae516f27feff15d6af797d466f2
./Takeout/Drive/screenshots	Screenshot 2022-02-25 11.16.05.png	229.42 KiB	faa25bbf182ef11afb0ead987eac2bc501ebfddcf7b71b432625268ddf5c50f1
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.42.27.png	328.91 KiB	f2b93df93fd07a99f7f5301dbba428ae135dd21f7ffa704f39ce6e600adc80bc

./Takeout/Drive/screenshots	Screenshot 2022-02-25 11.18.15.png	379.46 KiB	e6d9c79dd61bbb79a8404f3fcba0b062c7895051408 13e724b1dc4a3ba06312c
./Takeout/Drive/screenshots	Screenshot 2022-03-01 13.16.21.png	910.74 KiB	a1e2de3414fb5d6d4a7544762855537 2e4bb2a72cf68c6c524a2fb6d200d3b0a
./Takeout/Drive/screenshots	Screenshot 2022-03-01 13.11.14.png	182.47 KiB	f46108ccdf0a1ff0ea448530397389852 95eca42beb1d76775d5124c2628f29e
./Takeout/Drive/screenshots	Screenshot 2022-03-01 13.26.55.png	557.88 KiB	1a6e4e38d78e375d4e12fb82406e48c9e434ca84f25b584de66db250c593b8fb
./Takeout/Drive/screenshots	Screenshot 2022-02-25 11.21.51.png	983.86 KiB	7b95d0d20abe41290e3a27dcf2eb5b46dbc94803f8b0cf9f7091f65d5f1b1640
./Takeout/Drive/screenshots	Screenshot 2022-02-25 11.22.02.png	1016.54 KiB	d95fc58d674f4827c00d1c93d8ef4f5a281cfa4dffd6ee9e0ab63d8a06c1c3f2
./Takeout/Drive/screenshots	Screenshot 2022-03-01 13.10.56.png	189.69 KiB	892c2f1baa64be838a04f70ac8610a6b240c2bc5e161956ac63baeab903a5e53
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.16.59.png	819.00 KiB	e0ae617e6e77ffca303302e90e266bea9d39023d865bd3a88b61bbe910808451
./Takeout/Drive/screenshots	Screenshot 2022-02-25 11.20.07.png	179.37 KiB	7a7b4a9cac2bf12d9f4464b54e008c7cfa6e7e50bc613e28c7fa435ce03d1138
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.31.35.png	143.83 KiB	4a4f06c383d410105ae7bd50f84a811ef1d66ddd2cc0faf704709332bfac04e1
./Takeout/Drive/screenshots	Screenshot 2022-02-25 11.18.03.png	245.12 KiB	5f502976b01b9b7285df97760875bb9381ffebd08f363098dab452fd8176ae9c
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.45.04.png	137.37 KiB	e463272078db18a81eda40ac9a016ab7ce5ed6097382e83c086f707dcacaef41
./Takeout/Drive/screenshots	Screenshot 2022-03-01 13.18.33.png	140.05 KiB	cb1f838ef515875df4df02c104439a364af1149e8a59c34a562e6e475166f81b
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.32.59.png	275.27 KiB	db6e3733afe1266c6520b0373e157bdfccd60d81afcf3f17dc26e760d3f88870

./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.59.01.png	438.89 KiB	2ebe48a7f57546e0fbe54247ff9e9f5c6ceb22b86571384797cf9d610b4a9a70
./Takeout/Drive/screenshots	Screenshot 2022-02-25 11.17.47.png	1.23 MiB	94a8294a18311b5f0cb6186680a9dab76436000b6458993021f9dfe38018e5f7
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.23.08.png	146.09 KiB	611842c7aadb08f42f4269bd7ac831e9be365e9f8acd5d10a98ba706ae76ea92
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.20.40.png	199.45 KiB	19db29777fab62daa12eb30db392boea82758793dd3e6131c973fd55ecd2104f
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.40.39.png	349.66 KiB	bc4e99deff4b82fce3c7ab6f3df02963298b551bf283bff7d3f46801713f6ae6
./Takeout/Drive/screenshots	bio-voortplanting.png	61.08 KiB	611781f584ddc9cbf5223a67da075e6f307fa3a0b57e059b17d23debe702eed4
./Takeout/Drive/screenshots	Screenshot 2022-02-25 09.24.27.png	183.73 KiB	bd7106b9923d22057342b0270e1fb16759ffd85fa392d418b7b58bffc8949b44
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.21.00.png	207.98 KiB	44058b8b4079e5bdd7f523cd9606af9168b8372989d9f5d784e93192845fab84
./Takeout/Drive/screenshots	Screenshot 2022-02-25 11.24.47.png	112.78 KiB	13447b87e64731518757e0d8d7e631db4c1d5d383d2eca4bcaa9078f4c78ee95
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.42.00.png	486.72 KiB	b530efd3ce7368db08cc671e8670aa47e2808b8ee4b495fa915cc2affc7409f1
./Takeout/Drive/screenshots	Screenshot 2022-02-25 11.02.43.png	128.57 KiB	5d87c66e28862db751360554d1e0088a58ffcd3fea40a98cc05f2f3b76190c07
./Takeout/Drive/screenshots	Screenshot 2022-03-01 13.11.27.png	200.43 KiB	d771a2acc940b241bcdd79487fbfa146dfcc951a2c2ab8d1c3f82798f6534518
./Takeout/Drive/screenshots	Screenshot 2022-03-01 13.16.06.png	229.97 KiB	0bf314de6f135daf66b57a0daf033c43d3b22e6d46c286baa08aac9d2b20d662
./Takeout/Drive/screenshots	Screenshot 2022-03-01 13.20.13.png	948.54 KiB	a4f383afc0ebfad9cd6eeaa208c2485d0126ffd7c8a812132282c721f761c569

./Takeout/Drive/screenshots	Screenshot 2022-02-25 11.20.36.png	684.64 KiB	e4e64e479cbf7052232956e8aa21bda78e9fcadeb02eefb614ca304d93c7925f
./Takeout/Drive/screenshots	Screenshot 2022-03-01 13.13.20.png	454.21 KiB	94815e71db8ee2433d182addcaea2e2200ed6eaf13ab514f44c32e8c088240ee
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.49.36.png	304.99 KiB	e224169d2a8d4d63fdefadda2386e73f368214bcab14080ef50c62fadb5d2b71
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.15.13.png	1.07 MiB	bfc575b4fd73e9d1f90cb93064cc49c7d00e9c26935d225ae4512d60f55c78d8
./Takeout/Drive/screenshots	Screenshot 2022-03-01 13.19.41.png	154.94 KiB	edf59291580f7609761e6ab52139149e2306f3a2f46d228c0ba38013bdf2c1e8
./Takeout/Drive/screenshots	Screenshot 2022-03-01 13.17.50.png	266.08 KiB	75ab853da9fd8ad23eddf1f2765f08c87daf7f1d46c0a426131686cbf2a7ec6b
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.18.47.png	258.50 KiB	8126f94fcb37466a53dcac412662fd4c1cb2170a81d91fc5ffc765476c730072
./Takeout/Drive/screenshots	Screenshot 2022-02-25 11.01.11.png	145.20 KiB	52eea02e01aad816d00fafda8b43199d1d816b8b86abf3083db9f353a3b7ac27
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.41.52.png	447.48 KiB	41d6d32cf9eb4df2a1ecf83b4fcce534acebf467390d754111620256d2fc110b
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.22.46.png	341.13 KiB	a6fc5e7850fc5cba80241d281288e54b7180cc5da1d545d6331ee6b48abe12dd
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.45.22.png	267.69 KiB	8b441a77811c36bbe86f03e372bfbe4e9957c0e875054c7347e90397b696bcff
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.17.17.png	274.92 KiB	2b49a2df70d0237c7db33d146082dd379f55d8f7a894cfafd11bdf83b40c809e
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.07.06.png	400.18 KiB	e097876824d87ea886130542cd5af203d3507ba1618640b2e7e8d04308314f8b
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.41.47.png	580.01 KiB	4a8aa16793604d0861dc621ed67297289a05155202d1f9dbbc44eae4087e8b53

./Takeout/Drive/screenshots	Screenshot 2022-03-01 13.15.40.png	218.61 KiB	38c29f9ef07b6e473eeab2bc9f51419d49536a91f44618f609589e9f6be3ecdb
./Takeout/Drive/screenshots	Screenshot 2022-02-25 09.24.31.png	278.22 KiB	4a793b9a25c26954efefddf60e099f79d162bfa10acb7b45e4475472340713c6
./Takeout/Drive/screenshots	Screenshot 2022-02-25 11.03.01.png	173.37 KiB	f78cb01ea6558502od1568e4d0fc1cd76d406c1cb4e8039dadf11b1a2dab8e83
./Takeout/Drive/screenshots	Screenshot 2022-03-01 13.22.15.png	555.92 KiB	cdc1714c08babb502415b6d49fe91c936a5fea4853223bc471e895c1bcdf6975
./Takeout/Drive/screenshots	Screenshot 2022-02-25 11.03.15.png	168.58 KiB	c179e3af350deb0ea6eba0431d721e1d8b7e5d31e9cc86d706de41074bc120a1
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.53.53.png	178.68 KiB	e60aaf8e2b26e02c5bfda8aa5e667aa0523a2b00789aaea3bd89c4d3ef5abb86
./Takeout/Drive/screenshots	Screenshot 2022-03-01 13.07.40.png	140.15 KiB	b55b76022520b3967c1b89d27a0688b30f0e45ac6c4a5691a1d22d2474818ac9
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.12.37.png	666.43 KiB	a59731198e7a0aba12911de3e2c8edce6d491fb06fbe6745bc97ba9213459cdd
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.18.42.png	91.65 KiB	72f4c932a1afad4785aa34b6cff7b43dea44e3093af97120f020f8497606a524
./Takeout/Drive/screenshots	Screenshot 2022-02-25 11.01.28.png	136.66 KiB	233e884277ab36e909b626cbc040d1386ea12ecb1d502d0f51e3266dc0cb922c
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.36.22.png	327.01 KiB	98ccb05695f041250bf083321ac617e13fbe92ff9f31669049d7cdfba54e23e3
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.42.07.png	446.50 KiB	04eba209f79da56f84e3339917232754c5567e36ea14f8a1ab0189d25ac7521c
./Takeout/Drive/screenshots	Screenshot 2022-03-01 13.11.09.png	183.94 KiB	51d3e5befc45804b6cb6e99c0b07d3c1c6bb912c7d84368d6e2c2ce88f43e086
./Takeout/Drive/screenshots	Screenshot 2022-03-01 13.11.21.png	178.57 KiB	a6d493efd29f673f138fdeda42cf750a74be4a7ff686871c396o866641ee15do

./Takeout/Drive/screenshots	Screenshot 2022-02-25 11.00.55.png	147.05 KiB	169b9ea1ac567f135eb3c2c171f6efa84702f9a3675a8535d5a10d2c53637 74e
./Takeout/Drive/screenshots	Screenshot 2022-03-01 13.21.55.png	969.86 KiB	c08b445297dd3ef98f180bd1b47d323626bcd46a50d10cea336b855734ba663a
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.33.13.png	285.57 KiB	0fc7a662a9298fe6276ee0fbbd26fcafe18dc147a8d1d8f71cad292c74b8bebf
./Takeout/Drive/screenshots	Screenshot 2022-03-01 13.07.45.png	192.77 KiB	32aca58e56f80cb9e8afc132a0dc80af076fd3811cde3920f5859f39db76998c
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.57.18.png	247.32 KiB	3138a6ea12e06f2fe85cc42919e9059f6f294f4c679fef1cf2c12686aaa4e79f
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.00.08.png	152.35 KiB	7bcbaa0046799917e40a895bdaea7647a9cc54308e88d6586bc5f45d9850e99c
./Takeout/Drive/screenshots	Screenshot 2022-02-25 11.18.36.png	717.39 KiB	46511a401d3a909628311a51b5a612d7ee7d182f413b52bcc43f07b814077ed6
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.19.00.png	274.18 KiB	1655c14bbe59d105ef486a9db847923f48255342414b5c9c03474d6ba6bfd228
./Takeout/Drive/screenshots	Screenshot 2022-02-25 11.02.53.png	150.80 KiB	facb514018b4a5af4f167d734e8c12c24bc5bf10fb356942982 0fa8b5730bb oc
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.52.15.png	712.14 KiB	41d5bacce0e688383049f8a10dcb83598a350089c193a1822a5db093a533ae95
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.46.48.png	279.12 KiB	ebefda7b67f34587d9ba7132378ba7baf9fed7eb6654a8a4faf594fd29e1cc92
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.55.34.png	130.63 KiB	6f4aa61f90de0f1ce579a596c1e7defe5fb993611c4f3ee1e20d4b5dc959d108
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.50.04.png	289.28 KiB	628cac68bcaa1b2b594af653ac179e9c5cf166a1089c450ea9aa7d414b921ba5
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.16.45.png	738.86 KiB	a44a3329c30c681a9f8e45cd2b4e48292b4fe324a0a8f38fb97046d006f1d3bb

./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.57.31.png	173.19 KiB	a0a9e0817c0f161080da2e10a5fccdca13169e888855adff085d92aa2af76ac3
./Takeout/Drive/screenshots	Screenshot 2022-03-01 13.17.43.png	336.18 KiB	f47b1162dc1a946faa2470b55621f39cc975bb9e8a45b44f3628df04249721c5
./Takeout/Drive/screenshots	Screenshot 2022-03-01 13.17.57.png	867.90 KiB	50a60fdb7865ccee83dc78684b8693df4a84c5ac1409c75160ce9eae35241d09
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.47.34.png	348.50 KiB	d8986769a66da3c20eb90bc09e562c75c638ddefc2a8d4bb862bf429a1a40056
./Takeout/Drive/screenshots	Screenshot 2022-03-01 13.13.40.png	171.40 KiB	7ebdeae6da031fd2b28115a63a6a1212901e6af9e3ece3f360404c40f471ec15
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.54.13.png	165.57 KiB	031cfa9325e83e37ba319053ee34df6d9e5e0b0b1d15130a80907d0c21fe9c1b
./Takeout/Drive/screenshots	Screenshot 2022-02-25 11.22.51.png	151.32 KiB	949fce0984fe4972b731180916b83529ceb8005ec173584544a7803007ff6d16
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.11.17.png	343.33 KiB	97bf6fae6755e66cf0a74eaafa6d77164f3a8f78cd5ad84dcd33b154698ac5b4
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.18.27.png	113.58 KiB	a1e84827587823b84f9d4068a6325e6b3dcfe1f7104c8a3520fc82a274fa7ba6
./Takeout/Drive/screenshots	Screenshot 2022-02-25 11.19.10.png	690.98 KiB	8cf6af5492fea614edc5d31cb853cecb897e5d70a7daa9895d22a9671fc3e546
./Takeout/Drive/screenshots	Screenshot 2022-03-01 13.15.09.png	222.74 KiB	435708dff47739faocb494dd4a44ab118e87f08f6fe6c76eaf77d6c84944b4b4
./Takeout/Drive/screenshots	Screenshot 2022-03-01 13.16.58.png	857.71 KiB	af6d03982526c213ebc58b6a8a8debac1d4580f347ed4c908ce1ab6c39283e2a
./Takeout/Drive/screenshots	Screenshot 2022-02-25 11.11.49.png	416.28 KiB	d9459568340b2006de2599ab90f2e93ac92bc8e6ae2df2e378e51ced82f432a4
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.55.52.png	519.11 KiB	85f84d2c20dba28f53c707370e80145c30c11ebee0731b0417e350d6a5dc9ace

./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.13.07.png	637.55 KiB	3a3df9ff1e609d1070e632d5613df994618268119f0caefc949ae3d97a9e4e54
./Takeout/Drive/screenshots	Screenshot 2022-02-25 11.12.18.png	381.72 KiB	a825eccb5b2fbb60e39a0c502b603715182db4ee6a318ce568649d6ff2a2b5da
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.57.43.png	136.82 KiB	7ef8e265da37da0db6044a11821f035aa0659315e9ff43513551b37eb62402d8
./Takeout/Drive/screenshots	Screenshot 2022-02-25 11.19.39.png	147.82 KiB	6c95be6776b1e959acd59264944f7c94d9ba22699f9bbf813bad5dfaf8501398
./Takeout/Drive/screenshots	Screenshot 2022-02-25 11.17.14.png	1.33 MiB	fe255ff0002e30c734b765daf973315779142741b7b2a479e2fe4a785ac52d26
./Takeout/Drive/screenshots	Screenshot 2022-03-01 13.19.08.png	897.23 KiB	0eebd1789192f0f661b8548924b1743a9459a21271737bff9d5c8f5b7710e97e
./Takeout/Drive/screenshots	Screenshot 2022-02-25 09.26.54.png	1.86 MiB	7f58813b4d8505c7f8f9b179387a311f31c88a1332d645cdc004bb1f5c59406d
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.12.53.png	1002.87 KiB	c5dfb87d66bce1404b5e976d5c3221e56c020500920f0f6b2dd33a8155b70dadf
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.34.43.png	147.23 KiB	9d4500339f4516b25e227d8366aa24d8eb6435a23c1f09e216d9b36107c71702
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.20.20.png	230.47 KiB	3e60bc4ce02ff3d2903087c69f18b6ed9646b4bf753073f54899ae3668c9623e
./Takeout/Drive/screenshots	Screenshot 2022-02-25 11.21.03.png	418.96 KiB	9bb65a5eab260525a5bf02ecd46808782a34a769d1cc15767fee079c9adefb77
./Takeout/Drive/screenshots	Screenshot 2022-03-01 13.07.36.png	87.19 KiB	9c0c01de81228927274b5f2ce4aaf765e27ddc9952a4c4e17d06c5373d85c440
./Takeout/Drive/screenshots	Screenshot 2022-02-25 11.14.53.png	137.66 KiB	1e8462f84bb878f9fcc01e3468a3db76de7a320fb0714643de124b603ca3f163
./Takeout/Drive/screenshots	Screenshot 2022-02-25 11.15.07.png	382.88 KiB	f4b40b365b6385113d66f33e89ab7d93f4c2fe87b0e84d8a975dc4af91b03752

./Takeout/Drive/screenshots	Screenshot 2022-02-25 11.18.46.png	721.84 KiB	edb2cc4346c2cf77e6e2f6141d83b0efa7bd57179213a2b388a35cb9f5a7c807
./Takeout/Drive/screenshots	Screenshot 2022-02-25 11.23.07.png	143.73 KiB	18caf52ac77ae722e231354f3d5b56e39f23abe73c5fca72f36841d7645c35fc
./Takeout/Drive/screenshots	Screenshot 2022-02-25 11.23.13.png	145.63 KiB	c1b30afa274949f51ddbf4e6b7ae5123540e7160480ab4ad74cc66127f1ea8a0
./Takeout/Drive/screenshots	Screenshot 2022-02-25 11.20.42.png	325.98 KiB	5deabdfa9b7977fdc8dbc1ffadc90d9fc258a8ba67e75e9c61736e11ca63646d
./Takeout/Drive/screenshots	Screenshot 2022-03-01 13.12.02.png	453.65 KiB	41e16e3c64a5644c7e3ff79a80704044134433b08d410839875c5a4ad7729bc5
./Takeout/Drive/screenshots	Screenshot 2022-02-25 11.22.43.png	708.31 KiB	eb652966ceac6a7b967d737b675fee95c88e3ae5d4eae32f1ab494163dd50751
./Takeout/Drive/screenshots	Screenshot 2022-02-25 11.22.57.png	151.31 KiB	5a7a71251534884b84bb5e4d5b73905a66037a6c9947554571270fee2edf0959
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.22.20.png	107.62 KiB	13ae08b801738d050d44f97c65bf96814 8e0cee7edd6b7dd2439f944f8cf05e0
./Takeout/Drive/screenshots	Screenshot 2022-02-25 11.16.53.png	1.33 MiB	db690975aaef61977695f6d7f2de30c847865bd69e01c8e6308b5184241b6cee
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.56.05.png	520.92 KiB	2b559c7daba8cc6937e0bf8d54311d8802ba7b1efa1a44842f0676cd26d427d5
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.41.21.png	357.88 KiB	8e4415a5c8b257a09cedfe2955f43865c4da63978ea035944a57867e2f2abb89
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.32.30.png	293.66 KiB	bba97ddc4b47ad8026cccae52e486221e1417430188318b9d9d31aa6826349dd
./Takeout/Drive/screenshots	Screenshot 2022-02-25 11.20.53.png	427.58 KiB	3bb10963c5416d808cab8ef92bb9d2c87555d0d6d28b111d0ba40a88dd96d225
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.05.59.png	116.54 KiB	7c39bc20734c50299f577d8474b3fadc13432be3a514e0ee063ca732c6213dae

./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.59.54.png	129.63 KiB	3b0836e17f21294dcee44b49fa5f171ae53828d4d85fba33478od5e5bb16ab63
./Takeout/Drive/screenshots	Screenshot 2022-02-25 11.19.03.png	624.10 KiB	7aa4d8f4e0f8ebc2847e4f8198afb427383f07b4896b2f7cdfba233f9f253bfd
./Takeout/Drive/screenshots	Screenshot 2022-02-25 11.04.46.png	558.37 KiB	0984879e58a40a4a7d1d8a25b961987cee6d145e50fb297555f4322aa58927a8
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.18.20.png	160.13 KiB	534ad2a2e4a990d13ca0422e5fdd78e9d2126056072910150730fa2a21911441
./Takeout/Drive/screenshots	Screenshot 2022-02-25 09.45.46.png	207.73 KiB	71e179086f9ff59de59fc083cc03a5e25021596f1225310f2447f93b0b881cdb
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.34.53.png	200.94 KiB	0e6c08b7983df2ab4b6eb648765ff9df8a6ffe8909505b11a7b6f82d29c87dd3
./Takeout/Drive/screenshots	Screenshot 2022-03-01 13.26.15.png	895.97 KiB	3ea0be1adde12035391923c94e585b61cfa39e83404d43264d3e0c233a42f974
./Takeout/Drive/screenshots	Screenshot 2022-03-01 13.10.28.png	233.75 KiB	a294d73ef7d3d0a4d81d8ad23636cb4e2c70f2d690c3970bd9ecdb8df45853f7
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.18.36.png	94.00 KiB	92ccf1410ccdb51afa5aa6efa89d657a5a8c05964a48230797231de830df65d4
./Takeout/Drive/screenshots	Screenshot 2022-03-01 13.12.11.png	456.50 KiB	3887c7812da550215cf63e165f2caod6166e3a7e1fceafc3c246ee2e4723ccf2
./Takeout/Drive/screenshots	Screenshot 2022-02-25 11.08.44.png	133.41 KiB	4c012eb07e9e260a8b5134180b08ae43601d3135d3407f6c80f75e6d2d82843e
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.25.02.png	314.89 KiB	4c5d3b2ca07ae82f1fb9a47b5ce5c1a374b3e14349fe0e626f86cfc82773fcf3
./Takeout/Drive/screenshots	Screenshot 2022-03-01 13.11.54.png	198.31 KiB	0987268db51513d583cdf70a48deefb18fda3a9ac3eea9a998b59c01da76dd62
./Takeout/Drive/screenshots	Screenshot 2022-02-25 11.23.28.png	110.94 KiB	fba368f54e10d7534f3364ef20688ecddf77dboedd3b75fd9716bf5cbbc610df

./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.45.53.png	282.29 KiB	32aab873a859a070ebd15f6e58553cob74b5d56be7395c35adccce98558d1fe8
./Takeout/Drive/screenshots	Screenshot 2022-03-01 13.18.59.png	896.43 KiB	9fc9e8681ed7b9bdec92b005716e6815775b9994cce547c450864e0ab6b60818
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.22.36.png	337.44 KiB	69db5ba77da8ac84bbdb50194263d0d53fb6bf71db68a825eecd446ffe9338fd
./Takeout/Drive/screenshots	Screenshot 2022-03-01 13.16.48.png	855.79 KiB	0c93758a4063c3e75800cd9f48c0fbcc0c2bf89ba31c7880e0ff83c452de40d9
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.41.36.png	360.43 KiB	a552048685 0e233d208371d37ededd14c19cf9c43d13cffce6914542440f482d
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.59.43.png	178.44 KiB	7a90b8f7241da7700b02d2fbe3aa74e6d628eb7fe4373bb4aea6f9ef1864d0af
./Takeout/Drive/screenshots	Screenshot 2022-02-25 10.24.43.png	148.10 KiB	380c6dce4cda5f0545d5f7a493e32c64c9a18dbf7c167872427f8c5c78eeecae
./Takeout/Drive/screenshots	Screenshot 2022-03-01 13.17.08.png	856.83 KiB	32f871045b4b92e1f19cb618c73a27c77ae9181be124abc901ebf0d13cefc020
./Takeout/Drive/screenshots/gast	Screenshot 2022-03-01 16.57.16.png	262.88 KiB	c6cb3e45224d0c95c29f5bee5f6564f260e6dd86f697d6089a4f8cdee5127bac
./Takeout/Drive/screenshots/gast	Screenshot 2022-03-01 16.59.06.png	210.94 KiB	58593d1d587c3a7982e1a6cf085b2ee2d5f51501ebbc6708628a57066719a8c6
./Takeout/Drive/screenshots/gast	Screenshot 2022-03-01 16.56.45.png	87.58 KiB	95ca7c128ae17a5a93a64cb243db8c8697dd58f7ae9f4a6373a1065f64c728a0
./Takeout/Drive/screenshots/gast	Screenshot 2022-03-01 16.54.42.png	413.48 KiB	308649ed0a61aaacf8ef9fa3dca473a5329001084111124cb91e6760d6f37446c
./Takeout/Drive/screenshots/gast	Screenshot 2022-03-01 16.55.03.png	358.01 KiB	e3c01f496de296b787b1b214fc5e9e093504fb13cebd8c122cb14c8f1cdaeee4
./Takeout/Drive/screenshots/gast	Screenshot 2022-03-01 16.39.35.png	83.97 KiB	25d5e14f2d531effb6396695728d1b79c1ceaf9f4cd73bf8c90633158d8834c5

./Takeout/Drive/screenshots/gast	Screenshot 2022-03-01 16.53.39.png	415.18 KiB	3f1e12474e07caf4847258359ob3d8e2384a3ad9d4665e7312869e401aeaf8a1
./Takeout/Drive/screenshots/gast	Screenshot 2022-03-01 16.52.45.png	447.29 KiB	8af344124c1709d7b611ec31d1380afcd7522b2143dfbadoba71c0e61d4c7bc0
./Takeout/Drive/screenshots/gast	Screenshot 2022-03-01 16.51.01.png	162.33 KiB	414ae9c58bb3980c13863a3cab71a45boe3b8e5cd0e2b3e11e037fb524a3d6cc
./Takeout/Drive/screenshots/gast	Screenshot 2022-03-01 16.53.38.png	411.53 KiB	6d3a0e7bc03ea440c1362482399f912e837cbc9993a9d2719ea577f7c9240c98
./Takeout/Drive/screenshots/gast	Screenshot 2022-03-01 16.54.25.png	439.63 KiB	0f0beb6e0faf59cdafd82f8b6d1db5167f78f3f82baff36e9efb1184c487f21b
./Takeout/Drive/screenshots/gast	Screenshot 2022-03-01 16.54.19.png	415.78 KiB	091e93b00e1a52ea1f18c5c1477060317a38140a81f62fb1d5007dd7ed236169
./Takeout/Drive/screenshots/gast	Screenshot 2022-03-01 16.56.19.png	180.70 KiB	7bef21fce139aa020bac3fba34482adf36ef8b749bdef3cd859f9bb28d428319
./Takeout/Drive/screenshots/gast	Screenshot 2022-03-01 16.49.59.png	142.37 KiB	1615792ba87548e1712c488320bec90d8b36ff0aebe465a8f4979c4bafe09752
./Takeout/Drive/screenshots/gast	Screenshot 2022-03-01 16.51.20.png	1.21 MiB	3c8cc293bcc5fc7120ab67a506354f2cbf846a073c21b361f3198ccode8bb7ea
./Takeout/Drive/screenshots/gast	Screenshot 2022-03-01 16.57.43.png	211.30 KiB	abe34eabe5681f38cb59eeee7dddba50b328837f95061f2fb3fc231590f72efd
./Takeout/Drive/screenshots/gast	Screenshot 2022-03-01 16.58.12.png	1.25 MiB	c8054a4acbbodf084e8e5f85990efddf9c893eb1350fca1a293ce0ea3dfc2372
./Takeout/Drive/screenshots/gast	Screenshot 2022-03-01 16.57.51.png	1.61 MiB	be7a1f48851da6a8a24e379149d4d6ac7338a1770bc69ff93acedf72f31f1853
./Takeout/Drive/screenshots/gast	Screenshot 2022-03-01 16.54.01.png	435.86 KiB	85c7f5a2c3f6760a6dce374ece574f0695e8f1c07f3e1f30479b8a22a81a235c
./Takeout/Drive/screenshots/gast	Screenshot 2022-03-01 16.57.36.png	198.91 KiB	8a10bb0dda2504512cc301427fab5927804638 4c53fb334802a0375560ec3462

./Takeout/Drive/screenshots/gast	Screenshot 2022-03-01 16.53.55.png	66.36 KiB	ad476b9a549a3bd92a8a19cd71f285cffdb17b7a035b9ab460acfd790a6d8515
./Takeout/Drive/screenshots/gast	Screenshot 2022-03-01 16.52.00.png	495.24 KiB	1ec2251b0743c1e05ba62fad68ecd4ca042a461bb608ecda1d5399221ee71610
./Takeout/Drive/screenshots/gast	Screenshot 2022-03-01 16.53.43.png	351.35 KiB	5b0be36092da486e75b8149685e28805f2114568dba35f1f8d6a4f34b8418d67
./Takeout/Drive/samenwerkmap werkstuk	Werkstuk Biologie Homoseksualiteit .pdf.html	466.00 B	feb4c04e0184c145ac0af3e307cfd76c742e02f1c72639f7addf44e86a05032b
./Takeout/Drive/samenwerkmap werkstuk	bio-voortplanting.png	61.08 KiB	611781f584ddc9cbf5223a67da075e6f307fa3a0b57e059b17d23debe702eed4
./Takeout/Drive/samenwerkmap werkstuk	Werkstuk Levensbeschouwing Homoseksualiteit .pdf	43.13 KiB	70bdd5aec6b3b308ac34e290f328dc7d10663b16a5416015c9d2aa067f3580a3
./Takeout/Drive/Classroom	Cijfers Werkstukken Levensbeschouwing 25-02-2022.xlsx	13.70 KiB	ff7e17159884f11a26cb0df94c60e1e308e6c4e719dded6178a40b28d7eb3250
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 21.50.38.png	139.20 KiB	0677c4bfb4c7fa8dc29b32817dc32dc5717998e2201c241825f87e1abbb84860
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 23.13.36.png	105.87 KiB	14dc64853183dc536e5493e2647da9f7be324722d6c130d3867191d25656of53
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 23.05.46.png	302.00 KiB	6f224fb7ea525779fef4a27ca26bbaob24a12fdoc3059f956eb5f2cc45cc6bdf
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 23.11.27.png	379.85 KiB	0e8712718225548450dd5e74dcfc158aa7b1dcaof6270d79bbeef46e724ad201
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 23.43.12.png	286.20 KiB	9f578f8f14b9416380b1497679647cb4dodae54cd7a2e4308306f8aa2b6dbaea
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 20.48.13.png	158.03 KiB	62b70ad52b2ade37edf738af8b56c022c3738c187e6838b979e555c37d0748ab

./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 20.48.07.png	111.75 KiB	1f00e99a7500a598fc259a6185f5f55a112e7e2d881c5d6bc3eba888d6972504
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 20.51.24.png	123.39 KiB	554d29ca806a22dd509dd4d95309e6db3d5fa418638d20c4f8e03959af3doc2f
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 20.51.30.png	192.88 KiB	ob2ffcc0f438dfe88e5d60ed584288f689de5caafd46370d0260c1f044709309
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 20.49.45.png	1.36 MiB	e63e240a485311b2f36d5f6f06f3414583dc7a74877bf61c816cf93126e967f2
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 20.54.14.png	470.39 KiB	6ce6ad9f8801243794 75e729672a2bc9c8dacbb680d0ffb74d7b881a542849aa
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 23.02.58.png	562.76 KiB	f1a1be687105375f055af3abfdcb544b35d04bffb96dec27ab4b05c5d428da09
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 23.39.30.png	1.41 MiB	6e2a70f185a980ed4ceecc88f523210coe2ddc3ab598e1727175bd83cae6c1ba
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 20.49.50.png	1.39 MiB	c3215fd82bf83de46662b3ff8fc1581bc11be83edf5944732c97435b01006beb
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 23.33.45.png	755.83 KiB	a544097c1ef5b1b907021746ceed6d5d9f39ee62eaf6930cdb43b886ed08d311
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 23.27.30.png	252.47 KiB	9d98cc17830293bd00eb418556d3dc1c445f7f02d1f7d3fd03724495f4c9957f
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 23.29.35.png	223.00 KiB	caodc8dc4c9702d9aaaa5027fdboea386ff1c7db6701be931fdbdfe70219cbc9
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 23.25.09.png	290.99 KiB	560e034d6e59f05c9254bb9a7e5c3b1df88cb351f1019f69cdf6f6cf0a027639
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 23.07.51.png	1.69 MiB	05d0f99ed527e6e528f9fa4d95541d5a947d5aceed0d58b997299ce59d52f160
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 23.12.58.png	222.67 KiB	4b55afef4008711b2401f7e134fa996d89de153781666858625cd080ca5a734b

./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 23.18.11.png	650.41 KiB	0a262e661c51df213e20e927242e829bedf716fdb192bcf8fb48350d41922909
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 23.38.49.png	134.04 KiB	0bd7e8a6ff93db63841c337d590f3b6d967ba89d6e197568e8fd31ef1455d472
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 23.19.50.png	150.99 KiB	8f8fabf7f4a513cd0b149dae4ba8459f612024c9a7663efd5270c0ea70c73170
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 20.51.36.png	203.63 KiB	64edfbfd5ea19278ebf3d75915e53e766b57aff50b77141d7f389823571f07e6
./Takeout/Drive/screehshots_20220524	policies.json	14.88 KiB	d943a9bc1aa0bdf6b334c5e43f6aa09185b0bfc6fd4266ce22ffb59388ebf20a
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 23.11.36.png	383.45 KiB	427a3dc675033a7fb314654dc9e5b447456248dfc677ea8555058c3d0240efd9
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 23.39.22.png	989.78 KiB	9009a69760a37dc173b8971fdb81f2908e91ebe30c505b3f6d1e8126a4714f0b
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 23.16.16.png	89.49 KiB	06be6f04416bfcee98f6fff15851f32cecfa8104da531d043569109a5b2b3e41
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 20.49.42.png	1.08 MiB	443f496a1b9e0e48f6d91511304057cdb7a75ba4b37ead5ba76a4380bcf4a4fa
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 23.40.21.png	1009.05 KiB	658d7a539f4414573ac3f83f3f0761f7390b8cfd0ec014f27a1dbb44f7827eda
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 23.33.30.png	756.50 KiB	b7d71e91e6498ce94fd586fd159272f15ea63de9a8bd685d7fe86213fd5e3a20
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 20.53.55.png	487.10 KiB	2588782ad687be02732955921acb28c8b3b28144ed8f455978c384a4ff39775f
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 23.39.51.png	986.44 KiB	c597bd9a20d33b81797f9a3e430446b7d2e49d3c59ba075ad67634748f46497f
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 23.23.20.png	454.68 KiB	de483d493906bb2d767169f59deb4816acfefb24498c8565f6a0fa5f90a2bde4

./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 23.05.18.png	268.66 KiB	715f1bfc9ab4e6cfc46b70aa1d85f2427122c0a28220b824a1e192f65a7b1810
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 23.31.08.png	926.20 KiB	d8289e2fb393e160f2b3b937f95d9088a73aae7bda7010d8117159601 5fbbb15
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 15.24.08.png	194.46 KiB	8abodaeca02e86cc00111937c76f8a5bdf7a720a2ad449d28092c89340441c82
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 16.15.36.png	2.65 MiB	7247e16a6ea6cbfab827af7d340bfd17f5f2b5878391e44f453783098b1f272e
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 23.13.56.png	107.62 KiB	af89899f98cec651bd3eba408c064c719eec54c7006ca40a5fd2f2aecb0070db
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 23.17.32.png	2.74 MiB	a71032dd643460efb6a7d47c0f8a67adf02b0f941f6fc1852fb6ff1af77e34d3
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 20.49.32.png	415.72 KiB	1903e9b1f62f22b57eb42f25b749c6f030ba148439d6b0a0229f9932a684d649
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 23.05.27.png	269.32 KiB	07c3ce8e479e3190ff2408c03aae73aea16b830f06f741efaa2e6d687b7689e3
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 20.53.43.png	698.89 KiB	13f83ae02f2e4d3748fofde4c858c769edd666a61ec664c5482c4d7801334a97
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 21.50.49.png	200.43 KiB	6cd4ad85a18854e81f2b26e22ee4ddebc5f0f786219d97bd613b36de8a000442
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 23.10.02.png	690.56 KiB	dd074d39af043dd5327be0c1d1043bfe462d552f9da98bf401964c0bf6b1d160
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 23.24.06.png	293.55 KiB	8f60aedb156901b60a06cde38f9849af22ec74cacfde8cf946dc77603ad025de
./Takeout/Drive/screehshots_20220524	mitmproxy-ca-cert.pem	1.29 KiB	48cf6ba93d72a54e7f23fd368b866be89ed143b3466679355f047774dd24772a
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 23.45.02.png	89.02 KiB	9d59860obf5631b88c1b5ba18d8d2d50031a0540c8beefe6e0a640f7f20af197

./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 23.21.37.png	498.94 KiB	e1dfc8c33aa128a05cb78b8c28df568edf3edfd714e4430653b7004508844c2b
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 23.07.25.png	336.93 KiB	49dcac62c0d46aca3606f6736fcae5efd8b6d7092a1eae0489933c7e08087bee
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 20.52.10.png	587.40 KiB	31be32e28864df2a732d3948o8618e312860e1be700128fba58ec0ae722297e1
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 23.40.30.png	712.69 KiB	c8fd86b28231ab52528ofc8fa9a9eafd54850ddbefd8134d8582187c9d6ca643
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 20.50.15.png	1.35 MiB	c4cd14d62cd1358de723386aa4b9e004d14333bd7559ef9b98538d54a26bf35a
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 23.05.08.png	224.83 KiB	48de78039061e9f460159c810315eb6730c399dee3ac9407f36c386362852b07
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 23.18.58.png	2.74 MiB	588dd285ed10ef53d40fb0c69fc77a5a4360bc54e9ab7fdaa7fa98683873ec56
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 23.42.20.png	249.03 KiB	d7c6cce9abc8dead9focfd24f8557551c48b19dda836bb67645e0857dddd2f2c
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 20.51.59.png	405.11 KiB	7763d02ef5939f49e281bcb01573fd468bab74540833692 6d1055108b8d23aff
./Takeout/Drive/screehshots_20220524	eicar_com.zip	184.00 B	2546dcffc5ad854d4ddc64fbf056871cd5a00f2471cb7a5bfd4ac23b6e9eedad
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 23.12.08.png	644.12 KiB	ead69e0269ee5b0e17293d6bda6f7b25f9fdcbf2b775f6a2d890c70e2fc2f3b1
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 23.23.14.png	370.72 KiB	384d433d56393aeb7fda5d09f619a72454039029497 0d6ac6cc0f29024081c31
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 20.52.35.png	511.66 KiB	c16f9f94db9550739c86a3adocc4829243f2ed0741f6a6b195b04915385f40f5
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 23.00.37.png	418.29 KiB	50b4e52a64e540681c3f9c42b06ee1b66a7aa5df51f6168403ea5675b5396c03

./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 20.48.52.png	218.65 KiB	1d2fd25ad78757ad803faef42a786aeff6fb43dd98c606dce37a0cc3439b4832
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 23.21.07.png	80.74 KiB	98f7a3c8887592183d3ca785fe2c015dc3209b9b1e45b241fa2659428a3e6d04
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 23.19.13.png	208.62 KiB	504234f656969ae2baf9804bc971d7a40a6abf37f41f57a352de48fbbaa6b428
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 20.52.26.png	454.42 KiB	bd909945398035edc147915e18290d85e79d6a664680b49ed14c3ea0c8c01e2c
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 23.05.02.png	200.28 KiB	a7c8c41dd474df373132bdb550410b82baa17046f254c7bf9811dcc60f00670c
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 23.08.43.png	345.38 KiB	d0a6c84aac272bb48b7edefa8d28d6513193a696aa525a659abe9af0673ea07a
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 23.19.04.png	702.81 KiB	6f31a7af932a3cc8e90e9df1b43d6fd450e5211dc61930b858ca65a54db9314c
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 20.49.15.png	1.05 MiB	122e5b5058f387e574917a2c62d0d7fe7b1e4d2b299486112d579878cc47f6c7
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 23.24.18.png	295.76 KiB	b1bb4339c2b6a9f558939c6ce60820cc6a6a4bc4a4ec2b8cc91f927a2b5d65de
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 20.47.39.png	82.24 KiB	2214a6c4aeea1b19d7dbd9b7811ea1bd9bd16aa4e2828145e8cbb3439d93d7cb
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 23.40.10.png	1.00 MiB	4dea5f0c87a9fa5d1f34ed1ebbd4e2d7bd9a9944991e6d1ff2129520cd6cc0f9
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 20.50.09.png	1.20 MiB	3dc2d16f80f2e990a9ebd26fe36800babfab1bb29e763c79b0cb8a501e124d42
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 23.40.38.png	133.25 KiB	bb5eedf4c5809a8f53aa14918a1727cc44fd8f50ab5d51d157442236d0da37cd
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 20.52.18.png	466.60 KiB	1fe987f52836db17558a44202a4373984a4ea589492927f97cc1c2a56b02f7d5

./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 23.41.44.png	235.07 KiB	e87e56be432e92172885e505381c2fdb8d27a130b38559be3db6039cb37af9b
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-23 20.33.52.png	376.52 KiB	d6d5aa50b88c2048cd0c0717de1e18e2d80ba588fc8d0f2761f258915c4a9c33
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 20.53.16.png	609.59 KiB	c4fc4307e13b14ee9be6e41417779fcd7feec21e061f9c448b3aac05ee6ecea8
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 23.03.13.png	124.48 KiB	c7d71d1b55baabe6ef640c4d87bd5ae8e94866d39dd75932e15dc69e62a98eaa
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 20.52.42.png	483.73 KiB	a5b028259f1899f08e27c1763329de53787af78ab7f8cc6e4a90569c6bb6c6a8
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 21.50.30.png	275.91 KiB	6fceed9529785108456cf6a87ce7341c38550fedd094fe654bfc725c120b171d
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 23.13.02.png	217.45 KiB	93c776193b763e79246333616822866e4aaad51d979264e5f0a65f060354d373c
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 23.04.30.png	155.23 KiB	026206947020 6d7b6ecd05d1163b1c2c6d480f72236126e94231019151743b15
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 20.47.49.png	111.03 KiB	aeea0d0c9c3ef9d647f626a4f1bd4204ccc1b5451d77734d694d9e76f1fdbdf7
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 23.43.31.png	318.18 KiB	e1f82d3060ca7d17788790154fb1f729674c6e58ef8cab4d739e8ce247981b65
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 23.39.11.png	238.96 KiB	efof3785ca0216b17f454269b8436fe53658992de729608929ad2b2532defa91
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 23.12.41.png	310.57 KiB	739724ad99bfc407b652de3d23bf5580oad6e34b6ace3d8a70757dcd0e0680b8
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 23.04.19.png	99.83 KiB	3dc9acf5343c91333b4e339937410e10f0661c41dd828f73954ff71504158128
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 20.48.31.png	231.39 KiB	270492656096269 9cc39c5024ed7adc005e660fed5553a939d65acba936cd10a

./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 23.19.58.png	338.93 KiB	afa38c11fe28efba68005316070062b76de0b16ce1669d0142be949718f18063
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 21.49.16.png	349.41 KiB	01d9a77af45b12d575fc5e51d918b15b47b7570410610ad0d4e78e2b7170f466
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 20.52.51.png	439.61 KiB	1b86f8f2038eeeea863e79a43b32ddc79ecbd3d2c0c58ec2cc048a4d9e523f1e
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 23.11.00.png	244.17 KiB	7539029ad9013734c6c2c31ea5ec9d700691c93ad1eacf0669oc3c4283005ece
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 23.24.50.png	324.68 KiB	008fd6a146a2d4757fb82d9a7aef20280550ea9c71c730f1cab57207da39e627
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 23.29.39.png	316.46 KiB	c192910d0132ddeed645322ede855ad34fdf77021bb28e44821e9e6cd2255687
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 23.42.49.png	297.00 KiB	2d4ce417a1d83f027c23b744d1b5a16b735ff950350f72fb71ee1ea06fee4dc9
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 23.00.44.png	157.65 KiB	ac20cb8ba9c65c786031c397c8bffe71d7169ef8f2f3336bb6d30df4b84149f7
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 20.48.22.png	226.91 KiB	54d6d3703fb7e42d12a86e13e4a49coc990e312b00f74638360e8cafac9e84a7
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 23.43.37.png	483.62 KiB	6a1b772abfdfd5308d192a6b90cf346e8ef54905b427a99acb018345ddbf114e
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 23.39.16.png	336.19 KiB	2c49f05747f8586bef8f4918b4cb342379676e26c38a798ad27a1foc3d261ea6
./Takeout/Drive/screehshots_20220524	Screenshot 2022-05-24 23.11.16.png	894.16 KiB	997ecc50340e97c6f507c4fee4b14cccc83b0742c8eef3fbe7bf28a2fd232252
./Takeout/Drive/Share ChromeOS test	Screenshot 2022-05-31 14.10.22.png	357.82 KiB	ee649e13d7a208b685144a75bf2f9f55a8458a0e95beabd2b042b0eba5cd34dc
./Takeout/Drive/Share ChromeOS test	Screenshot 2022-05-31 14.13.01.png	223.88 KiB	70f35d76a97af5f1f461a19b1424a4af4c27bd8af4c4311172aa46af7f5fa7b4

./Takeout/Drive/Share ChromeOS test	policies_floor2.json	14.85 KiB	e8f35722e2988006374efa2449446fcfaec1007b3c9dc7a154e476204617c5f1
./Takeout/Drive/Share ChromeOS test	policies_guest.json	14.60 KiB	9e723fd4d2f55ff1f812f5013971c0540b5aec58adcd1b19020217f03f1a2870
./Takeout/Drive/Share ChromeOS test	policies_floor.json	14.88 KiB	d943a9bc1aa0bdf6b334c5e43f6aa09185b0bfc6fd4266ce22ffb59388ebf20a
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.31.30.png	342.22 KiB	69f1b999f2f844aa2424ef66a277785425c87dd0b432d4ce48fab2d005743cab
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.26.00.png	396.86 KiB	f46735cc8318f5151ec7cecdc065a76efbb1dd740b9e166377778a4ccc74a2da
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.33.09.png	404.83 KiB	ee6812eb311f92a0949053874f6737a7b3d1313fbf4cf6733af90587c05f27f1
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.29.51.png	350.03 KiB	17f0a5658cee32d7542c57e12c1a01afb0fb1e2e4a3a0358315c8f9d450b36d6
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.33.35.png	370.49 KiB	a3ca7d4d34bd9ba73911ba20d621dff2d1bf7ee25006bdf40137c50bc3be092a
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.27.41.png	1.17 MiB	dcbc275ca507d9c11e0e19c011c6b9831d0f4e20b941438fb5abb648915aad2b
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.27.55.png	1.13 MiB	0c9470565cc17d29212c08cd06f592c20a0f9d2660c67904b2230e1b028557db
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.33.20.png	394.23 KiB	37957a75301748197b75367083750 25e22317991b2c88389442d47e29cd9a6c5
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.24.04.png	991.39 KiB	b6871341aa25da4fd721f2b9f50c32784f9e884a0ebc6a3cbed5f3d20f3e9e02

./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.26.15.png	374.75 KiB	bc0f9c46d6712e18731fdd3dbec0f4f4e5c5f02b7fea9ad99385ffa2ec7e32f6
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.29.53.png	350.03 KiB	17f0a5658cee32d7542c57e12c1a01afb0fb1e2e4a3a0358315c8f9d450b36d6
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 10.50.20.png	1.16 MiB	720b7d98c4c0e0efe5cff1c51a4f1d81a76dd8e9cf88be539de1cfee039e7c17
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 10.15.24.png	1.10 MiB	2fe1639c80047c5f0ba647520d6d527036be9cb410bc327218dfedc1e6620531
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.31.26.png	379.26 KiB	2291a33ca2eb1c0315384f096deec1c69955205247b80fd374e3751b4de07b51
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.31.22.png	380.38 KiB	fdfe0f2f337117f4499422c7fa6d456429750616 3d70984baa2677d836c4d0bc
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 10.49.11.png	1.11 MiB	0fab3a709e29e83309b2ca7bcf772b26e3cc1ca2bda9686ce2b0c6987feb1504
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.28.03.png	1.15 MiB	38144f5729f713634e68e3b5b5e13cd1d93b33903c9281f75be7290f4ed71814
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.28.17.png	1.13 MiB	cff2f3714e00a06a86b3669c0a5018191d5f8183ad1e72170091756c19feccd3
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.26.06.png	365.12 KiB	2e1c353d569acf40830332f8226d9d1c681d616dfcc7cdaf55d17006dfc41121
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.29.57.png	364.96 KiB	e1b64da9a5d15e99b6e9bc984d620f189408315ed318222e49c450cb008013de

./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.25.54.png	380.11 KiB	8c0943ac94ff6f3af4b77256759ac6a0eac653702179174f0829f8299c6f0b7b
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.31.35.png	366.51 KiB	5b9efc85cb8f134f44cc7f7e01e59511c7b42612110ae89ae5f8c3645da62ca8
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 10.15.37.png	1.08 MiB	9bd5e571fd101e627743e36a80b2d87f9175a032a3d3a298fcf6a6a3fbe5ce85
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.28.28.png	1.13 MiB	0954e203771e8e0dbe2fbf8a829841f5f6dd17040267dab49b4f2d611f1e0032
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.26.11.png	355.24 KiB	90ae0e4a0246ea3f98908e1571bbb08e0db03804d907520bf3db9a703eff24b3
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.24.14.png	1.12 MiB	c70fe8f563681b63a328505ccfd3d377337cf02417905b61ea37570dd90720bf
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 10.52.36.png	1.07 MiB	74596adofcb76ba4a1bfdd98f6880e5746a88a4fb1aeda796a6f8da0f5274556
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.33.24.png	347.66 KiB	8878c0f0715e5c4f5006e576212f6710a19c387cf20f94fd583ee3ecd2b7f501
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.27.45.png	1.18 MiB	f8459e25bd02ed6d029b820cea69a706d684692b43298fd9d4441b6bb94c8b3e
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.33.30.png	391.27 KiB	2a3eae98a5dec1630890aac421a84ceb4941998dfc3209789e16a9986e6fcd08
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.27.50.png	1.12 MiB	8391888f6e2bdb00c7a8e40d4313d5efeb345322291046f1f752c9c8554ccb24

./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.30.48.png	394.32 KiB	66c773f06e44c3b586c2ed3658290d9b579228b388160b31882af890cb48b8da
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.32.59.png	396.77 KiB	542d93018470e9f794d838b7571e0fa1984942add7ee5483e924d0a0781fe092
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.26.38.png	352.72 KiB	17697950e5146b8d569c4312531d85a0482e07de5a64ac8425b5ff9089c9d091
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.31.47.png	380.10 KiB	f0c0c2259f5d2e78de5e89c2cdf04b42aabb9a6acb382835b66a8067192fcb2d
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.30.07.png	344.65 KiB	71fdda69cfcce506edc905bd9f5c936414a72db9f68c08d0ef867fdaadca67b0
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.27.22.png	1.13 MiB	ff4a9682e86b6e66e9369d5cdacd6c5ddfabab3c3dba74da93a83e154f96bb9d
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.27.36.png	1.14 MiB	f42c49e83e01ac5b04bb6eff6ab16b442186ac41df452c1c147d7f8bbb98a94e
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.31.52.png	372.72 KiB	f6f828c238c949a2d074bcc7110e56bc29c76ac172e94472801e2e67e505966d
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.32.01.png	366.56 KiB	7ae2e88df9d33379a0cffde55eeb85379e3a8d9cbcc7f6b4c5bbb08a4dcaf7c0
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.28.59.png	1.16 MiB	108993ae4be377081ded27b7cd9213923069ae80c2886623fd27311e07803d6c
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.26.48.png	350.34 KiB	0f388410cbcfd1a714869239ca7ac3c8a44e8d4aa1652c66e4fa4c87b4184fa9

./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 10.50.42.png	1.01 MiB	3a068e1e76a4692656cfd0e1b3a8cod329b726791f24a0db5ae70529a44b6cb4
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.30.10.png	374.03 KiB	1f51542792f54f2df9b560b8be83cc588a84bb6d2949e5f2fb2f82c8b5356dfb
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.32.28.png	374.36 KiB	f5d384d3d5125914e6c52a1d44c77feeee446d6712869f001dd8ca94d4792ae5
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 10.53.02.png	1.07 MiB	86e13193bc8be5f1b51feb8111ae1a074dadd3a8d42546caa4a1dd7380fdc761
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.32.10.png	340.51 KiB	fa439a938dcfff6b1607ad87dc2a6f4def6074c610ab38287f12ba7fe8e337e0
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.30.15.png	430.70 KiB	aec08a011152cc7ae7ee73f32329367825d2e8cf194a8aea89ce35a0b16ae6ce
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.27.31.png	1.09 MiB	8f08ca574cf42097e35904f18778ca71ccd1b9ccecc96731ac4c253860ea724f
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.33.44.png	361.17 KiB	e1c39341dd8040232579 72a6b9ef3a32619c2424bb1fa8d29c4447d9b3fb6280
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.29.09.png	1.17 MiB	3afcddbdd771fca08c2117e2534da9df00b1b8967470c83467bc768f1e7a30f5
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.28.49.png	1.12 MiB	ba32469677ccb6ad6ecbaa51fb621f523d182cde18164537df5e894cf7b690d6
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.32.13.png	333.55 KiB	0ef363d6c6a3285345eb5cf3e75bc94c4aeb7ca9c85d7caa133103c5c85fdea9

./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.33.47.png	361.79 KiB	e3a3d17d5fa5603c954f7e613fd6acc7e350720b2421a5a2bbbc474d4010611f
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.27.27.png	1.16 MiB	1b76580572181bee5b8c842945e5458e4c700e56280fb6401aaf1ebcda4bb178
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.30.03.png	363.36 KiB	c0819ca947b819f385917974c74dd3c030688e041c29985e3e282580a6fefdd1
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.32.06.png	334.71 KiB	5c8d231b67ac6f477b86a95e1focdfdab269d45a09c83fda12076a0ea426a951
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.31.57.png	353.11 KiB	67d62684b82901022d7aa059ae52042a36c0b8d02efe6c3a26364385f8c387bb
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.31.43.png	391.44 KiB	7f7e53c419febb2924df57996aba2f487fe18396a97dda2b3806f4a0b676df0
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.32.23.png	395.54 KiB	3d38ba8e8528ba0220a186586508049c4b6e8e478c0796c71fd83481693be215
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.30.32.png	356.64 KiB	d3f43d0a5ae2b02f449ffeaae41c31bff927739102b31c00399529e90653016f
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.29.13.png	1.15 MiB	8ca08582376bf8f78ad8084c62e6624cf491796a7d00df721511be7a0cb33e1f
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.27.17.png	1.07 MiB	a1084fac50b60bd7d5c3af37abcdb05af68acb53d96457308e28644bbeceb2cb
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.30.27.png	378.90 KiB	234b3e6aa87daac05323f2d72f785c6a8b8629464128710580 4a48c5908207a5

./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.26.43.png	366.17 KiB	942758eea050ada15678b7f435ed739a682950ee03fe8cbd7752ece92629792d
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.32.36.png	333.20 KiB	3545eabebb994b5e0513645 7e3525c2ae3e354155ea1b929ce17dd3b87e37a2a
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.32.20.png	388.25 KiB	2789ecd6e95f740c12b81b5712857dc7de9348f21b7789454b5635a53fbb0544
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.28.44.png	1.16 MiB	32834177245500 94ef9fa288b25d0eb98824eda4c71b7112d40595cf5fd8448c
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.30.19.png	461.90 KiB	efd29005e784bba70bea238916bfb8cc57d9a53e567e7c49a76a6b754e697f7d
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.29.04.png	1.56 MiB	0ab849a3aa773e4aa019dc02f438bedbe72a4c0db2763be36d149aa543d1dc8f
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.27.00.png	404.33 KiB	e9b83b4b2cfd5ecoddb724dbbffdaa117d88bdadf6faocbd43f0406f6b55dbc2
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 10.49.57.png	1.05 MiB	337038331671 0a5a186407b36b8071ed219d74072d4851b67eaeca0146f32e32
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.27.04.png	380.85 KiB	648c61fed12adafb97608baedcfb4bddc5a311f1e472f8f78287558c59b35a33
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.28.54.png	1.10 MiB	fbf2a57657cdd524daefe004f75b5f1babafa389c88775fc024aa65f3531c675
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.28.40.png	1.10 MiB	b6bc421bd5a29bc72fb9205900c166a1a1c0b7b84198562075f6843f8578b8a3

./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.32.32.png	373.14 KiB	4afe75cae787bdb6f8eb6c166c4c0533 9021b980ea10d4d35d7159ada39a861 f
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.30.37.png	333.71 KiB	e8ddfd55cd915a7fafe8d985f54f72391 12f70f1860881837f2d5bf024d74362
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.27.07.png	359.29 KiB	1c6ea2eb1a282feb10fc65a85d215661 55a3f681a442db5c72f0fba46010f28e
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.30.22.png	371.18 KiB	453a5cb5678477b88b11d8a44b93f86 a33804b78fd4fce2a201fb04f5e969e3 e
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.26.52.png	374.07 KiB	544a4a4bee31a13cf6e4f11b1d96e83d 503d904445f343581452e64adc11dbcc
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.31.39.png	377.38 KiB	73394329dbd0c1b88a074de23b1fdd6 dfb8442f159f2b12b28dc14ccc336190 2
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.31.11.png	336.24 KiB	b4fad964f97bd73b79f4354af7193e59 4cf2824d4c4a989c4a6c13e9a00881a 7
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.33.14.png	390.29 KiB	34f5b6b94b709157c08d8c24f92c140d bf1b914ecdf92919b1878af288444652
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.30.44.png	386.32 KiB	d5ea112842742c15fcd9c30249247eb4 148b6f874c338977cb9394fa3ff56d49
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.32.41.png	332.43 KiB	7dcb4661e150030c92c2d9a649fdc9d 61bf2ce629e30a593f9645aa8c47e0cd c
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.32.55.png	383.68 KiB	2ff922140a6918bd9ee41ed5b03ca29f 6351563cba0c98b90e1db59d087f73 2

./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.26.20.png	372.11 KiB	ac05d721835feaa13e3e2c3f245571d8c2ec682f48ff2e7818812678adb4df80
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.31.06.png	404.70 KiB	566564625b254d0d3786459fb4f9ca1a4bb5a3c8c99a0ba968bb6829feffffecd
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.30.52.png	383.38 KiB	6a540a9c96d42b42172003f6857a81a51da77b439749d8fd170f7cb380336274
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 10.48.49.png	969.77 KiB	2af052c52b30320ef32c034b6bed565491e256fc436f7747b2572551787a70bf
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.28.32.png	1.08 MiB	48cacf627a0781e4b03da137d2f98bae2f228b0b52c5d6b43e83bf374eae28c9
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.28.22.png	1.14 MiB	c04e7f73f61698a415be2c485d2b9cc6e0f6026a824dcbc08838oefff85522b0
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.28.36.png	1.09 MiB	27d6774f421e8bfc1324a1423321265cc9c66faad5b0e1527dec851f954d592c
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.32.46.png	337.44 KiB	c93956c52e543c61221b5804b8ebc94c2a9af3c9ded67fcf07b1724823b9638d
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.24.22.png	1.45 MiB	7bfd3500575e86fcbf41643578dd3b2f8c6f964d4dcb67ba3f1ae2ccd6e33206
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.30.57.png	396.47 KiB	d0308daa7704cc59f02cbddd67b20dd063ebc79cb584292f601672d854e7d8c9
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 10.49.27.png	1012.82 KiB	f1f51a5eb833908c3854c5cbd7449bb05ff3bb210b8e8a11cabdcb774f1a9fc2

./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.26.24.png	370.14 KiB	ef5134af64a184f2d2021f179d59c98848b2336ea6f7184a5d217b7f1a12d1b9
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.26.30.png	357.86 KiB	bb16f8db7874f151826fb31547bca4c7235eed33c6388b8fc0189ac89a0421bf
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.33.05.png	368.50 KiB	6263ac423bceee9d7d99a7dac878eb81dc8af84b9e002582ce16c798220e3adc
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.33.39.png	359.73 KiB	6e5b1ab1af2de3995974b0e8f029afbb95bae87b6d4fcbe19ebdb8d9474d8b3f
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.27.59.png	1.12 MiB	fc6cdb2ea873b60fd09b59c276957b8c898faf0072bd36f85b72ea2f84b05783
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.32.50.png	366.73 KiB	0500027da3f0b92ea40f965bf7250f617850bf9910c979c02c035731592ba6f6
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.28.08.png	1.20 MiB	d127e140cd45e698af6f180ba8a856e9de2171efde8cb491b51f76e5ca2e0dc3
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.31.15.png	346.43 KiB	bf747a838f0579bf66fac1569240412357747a97d853f4b3123740a6dc3c514aa
./Takeout/Drive/Share ChromeOS test/Settings screenshots	Screenshot 2022-05-24 at 09.31.01.png	378.30 KiB	4e464abe74b348881e7ba376471b7f62b0874fa18369320ebe942fbd009238 96
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.01.42.png	1.23 MiB	5743ec1f48d3e06ea2f0316e18f03491ceab2a26f0aa86b02590abd816b76ea8
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.10.07.png	1.57 MiB	67dd7cf427cf2f9b853f9f5a8ad90b4457acaa5b5cc46773e60b757de97a0d66

./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.09.33.png	1.19 MiB	ec4b48ab564fb3859ecc62cdf501b2358ob7f62c0a885e9bbfe6cd7f85eb67ea
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.12.17.png	1.21 MiB	500ac39b5d465878956b3bffb8567dd27ee8f4988dc18aa90138fabde7c4b318
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.12.03.png	1.57 MiB	3765ba6c4c34703faaa1aaba7d94918b1ead23629b48fb66773daba838bc0425
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.11.50.png	1.24 MiB	7b72243b128673d83508fef6a573e516eab5eeba91e3cb92d13dc3ee9b8e7fba
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.00.15.png	1.17 MiB	3eabeb81b07a7d1e58d2411aca85a9b7eb45f43521d6aed64339aaf98b176614
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.10.10.png	1.61 MiB	564a69118be168aa0d6ce81a81bc6308fbdfacda1056b1f36a25c8a675aae145
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.09.30.png	1.21 MiB	feddc48924b434c51c72e00512d2513902bd2a236218d6223bd66862d5fe326a
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.09.24.png	1.18 MiB	bcf08bb7d4d3dc8deb5c5261a1e5f5c8c10ab9928a5302a79f6ea21a7f3b3ee8
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.00.28.png	1.29 MiB	90000f5e9c562b18fc34489f5d8fcc2e1db62f8adc58450224a64c25a8a727a4
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.11.45.png	1.20 MiB	c69d87177d44eb0ccd879b852d0121547bd5e45da0197486dd1908a9de524da7
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.08.58.png	1.19 MiB	d6c89b5ea758031b831220df3f729f2b75750c340990703aa6b861da5c5503bf

./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.12.28.png	1.21 MiB	210dfca8e06c65fc37e557b437788827bc4da1e82d873700cc7a704a6ad7f5db
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.11.41.png	1.17 MiB	e8a7f272451dabee87d9b80ea54de8355715ef40df7ecf53c0ba1664c5b86830
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.00.04.png	1.17 MiB	0ee9ff82e67d5973743c8429eae1a87a7fa3071002e0ba9a35bc417ce0a42db5
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.09.20.png	1.24 MiB	b3171b8072e4120352a7eb0676475ab8bfce38ba3baf6a495b2590d7e613dc83
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.00.38.png	1.20 MiB	89d5870aa744f02a6142114c0c57a878f3b1ea3552bdf401403acbb39e2986f2
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.10.15.png	1.18 MiB	eb4f4cd92dd2f283c93f72ec752518862413bf57ab51d340522cd65e4069c0ab
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.00.11.png	1.17 MiB	950b606d9b1ba6e5d6e4321476756d14ba5cd9d97cf41bed683f9793210ca39c
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.11.54.png	1.18 MiB	d143fee480b364c58a5cde508fdbb359f26650o691e3290b2edb255a073566e0
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.12.39.png	1.19 MiB	81d91a5fb824224cf3194738f2ff0844f791da116d88a680f7203b2ddb6ad397
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.01.51.png	1.20 MiB	bf1e9382587ee53cd5eb98344c02888413ff7380d6929798aa0b36d666add92b
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.08.49.png	1.16 MiB	0c5717a762630977eb18164052cfdac8cbdcab19d36cb0119cb6024d11470b14

./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.12.13.png	1.17 MiB	166f43bebf9e7b658c26489b23f35bc7b96bb3c0e0c4300b562c6518b8c6204c
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.10.03.png	1.20 MiB	33717d55f74eda5236ae2ed2694296a3b3e5b217a88a6d93bc8e080fd7d73436
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.01.46.png	1.24 MiB	e82d9bb8747da13546bbd99b7cf8ccd0ca4e19da120f57ceffd80672490ef9b1
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.00.49.png	1.19 MiB	1a080012081340964d50478dbaca9fecffaddfac85011ff4a0dce365350001d
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.13.09.png	1.13 MiB	a89336f64265255d5a1f6b920ac49cdfab8fe90f5bf0a5dddd10b36f35167808
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.10.59.png	1.19 MiB	aac78f1df07c14744d0bbf0fb06288d98b94dd205cc0c310229acdadd6a6808f
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.13.34.png	1.05 MiB	dd97cc80602e09672aef743f52e1ded7be2d4407ff8cb0f8f2cb1e61af95f4e2
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.11.19.png	1.15 MiB	40631da02a2d4139d203f8bd1d6af4f19170e01390f4b0c1667aaa27a14a7c8a
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.01.34.png	1.17 MiB	2e4bf51f30d29ccce51ee74b0be3d71245a55576e5bb633ed1fa4603c172fbe2
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.01.20.png	1.18 MiB	8dc59cc5731751c0bd6eceb8b68baa5c747f9bf3532fda3fc10f8197aca97616
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.11.33.png	1.21 MiB	bef2b70c26328aa4d6fd0797635e94221113c49c06ce6d4e73bf9f01bae9ae3d

./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 11.59.56.png	1.57 MiB	9091f5edde1d479d1b6d64a70c0fc9fbdfd69472ddcbd361964dd0333963e622
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.08.03.png	1.17 MiB	8a8b163d0576fb086be155e1aae4e3bc013fd7f86b9acc1d3992b37d88560d8f
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.09.43.png	1.18 MiB	13ef648c651da3e658d47ade9f098632cabb3baec9b6c1f9368fd1915699310
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.07.53.png	1.63 MiB	6b58c7333bc02bafa456f078f06f3dd3fd005bd2f7407a7303a4c93c6b13a3d6
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.11.23.png	1.65 MiB	543a5882f990a18bcbc15bb28e0bdcf4d44a27bf6f2b46edd2c28f9114f3ccd0
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.01.30.png	1.54 MiB	ba65bb9444ee6897565c531046d03d24c54860ea278f410a12a120cd66c47c46
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.00.59.png	1.22 MiB	f88bf9e9ef8f65aab391132e7e3bb743b510fd2a4ad3a9d0ed0208b0bdb7a03b
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.09.55.png	1.18 MiB	a9c81cb357f0042f6f7bb6ed41d5cd2fca74bd7fdf628ba66600df010fe0d3cd
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.08.15.png	1.15 MiB	d799318498 0e06bdd51a050ccc87a3a425e9a15246c27be031db51f61e8a9eae
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.01.25.png	1.23 MiB	6972fa996869af5b6090b9ab96c8bc887015c422945284b806a3717bbe831d10
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.08.29.png	1.15 MiB	648441ff24418b19bf936824f7331eefb683f967a0848ed0366d6847fa783c0d

./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.08.24.png	1.14 MiB	af413491d36c557ef4c34b003cb4dcd52b4f4bf562e1c886dbe3cea09e98027f
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.01.28.png	1.16 MiB	6f3bee1cab1b41926af5639241d6369a3994c2890b63641ef7375667c852b98d
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.10.44.png	1.21 MiB	81234609be9ce6430adacc2776672dfd42bd921180d5863d5e10cf2015d7a94b
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.00.55.png	1.25 MiB	6143dbaaecb1811b10bfaa3298ab980a78fee348de05282f96396e8e854a9ddo
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.09.59.png	1.25 MiB	3e56138179546daf3de76d9ab6ffe78291daa779cf5883f7b27a6e5bb39c7b25
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.11.38.png	1.18 MiB	83f4b09c92acab384a256938c8f1b7b9797079d481e3d6e88f4714bb9b44f598
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.11.10.png	1.57 MiB	d225faa1d1bfb343bf68d01112b3e4a8d1b2e5d3c3cd9d84665177ff2bcef685
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.08.33.png	1.23 MiB	2ccc5645c33469db187dffd377502a46c4bea8a9a0fd6f2b4d9f18b74d2e3f82
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.01.17.png	1.17 MiB	59cd3c445d726cf50ed66612e85d8242a283e1484308919934806 42f2849df2a
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.11.06.png	1.14 MiB	d0a837035c07c24ff42aa191625efaa3cdc4af084959f7c237f101f75a7554a2
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.00.43.png	1.49 MiB	60a495d0c257c8d13821d6f1a10da92ea8c678b67cf8271d0768dfd171a037e6

./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.10.47.png	1.72 MiB	77f087365bdaf6d732fe9499d9675474 0e93ff7e511aaad082c4af465a46b652
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.10.53.png	1.24 MiB	4efof92b649e9266bd618356ae74711 2ea578596a0715de89a418a21d3a6bo fc
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.13.02.png	1.13 MiB	c9950adfd9be34d784d1f84ce51341ec 5368568ae4c484dfaaf908de59f29239
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.01.13.png	1.24 MiB	fdc33d1a01cadbdd6ab75b23d4d65bf 6a3568a82738607313f1c20e004f1f31c
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.08.37.png	1.20 MiB	1c469fe7bdf4e22d4d1cffe91b162e72 19272a3d1969202cb747e2edcb6f007 4
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.11.14.png	1.21 MiB	78f0a0b871ac57bb966d5058461f9128 c45a29721208df3923638b51a3376b2b
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.10.40.png	1.16 MiB	405d42a71e03d6d8c2271eb8e76b4c9 e402e5cd584c87fef8ffdba6bc8085c11
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.09.48.png	1.17 MiB	8363210f86c1e7b62e615b50369fbe42 0b7c0463a4c4d4c7f705441f2d5827b4
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.07.59.png	1.16 MiB	1482c5e9e889c1043afd121316dfccf6 96b40788cfd70bf2ec11d7ee7fdf82aa
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.11.29.png	1.71 MiB	d2fe258a3766b93b483cba454655779 0d127566d0dda3b51b82d0a30f6647b 12
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.01.10.png	1.22 MiB	6bc204d585a27872ca38aef4c654d7aa 9319acaed18f7ecbc18b770ce7927599

./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.01.04.png	1.22 MiB	e6c4ebd753f98304c50810eae8a42c8466b514d38f057e49278f472e7c4248db
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.08.20.png	1.14 MiB	f4bd8018709f934b90159ddb7736ae3b0aaee4ee6129f05549919a0d269f857f
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.01.38.png	1.17 MiB	ab2018323dc2161ab888daf34e2691ec6692688634b9983775c3f85661d50352
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.08.53.png	1.15 MiB	afc037bc34db6259c1ac59fcdfef91709670d38ec56c47bd63411aad18657e29
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.09.07.png	1.24 MiB	3d9543cd3ca4ce1dc73aaacfc7086fa4fb541d30d78c94a35eeb7bb4acf082a0
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.12.36.png	1.71 MiB	e00f7cafee711eebd2138fa3e12bafofd78ca604a522e8d3c58afocef974890d
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.08.46.png	1.16 MiB	d1fae96b9800c5643596l782d8be6812c583595fa73e334a8d5923fc67fe5dof
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.12.20.png	1.20 MiB	c5188f81996554cfaa7100c5ba81b469721792e9a6780d6f2a0be15957a6f988
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.09.38.png	1.18 MiB	f01a4bc21735fa4ef9362ceb749e41a84af04a4a925c1b07c663bb9de27153ab
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.00.20.png	1.23 MiB	69f99ac7e510a6d9e8c3075324721a9b70459c5b68e0cdc5fc2a145a2c75e055
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.09.10.png	1.17 MiB	443e33e8cf048a0320030d32e7367fbdaa91a562a05b79c9bf1a5fe726b7221d

./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.10.31.png	1.18 MiB	e0958f737ebb8a69d2f3a275be3e75a42f99cec7de4b18da2cf77599be3897a3
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.10.25.png	1.18 MiB	e7203716c579db6debc594e26bdb5d205335331ddde7a11c3fcfd78511c6a399
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.10.18.png	1.20 MiB	a86d1be7ba8ff049fef831a8dad31b517dd421f8dbd2811c2a77bdfab0612d47
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.11.58.png	1.20 MiB	d2b9beea33a8dfac4d8548a9bd23ccc05c5366o8bdb48bf559f3299aafd8b433
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.12.09.png	1.14 MiB	157c9585b3f582b4fbec6757d59b4053cd25e6683e274018b9535c09b6c2e403
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.08.41.png	1.19 MiB	eb75202993dd5dbd16d28353b2d3976bc57a4d48caac24bb6df19333beac201c
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.10.35.png	1.19 MiB	b13cd2afd8e17c431fd983b26d3898b926b2f5434a9f9b35666007415be4b355
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.09.14.png	1.24 MiB	3737e58bfdeadb7305f30cbb6f9aa2294cd30897706b7d3e62237694ad47668c
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.00.24.png	1.32 MiB	a48223fd66e6de9bee9475f79439f35638fb6b6b7ff06ebcb68969a03825def4
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.12.24.png	1.55 MiB	48a83709694c9446a8c01f5dd49b62f66a94d9f03a44b407150f52168d45fd54
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.12.32.png	1.66 MiB	bebe1c173aca28d0aaab6a6337082ddbf8c4390b39675bc4d5b531f652da9dc8

./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.00.32.png	1.20 MiB	ae09171c9fb1f844767dcf2bceb1010d0635a9b90b14c1e57e68d0258ae27990
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.10.22.png	1.17 MiB	316fd5a3ee37611070ee3c5c3fcb64b80dad06147c3e54dae505e13d72c88d99
./Takeout/Drive/Share ChromeOS test/English settings screenshots	Screenshot 2022-05-31 at 12.09.03.png	1.21 MiB	88c33746cea0441c626dead932a9238136ccd7b40bbffd8526c66d6fbf77bode
./Takeout/Android Device Configuration Service	Device-4571078088436137036.html	14.99 KiB	e37d90f120900e76fe41808f27e0abe44ad70c67f5ab6132f150c61356043e9f
./Takeout/Android Device Configuration Service	Device-4064136417758544428.html	14.52 KiB	348c94cdf748e42d969502f0a2198c4b613a361b20cad9078b9020c3cf87168f