Reclaiming Your Digital Privacy: An Interactive Workshop

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THINK YOU HAVE "NOTHING TO HIDE"?
“Every border you cross, every purchase you make, every call you dial, every cell phone tower you pass, friend you keep, article you write, site you visit... is in the hands of a system whose reach is unlimited but whose safeguards are not.”

— Edward Snowden, CITIZENFOUR

Every breath you take
Every move you make
Every bond you break
Every step you take
— The Police
TRIVIA QUESTION

What percentage of Canadian internet traffic is routed through the United States?

Up to 90%
Google’s data requests

Google is seeing more government requests for user data worldwide, but it’s responding to fewer.

Source: Google Transparency Report
The statistics here reflect the number of law enforcement agency requests for information we receive at Google and YouTube, the percentage of requests that we comply with (in whole or in part) and the number of users or accounts specified in the requests. We review each request to make sure that it complies with both the spirit and the letter of the law, and we may refuse to produce information or try to narrow the request in some cases.

<table>
<thead>
<tr>
<th>Country</th>
<th>User Data Requests</th>
<th>Percentage of requests where some data produced</th>
<th>Users/Accounts Specified</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>1,407</td>
<td>67%</td>
<td>1,490</td>
</tr>
<tr>
<td>Austria</td>
<td>44</td>
<td>43%</td>
<td>64</td>
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<tr>
<td>Azerbaijan</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>3</td>
<td>33%</td>
<td>3</td>
</tr>
<tr>
<td>Belarus</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Belgium</td>
<td>259</td>
<td>71%</td>
<td>304</td>
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<td>Bermuda</td>
<td>—</td>
<td>—</td>
<td>—</td>
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<tr>
<td>Bhutan</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Bosnia &amp; Herzegovina</td>
<td>0</td>
<td>—</td>
<td>0</td>
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<tr>
<td>Brazil</td>
<td>1,011</td>
<td>60%</td>
<td>2,449</td>
</tr>
<tr>
<td>Brunei</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>2</td>
<td>0%</td>
<td>3</td>
</tr>
<tr>
<td>Canada</td>
<td>54</td>
<td>67%</td>
<td>90</td>
</tr>
<tr>
<td>Cayman Islands</td>
<td>0</td>
<td>—</td>
<td>0</td>
</tr>
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<td>Chile</td>
<td>204</td>
<td>48%</td>
<td>261</td>
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<tr>
<td>China</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Colombia</td>
<td>30</td>
<td>10%</td>
<td>47</td>
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<tr>
<td>Costa Rica</td>
<td>0</td>
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<td>0</td>
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<tr>
<td>Côte d'Ivoire</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Croatia</td>
<td>1</td>
<td>0%</td>
<td>2</td>
</tr>
<tr>
<td>Cyprus</td>
<td>1</td>
<td>0%</td>
<td>2</td>
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<tr>
<td>Czechia</td>
<td>168</td>
<td>63%</td>
<td>238</td>
</tr>
<tr>
<td>Denmark</td>
<td>51</td>
<td>22%</td>
<td>73</td>
</tr>
</tbody>
</table>
CORPORATE SURVEILLANCE

If you shop, bank, or socialize online, multiple companies already know quite a bit about you and are likely sharing your information with third parties, including government agencies.

“[I]n twenty-first-century Canada, surveillance is expanding steadily as personal data flow, in unprecedented ways, between private and public bodies” (Bennett, Haggerty, Lyon, & Steeves, 2014, p. 68).
Dear Mr. Brin and Mr. Page:

Google’s proposed Gmail service and the practices and policies of its business units raise significant and troubling questions.

First, Google has proposed scanning the text of all incoming emails for ad placement. The scanning of confidential email violates the implicit trust of an email service provider. Further, the unlimited period for data retention poses unnecessary risks of misuse.

Second, Google's overall data retention and correlation policies are problematic in their lack of clarity and broad scope. Google has not set specific, finite limits on how long it will retain user account, email, and transactional data. And Google has not set clear written policies about its data sharing between business units.

Third, the Gmail system sets potentially dangerous precedents and establishes reduced expectations of privacy in email communications. These precedents may be adopted by other companies and governments and may persist long after Google is gone.

We urge you to suspend the Gmail service until the privacy issues are adequately addressed.
Privacy lawsuit over Gmail will move forward

New plaintiffs hope to push ahead with a class of people who never used Gmail.

JOE MULLIN - 8/16/2016, 7:10 PM
Google just dodged a privacy lawsuit by scanning your emails a tiny bit slower

The company won’t do ad scans until after a message hits your inbox

by Russell Brandom | @russellbrandom | Dec 14, 2016, 4:20pm EST
Inside Google's Fight To Keep The US Government Out Of Gmail Inboxes

Thomas Fox-Brewster, FORBES STAFF
I cover crime, privacy and security in digital and physical forms. FULL BIO
GOOGLE TIMELINE

“You’re timeline in Google Maps helps you find the places you’ve been and the routes you’ve traveled”
Red Bus French Fries ★

Address: 27877 ON-48, Georgina, ON L0E

Suggest an edit · Own this business?

Add missing information
Add phone number
Add business hours
Add website

Know this place? Answer quick questions

Reviews

"Some not so healthy looking work area"

"Tasty French fries and convenient for the trip north"

"Great food but very expensive"

Write a review · Add a photo

Send to your phone
Manage your Google activity

You have lots of tools for controlling and reviewing your Google activity. These help you decide how to make Google services work better for you.

Activity controls

Tell Google which types of data you’d like to save to improve your Google experience.

Activity controls

You control what data gets saved to your Google Account. Turn these settings on to make Google services more useful to you or pause them at any time.

GO TO ACTIVITY CONTROLS
Web & App Activity (paused)

Save your search activity on apps and in browsers to make searches faster and get customized experiences in Search, Maps, Now, and other Google products. Learn more

☐ Include Chrome browsing history and activity from websites and apps that use Google services

MANAGE ACTIVITY

⚠️ If you use more than one account at the same time, some data may get saved in your default account. Learn more
Location History (paused)

Creates a private map of where you go with your signed-in devices in order to provide improved map searches, commute routes, and more. Learn more

MANAGE ACTIVITY
Voice & Audio Activity (paused)

Help recognize your voice and improve speech recognition by storing your voice and audio inputs to your account (for example, when you say "Ok Google" to do a voice search). Learn more

MANAGE ACTIVITY
TRIVIA QUESTION

What are Canada’s two federal privacy laws?

1. The Privacy Act
2. The Personal Information Protection and Electronic Documents Act (PIPEDA)
KNOW YOUR RIGHTS

Charter of Rights and Freedoms

Section 7 – “Everyone has the right to life, liberty and security of the person and the right not to be deprived thereof except in accordance with the principles of fundamental justice.”

Section 8 – “Everyone has the right to be secure against unreasonable search or seizure.”
THE PRIVACY ACT (1985)

- Applies only to federal institutions
- Two-fold:
  - Mandates federal collection and use of personal data
  - Affords Canadian citizens and permanent residents the right to access their personal information
PIPEDA (2000)

• Applies only to private entities engaged in commercial activity
• Lacks sufficient enforcement measures
• Does not apply in provinces where “substantially similar” legislation exists (AB, BC, QC)
SUPREME COURT RULINGS

• R. v. Spencer, 2014 SCC 43: Anonymity “particularly important in the context of Internet usage”; police require a search warrant

• R. v. Fearon, 2014 SCC 77: Lack of password does not lessen reasonable expectation of privacy, but upheld right of police to search a cell phone during an arrest

• R. v. Vu, 2013 SCC 60: A computer cannot be treated in the same way as a filing cabinet or cupboard in the context of searches and seizures; requires judicial authorization for computer searches
WHAT CAN YOU DO?

• Keep up-to-date with privacy developments
  • @PrivacyPrivee
  • @IPCinfoprivacy

• Contact federal and/or provincial privacy commissioners
  • Office of the Privacy Commissioner of Canada
  • Information and Privacy Commissioner of Ontario

• Collective action
  • The Supreme Court has given the go-ahead to a potential class action lawsuit against Facebook in B.C.
TRUE OR FALSE

Facebook has access to microphones on users’ smartphones and could be listening to us right now.

Maybe.
FACEBOOK FULL DATA USE POLICY

I. What kinds of information do we collect?
II. How do we use this information?
III. How is this information shared?

IV. How can I manage or delete information about me?
V. How do we respond to legal requests or prevent harm?
VI. How our global services operate
VII. How will we notify you of changes to this policy?
A CLOSER LOOK AT FACEBOOK

• What information does Facebook collect?
  • Things you do and information you provide
  • Things others do and information they provide
  • Your networks and connections
  • Information about payments
  • Device information (location, mobile phone number, IP)
  • Information from websites and apps that use Facebook services
  • Information from third party partners
  • Facebook companies
What kinds of information do we collect?

Depending on which Services you use, we collect different kinds of information from or about you.

**Things you do and information you provide.**

We collect the content and other information you provide when you use our Services, including when you sign up for an account, create or share, and message or communicate with others. This can include information in or about the content you provide, such as the location of a photo or the date a file was created. We also collect information about how you use our Services, such as the types of content you view or engage with or the frequency and duration of your activities.

**Things others do and information they provide.**

We also collect content and information that other people provide when they use our Services, including information about you, such as when they share a photo of you, send a message to you, or upload, sync or import your contact information.

From the Facebook Data Policy:
https://www.facebook.com/full_data_use_policy
HOW DOES FACEBOOK USE YOUR INFORMATION?

- Provide, improve and develop services
- Communicate with you
- Show and measure ads and services.
- Promote safety and security.
THIRD PARTY PARTNERS

• **Apps, websites and third-party integrations**
  • “When you use third-party apps, websites or other services that use, or are integrated with, our Services, they may receive information about what you post or share.”

• **Sharing within Facebook companies**
  • “We share information we have about you within the family of companies that are part of Facebook.”

• **New owner**
  • “If the ownership or control of all or part of our Services or their assets changes, we may transfer your information to the new owner.”
How do we respond to legal requests or prevent harm?

We may access, preserve and share your information in response to a legal request (like a search warrant, court order or subpoena) if we have a good faith belief that the law requires us to do so. This may include responding to legal requests from jurisdictions outside of the United States where we have a good faith belief that the response is required by law in that jurisdiction, affects users in that jurisdiction, and is consistent with internationally recognized standards. We may also access, preserve and share information when we have a good faith belief it is necessary to: detect, prevent and address fraud and other illegal activity; to protect ourselves, you and others, including as part of investigations; or to prevent death or imminent bodily harm. For example, we may provide information to third-party partners about the reliability of your account to prevent fraud and abuse on and off of our Services. Information we receive about you, including financial transaction data related to purchases made with Facebook, may be accessed, processed and retained for an extended period of time when it is the subject of a legal request or obligation, governmental investigation, or investigations concerning possible violations of our terms or policies, or otherwise to prevent harm. We also may retain information from accounts disabled for violations of our terms for at least a year to prevent repeat abuse or other violations of our terms.
How can I manage or delete information about me?

You can manage the content and information you share when you use Facebook through the Activity Log tool. You can also download information associated with your Facebook account through our Download Your Information tool.

We store data for as long as it is necessary to provide products and services to you and others, including those described above. Information associated with your account will be kept until your account is deleted, unless we no longer need the data to provide products and services.

You can delete your account any time. When you delete your account, we delete things you have posted, such as your photos and status updates. If you do not want to delete your account, but want to temporarily stop using Facebook, you may deactivate your account instead. To learn more about deactivating or deleting your account, click here. Keep in mind that information that others have shared about you is not part of your account and will not be deleted when you delete your account.
TRUE OR FALSE

There are lots of free games, quizzes and surveys on the internet designed only for your personal enjoyment.

Nothing is Free!

If it’s free, you’re the product
WORST OFFENDERS 2017
TOP FIVE

PRIVACY

PROTECTION TOOLS
1. Browser Alternatives
2. Browser Extensions
3. Search Engine Alternatives
4. Private Messaging
5. Password Managers
BROWSER ALTERNATIVES

Private Browsing, Incognito, TOR
FIREFOX PRIVATE BROWSING

- Automatically erases your online info like passwords, cookies and history from your computer when you close the browser
- Tracking protection to block ads and websites from tracking your browsing info
- Blocks ads with hidden trackers that weigh down your browsing speed
<table>
<thead>
<tr>
<th>Preference Name</th>
<th>Status</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>browser.popups.showPopupBlocker</td>
<td>default</td>
<td>boolean</td>
<td>true</td>
</tr>
<tr>
<td>browser.preferences.instantApply</td>
<td>default</td>
<td>boolean</td>
<td>false</td>
</tr>
<tr>
<td>browser.privatebrowsing.autostart</td>
<td>default</td>
<td>boolean</td>
<td>false</td>
</tr>
<tr>
<td>browser.reader.detectedFirstArticle</td>
<td>user set</td>
<td>boolean</td>
<td>true</td>
</tr>
<tr>
<td>browser.rights.3.shown</td>
<td>user set</td>
<td>boolean</td>
<td>true</td>
</tr>
<tr>
<td>browser.rights.version</td>
<td>default</td>
<td>integer</td>
<td>3</td>
</tr>
<tr>
<td>browser.ofshowing.popups</td>
<td>default</td>
<td>boolean</td>
<td>true</td>
</tr>
<tr>
<td>browser.ofshowing.crossprocess</td>
<td>default</td>
<td>boolean</td>
<td>true</td>
</tr>
<tr>
<td>browser.ofshowing.mixedprocess</td>
<td>default</td>
<td>boolean</td>
<td>true</td>
</tr>
<tr>
<td>browser.ofshowing.automenu</td>
<td>default</td>
<td>boolean</td>
<td>true</td>
</tr>
<tr>
<td>browser.ofshowing.powermenu</td>
<td>default</td>
<td>boolean</td>
<td>true</td>
</tr>
<tr>
<td>browser.ofshowing.autosignin</td>
<td>default</td>
<td>boolean</td>
<td>true</td>
</tr>
</tbody>
</table>
CHROME INCognito BROWSING

- Does not save information about the sites you’ve visited
- Does not save a record of the files you download
- Does not prevent other sources from seeing your Internet service provider, your employer (if at work), the websites you’ve visited
TOR (THE ONION ROUTER)

• Protects your privacy by bouncing your communications around a distributed network of relays run by volunteers all around the world

• This keeps the sites you visit private and it prevents sites from learning your physical location

• TOR also lets you access sites which are blocked
Step 1: Alice’s Tor client obtains a list of Tor nodes from a directory server.

- Alice
- Dave
- Jane
- Bob

+ Tor node
- unencrypted link
- encrypted link
Step 2: Alice's Tor client picks a random path to destination server. **Green links** are encrypted, **red links** are in the clear.
How Tor Works: 3

Step 3: If at a later time, the user visits another site, Alice’s tor client selects a second random path. Again, green links are encrypted, red links are in the clear.
BROWSER EXTENSIONS

Privacy Badger, Ghostery, HTTPS Everywhere
Privacy Badger detected 3 potential trackers on this page. These sliders let you control how Privacy Badger handles each one. You shouldn't need to adjust them unless something is broken.

<table>
<thead>
<tr>
<th>Domain</th>
<th>Status</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>webdir.online.lync.com</td>
<td></td>
<td></td>
</tr>
<tr>
<td>s1-officeapps-15.cdn.office...</td>
<td></td>
<td></td>
</tr>
<tr>
<td>s1-word-view-15.cdn.office.net</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The domains below don't appear to be tracking you:

- swx.cdn.skype.com
- config.edge.skype.com

[Disable Privacy Badger for This Site](#)

[Did Privacy Badger break this site? Let us know!](#)

[Donate to EFF](#)
27 Trackers

- AdRoll
- Aggregate Knowledge
- Advertising.com
- DoubleClick
- Google AdSense
- Google Analytics
- Google Publisher...
- Index Exchange (F...)
- Integral Ad Science
- Korrelate
- Krux
- Moat
- NetRatings Site Center
- OpenX
- Optimizely
- Qualtrics
- Quantcast
- Polar Mobile
- ScoreCard Research...
- Sizmek
- Sonobi
- Tacoda

27 Trackers found on
www.cnn.com

10 Blocked
1 Alert

- Trust Site
- Restrict Site
- Pause Ghostery

Map these trackers

Advertising
10 TRACKERS 10 Blocked
- Advertising.com
- DoubleClick
- Google AdSense
- Korrelate
- Moat
- NetRatings Site Center
- Polar Mobile
- ScoreCard Research Beacon
- Tacoda
SEARCH ENGINE ALTERNATIVES

DuckDuckGo, StartPage
DuckDuckGo

The search engine that doesn't track you. Learn More.
PRIVATE MESSAGING
WHICH COMPANY CAN READ YOUR PRIVATE MESSAGES?

Has end-to-end encryption as a default:
- Facebook WhatsApp
- Apple iMessage
- Apple Facetime
- Line
- Google Duo
- Viber

Has end-to-end encryption, but not set as default:
- Facebook Messenger
- Google Allo
- Telegram Messenger
- Kakao Talk

Does not have end-to-end encryption:
- Microsoft Skype
- Snapchat
- Google Hangouts
- Tencent WeChat
- Tencent QQ Messenger
- BlackBerry Messenger
SIGNAL BY WHISPER SYSTEMS

- Gold standard of instant messaging apps.
- End-to-end encryption
- Great usability
- Can use for texting and telephone conversations
- Open source, free app
PASSWORD MANAGERS
• Assists in generating, storing, and retrieving complex passwords from an encrypted database
• Some high-profile websites attempt to block the use of password managers

LastPass
KeePass
Encryptr
Password Safe
PASSWORD BEST PRACTICES

• The longer your password is, the harder it is to crack

• Use multiple character sets
  • Upper and lower case letters, numbers, punctuation

• Think up a phrase, then use the first letter for each word in the phrase
  • personal phrase: "It was a dark and stormy night…". password : iWadasn7

• Never reuse the same password twice
Customize your information sharing settings. Block 3rd party cookies, location data and use the do not track feature
Keep the lens of your webcam covered when not in use
Make sure you are visiting secure websites (https)
Enable 2-factor authentication for Google accounts, Twitter, Facebook, Apple ID, and Microsoft
Create strong passwords, unique for each account, and change them at least once a year.
Regularly delete your search history, cookies, and temporary Internet files
Select 'opt out' options for sharing personal information when creating new accounts
Periodically review your privacy settings
Log out of your email and social media accounts when not using
Read the terms and conditions on apps before accepting
FIX YOUR MOBILES
REFERENCES


REFERENCES


Tor: Overview. (n.d.) Tor Project. n.d. Retrieved from https://www.torproject.org/about/overview.html.en


IMAGES USED

https://commons.wikimedia.org/wiki/File:Facebook_icon.svg
https://commons.wikimedia.org/wiki/File:Google_%22G%22_Logo.svg
https://commons.wikimedia.org/wiki/File:Mozilla_Firefox_3.5_logo_256.png
https://commons.wikimedia.org/wiki/File:PrivacyBadgerLogo.png
https://commons.wikimedia.org/wiki/File:Startpage_logo.gif
https://commons.wikimedia.org/wiki/File:TextSecure_Blue_Icon.png
https://commons.wikimedia.org/wiki/File:Tor-logo-2011-flat.svg
IMAGES USED

https://www.flickr.com/photos/144464188@N06/31705094104
https://www.flickr.com/photos/bnpositive/3579354337
https://www.flickr.com/photos/d0ndy/16360612956
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