Internet 101

APNIC

How secure are you?

Warren Finch

https://wiki.apnictraining.net/20201201-pacnog



Attack Trends



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DON'T WAIT TO BE ATTACKED PREVENTION STARTS NOW>

TOP TARGETED COUNTRIES

Highest rate of attacks per organization in the last day.



TOP TARGETED INDUSTRIES

Highest rate of attacks per organization in the last day.

- S Education
- 💼 Government
- **@** Communications

TOP MALWARE TYPES

Malware types with the highest global impact in the last day.

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|-----|-----|----|---|
| Dat | .ĸu | UL | л |

Banking

b Botnet

£33

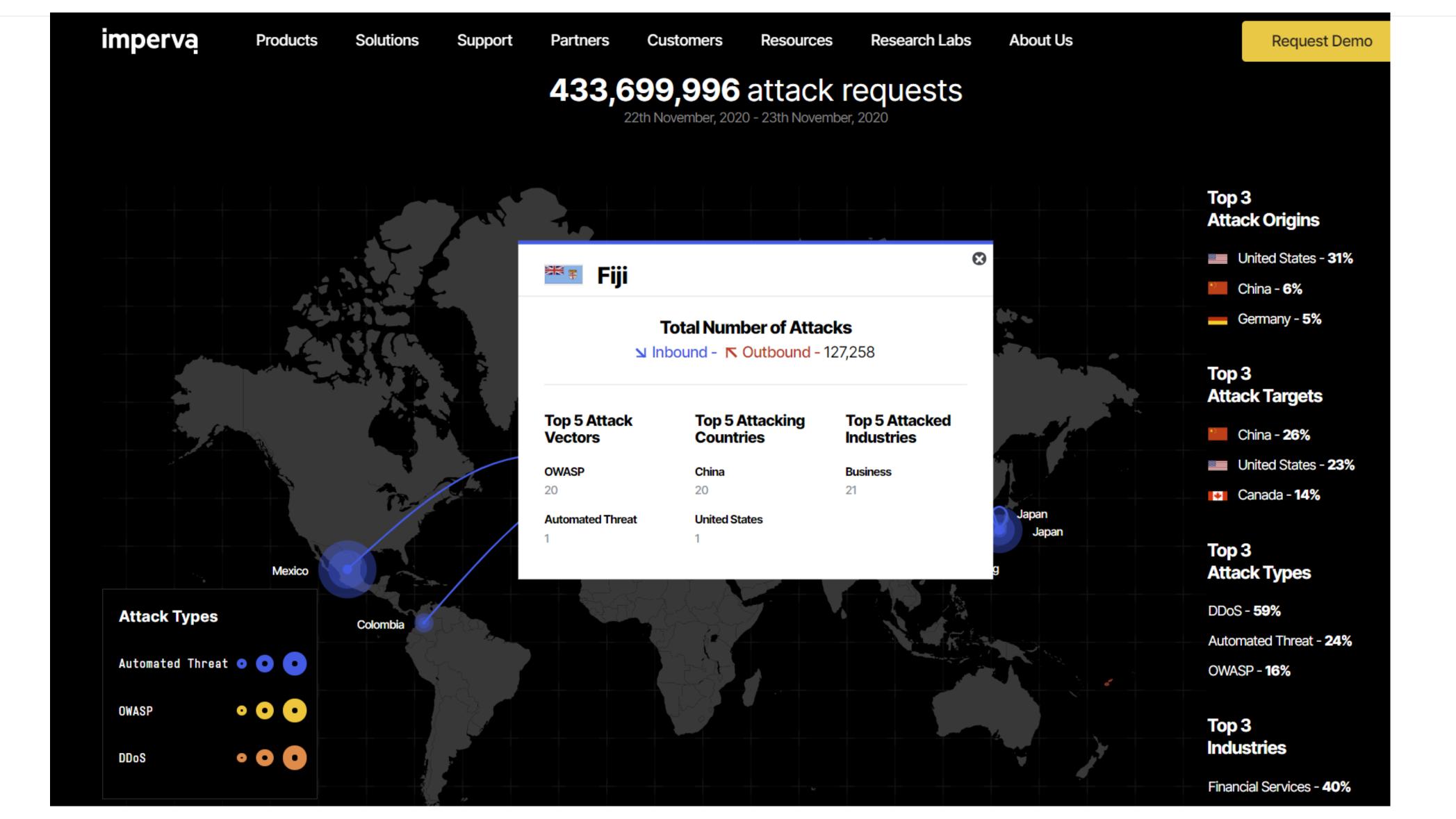
https://threatmap.checkpoint.com







Attack Trends



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https://www.imperva.com/cyber-threat-attack-map/





Internet usage

| Internet Usage and Population Statistics for Oceania - 2019 | | | | | | |
|---|---------------------------|-----------------------|---------------------------------|-------------------------------|---------------------|-------------------------|
| OCEANIA | Population (2019 Est.) | Users, in Dec/2000 | Internet Usage, 30-June-2019 | % Population (Penetration) | Internet % users | Facebook 31-Dec-2018 |
| American Samoa | 55,727 | n/a | 24,000 | 43.1 % | 0.1 % | 22,000 |
| Antarctica | 2,700 | n/a | 4,400 | 100.0 % | 0.0 % | 1,800 |
| <u>Australia</u> | 25,088,636 | 6,600,000 | 21,711,706 | 86.5 % | 75.8 % | 15,000,000 |
| <u>Australia, Ext. Terr.</u> | 1,651 | n/a | n/a | n/a | n/a | n/a |
| Christmas Island | 2,205 | 464 | 1,000 | 45.4 % | 0.0 % | 400 |
| <u>Cocos (Keeling) Is.</u> | 596 | n/a | 80 | 13.4% | 0.0 % | 70 |
| Cook Islands | 17,462 | n/a | 11,377 | 65.2 % | 0.0 % | 8,600 |
| <u>Eiji</u> | 918,757 | 7,500 | 500,958 | 54.5 % | 1.7 % | 470,000 |
| French Polynesia | 288,506 | 8,000 | 209,744 | 72.7 % | 0.7 % | 150,000 |
| <u>Guam</u> | 167,245 | 5,000 | 134,649 | 80.5 % | 0.5 % | 110,000 |
| <u>Kiribati</u> | 120,428 | 1,000 | 32,947 | 27.4% | 0.1 % | 30,000 |
| Marshall Islands | 53,211 | 500 | 20,593 | 38.7 % | 0.1 % | 20,000 |
| <u>Micronesia</u> | 106,983 | 2,000 | 56,193 | 52.5 % | 0.2 % | 21,000 |
| <u>Nauru</u> | 11,260 | n/a | 6,418 | 57.0 % | 0.0 % | 3,400 |
| New Caledonia | 283,376 | 24,000 | 232,368 | 82.0 % | 0.8 % | 150,000 |
| New Zealand | 4,792,409 | 830,000 | 4,351,987 | 90.8 % | 15.2 % | 3,100,000 |
| <u>Niue</u> | 1,618 | 450 | 1,485 | 91.2 % | 0.0 % | 820 |
| Norfolk Island | 1,748 | n/a | 796 | 45.5 % | 0.0 % | 80 |
| Northern Marianas | 55,246 | n/a | 40,000 | 72.4 % | 0.1 % | 36,000 |
| <u>Palau</u> | 22,206 | n/a | 7,860 | 35.4 % | 0.0 % | 5,800 |
| Papau New Guinea | 8,586,525 | 135,000 | 962,550 | 11.2 % | 3.4 % | 670,000 |
| Pitcairn Islands | 50 | n/a | 170 | n/a | n/a | 150 |
| <u>Samoa</u> | 198,909 | 500 | 100,000 | 50.3% | 0.3 % | 94,000 |
| <u>Smaller Territories (4)</u> | 3,902 | n/a | n/a | n/a | n/a | n/a |
| Solomon Islands | 635,254 | 2,000 | 75,722 | 11.9 % | 0.3 % | 68,000 |
| <u>Terres Australes</u> | n/a | n/a | n/a | n/a | n/a | n/a |
| <u>Tokelau</u> | 1,340 | 66 | 800 | 59.7% | 0.0 % | 410 |
| <u>Tonga</u> | 110,041 | 1,000 | 57,822 | 52.5 % | 0.2 % | 54,000 |
| <u>Tuvalu</u> | 11,393 | n/a | 5,619 | 49.3 % | 0.0 % | 1,700 |
| <u>Vanuatu</u> | 288,017 | 3,000 | 82,764 | 28.7% | 0.3 % | 63,000 |
| Wallis & Futuna | 11,617 | n/a | 3,900 | 33.6 % | 0.0 % | 3,400 |
| TOTAL OCEANIA | 41,839,201 | 7,620,480 | 28,636,278 | 68.4 % | 100.0 % | 20,068,690 |

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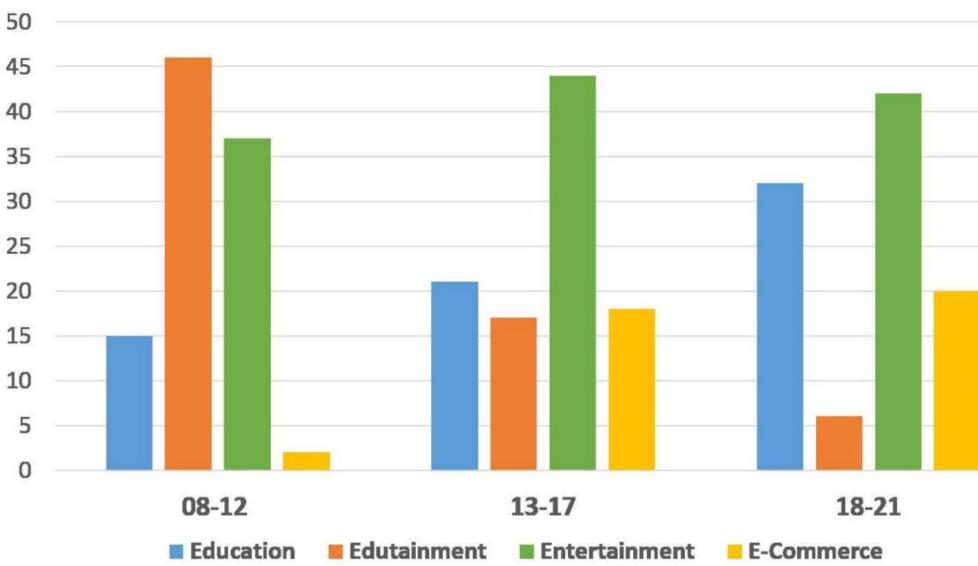
https://www.internetworldstats.com/stats6.htm





Internet usage

- How do you use the internet?
- What information do you share?
- What information do you look \bullet at?
- What information do you search for?
- Do you use it for banking?



| Age | Male | Female | NA | Total | Ratio |
|-------|------|--------|-----|-------|-------|
| 08-12 | 256 | 145 | 43 | 444 | 20.91 |
| 13-17 | 325 | 346 | 89 | 760 | 35.80 |
| 18-21 | 421 | 285 | 213 | 919 | 43.29 |

TABLE I: Statistics of age and gender-wise participation

https://www.researchgate.net/publication/316449708_A_survey_on_internet_usage_and_cybersecurity_awareness_in_students

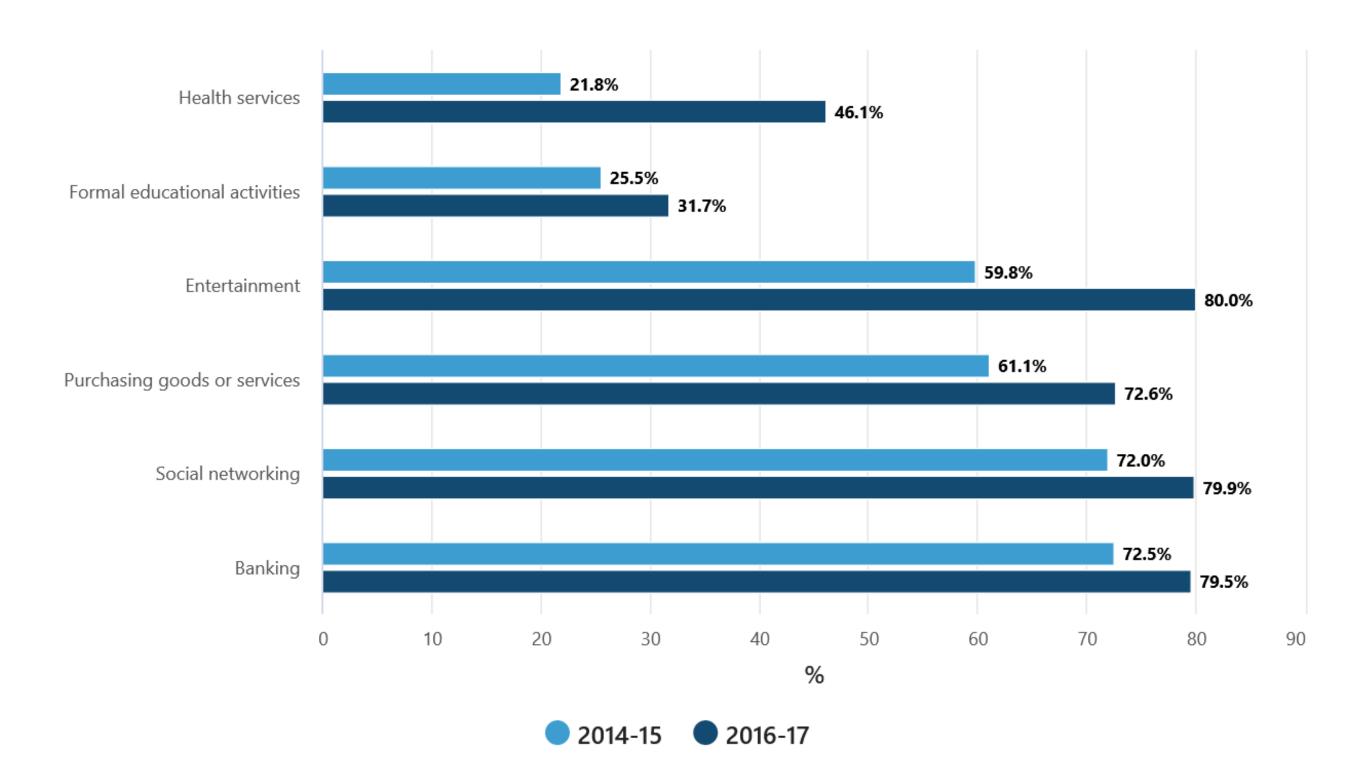






Internet usage

- How do you use the internet?
- What information do you share?
- What information do you look at?
- What information do you search for?
- Do you use it for banking?



Internet users, by reasons for accessing the internet, 2014-15 and 2016-17

https://www.abs.gov.au/statistics/industry/technology-and-innovation/household-use-information-technology/latest-release

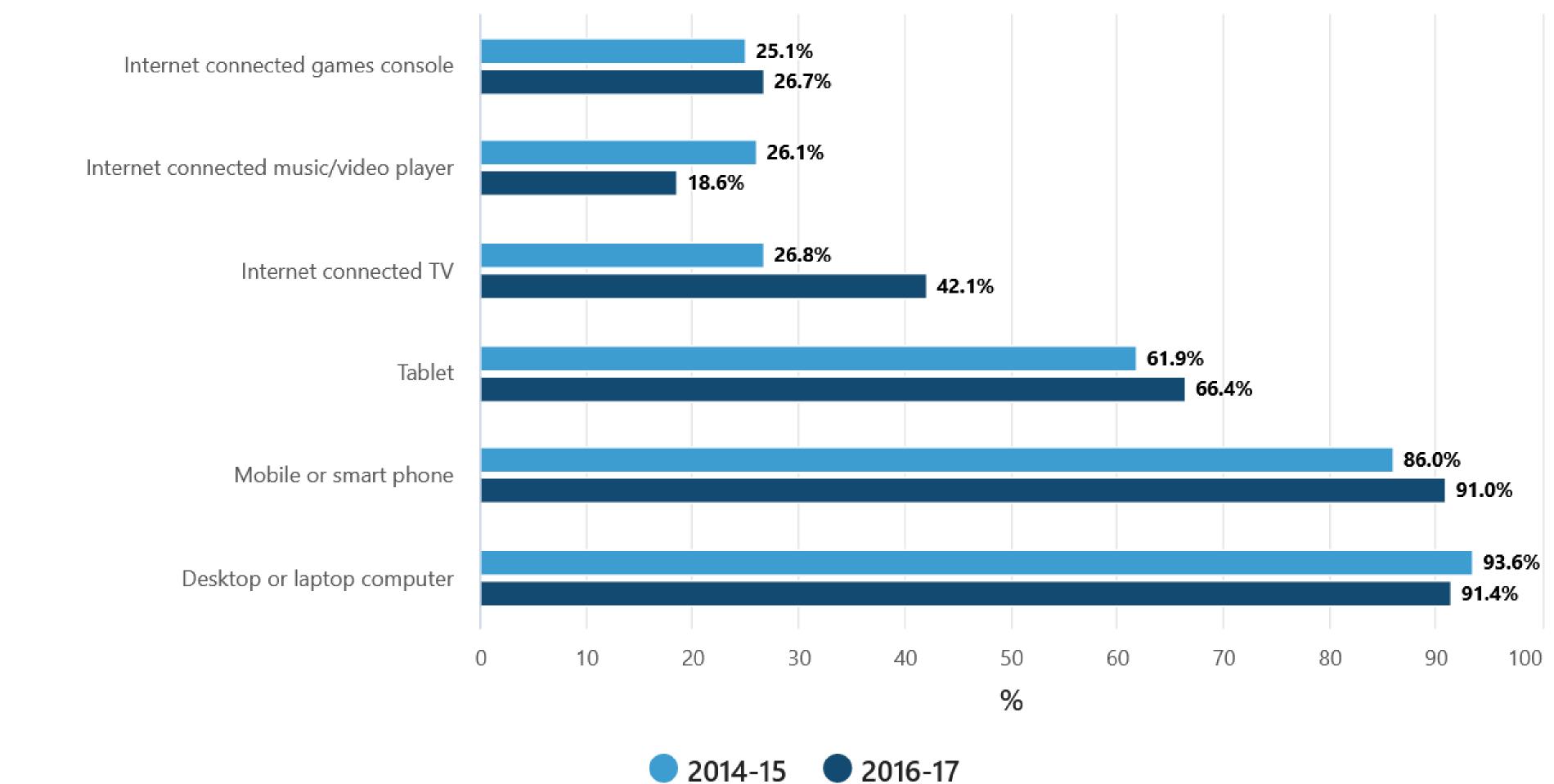






Which Device

What devices do you use?



https://www.abs.gov.au/statistics/industry/technology-and-innovation/household-use-information-technology/latest-release

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YOU ARE A TARGET

Username & Passwords

Once hacked, cyber criminals can install programs on your computer that capture all your keystrokes, including your username and password. That information is used to log into your online accounts, such as:

- Your bank or financial accounts, where they can steal or transfer your money
- Your iCloud, Google Drive, or Dropbox account where they can access all your sensitive data
- Your Amazon, Walmart or other online shopping accounts where they can purchase goods in your name
- Your UPS or FedEx accounts, where they ship stolen goods in your name

You may not realize it, but you are a target for cyber criminals. Your computer, mobile devices, accounts and your information have tremendous value. Check out the different methods a criminal could use your information against you to make money or commit other crimes.

Email Harvesting

Once hacked, cyber criminals can read your email for information they can sell to others, such as:

- All the names, email addresses and phone numbers from your contact list
- All of your personal or work email

Virtual Goods

Once hacked, cyber criminals can copy and steal any virtual goods you have and sell them to others, such as:

• Your online gaming characters, gaming goods

Botnet

Once hacked, your computer can be connected to an entire network of hacked computers controlled by the cyber criminal. This network, called a botnet, can then be used for activities such as:

- Sending out spam to millions of people
- Launching Denial of Service attacks

Fortunately, by taking a few simple steps, you can protect your organization and your family. To learn more, visit: sans.org/security-awareness. This poster was developed from security awareness expert Brian Krebs. Learn more about cyber criminals at: krebsonsecurity.com.

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Financial

Once hacked, cyber criminals can scan your system looking for valuable information, such as:

- Your credit card information
- Your tax records and past filings
- Your financial investments and retirement plans

Extortion

Once hacked, cyber criminals can take over by:

- Taking pictures of you with your computer camera and demanding payment to destroy or not release the pictures
- Encrypting all the data on your computer and demanding payment to decrypt it
- Tracking all websites you visit and threatening to publish them

Identity Hijacking

Once hacked, cyber criminals can steal your online identity to commit fraud or sell your identity to others, such as:

- Your Facebook, Twitter or LinkedIn account
- Your email accounts
- Your Skype or other IM accounts

Web Server

Once hacked, cyber criminals can turn your computer into a web server, which they can use for the following:

- Hosting phishing websites to steal other people's usernames and passwords
- Hosting attacking tools that will hack people's computers
- Distributing child pornography, pirated videos or stolen music

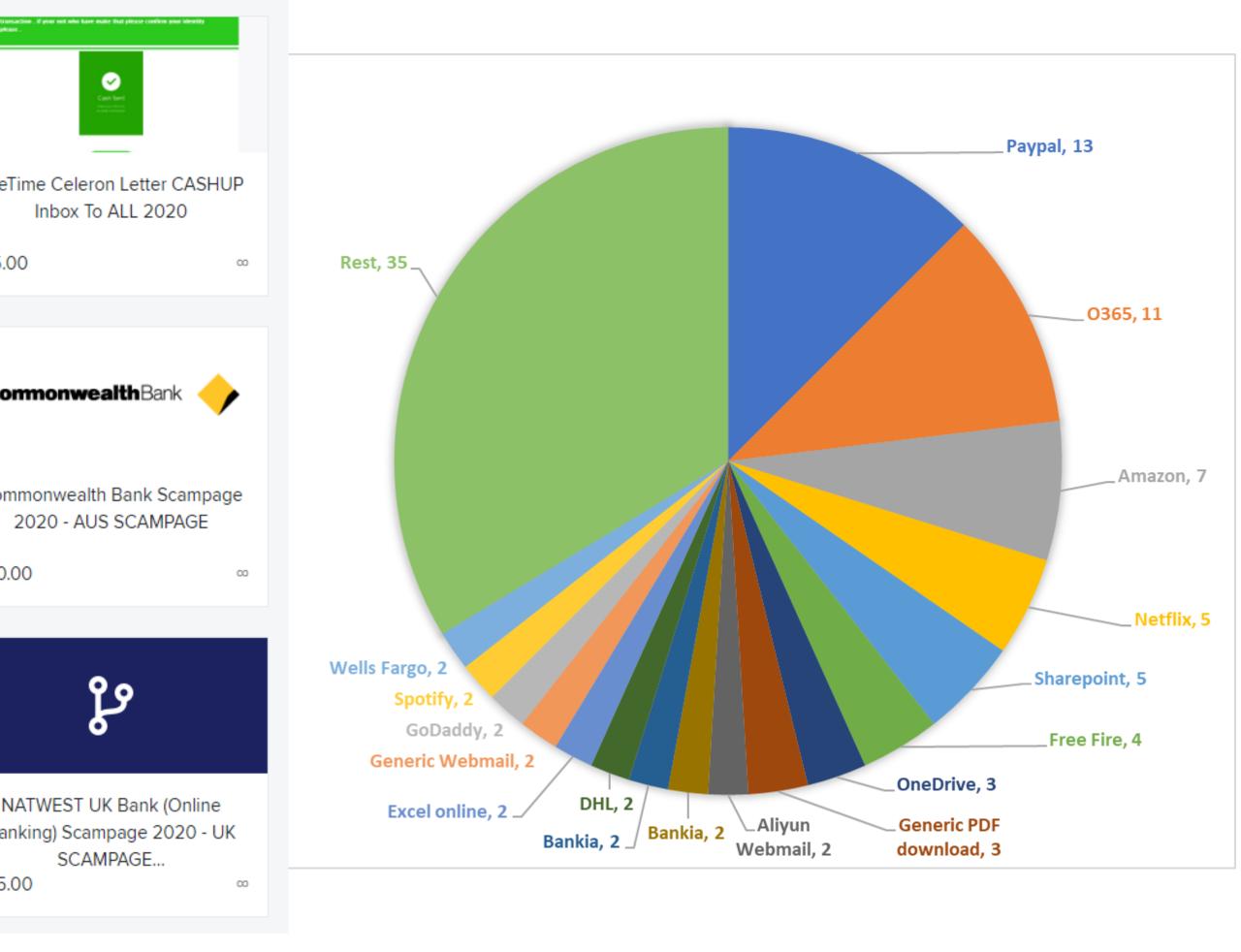




Phishing kits

| | | | | | | transat |
|--|---------------------------|----------------------------------|-------|---|--------------|------------|
| | | ama | zon | CHAS | E | |
| APPLE LETTER IN | BOX TO ALL | Amazon.com LET ALL 202 | | 10 K Chase Login , + E | Email Access | LifeTi |
| \$5.00 | 00 | \$3.00 | 00 | \$400.00 | 00 | \$15.00 |
| | | | | | | |
| Capita | lOne [®] Bank | <i>Тинн</i> е | lBear | | | Con |
| Capital One Scam FRESH AND F | page 2020 | TUNNEL BEAR OPEN BULLE | | Office365 Emails Ch | ecker 2020 | Comr 2 |
| \$30.00 | 00 | \$5.00 | 00 | \$25.00 | 00 | \$50.0 |
| | | | | | | |
| | | Huntu | ngton | Australia's Fi | | |
| Scotia | ank [®] | | | | | |
| ScotiaBank (Onlin Scampage 2020 - C | | Huntington Bank INBOX I BYPAS | | Westpac One Ban Banking) Scampage SCAMPA. | 2020 - AUS | NA Banl |
| \$50.00 | 00 | \$8.00 | 00 | \$50.00 | 00 | \$25.0 |
| | | | | | | |

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https://isc.sans.edu/forums/diary/Phishing+kits+as+far+as+the+eye+can+see/26660/







How much is your data worth?



and hands on experience of Experian cyber analyst the last two years.

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https://privacyaustralia.net/dark-web-personal-data/







What data are you leaking

- Operating system
- Browser details
- Hardware details
- Location information
- Passwords \bullet
- Auto-fill information



It has long been believed that IP addresses and Co things got out of hand when modern web technolog knowledge and with no way to avoid it.

BrowserLeaks is all about browsing privacy and we tools that will show you what kind of personal ident

((•)) IP Address

The main tool that illustrates server-side ca the user's identity. It has basic features such Address and HTTP Headers, IP-based ge determines your Country, State, City, ISP/ There's also TCP/IP OS Fingerprinting, We DNS Leak Test, IPv6 Leak Test.

WebRTC Leak Test

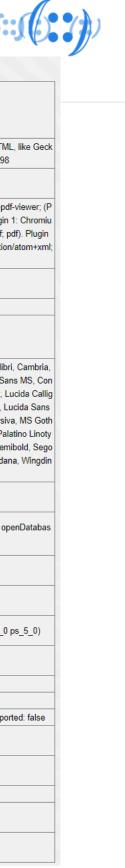
IP address detection using JavaScript. WebRTC API, the web browser communic server and shares information about addresses even if you are behind NAT and This tool will show if your real public IP is lea

WebGL Report

WebGL Browser Report checks WebGL supp produce WebGL Fingerprinting, exposes and other WebGL and GPU capabilities web browser identity. Also, this page c enable or disable WebGL in your web brows

| J | ? |
|---|---|
| | |

| Accented Content Types | | | | 10 10 | | | |
|---|---|-----------------------------------|----------------------------|---------------|-------------|-----------------------|--|
| Provide Part of the set of t | | | | | identifying | browsers have this | value |
| Accepted Content Types Birowser Full Screen Mode Content Full System: Window Size Content Full System: Undows 10 version 10.0 (64-bit) True Birowser Full Screen Mode | colm | | | User Agent | 10.73 | 1698.7 | Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTM o) Chrome/85.0.4183.121 Safari/537.36 OPR/71.0.3770.198 |
| Accepted Content Types Battery Status Battery Status <td< td=""><td></td><td>IP Address Lookup Q</td><td></td><td></td><td>2.8</td><td>6.98</td><td>text/html, */*; q=0.01 gzip, deflate, br en-US,en;q=0.9</td></td<> | | IP Address Lookup Q | | | 2.8 | 6.98 | text/html, */*; q=0.01 gzip, deflate, br en-US,en;q=0.9 |
| browser full Screen Mode Bilbuetooth Bilbu | | | | - | 6.94 | 122.52 | Plugin 0: Chromium PDF Plugin; Portable Document Format; internal-po ortable Document Format; application/x-google-chrome-pdf; pdf). Plugin m PDF Viewer; ; mhjfbmdgcfjbbpaeojofohoefgiehjai; (; application/pdf; j 2: News feed handler; ; enmlgamfkfdemjmlfjeeipglcfpomikn; (; application) (; application/rss+xml; rss). |
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| Content for the set of t | ity data can be leaked, and how to protect yourself from | n this. | | | | | |
| Image: Indiana in the second secon | > JavaScript | | | | 15.27 | 39636.33 | |
| Cuder 0.00 0.15 1.5 < | < > C ⊞ | | | System Fonts | 3.86 | 14.55 | Cambria Math, Century, Century Gothic, Century Schoolbook, Comic Sa solas, Courier, Courier New, Georgia, Helvetica, Impact, Lucida Bright, L raphy, Lucida Console, Lucida Fax, Lucida Handwriting, Lucida Sans, L Typewriter, Lucida Sans Unicode, Microsoft Sans Serif, Monotype Corsis ic, MS PGothic, MS Reference Sans Serif, MS Sans Serif, MS Serif, Pal pe, Segoe Print, Segoe Script, Segoe UI, Segoe UI Light, Segoe UI Seri e UI Symbol, Tahoma, Times, Times New Roman, Trebuchet MS, Verda |
| Device Info superative info 15 2.00 Device Window Status 15 15 2.00 Device Window Status 15 15 15 15 16 15 2.00 Device Window Status 16 15 2.00 16 15 16 15 16 15 16 15 16 16 16 16 16 16 16 16 16 16 | | | | | 0.18 | 1.13 | Yes |
| Accepted Content Types Pain d carvie 5 27 3.04 Histore Production Accepted Content Types Accepted Content Encodings Carvie Type / Model: Desktop or laptop | Device Info | | | supercookie | 1.55 | 2.93 | DOM localStorage: Yes, DOM sessionStorage: Yes, IE userData: No, op e: true, indexed db: true |
| Accepted Content Types Accepted Content Encodings Accounts Logged In Accounts Logged In AcciveX ActiveX ActiveX Ad Blocker Add Blocker AudioContext Battery Status Bituetooth Bluetooth Bluetooth Bitueser Browser Bitueser Browser Bitueser Device Type / Model: Desktop or laptop True Operating System Core: Unknown. Detection Borowser Full Screen Mode Browser Setting(s)/extension(s). True Browser Core: Chrome I Browser Suid Number / Identifier: 2003-01-07 / Unknown. Detection blocked by browser setting(s)/extension(s). I IP Address (WAN): I Connection Type Content Filtering VPN IP Address: No I VPN IP Address: No I | | | | fingerprint | 5.07 | 33.48 | 184c42ab72952c9ea0b2ef182038a365 |
| Accepted Content Encodings Accounts Logged In Accounts Logged In AcciveX Device Type / Model: Desktop or laptop ActiveX AdBlocker AddloContext AudioContext Bituetooth Bituetooth Bituetooth Bituetooth Browser Browser Full Screen Mode Browser Plugins Browser Plugins Browser Plugins Browser Plugins Browser Plugins Browser Plugins Browser Still Screen Mode Cache-Control Cache-Control Cache-Control Cache-Control Content Filtering VPN IP Address: No I | Acconted Content Types | | | fingerprint | 6.4 | 84.69 | 768371105602a80687eeb0ff0d3260bc |
| Accounts Logged In Accounts Logged In ActiveX Ad Blocker Add Blocker Add Blocker Operating System: Windows 10 version 10.0 (64-bit) AudioContext Battery Status Bluetooth Bluetooth Bluetooth Browser Browser Full Screen Mode Browser: Opera version 71.0.3770.198 (64-bit) (Engine: Blink) Browser: Opera version 71.0.3770.198 (64-bit) (Engine: Blink) Browser Plugins Browser Plugins Browser Plugins Browser Plugins Browser Build Number / Identifier: 2003-01-07 / Unknown. Detection blocked by browser setting(s)/extension(s). IP Address (WAN): Connection Type Content Filtering VEN IP Address: Not detected VEN IP Address | | | | & Renderer | | | Google Inc.~ANGLE (Intel(R) UHD Graphics 620 Direct3D11 vs_5_0 |
| Accounts Logged In ActiveX ActiveX Ad Blocker Operating System: Windows 10 version 10.0 (64-bit) AudioContext Battery Status Bluetooth Bluetooth Browser Browser Full Screen Mode Browser Plugins Browser Plugins Browser Plugins Browser Plugins Browser Plugins Browser Window Size Cache-Control Canvas (IP v4) Connection Type Content Filtering VPN IP Address: No i | _ | | | Enabled? | | | |
| ActiveX Ad Blocker Add Blocker AudioContext AudioContext Battery Status Battery Status Bluetooth Bluetooth Browser Browser Full Screen Mode Browser Fulgins Browser Plugins Browser Plugins Browser Suild Number / Identifier: 2003-01-07 / Unknown. Detection blocked by browser setting(s)/extension(s). IP Address: (WAN): IP Address: No Content Filtering | Accounts Logged In | Device Type / Model: D | esktop or laptop 🛛 👔 | Platform | 1.34 | 2.52 | Win32 |
| AudioContext AudioContext AudioContext Battery Status Bluetooth Bluetooth Browser Browser Full Screen Mode Browser Plugins Browser Plugins Browser Plugins Browser Window Size Cache-Control Canvas IP Address (WAN): I IP Address: No Content Filtering | ActiveX | | | Ad Blocker | | | |
| AudioContext 2016 or 2019 version 10.0 (64-bit) i Heroware 222 4.66 6 Battery Status True Operating System Core: Unknown. Detectic Device Memory 2.46 6 Browser Blocked by browser setting(s)/extension(s). i Image: Device Memory 2.43 5.59 6 Browser Browser Full Screen Mode Browser: Opera version 71.0.3770.198 (64-bit) (Engine: Blink) i Image: True Browser Core: Chrome i Browser Plugins Browser Build Number / Identifier: 2003-01-07 / Unknown. Detection blocked by browser setting(s)/extension(s). i Cache-Control IP Address (WAN): i i Image: Pluging Image: Pluging Connection Type Content Filtering VPN IP Address: No i VPN IP Address: No i | Ad Blocker | Operating System: Win | dows 10 version 10.0 (64- | | 3.29 | 9.79 | 124.04347527516074 |
| Battery Status Bluetooth Browser Browser Full Screen Mode Browser Full Screen Mode Browser Plugins Browser Plugins Browser Window Size Cache-Control Canvas Canvas Connection Type Connection Type Content Filtering VPN IP Address: Not detected | AudioContext | 2016 or 2019 version 10. | 0 (64-bit) i | | | | |
| • Bluetooth blocked by browser setting(s)/extension(s). i • Browser blocked by browser setting(s)/extension(s). i • Browser Full Screen Mode Browser: Opera version 71.0.3770.198 (64-bit) (Engine: Blink) i • Browser MIME Types True Browser Core: Chrome i • Browser Plugins Browser Build Number / Identifier: 2003-01-07 / Unknown. Detection • Cache-Control Browser setting(s)/extension(s). i • Canvas IP Address (WAN): i • City 106.70. (IPv4) • Content Filtering Tor Relay IP Address: No i | Battery Status | True Operating System | Core: Unknown, Detectio | Device Memory | | | 8 |
| Browser Browser Full Screen Mode Browser Full Screen Mode Browser MIME Types Browser Plugins Browser Window Size Cache-Control Canvas IP Address (WAN): IO Diotection Type Content Filtering | Bluetooth | | | ((68) | | | |
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| Browser Plugins Browser Window Size Cache-Control Canvas City Connection Type Content Filtering VPN IP Address: Not detected I | Browser Full Screen Mode | Browser: Opera version | 71.0.3770.198 (64-bit) (Er | ngine: Bli | nk) | i | |
| Browser Plugins Browser Window Size Cache-Control Canvas City Connection Type Content Filtering VPN IP Address: No i | Browser MIME Types | True Browser Core: Ch | rome | | | | |
| Browser Window Size Cache-Control Canvas City Connection Type Content Filtering VPN IP Address: Not detected VPN IP Address: Not detected | Browser Plugins | | | | | | |
| Cache-Control Canvas City Connection Type Content Filtering VPN IP Address: Not detected I | Browser Window Size | Browser Build Number | / Identifier: 2003-01-07 / | Unknown | . Detec | tion | |
| City Connection Type Content Filtering VPN IP Address: Not detected in the second s | Cache-Control | blocked by browser settin | ng(s)/extension(s). i | | | | |
| City Connection Type Content Filtering VPN IP Address: Not detected I | Canvas | IP Address (WAN): | . | | | | |
| Connection Type Content Filtering VPN IP Address: Not detected | City | | | | | | |
| Content Filtering VPN IP Address: Not detected | Connection Type | | | | | | |
| Cookies VPN IP Address: Not detected i | Content Filtering | | | | | | |
| | Cookies | VPN IP Address: Not de | etected i | | | | |











What data are you leaking?

- Every time your visit a web page, you leave a trace.
- Demo websites:
 - https://webkay.robinlinus.com
 - https://clickclickclick.click/
 - https://browserleaks.com
 - https://browserleaks.com/social
 - http://www.deviceinfo.me/

https://www.ghacks.net/2015/12/28/the-ultimate-online-privacy-test-resource-list/







What do you search?

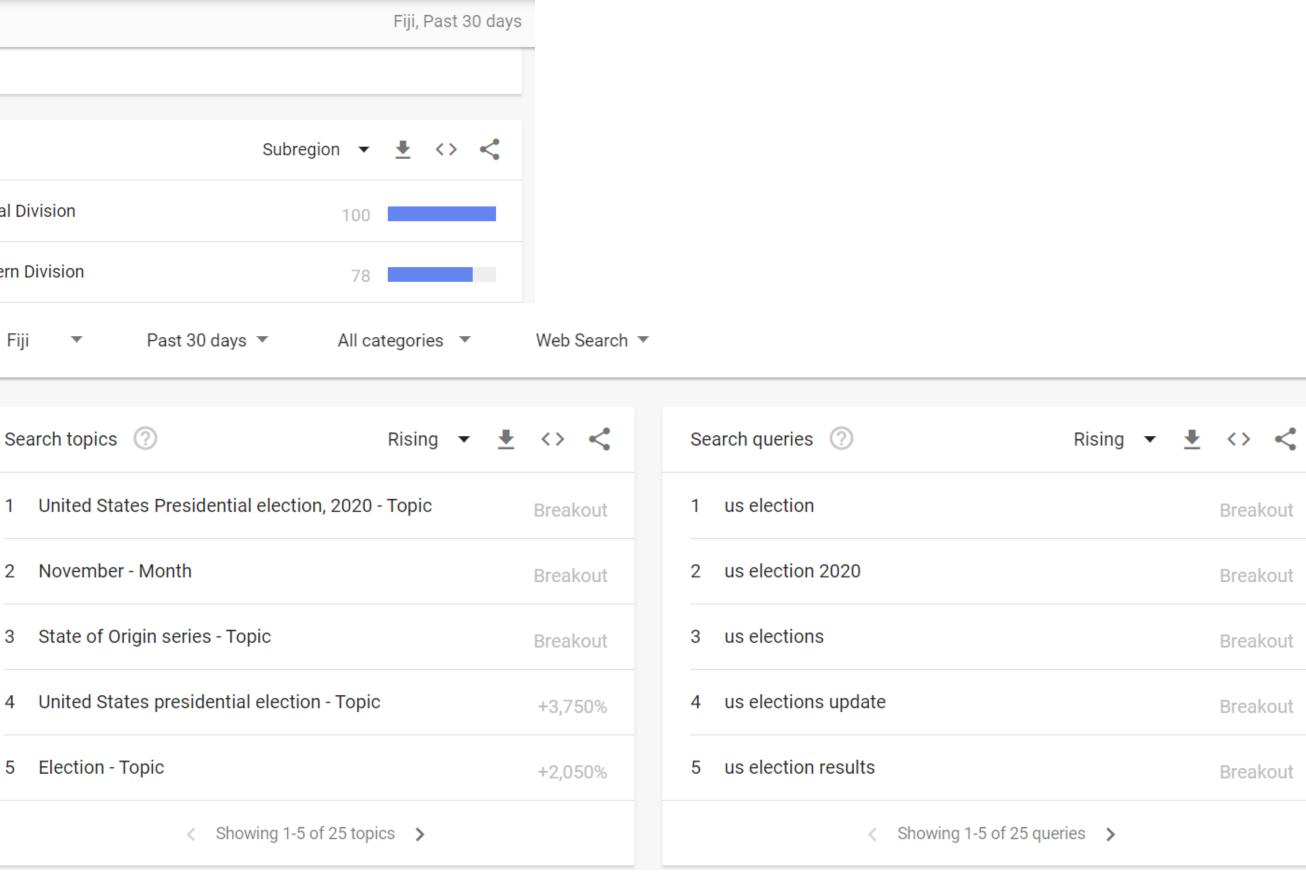
Every time you search, you leave a trace.

https://trends.google.com.au/trends/explore?geo=FJ

| State of Origin series | |
|--|-------------------------|
| Interest by subregion ② | |
| | 1 Central Division |
| | 2 Western Division |
| | Fiji 🔻 Past 30 |
| | Search topics |
| | 1 United States Presid |
| | 2 November - Month |
| | 3 State of Origin serie |
| | |

| 5 | Election - Topic |
|---|------------------|

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Are you being tracked?

- Browser fingerprinting
- Tracking ads
- Do not track option

Bloc

Bloc

Unbl

Prote

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"acc

Does

Does

APNIC

Our tests indicate that you have you have **strong protection** against Web tracking, though your software isn't checking for Do Not Track policies.

IS YOUR BROWSER:

| cking tracking ads? | Yes |
|--|---------------------------------------|
| cking invisible trackers? | Yes |
| locking 3rd parties that honor Do Not Track? | No |
| tecting you from fingerprinting? | Your browser has a unique fingerprint |

https://coveryourtracks.eff.org

| Test | Result |
|--|---|
| our browser blocking tracking ads? | 🗸 yes |
| our browser blocking invisible trackers? | ▲ partial protection |
| es your blocker stop trackers that are included in the so-called ceptable ads" whitelist? | 🗸 yes |
| es your browser unblock 3rd parties that promise to honor Do Not Track? | X no |
| es your browser protect from fingerprinting? | X your browser has a unique fingerprint |

https://panopticlick.eff.org







What websites you visit?

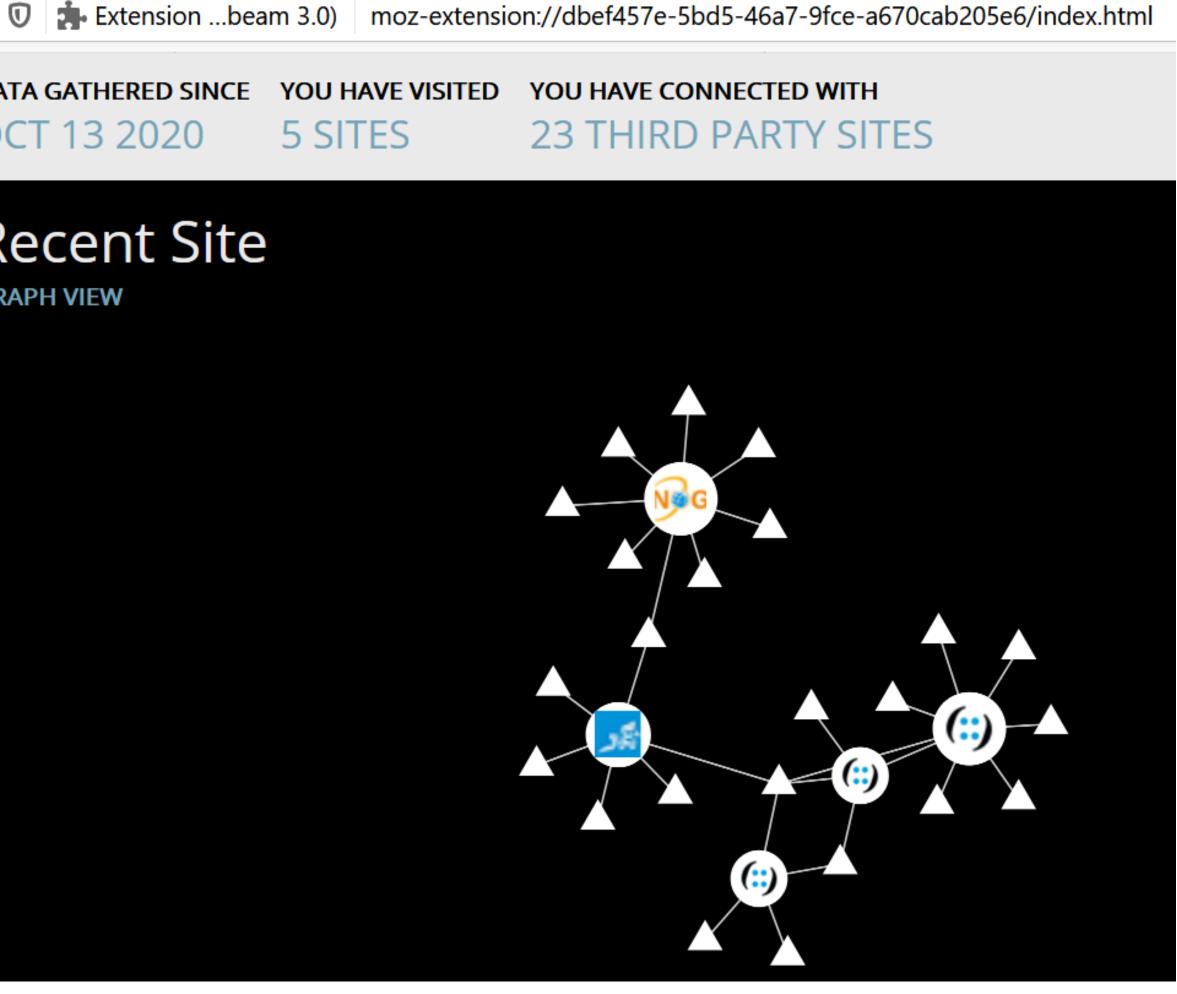
- What happens when you visit a website?
- You may get more than you think?
- How are these sites connected?
 - <u>https://academy.apnic.net</u>
 - <u>https://nog.bt/</u>
 - <u>https://kuenselonline.com/</u>



YOU HAVE VISITED YOU HAVE CONNECTED WITH DATA GATHERED SINCE OCT 13 2020 5 SITES

Recent Site

GRAPH VIEW



https://addons.mozilla.org/en-US/firefox/addon/lightbeam-3-0/

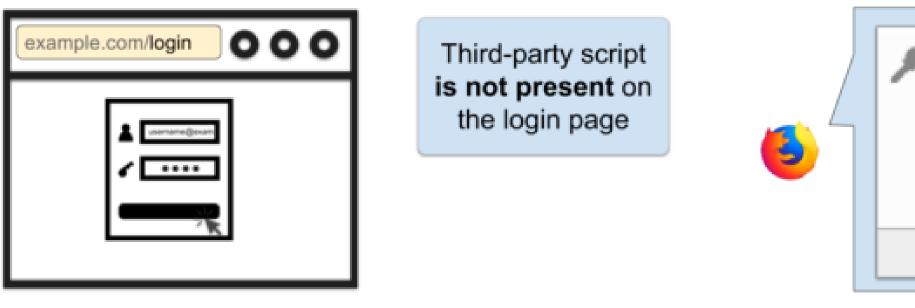




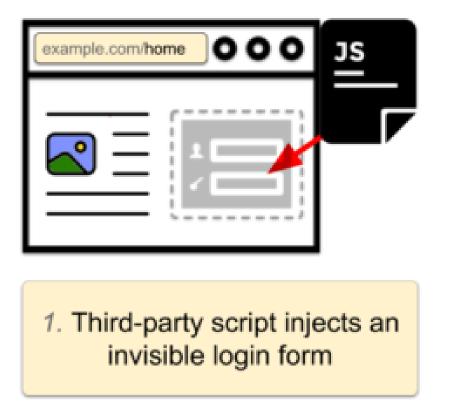
Passwords

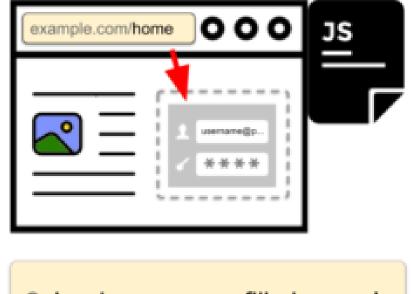
Do you save passwords in the web browser?

User submits a login or registration form, clicks "Save" to store the credentials.



User visits a non-login page on the same site; this time the third party script is present



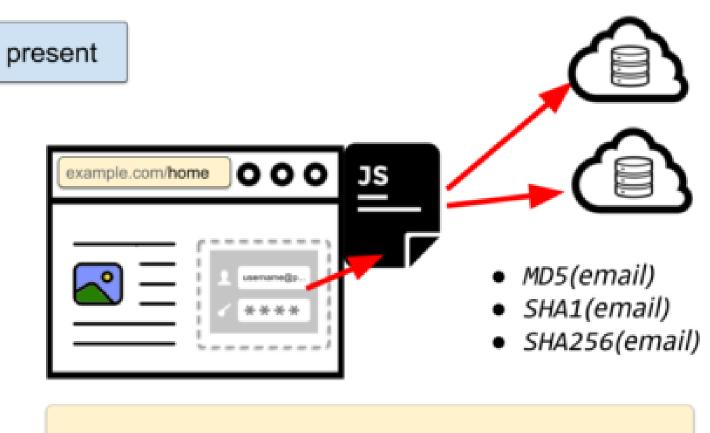


2. Login manager fills in user's email and password

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https://freedom-to-tinker.com/2017/12/27/no-boundaries-for-user-identities-web-trackers-exploit-browser-login-managers/

| P | Would you like Firefox to save this login for princeton.edu? | | | | | | |
|----|---|------|-----|--|--|--|--|
| | username@example.com | | | | | | |
| | ••••• | | | | | | |
| | Show password | | | | | | |
| Do | n't Save 🗸 🗸 | Save | * | | | | |
| | | | · K | | | | |



3. The script reads the email address from the form and sends it hashes to third-party servers







Passwords

Do you save passwords in the web browser?

| WebBrowserPassView | | | |
|---|-----------------------------|-----------------------|-------|
| <u>File E</u> dit <u>V</u> iew <u>O</u> ptions <u>H</u> elp | | | |
| 🔜 😰 🗈 😭 🔕 📲 | | | |
| URL 🛆 | Web Browser | User Name | Passv |
| • https://login.live.com/login.srf | Opera | login | passv |
| 🛛 🕛 https://login.yahoo.com | Opera | nirsoft456764 | Hyg6 |
| O https://www.facebook.com | Opera | hgyejdjs@nisoft.net | 6326/ |
| https://www.facebook.com/login.php | Chrome | myfacebookaccou | 1234. |
| 🕑 https://www.google.com | Firefox 3.5/4 | testtesttest | 1234 |
| https://www.google.com/accounts/servicelogin | Internet Explorer 7.0 - 8.0 | fdweferf | 4234: |
| https://www.google.com/accounts/servicelogin | Internet Explorer 7.0 - 8.0 | frwferfer | 5564! |
| https://www.google.com/accounts/servicelogin | Internet Explorer 7.0 - 8.0 | gmailuser748314 | 8996; |
| O https://www.google.com/accounts/ServiceLo | Opera | nuhaguyhba | 1234! |
| 🛛 🥶 https://www.linkedin.com | Firefox 3.5/4 | hello@testonly.com | bhy6 |
| • | | | |
| 15 Passwords, 1 Selected | NirSoft Freewar | e. http://www.nirsoft | t.net |

Demo - Login manager autofill abuse

Result

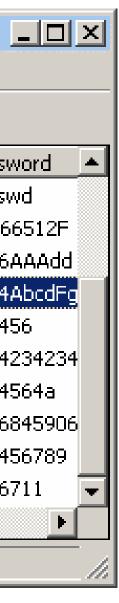
Sniffed email: fake@fake.com

Sniffed password: fakepassword

On Chrome you need to interact with the page (i.e., click anywhere) for the password to be sniffed.

An invisible form has been injected into this page by a script loaded from a third-party domain (also controlled by us). This causes the browser's built-in login manager to automatically fill the injected form with the credentials you saved on the previous page. These credentials belong to the first-party domain (senglehardt.com). Once the form is filled, our third-party script retrieves the information and displays it above. Check out our blog post for more information.

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Demo - Login manager autofill abuse

This demo checks whether your browser's built-in login manager will automatically fill an invisible login form.

We found tracking companies using the login managers built-in to browsers to sniff email addresses without any visual indication to the user. Check out our blog post for more information.

To start, we'll need you to save some test credentials using the form below. On a later page, we'll demonstrate how a third-party script can retrieve these saved credentials. Note that the third party does not need to be present when the credenitals are saved, and that none are present on this page.

Demo steps

- 1. Submit the following form with **fake credentials**
- 2. Your browser will ask whether you want to save this login. Click "Save".

Fake Email address

Enter a fake email

Please do not enter a real email address.

Fake Password

Enter a fake password

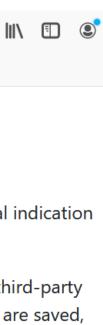
Please do not enter a real password.

Submit

https://senglehardt.com/demo/no_boundaries/loginmanager/

https://www.nirsoft.net/utils/web_browser_password.html



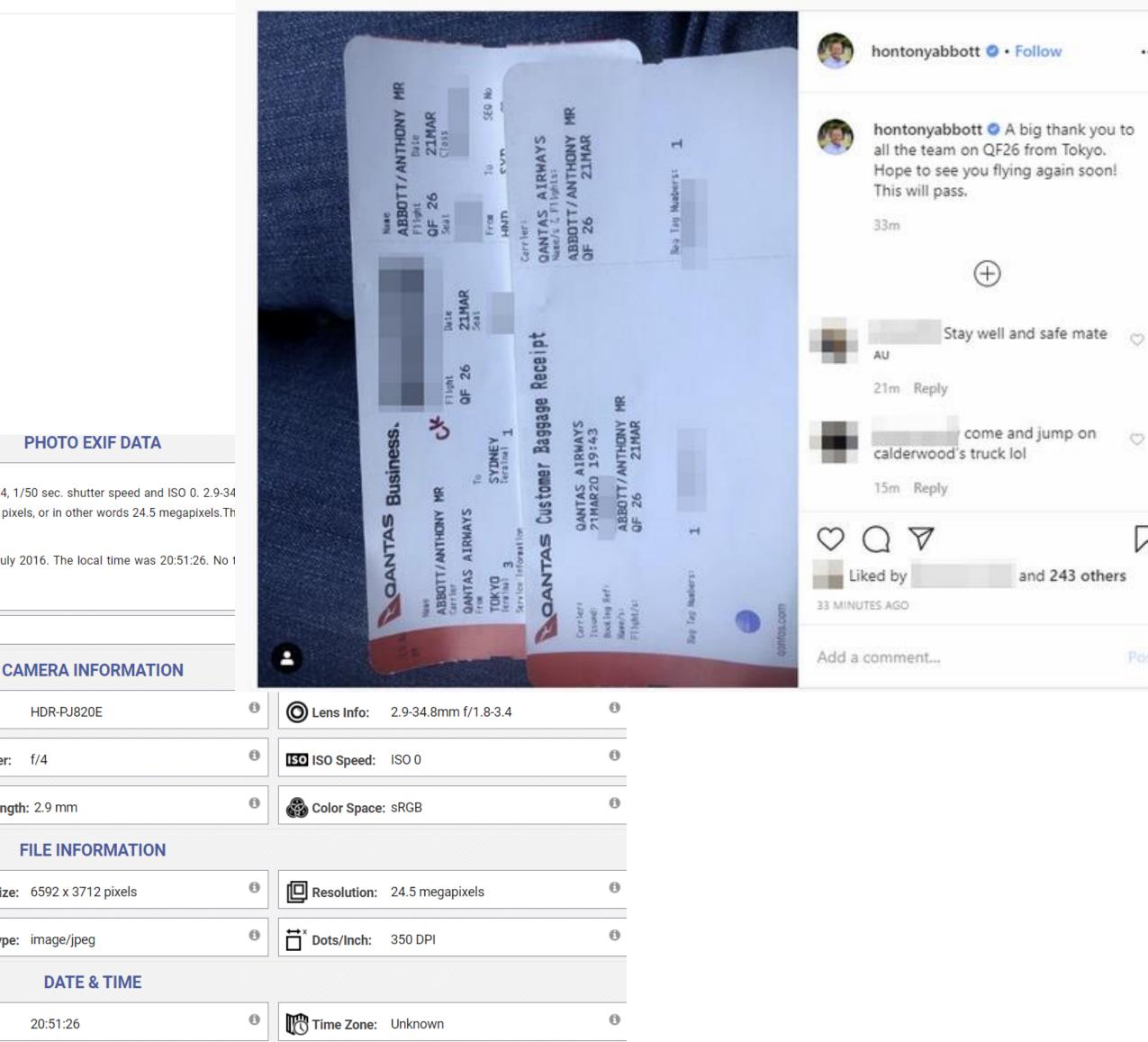




Uploading photos

| www.pic | 2map.com/ezvtcb.html | | | |
|--|---|--|----------------------------|---|
| ₩ P | C2MAP Online EXIF Viewer | | | |
| Contraction of the local division of the loc | Text & Network Rowling Workshop Formation was found | The photo was shot using a SONY HDR-PJ820E compulsory flash mode. The original image file has a megabytes. | a resolution as shot on | n of 6592 x 3712 pixels, or in other Monday 4th of July 2016. The loca |
| and the second second | SONY HDR-PJ820E | | | CAMERA INF |
| Date: | Mon 4th of July 2016 | Brand: SONY | 0 | Model: HDR-PJ820 |
|) Exposure: | | Shutter: 1/50 (0.02 seconds) | 0 | OF Number: f/4 |
| F Number: | | Flash: Not Used | 0 | Focal Length: 2.9 mm |
| | | 8 | | FILE INFO |
| ISO: | ISO 0 | File Name: track1-routing-group[1].jpg | 0 | tmage Size: 6592 x 3712 |
| C Lens: | 2.9-34.8mm f/1.8-3.4 | Unique ID: | 0 | MIME Type: image/jpeg |
| wiew View | w More Info 👘 Delete Photo | | | DATE & |
| | | Date: 2016-07-04 | 0 | • Time: 20:51:26 |

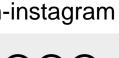
APNIC



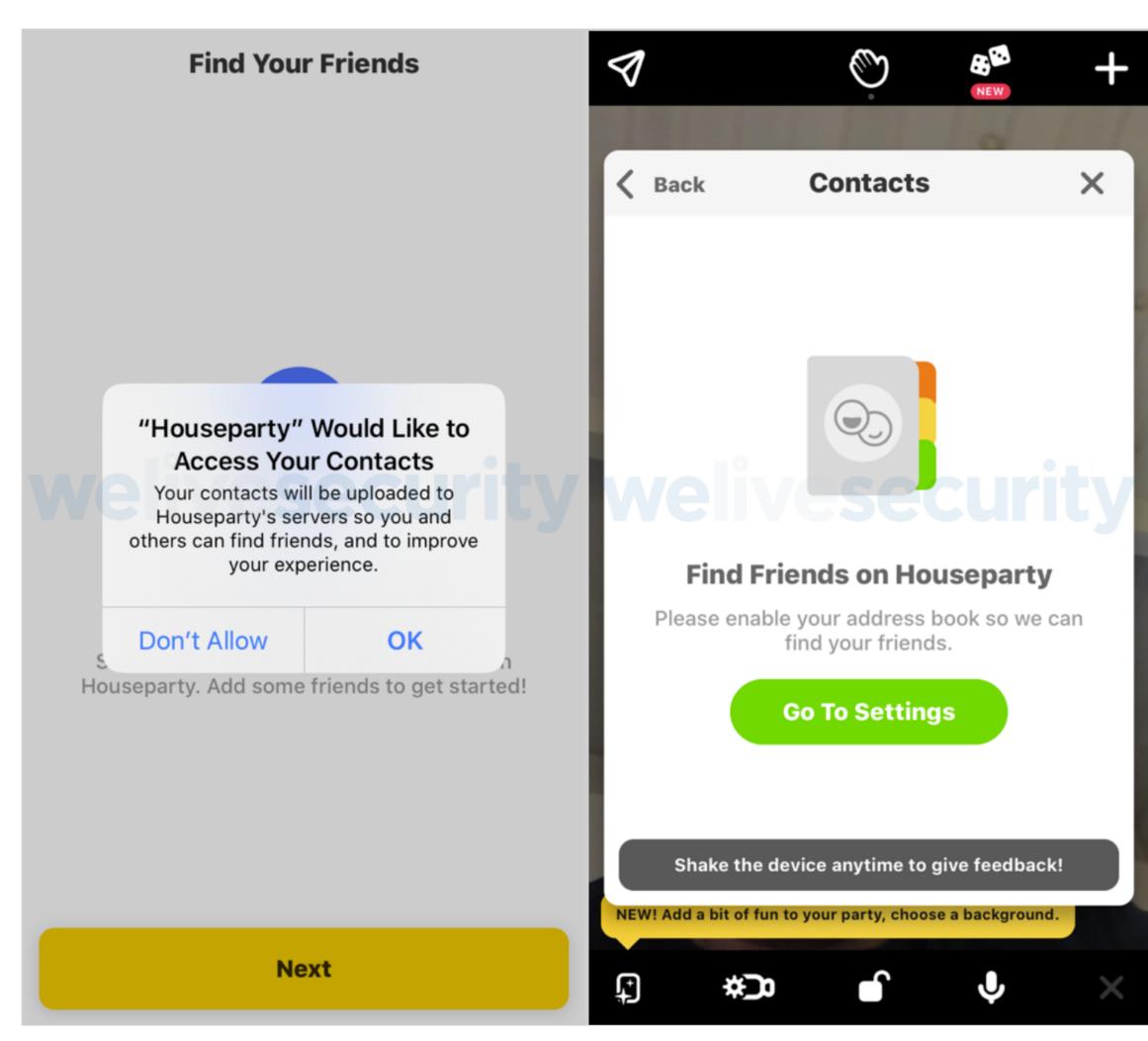
https://mango.pdf.zone/finding-former-australian-prime-minister-tony-abbotts-passport-number-on-instagram







Social media and other apps



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| 69* Image: | | hal" Would Like to ess Your Contacts ses your contacts to find ou know. We do not store contacts on the server. | "WhatsApp" Would Like Access Your Contacts Upload your contacts to Whats servers to help you quickly get in with your friends and help us pro- better experience. | | |
|--|---------|---|--|--|--|
| phone number. Enter your country code and phone number: | Don't A | | Don't Allow OK Welcome to Whats | | |
| + | | what they | re sharing. | | |
| Car | 0 mat | ches | Select a | | |
| To easily connect with friends and family, and send and receive photos and videos, allow WhatsApp access to your contacts and your device's photos, media, and files. | | | /ould Like to ur Contacts | | |
| NOT NOW CONTINUE | 2 | | | | |
| | 2 | Don't Allow | ок | | |
| | 2 | | | | |
| | | | | | |

https://www.welivesecurity.com/2020/10/09/so-you-thought-your-personal-data-was-deleted-not-so-fast/

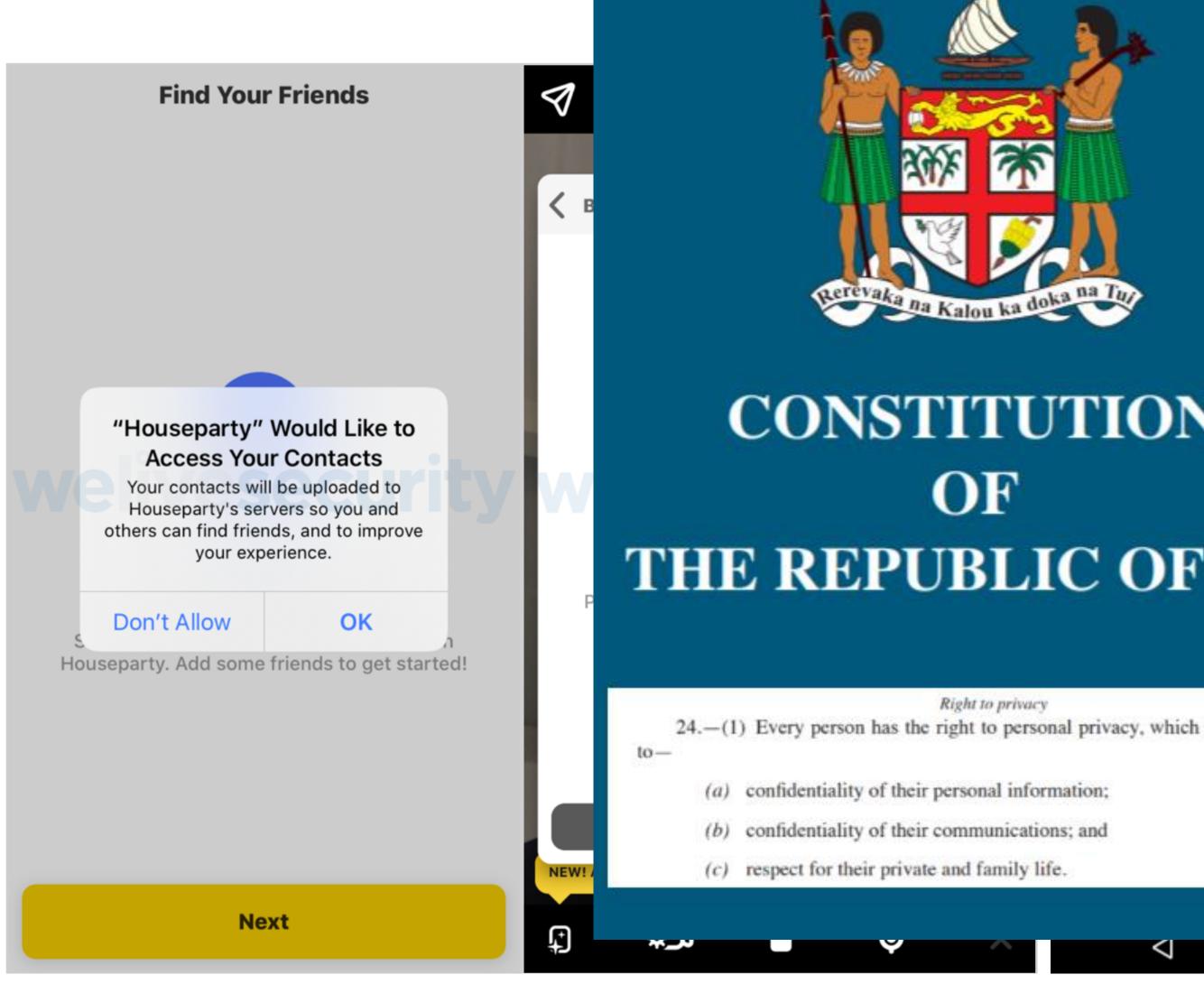








Social media and other apps



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| | to verify your de and phone | Acce Signal us users yo | Allow OK | "WhatsApp" Would Li Access Your Contact Upload your contacts to What servers to help you quickly get with your friends and help us p better experience. Don't Allow | | |
|----------------------|--|-------------------------------|-------------------|---|--|--|
| J | | 0 mat | | 're sharing. Select | | |
| FIJI | family, videos, intacts nd files. | | | Vould Like to ur Contacts | | |
| h includes the right | ITINUE | 2 | to help you conne | pload your contacts ect with friends and o follow on Twitter. | | |
| | | • • | Don't Allow | OK | | |
| O | | | | | | |

https://www.welivesecurity.com/2020/10/09/so-you-thought-your-personal-data-was-deleted-not-so-fast/









Credentials and personal info

- Do you use the:
 - same email address to login for multiple sites?
 - same password?
 - same personal information?
 - auto-fill option in browsers?
 - Facebook or Google Single Sign-On
 - multi-factor or two-factor authentication
- If a site asks for personal information, do you think why? lacksquare
- What other information is being gathered?





Think before you click

- Everything online is tracked
- Everything online is logged
- Your personal information is worth something \$\$\$\$
- Your digital habits/behaviour impacts this worth

Your friends and online contacts share your personal information





Strategies

- At a minimum:
 - Setup ad blocker
 - Enable do not track
 - Use some sort of end point protection
 - Use privacy mode for sensitive pages eg banking sites
 - Use email aliases (eg Gmail pacnog+apnictalk@gmail.com)
- Which device?
- Which browser?
- What plugins?
- What search engine?
- Uninstall unused apps, plugins or software

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Strategies

Browser extensions

| Extension | Description | Website | ٢ | 0 |
|--------------------------|--|---------|---|---|
| uBlock Origin | An efficient ad and tracker blocker with a small performance footprint! | | 2 | 2 |
| Ghostery | Protect your privacy by blocking trackers on the Web and by learning who is watching you! | C | 2 | 2 |
| HTTPS Everywhere | Encrypt the web! Enable HTTPS automatically on websites that are known to support it. A project by the EFF (Electronic Frontier Foundation). This extension includes an option to verify SSL certificates directly by C the EFF SSL Observatory. | 2 | 2 | 2 |
| Lightbeam | Visualize in details the servers you are contacting when you are surfing on the Internet! Developed by Mozilla. Presentation of Lightbeam by Gary Kovacs, former CEO of Mozilla, in a TED talk. | | 2 | 0 |
| AdBlock Plus | Block advertisements, trackers and more! We recommend the use of additional lists like the Fanboy Complete AdBlock list. | C | 2 | 2 |
| Disconnect | Stop tracking by third-party sites and visualize who is tracking you! | C | 2 | 2 |
| Privacy Badger | Block spying ads and invisible trackers! A project by the EFF (Electronic Frontier Foundation). | C | 2 | 2 |
| NoScript | Take control of what is running in your browser by blocking unwanted scripts! | C | 2 | 0 |
| Self-Destructing Cookies | Remove cookies that are no longer used as soon as you close a tab! | | 2 | 0 |

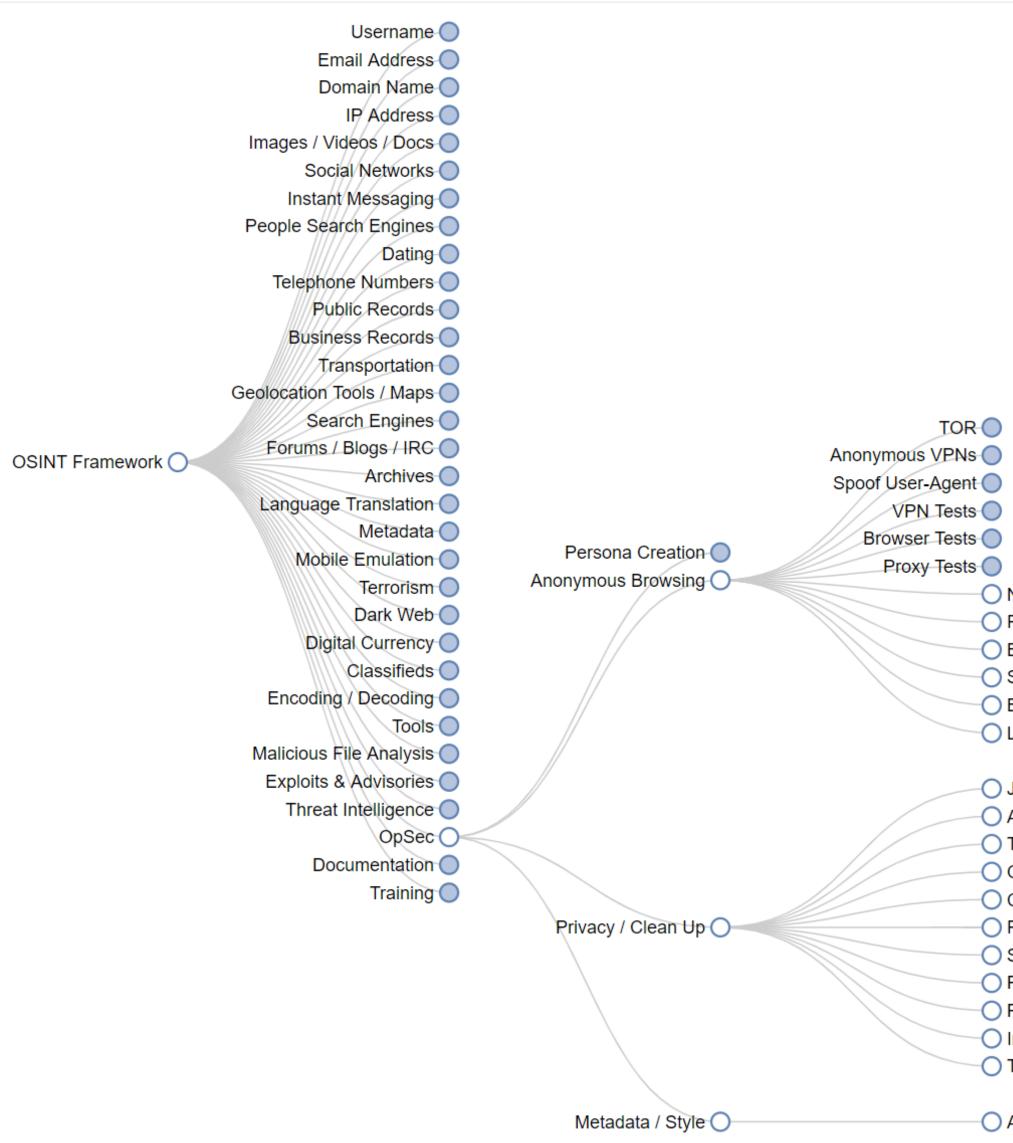
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https://amiunique.org/tools/





Strategies



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- O NoScript (T)
- Firefox-debloat
- Browser Leaks
- Self-Destructing Cookies (T)
- O BrowserSpy.dk
- LocaBrowser.com
- Just Delete Me
- Accountkiller.com
- O The Internet Privacy Handbook
- OptOut Credit Prescreen
- Credit Freeze
- Fake US Identities
- Social Media Fingerprint
- Privacy Tools
- O Panopticlick
- O Intel Techniques Hiding from the Internet
- O The Many Hats Club Privacy Resources
- Anonymouth Document Anonymization (T)

https://osintframework.com





Thank You!

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