

LIFT THE LID ON THE WEB

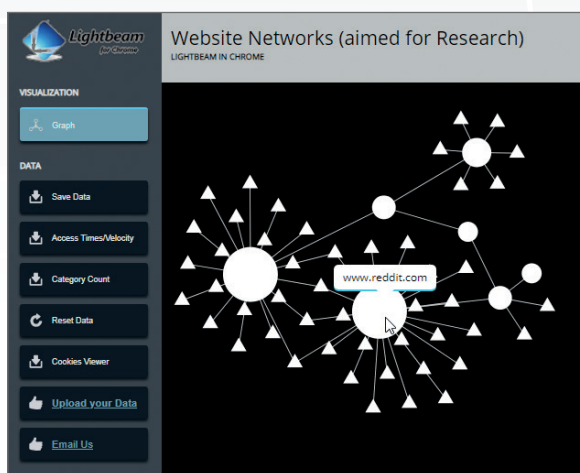


There's more happening behind the scenes than you realise every time you go online. **Robert Irvine** explains how to find out what lies beneath your favourite websites

Expose hidden third-party trackers

Whenever you go online, hidden ad servers and other invisible trackers connect to your browser to monitor your activities. Your browser's 'Do not track' function is supposed to prevent this from happening, but this relies on websites obeying that request, and most simply ignore it, which is why many of us install ad blockers such as uBlock Origin (bit.ly/ublock502), Ghostery (ghostery.com) or Privacy Badger (privacybadger.org). Clicking the toolbar button for one of these add-ons tells you exactly which trackers have been blocked on the current site, but for a clearer overview of who's following you (without resorting to an ad blocker), check out Thunderbeam (bit.ly/thunder504).

This Chrome version of an excellent Firefox extension called Lightbeam, which Mozilla has discontinued but can still be installed (bit.ly/lightbeam504), visualises the hidden trackers that lurk



Thunderbeam and Lightbeam visualise third-party trackers lurking in the background

in the background as you browse the web. The large circles in the graph represent the sites you've visited, while the triangles show third-party servers connected to each site, which may be collecting and sharing your data. It's eye-opening stuff.

Monitor your background processes

The Windows Task Manager tells you how much processor power and memory your browser is using, and the number of processes it's running, but it doesn't reveal what those processes are,

Task	Memory footprint	CPU	Network	Process ID
Utility: Network Servi...	37,968K	0.0	0	9372
Utility: Audio Service	6,804K	0.0	0	11452
Tab: UK Home Daily...	72,740K	0.0	0	2476
Tab: News, sport and...	70,564K	0.0	0	11496
Service Worker: https...	301,852K	0.0	0	9440
Tab: Bitly Link Mana...	47,912K	0.0	0	11356
Subframe: https://stri...	24,944K	0.0	0	13260
Subframe: https://stri...	17,928K	0.0	0	12380

The Task Manager in your browser lets you monitor and close background processes

so you can't identify which ones are hogging resources or are acting suspiciously. Fortunately, browsers provide their own task managers for this purpose, which let you spot and close greedy background processes related to specific tabs, plugins, extensions and other web elements.

To open the Task Manager in Chrome or Edge, either click the three-dot menu button and choose 'More tools', 'Task manager' ('Browser task manager' in Edge), or just press Shift+Esc on your keyboard. This brings up details of all running processes, including their type (tab, extension, utility and so on), and the amount of memory they're using. Select an unwanted task and click 'End process' to terminate it.

You can access Firefox's Task Manager by clicking the menu button and going to More, Task Manager or by typing `about:performance` in the address bar. Again, this lists running processes and lets you close them by clicking the X in the far-right column or by choosing 'Show in Add-ons Manager' and disabling them there.

Discover what data is being collected

Irrespective of which browser you use to access the web, you unwittingly share a certain amount of personal data every time you go online, including your location, the operating system you're running, the name of your ISP, your screen resolution, which plugins you have installed and much more. This helps websites optimise their content for your browsing benefit, but it's also useful to know exactly what data they're collecting - and how much.

There are various web tools that reveal the information you're 'leaking', of which the most comprehensive is BrowserLeaks.com (browserleaks.com).



Ad blockers such as Ghostery show which trackers are blocked on the current site



What Is My IP Address

My IP Address :
 IP address : 176.253.238.63
 Hostname : b0fdee3f.bb.sky.com

IP Address Location :
 Country : United Kingdom (GB)
 State/Region : England (ENG)
 City : Hornsey
 ISP : Sky UK Limited
 ASN : 5607
 Timezone : Europe/London
 Local Time : Wed, 03 Jun 2020 10:47:51 +0100
 Latitude/Longitude : 51.5788,-0.1235

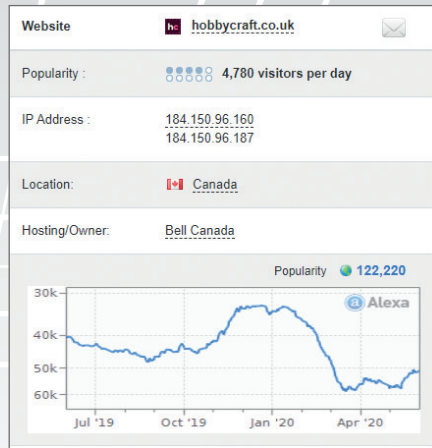
From your IP address alone, websites can detect where you are, your ISP and more

This offers a series of tests that show you what data is being gathered via different methods, for example your IP address, JavaScript and WebRTC (which allows browsers to communicate with websites). Usefully, it provides advice below each set of test results recommending ways to plug that type of leak, such as disabling specific settings and switching to Tor Browser (www.torproject.org).

Alternatively, you can install the Chrome (and Edge) extension BrowserBuddy, which we recommended in Issue 501's Best New Browser Tools section (bit.ly/buddy501). This lets you instantly check all the data about you that's available to websites, so you can decide whether you need to beef up your privacy, perhaps by running a VPN (see page 40).

Reveal a site's true location and owner

Websites use your IP address to detect where you're browsing from, but it's often less clear where the websites themselves are really based, because a 'co.uk' domain doesn't necessarily mean they're operating from the UK – it's just the web address they've registered. Additionally, many sites now use



Website : hobbycraft.co.uk

Popularity : 4,780 visitors per day

IP Address : 184.150.96.160
184.150.96.187

Location : Canada

Hosting/Owner : Bell Canada

Popularity : 122,220 (Alexa)

Find out which country a website is based in and who registered its domain name

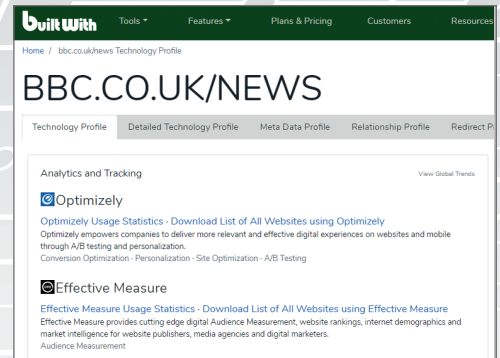
non-country specific domains, such as '.biz', '.info' and '.xyz'.

You can discover a site's true location by installing the clumsily named Chrome (and Edge) extension IP Whois & Flags Chrome & Websites Rating (bit.ly/ipwhois504), which displays the relevant country flag for the current site on your toolbar. Click this button for further information, including the site's IP address, the name of its owner, its global Alexa ranking, the number of visitors it receives a day and much more. You can also run a Whois search to find out who registered the domain name and when, check the security of the site on Norton Safe Web and read visitor reviews.

For Firefox, try the equally handy Flagfox (bit.ly/flagfox504), which displays the country flag in your address bar and lets you click it for full website details and a Google map showing its location. Right-click the flag to scan the site for malware, check its server status, view its Alexa ranking and more. You'll be surprised how many supposed UK sites have servers based abroad.

Learn exactly what websites are made of

Many websites look simple on the



builtwith Tools Features Plans & Pricing Customers Resources

Home / bbc.co.uk/news Technology Profile

BBC.CO.UK/NEWS

Technology Profile Detailed Technology Profile Meta Data Profile Relationship Profile Redirect P

Analytics and Tracking View Global Trends

- Optimizely**
Optimizely Usage Statistics - Download List of All Websites using Optimizely
Optimizely empowers companies to deliver more relevant and effective digital experiences on websites and mobile through A/B testing and personalization.
Conversion Optimization - Personalization - Site Optimization - A/B Testing
- Effective Measure**
Effective Measure Usage Statistics - Download List of All Websites using Effective Measure
Effective Measure provides cutting edge digital Audience Measurement, website rankings, internet demographics and market intelligence for website publishers, media agencies and digital marketers.
Audience Measurement

Built With reveals the hidden technologies used by billions of different websites

surface, but have a lot of different services and elements going on behind the scenes, from analytics tools, ad networks and affiliate programs to social-media widgets, email providers and the content-management systems used to run them. To discover exactly which technologies are included on a particular site, search for its web address at Built With (builtwith.com).

This impressively comprehensive resource, which claims to "index 100% of the internet by registered domain" (that's around 16.4 billion sites), detects and tracks signals from websites to determine which technologies they currently use or have used in the past. It then provides detailed profiles that list all the different elements, explain what they are and link to other sites that also use them. BBC News, for example, has more than 40 different elements going on in the background.

Although it's aimed at web developers, Built With should appeal to anyone interested in the hidden building blocks of the internet, and lets you look up five sites a day for free.

Similarly, if you want to know which fonts a website uses, so you can try them on your own pages, install WhatFont for Chrome (bit.ly/wfchrome504) or Firefox (bit.ly/wffire504), which lets you hover your mouse over a font to view its name. ■

UNCOVER SOURCE-CODE SECRETS

The quickest way to look behind the scenes of a web page is to right-click it and choose 'View page source' (or press Ctrl+U). This displays the source code – all the HTML elements that make up the page – and sometimes a hidden 'Easter egg', too. For example, try viewing the page source on the KitKat website (kitkat.com) to see an ASCII rendition of the chocolate brand's logo; on the The Guardian (www.guardian.co.uk) and Flickr (www.flickr.com) sites to uncover hidden job adverts; and on Entertainment Weekly (ew.com) to reveal a secret unicorn. Please let us know if you've found any others!

