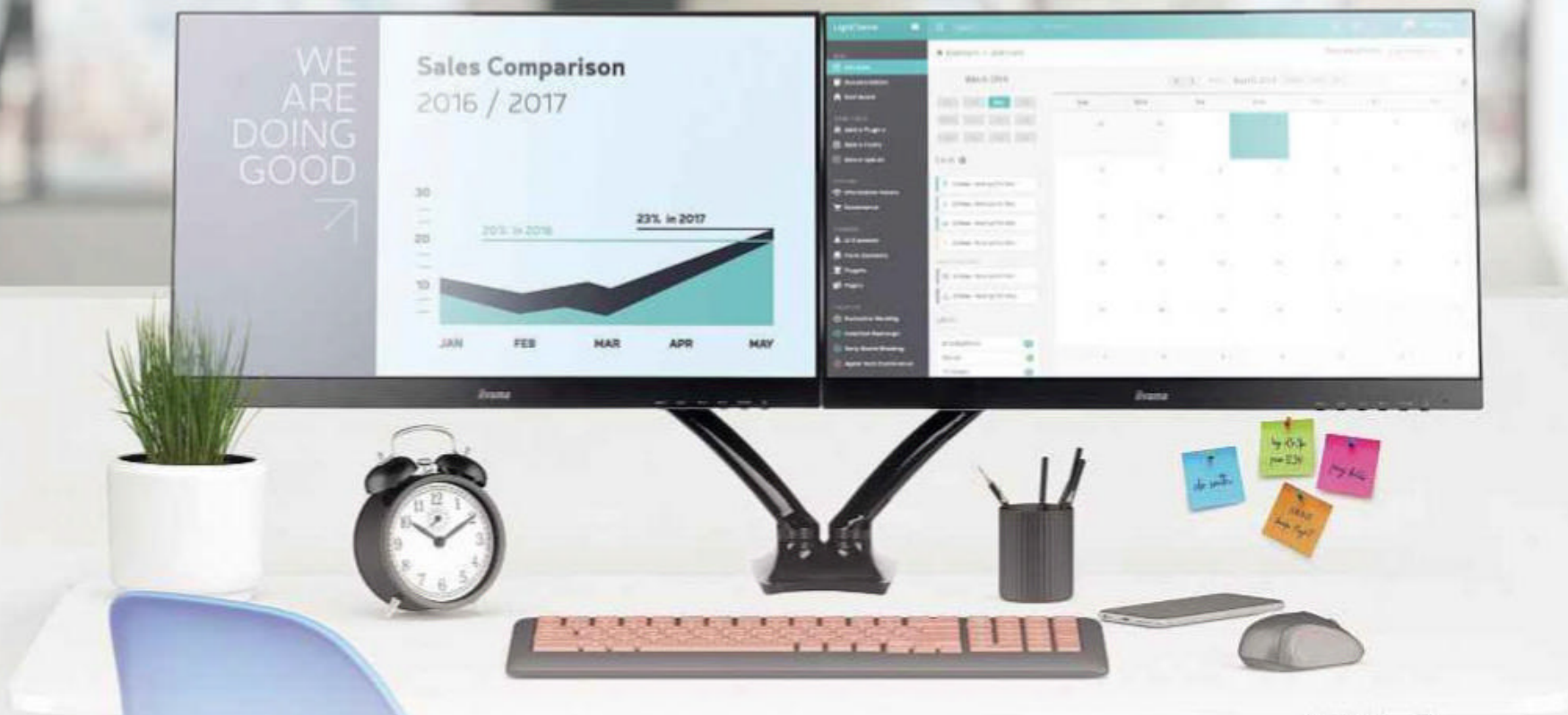


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p56

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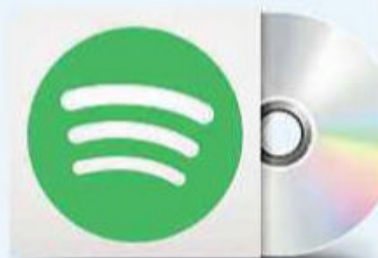
**MY BROWSER IS FASTER
THAN YOURS!**



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MAKE YOUR OWN SPOTIFY

Stream your CDs to play anywhere,
anytime – on ANY device p58





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Get the gift of privacy from Google

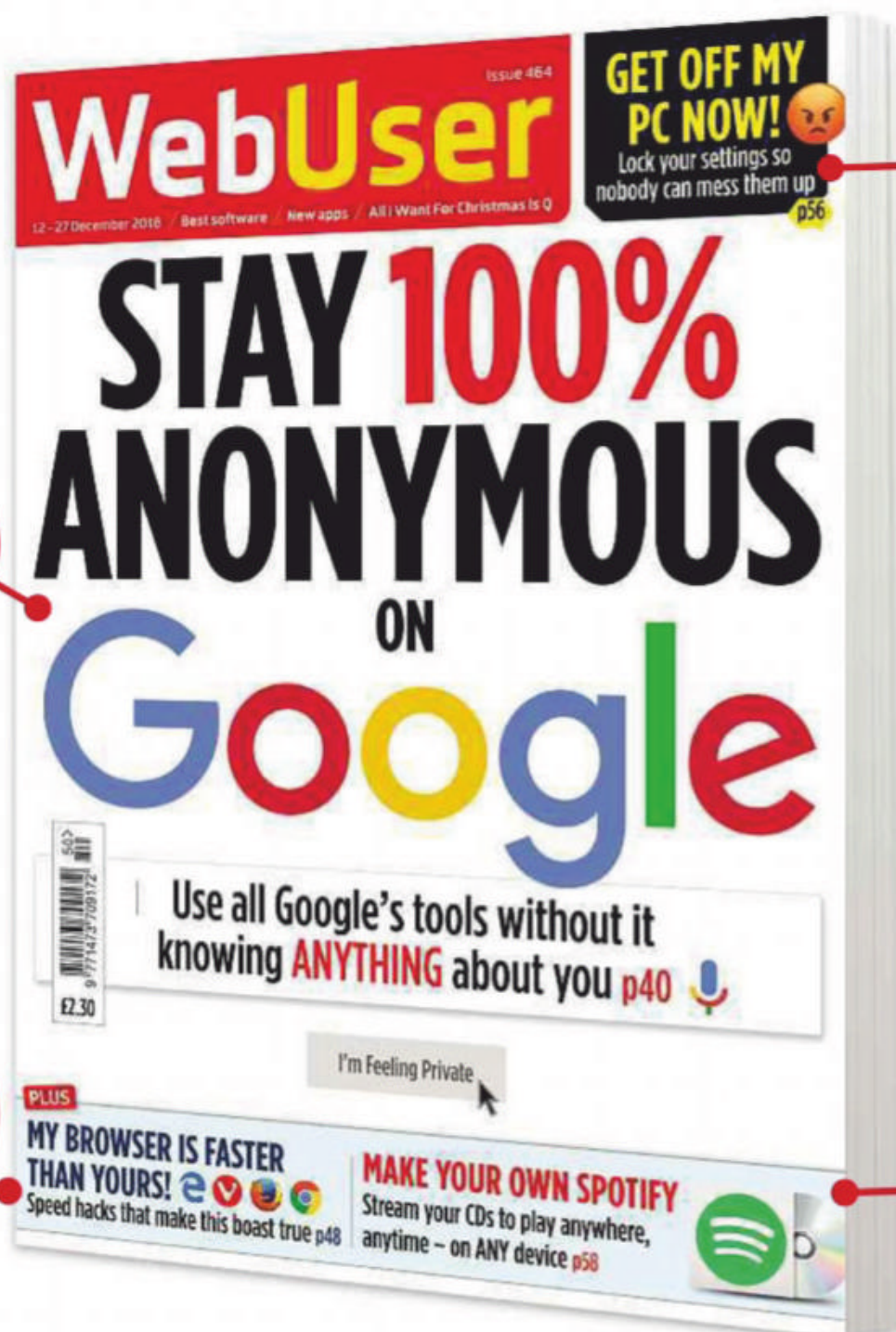
It's that special time of the year when we at *Web User* give thanks to the wonder of the web, put aside our differences with *Computeractive* and merrily knock the stuffing out of Google.

I'm only joking, of course: we love Google, and there's plenty of great Google content in this issue, including a workshop about its new image converter (page 52); expert tips for Google Docs (page 64); and details of this year's Google Santa Tracker (page 6). What we don't love is Google's gluttonous attitude towards our data and the way it shares our personal information with

advertisers like a plate of mince pies.

In this issue's cover feature, we explain how you can stop this happening, without giving up Google, by withholding the information it uses to track you and by switching to more private versions of your favourite tools. If Google won't give you the gift of anonymity, then *Web User* will. Hope you all have a wonderful Christmas!

Robert Irvine, Editor
robert_irvine@dennis.co.uk
[#webuser](https://twitter.com/webuser)



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ISSUE 464

12 - 27 DECEMBER 2018

**COVER
FEATURE**

STAY **100%** ANONYMOUS ON Google

Enjoy your
favourite Google
tools without
sacrificing your
privacy

p40

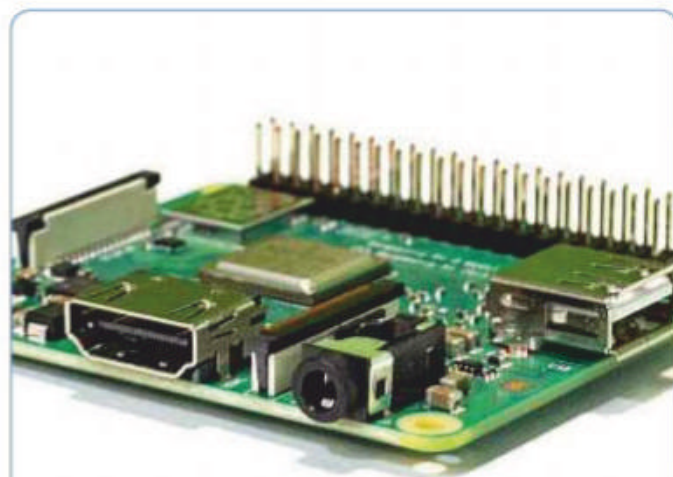
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WEB USER
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Workshops, tips, projects and problem solving

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Stream your music collection to any device **p58**





What's New Online



Track Santa on his Christmas travels

We assume you've all been good boys and girls throughout 2018, so you'll be expecting Father Christmas to pop down your chimney for 25 December. Before the big day, however, there's much preparation to be done and you can see just how Santa's elves are getting on by checking out his bustling North Pole village online.

There are two ways to do this: the first is via the North American Aerospace Defence Command (NORAD), which lets you unlock a fun game every day via an Advent Calendar, watch movies about Santa, learn more about the jolly chap and get to grips with holiday traditions around the world. There's also a selection of music tracks, most of which are performed by the US Air Force Academy Band or The Norad Commanders. What's



more, come Christmas Eve, you'll be able to track Santa's whereabouts – including on mobile devices for the first time.

The second option is via Google, which is also offering a glimpse of North Pole life, again with lots of activities, one for each day in December, spread across an interactive map. It'll end with another Santa



tracker that not only tells you how far away he is from your

location, but the number of delivered gifts. You can also ask Google Assistant "Hey Google, call Santa" to connect to the North Pole.

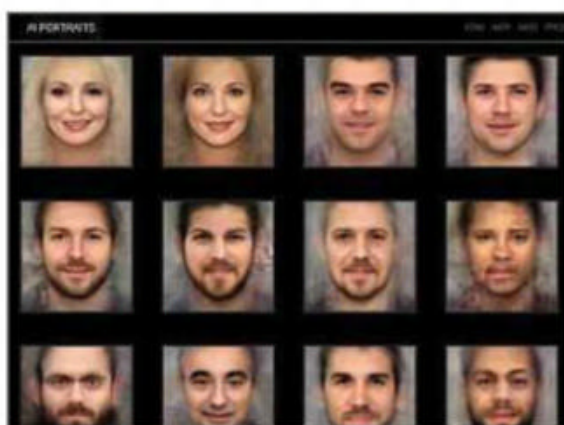
Happy Christmas!

www.noradsanta.org
santatracker.google.com

Visualise yourself as a celebrity

aiportraits.com

Forget going under the knife, slapping on the make-up or applying a filter in Instagram: if you want to look as glamorous as the most picture-perfect



celebrity, then upload a photo to AI Portraits. Using an artificial-intelligence algorithm, this website analyses your looks, then sifts through the faces of millions of actors and actresses to reconstruct and retouch your image using the facial elements of people with similar features (and more money to spend on them).

Whether you see the created portrait as an improvement is deemed irrelevant: indeed, the bods behind the tool say "there is no willingness to improve or deform the starting picture". Instead, they say it is an exercise in exploring how AI views you and interprets your features. Still, there's no denying that many people will see the result as "better", even if it's just down to the smoother skin. That said, it's all a bit of fun and the developers promise to immediately delete your uploaded images after processing them.

Monitor your time on social media

www.instagram.com

www.facebook.com

If you find yourself endlessly scrolling through your Facebook and Instagram feeds for several hours every day, then check out the social networks' new dashboards, which serve as a regular reminder of how much time you're wasting.

They show you how many hours you've spent on Instagram or Facebook over the past week, along with your daily average, allowing you to take action by cutting the number of notifications you receive. Crucially, they also let you set reminders that prompt you to stop browsing after a set period of time.

Access your dashboard in Facebook by selecting the Menu button and choosing Settings & Privacy, 'Your time on Facebook'. In Instagram, simply tap the menu icon in the top-right corner of your profile and select Your Activity. Just be aware that the times shown only relate to the device on which the app is running, so estimates won't be accurate if you keep switching between desktop and mobile.

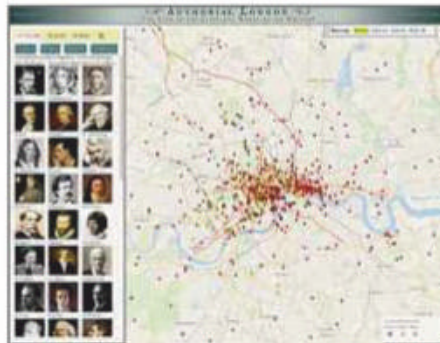


We pick the 10 best things you must do on the web this fortnight

Explore fictional London

bit.ly/london464

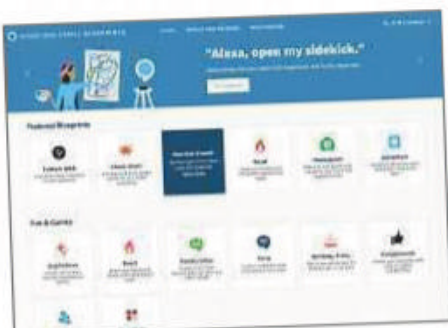
Many acclaimed authors, from Charles Dickens to Zadie Smith, have lived in London or written about the capital. The Authorial London map highlights 50 of them, plotting literature-based locations and offering biographies, relevant extracts from their novels and photos of key places. Red markers indicate the places the authors wrote about, while yellow ones show where they lived or worked.



Create your own Alexa skills

blueprints.amazon.co.uk

Although there are already tens of thousands of skills available for Alexa, Amazon is now letting you create your own tasks for the voice assistant without needing any coding skills. With Alexa Blueprints, you can choose from 22 templates based around the home, fun and games, learning and knowledge, and stories. In each case, you simply fill in the various entry fields, name your skill and make it available on your Echo speaker and other Alexa devices within minutes. Skills include a schedule of weekly chores, a guide to your home and help for babysitters. You can also share your skills via email or social media.



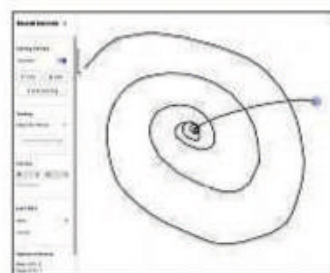
other Alexa devices within minutes. Skills include a schedule of weekly chores, a guide to

your home and help for babysitters. You can also share your skills via email or social media.

Generate sound from your drawings

bit.ly/sound464

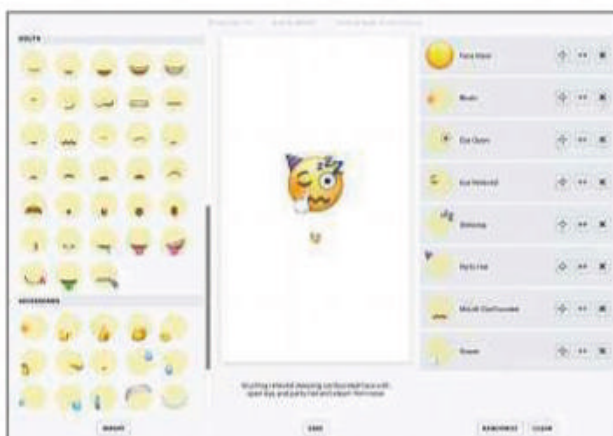
Many Google Experiments (experiments.withgoogle.com) involve either art or music, and the new drawing tool Sound Canvas cleverly combines the two. It encourages you to scribble on your screen, turning your lines into a range of real-time sounds such as falling notes when you draw downwards, and noise that moves from ear to ear when drawing left to right while wearing headphones. What's more, you can do so using your mouse, keyboard or – by granting your webcam access – any point of your body. There are a few options to play around with, including being able to audibly explore your overall creation.



Design your own emoji

bit.ly/emoji464

When you're struggling to find an emoji that perfectly encapsulates your mood, you might wish you could make your own. Visit Philipp Antoni's new online Emoji Builder and you can do just that, selecting from a range of resizeable faces, eyes, mouths and accessories based on Apple's emoji to come up with something unique, then save your effort as a PNG image file.



NEW VOICE COMMANDS

Play Mickey's Game Show

To celebrate 90 years of Mickey Mouse, say: "Hey Google, play Mickey's Game Show" and answer a host of trivia questions about the cartoon rodent and his chums.

Activate Siri on a Mac

If you own one of the two MacBook Pros launched this year, say "Hey Siri" to call on the assistant. Just make sure the lid of the laptop is open when you do so.

Make Skype calls

To make hands-free Skype calls via Alexa-enabled devices, start a conversation with commands such as "Alexa, call Mum on Skype". To set it up, go to Settings, Communication, Skype and log in.

+ Use Spotify on Apple Watch

www.spotify.com

The latest version of Spotify for iOS includes an Apple Watch app that plays music, accesses playlists and adds tracks to your library. You can also use your Watch to play music on Spotify Connect-compatible devices – but you can't listen offline.

Virtually tour a black hole

bit.ly/hole464

Scientists have created a stunning virtual tour of the supermassive black hole in the centre of the Milky Way. The video of Sagittarius A* works particularly well on a VR headset or with Google Cardboard.

Play YouTube on Switch

bit.ly/switch464

YouTube is finally available for the Nintendo Switch console and even has support for 360-degree videos. The free app, based on the versions for smart TVs, is controlled using the left joystick and main buttons.



Security flaw leaves routers vulnerable to NSA malware

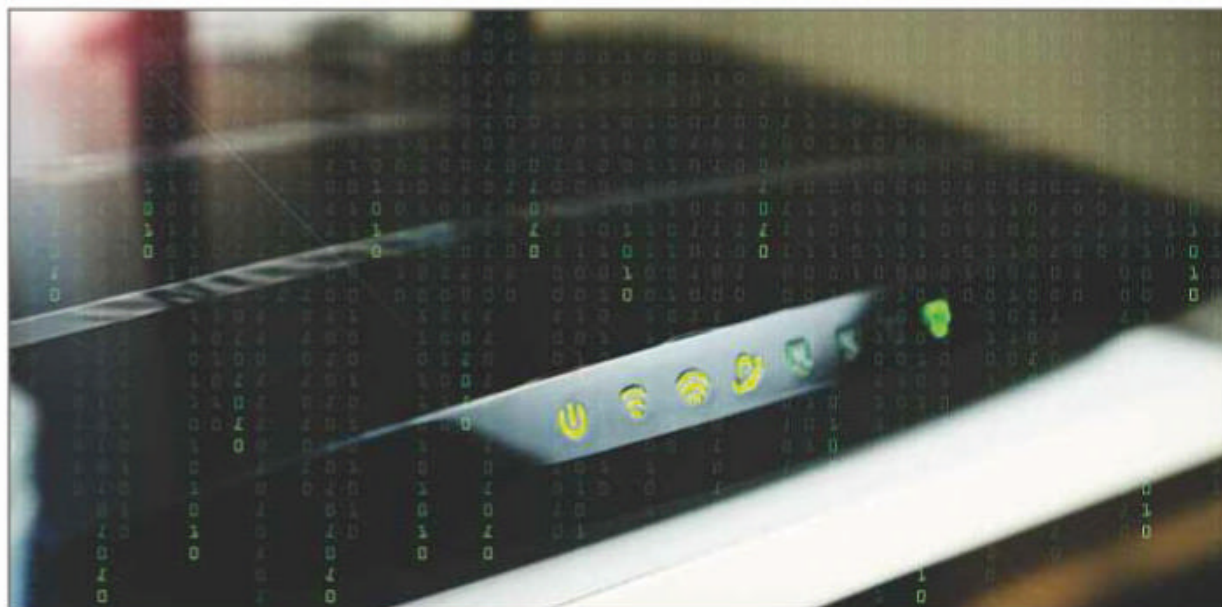
What happened?

A combination of malware designed by US spies and a long-running flaw in old routers has let hackers potentially compromise more than a million devices, according to industry experts.

Earlier this year, networking firm Akamai revealed a serious vulnerability in older routers. Universal Plug and Play (UPnP) – the networking protocol that allows devices to easily connect and discover each other – could be abused by hackers to hide their network traffic and open ports. It could let them slip past security protocols to attack anything connected to the internet via the router – such as a Windows PC, smart-home device or games console. Dubbing the flaw UPnProxy, Akamai's security experts said as many as 270,000 routers could be vulnerable.

Six months on, Akamai has now spotted malware that attacks routers via that very security flaw. UPnProxy is used to access a computer via a hack dubbed EternalBlue (bit.ly/eternal464), which was developed by the US National Security Agency (NSA) to exploit holes in Windows' Server Message Block protocol. EternalBlue was stolen from the NSA and used in the WannaCry ransomware attack that knocked NHS computers offline last year.

Akamai identified the combined threat posed by UPnProxy and EternalBlue and named it EternalSilence. The company's researchers said more than 45,000 routers have been attacked by UPnProxy, exposing 1.7 million devices



to the EternalBlue stage of the attack, though not all those computers will necessarily be at risk.

How will it affect you?

Akamai described the attack as taking a "shotgun approach" because hackers are targeting as many machines as possible. As with WannaCry, you're probably not an intended target, but if your router and computer share these weaknesses, you may get caught up in the carnage.

Additionally, Akamai warns that it's difficult to tell if your router has been impacted. If you have an older router running Universal Plug and Play, you can disable it; but if it's already infected, you need to completely reboot the device to flush out any malware. How you do this depends on your router – run a quick online search of your router model and "disable UPnP" to find instructions. If

fiddling with router admin settings is too much for you, it may be time to upgrade your router. Make sure you buy one that can be easily updated because routers are increasingly becoming exploited by hackers.

It's easier to tell if your PC has been infected – just scan your system with antivirus software. The Eternal family of malware has long been known about, and Microsoft and other manufacturers have previously issued patches against

the threat, so as long as your systems are up to date – which they always should be – this hopefully won't affect you. Windows Updates can be frustrating, but it's worth having them enabled for the protection they offer. Also, EternalBlue only affects older versions of Windows – those prior to Windows 10 – so running the latest OS is wise for optimum security.

What do we think?

Security researchers have warned about the danger of UPnP flaws for more than a decade, and Microsoft issued patches for Eternal malware last year – so none of this is new. Yet thousands or more routers and computers are potentially affected by the combination of the two vulnerabilities. It's a reminder to do your best to keep your systems up to date. Install updates and use the most recent software and hardware you can.

You don't have to buy a new router, but if yours is several years old, it may be at risk to more than EternalSilence. Routers can be tricky to update, so many of us don't bother, and while Windows updates get complained about – at least they happen. Router makers need to do the same, and if you are in the market for a new one, look for a model that manages updates easily, so malware outbreaks such as EternalSilence don't cause you undue problems in the future.

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```

Akamai's sample of EternalSilence injections found on a single router

What we think of this fortnight's top tech news stories and rumours, and how they affect you

Google Maps scam steals bank details

What happened?

Google Maps lets anyone make changes to its data, and cybercriminals are now exploiting that feature. Police in India have received multiple reports of scammers editing the phone numbers of banks marked on maps, then asking for customers' financial details when they call. They then use those banking details to steal money from victims' accounts. It's not the first time phone numbers have been abused this way: back in 2014, a security researcher in America performed the same trick with the FBI, intercepting phone calls meant for the US authorities.

How will it affect you?

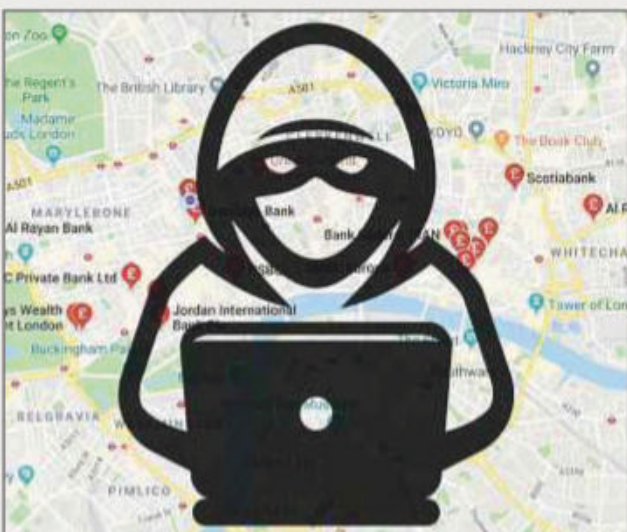
So far, this scam has only been spotted in India, though scammers elsewhere are likely to pick up on the idea. Google said it has fixed the altered bank information, and works to ensure that business profiles have "quality" information. However, Google didn't confirm if it would be taking more

proactive efforts to protect banks or other financial institutions from similar scams in the future.

Google Maps is a handy source of information that displays closing times, locations and phone numbers, but if you are going to contact your bank, it's best to go directly to your financial institution's website to ensure you have the correct number. It's worth remembering that the information in Maps isn't necessarily up to date or accurate, so it's a good idea to double check on a company's website – you don't want to be left waiting outside when it turns out the opening hours have changed.

What do we think?

The downside to crowdsourced systems is that they can be abused. There are plenty of stories of pranks in Google Maps, although they've diminished since Google shut down its Map Maker feature, which made it easier to instantly edit maps. This latest scam shows Google needs to crack down further, and perhaps lock down the details of more sensitive businesses, such as banks – and even the FBI.



Freeview goes mobile with streaming app



What happened?

Netflix, Amazon Prime and other streaming services may be the future of television, but you still get Freeview on most TVs – and it will soon be available on Android and Apple phones and tablets, so you can watch without an aerial. The new app is a collaboration between Digital UK and Freeview's shareholders – the BBC, ITV, Channel 4 and Arqiva – and will let you stream all the main terrestrial channels live, as well as on-demand content from iPlayer, ITV Hub, All 4, My5 and UKTV Play.

How will it affect you?

The Freeview app will be free to use, although if you watch the BBC, you'll still be expected to pay for a TV licence. The iOS app will arrive on 22 January, while Android users will have to wait a bit longer, though the release date is promised to be early 2019.

The app won't be as straightforward as the tap-and-play version on Netflix, however. For channels and catch-up

services with their own dedicated apps – such as BBC iPlayer – the Freeview app will direct you to download and install that app. However, it will be a handy way to see a wider view of what's available to watch.

What do we think?

Streaming services are popular for good reason: they're easy to use, convenient and don't require fiddly aerials. A Freeview app that lets you access all that television content on your smartphone on the go is certainly handy, but since you'll need to download the accompanying apps anyway, it's really little more than a fancy television listings guide.

Where this could come into its own is in the home: if you don't have a signal for Freeview now, you can simply stream it via the app. The new app doesn't have the ability to cast from your phone to your TV, but hopefully this will be added in the future to make it a real game changer.

Amazon 'technical error' leaks customer data

What happened?

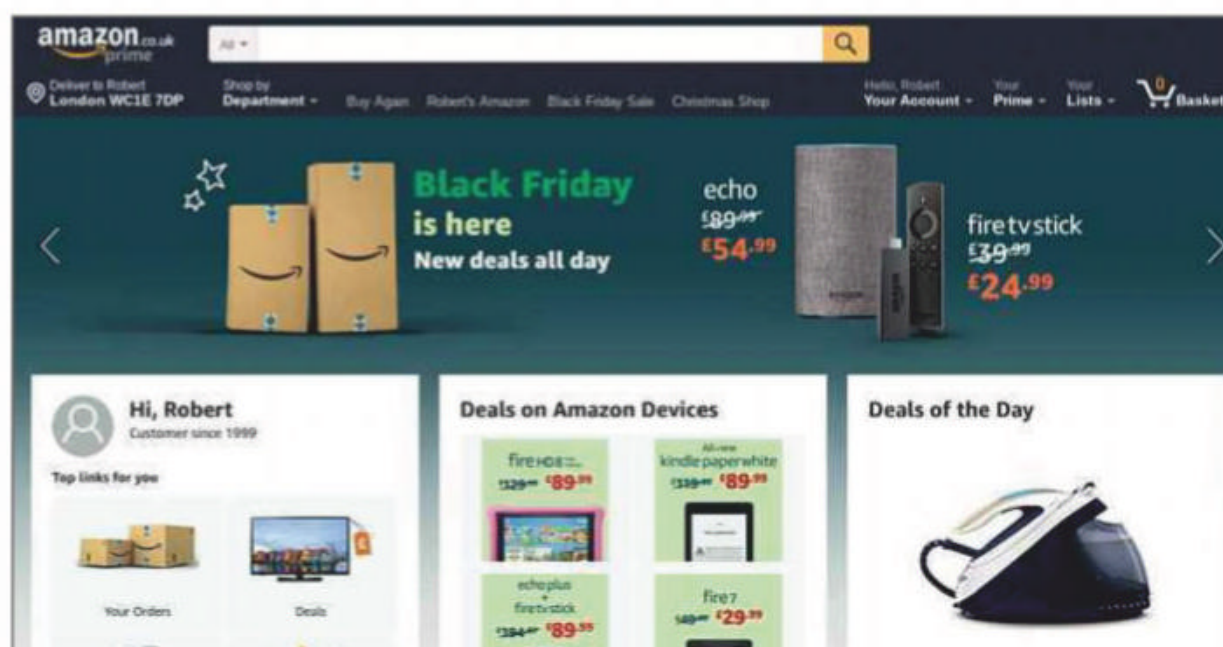
Amazon has admitted that due to an unspecified "technical error", customers' names and email addresses were published on its website.

Beyond a single email sent to the relevant accounts, Amazon is keeping silent. There's no word on how many customers are affected, or why the security breach occurred.

The email explains how Amazon "inadvertently disclosed your email address or name and email address due to a technical error. The issue has been fixed. This is not a result of anything you have done, and there is no need for you to change your password or take any other action."

Laughably, Amazon added that the company "takes all security-related matters very seriously and your account security is our top priority. We have policies and security measures in place to ensure that your personal information remains secure."

That will be little comfort for those affected by the security breach, which occurred just days before the Black Friday shopping extravaganza. And although the information leaked isn't as sensitive as credit card details and home addresses, security experts have been keen to remind customers that cybercriminals could still potentially wreak havoc on email accounts with



weak passwords.

The incident is being tracked by the Information Commissioner's Office as a potential GDPR breach. If it is judged as such, this "technical error" may cost Amazon more than it bargained for.

How will it affect you?

Check your inbox to find out if you're in the clear. Victims of the breach should receive an email declaring Amazon has "fixed the issue and informed customers who may have been impacted."

Even if your data was published, the company believes there's no need to alter any passwords. However, it's always worth creating new, stronger ones after any security breach – for peace of mind.

Finally, check your email address on haveibeenpwned.com, which tracks accounts that have been compromised during data breaches.

What do we think?

Yet another big business struck by a data breach – it makes you wonder if any of these companies understands the internet. There may be good reasons for Amazon's refusal to discuss the matter – preventing hackers from taking advantage of an as-yet-unpatched system bug, for example – but when it comes to security breaches, we prefer companies to be transparent, so we know how to better protect ourselves. An apology wouldn't go amiss, either.



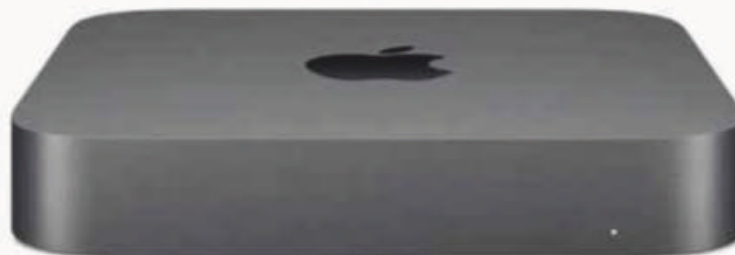
FIRST LOOK

Apple Mac Mini bit.ly/mini464

A welcome reboot of the comparatively ancient 2014 model, the Apple Mac Mini 2018 is a compact computer that answers the question: "How do I get Mac OS without coughing up a fortune for a MacBook or iMac?"

The trim, space-grey unit is sleek and whisper-quiet, with a tiny footprint – just 7.7in square and 1.4in deep. While it offers the full desktop experience, you'll barely notice its presence.

The 100% recycled aluminium shell contains an i3 processor, 128GB SSD and 8GB DDR4 memory, but these run-of-the-mill specs belie a powerful device. According to Apple, the Mac Mini is five times faster than its



predecessor, out-performing similar i5 and i7 Windows Mini PCs.

And that's just the £799 base edition. The premium off-the-shelf version, retailing at £1,099, delivers twice the storage, an i5 processor, and a 4.1GHz Turbo Boost. A 'hardware buffet' at the point of purchase, which lets you pick and choose suitable components, makes upgrading easier than before, but such tinkering comes at a price – a hefty £4,000 for the top-of-the-line configuration.

The unit's Intel UHD Graphics 630

processor effortlessly handles demanding desktop duties, as well as photo work and lightweight video editing. Gaming, however, requires an external graphics processor – another expense, on top of the monitor, keyboard and mouse.

At the rear of the Apple Mac Mini you'll find an HDMI socket, two USB-A ports and four Thunderbolt 3 USB-C's – for those people truly locked into the Apple-sphere. There's also room for a Gigabit Ethernet cable, upgradeable to 10GB. And, yes, a 3.5mm headphone jack.

Like every Apple product, the Mac Mini is elegantly designed. It's a stunning machine and a much-needed upgrade. But unless you're a die-hard fan, don't dismiss cheaper Windows alternatives.



WHAT'S THE RUMOUR

Does Amazon want a robot in your home?



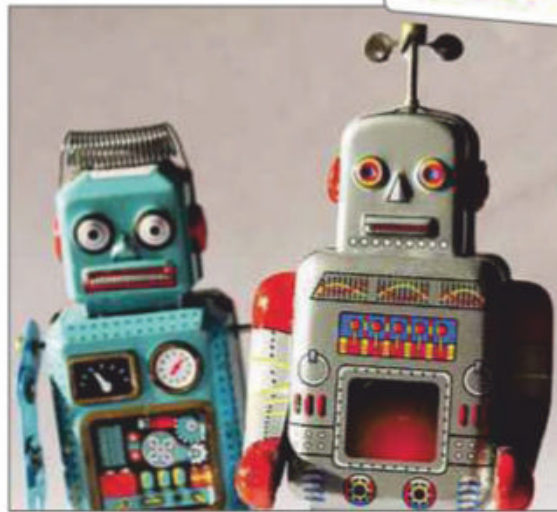
Will we give shopping orders to R2D2 in the near future? That's the current theory, with Amazon's recent job adverts fuelling speculation that the company is working on a robot for your home.

Robot rumours first surfaced back in April. Bloomberg reported that Lab126, Amazon's hardware R&D department, is quietly working on 'Project Vesta' – named after the Roman goddess of hearth, home and family.

Now, the company is calling for applicants experienced in mechanical engineering, robotics, software development, psychology and computer vision – the technology that lets cameras see and understand objects. Together, they'll work on what Amazon calls "a completely new best-in-class consumer product".

Many believe this means a 'home-bot'. It's an idea that's increasingly gaining traction, with the jobs board describing the mysterious product as "loveable" and "essential" – which is exactly how we'd refer to a Robbie or Rosie the Robot, too.

However, the project remains very hush-hush. According to an insider familiar with internal operations, successful applicants won't know what they're working on until their first day on the job. This secretive recruiting process is reminiscent of when the company advertised for staff to work on what eventually became Alexa – which certainly worked out well for Amazon!



LIKELIHOOD RATING



Amazon has a strong history of innovative devices, so a range of home-help robots seems entirely possible. After all, the Kindle revolutionised how we read books; Fire TV made dumb TVs smart; and the Echo kick-started the smart-speaker trend.

A robot for the home would be Amazon's most ambitious and expensive project yet, but the retail behemoth may have good reason for introducing a real-life Alexa: at present, interaction with the AI and her rivals is limited to disembodied voices and text on screens. If anyone has the resources to humanise the AI experience, it's Amazon.

WEBOMETER

WE LIKE...

↑ Ofcom caps the cost of 118 calls

Phone industry regulator Ofcom is capping the price of calls to directory inquiries at £3.65 for 90 seconds, in response to a steep rise in prices. The most popular service, 118 118, currently charges £11.23 for a 90-second call.



↑ YouTube scraps video annotations

YouTube is to disable its annotations feature, which lets video creators display annoying pop-up boxes containing notes on the content they upload. The option will be switched off on 15 January and all existing annotations removed.



WE DON'T LIKE...

↓ Phishing sites fool users with padlocks

A padlock displayed in your browser's address bar is no longer a sign that a website is safe. According to security experts, half of known phishing sites now display the symbol in a bid to fool victims into providing sensitive information.



↓ Phone customers wrongly refused deals

Mobiles.co.uk and other online phone retailers have been accused of wrongly refusing customers Black Friday deals. A problem with Vodafone's credit-check system meant some contract applications were incorrectly turned down.



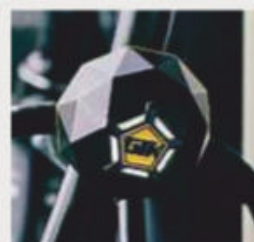
What's new on Kickstarter

Our favourite new project on the crowdfunding site

Limpet

bit.ly/limpet464 | From £130

With the ONS estimating that a bike is stolen every 90 seconds, the Limpet is a welcome addition to your security arsenal. It's a smart alarm that clamps around your bike or motorbike and alerts you when ne'er-do-wells tamper with your set of wheels. The Limpet is aptly described as looking like a device from the Batmobile. For an annual £40 subscription, it uses an encrypted app and SIM card to send real-time updates and tracking info straight to your phone. A £10 pledge rewards you with a rubber key fob, but to get your very own Limpet, donate £130 or more.





Stay Safe Online

News about the latest threats and advice from security experts

SECURITY ALERT! | What's been bothering us this fortnight

Hackers sell BA customers' stolen card details

Russian hackers may have made millions selling credit-card details stolen from almost 245,000 British Airways customers during a major cyber-attack in August, according to security experts.

Research by cybersecurity firms found that the hackers were charging between \$9 (around £7) and \$50 (£39) for each card's information. The stolen data was put up for sale on the dark web about a week after the BA breach, which occurred



between 21 August and 5 September, and affected 244,000 credit cards belonging to customers from countries including France, Germany, Italy, Spain, the UK and the US.

BA has issued an apology, saying: "We are deeply sorry for the disruption that this criminal activity has caused. We take the protection of our customers' data very seriously". The airline has also assured customers that they will be "fully reimbursed", which could amount to them receiving £1,250 each in compensation and potentially cost the airline up to £475m.

bit.ly/babreach464

Two sentenced for £77m TalkTalk cyber attack

Two men have been sentenced to prison for taking part in the massive TalkTalk cyber-attack in 2015, which affected tens of thousands of the ISP's customers.

Staffordshire-based Matthew Hanley and Connor Allsopp, both in their early

20s, previously pleaded guilty to

TalkTalk

the hack, which cost the telecoms firm £77m and led to it receiving a then-record regulatory fine. Hanley, who shared the details of more than 8,000 customers with Allsopp, was jailed for 12 months at the Old Bailey, London, while his accomplice received a sentence of eight months.

The pair were branded "individuals of extraordinary talent" by Judge Anuja Dhir QC, who delivered the sentences. She added: "I'm sure that your actions caused misery and distress to the many thousands of the customers at TalkTalk." During the seven-day hack in October 2015, Hanley and Allsopp stole the personal details of 156,959 customers, including sensitive data such as bank account numbers, sort codes and contact information.

bit.ly/talktalk464

Credit: Markus Mainka / Shutterstock.com

Security Helpdesk | Your questions answered by security specialists

THIS ISSUE'S EXPERT:
David Jacoby, Senior Security Researcher at Kaspersky Lab
(www.kaspersky.co.uk)

KASPERSKY LAB

Q How do cybercriminals get hold of our personal data?

Nicole Pearson, Facebook

A It's mind-blowing, but you can buy someone's complete digital life for less than \$50 (£39). Most people aged between 15

and 35 have registered for more than 20 different online services and probably only use about 10 on a regular basis, which makes it easier for hackers to go unnoticed and make their money.

The most common way criminals steal this sort of data in the first place is via spear-phishing campaigns or by exploiting a web-related security vulnerability in an application's software. After a successful attack, the criminal gets hold of 'password dumps' that contain a combination of emails and passwords for the hacked services. And because many people use the same password for

several accounts, attackers can use the information to access those accounts too.

Some criminals who sell data even provide buyers with a lifetime warranty, so if one account stops working, the buyer will receive a new account for free.

Q How worried should we be about our data being stolen?

Steve Balthazar, Twitter

A Data and identity theft are extremely commonplace and if you don't act to protect yourself, then you're likely to become a victim.

Hackers don't just target businesses and celebrities – everybody's data has a value and can be sold. What's more, the trade in stolen data funds some very serious crime indeed.

We all have a duty to protect ourselves, to stop this dangerous and debilitating criminal activity. Fortunately, there are steps we can take to prevent it, including using up-to-date security software and being aware of how much data we are giving away for free – particularly on publicly available social-media profiles and to organisations.

*An encrypted
solution for every user.*



UV500 Encrypted SSD

Kingston's UV500 SSD dramatically improves your system's responsiveness with incredible boot, loading and transfer times compared to mechanical hard drives. It uses a Marvell 88SS1074 controller and 3D NAND Flash to power through daily tasks and improve productivity. Perfect for your desktops, small-form-factor PCs and laptops.

kingston.com/ssd/business



★ Best New Websites

Site of the Fortnight

TRAVEL

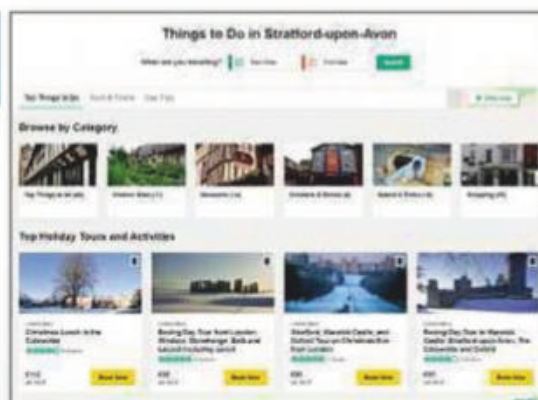
RELAUNCH

TripAdvisor

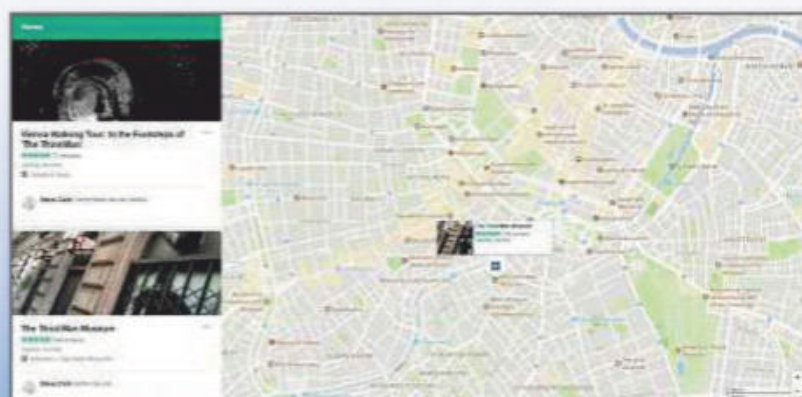
tripadvisor.co.uk

Like a summer tan, TripAdvisor's stodgy, boxy design has faded away. In its place is a site that takes more than a pinch of inspiration from social networks such as Facebook and Twitter, which makes sense in this social-media age, where holidays are as much about Instagramming experiences as getting some R&R. Pick a destination and explore user-generated photos and videos, alongside reviews, restaurants, and unmissable things to do. The redesign makes for a more engaging scroll, and like the featured destinations, TripAdvisor is now a place you might actually want to visit – and not just to leave a snarky review!

Our rating

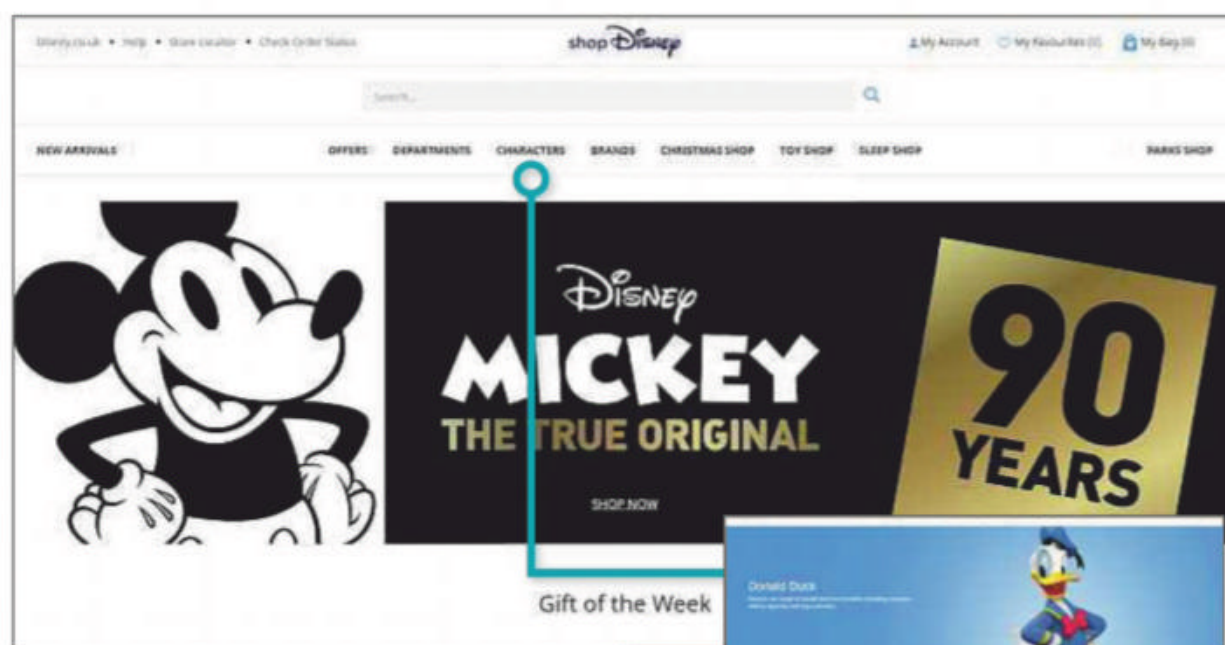
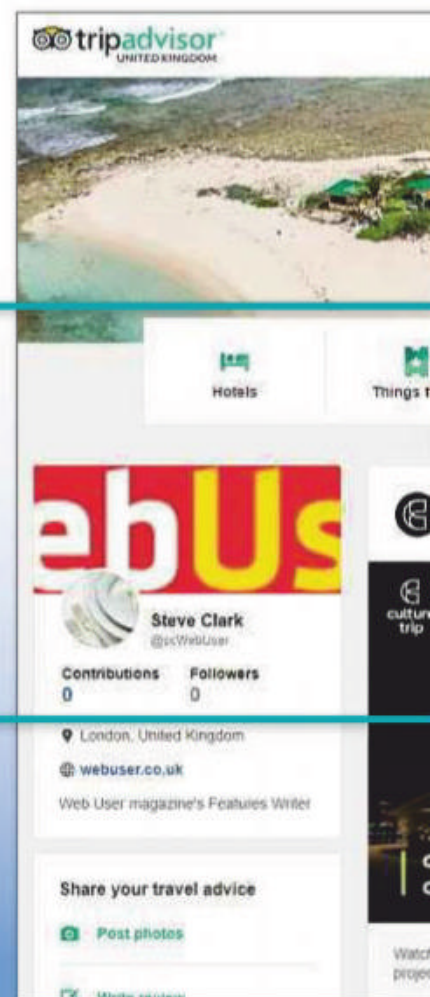


WISH YOU WERE HERE
The destination hub lets you discover a location and find out how other travellers rate it



SPIRITED AWAY

Start a Trip, then tag restaurants and attractions to create a virtual itinerary. You can even book flights and hotels



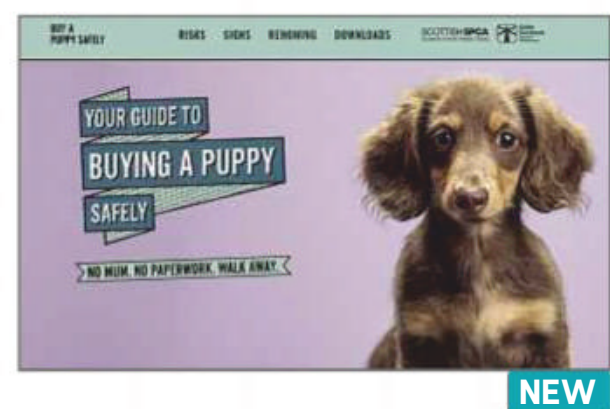
SHOPPING

ShopDisney

shopdisney.co.uk

High-street Disney stores sell novelty merchandise at prices that make you purse your lips, and the new ShopDisney site – unveiled just in time for the festive rush – lets you spend obscene amounts on licensed products without traipsing through an army of kids and overwhelmed parents. The site is competently designed, if a little bland: it's like logging on to any old shopping site, except every item has a pair of Mickey ears stapled to it. The gear looks good quality (Mickey Mouse watches, anyone?) and every key Disney character has its own page, which will come as a relief to fans of *The Rescuers*. But it lacks what the House of Mouse does best: magic and wonder.

Our rating



PETS

Buy a Puppy Safely

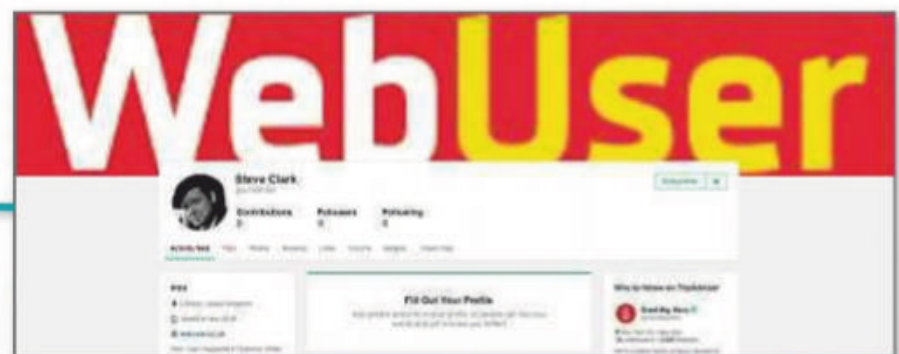
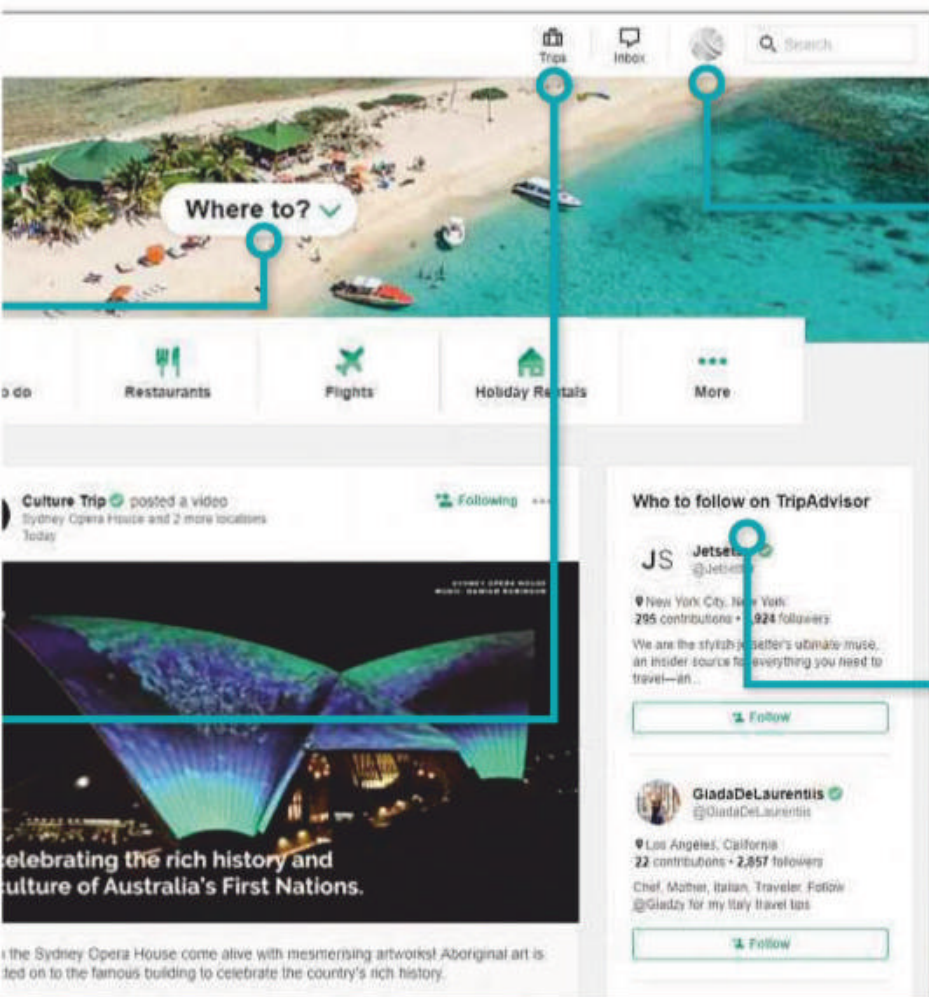
buyapuppysafely.org

A dog is for life, not just for Christmas – unless the poor pup has been farmed to make a few bob for illegal puppy dealers. Sadly, these dogs have myriad health problems and short life expectancies, so Scotland's answer to the RSPCA is warning folks to watch out as they crack down on the trade. Despite the grim subject matter, the site's colourful design – complete with a cutesy pooch on the homepage – gives it far wider appeal than a 'shock value' campaign might. The message is sharply focused, with risks and warning signs all housed on a single page.

Our rating



We review this fortnight's best new and relaunched websites and rate them for content, design and features

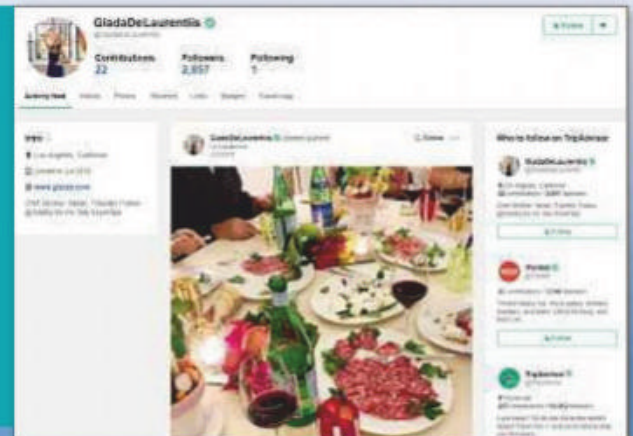


SELFIES

Create your profile, complete with activity feed, photos and followers, then post reviews as easily as updating your Facebook status.

TO THE ENDS OF THE EARTH

Follow other users to see, like and share their photos, trips and tips – directly from your news feed.



RELAUNCH

SHOPPING

RSPB Shop

shopping.rspb.org.uk

Watch out, twitchers – the RSPB Shop's sophisticated redesign puts it top of the pecking order, making it even easier to find and buy bird-themed bargains. The vast catalogue offers almost as many different items to buy as there are types of bird nestling in hedgerows across the UK: seeds, feeders, baths, books, binoculars, clothing and, of course, beautifully crafted Christmas cards all get a look-in. The new 'cloud operation system' promises soaring performance, even at peak times. Whatever you're in the market for, it's a fine way to support our feathered friends.

Our rating



RELAUNCH

SHOPPING

Laura Ashley

lauraashley.com

Laura Ashley's perennial designs are like a comforting hug for your home but, sadly, the website is more like a poke in the eye. While the company is famed for its style, its online portal presents a site where nothing seems to match. Products overcrowd the photos, fighting for your attention, while competing colour schemes are further disrupted by garish discount buttons. Drill down into specific categories, however, and the layout becomes cleaner, letting you savour rural Victorian-style home furnishings and fab fashion statements, and view more photos. Now *that's* stylish!

Our rating



RELAUNCH

ENTERTAINMENT

Haunted Houses

haunted-houses.co.uk

Do you believe in ghosts? Then dare yourself to venture into the paranormal with Haunted Houses. This site offers ghost hunts and storytelling sessions in creepy venues across the country. Use the site to book events at ancient inns, castles, gaols and abandoned buildings – or the terrifying 30 East Drive (bit.ly/east464), which is the sort of unassuming home where your least favourite aunt used to live (and perhaps still does). It's all intensely atmospheric, with spooky fog filtering across monochrome pictures. Just don't visit this site alone in the dark – that's all we're saying.

Our rating



BACK ISSUES DISC 2017



2017 Back Issues Disc

Our **2017 Back Issues Disc** containing all 26 issues from last year is now on sale from Amazon

For more information, visit bit.ly/wudisc17 or search for 'webuser disc' on Amazon

You can still buy our 2016 Back Issues Disc from bit.ly/wudisc16





SHOPPING

Oh So B

ohsob.com

At a time when it seems so-called TV stars are releasing perfumes, clothing ranges and autobiographies at an hourly rate, Brooke Vincent – better known as *Coronation Street's* Sophie Webster – is carving a different path: diary planners. Cynics may scoff at yet another minor celeb branding naff items with their name (or, in this case, initial), but at least this encourages buyers to take a break from ubiquitous phone screens and return to pen and paper. The site's a pastel pink extravaganza, and much like the motivational quotes peppering the pages of the planners, feels very social media-inspired. Miss Vincent's fans will adore it.

Our rating



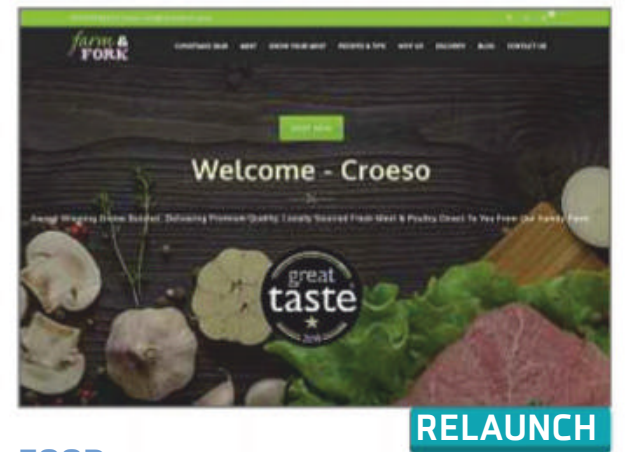
CULTURE

The Laughing Poet

thelaughingpoet.co.uk

Terry Godwin wants to put a smile on your face with rhyme. The laughing poet turns your jokes and funny anecdotes into verse with a joyful verve. You'll find a handful of humorous excerpts on his old Facebook page (it hasn't been updated since 2013, although he recently rejoined Twitter). There's also a section where you can order Godwin's printed on-demand books. This wholesome site is the antidote to the internet's social-media spying and fake-news scandals. While the site resembles a modern-day Geocities portal, it's colourful and upbeat, and guaranteed to brighten up the darkest mood.

Our rating



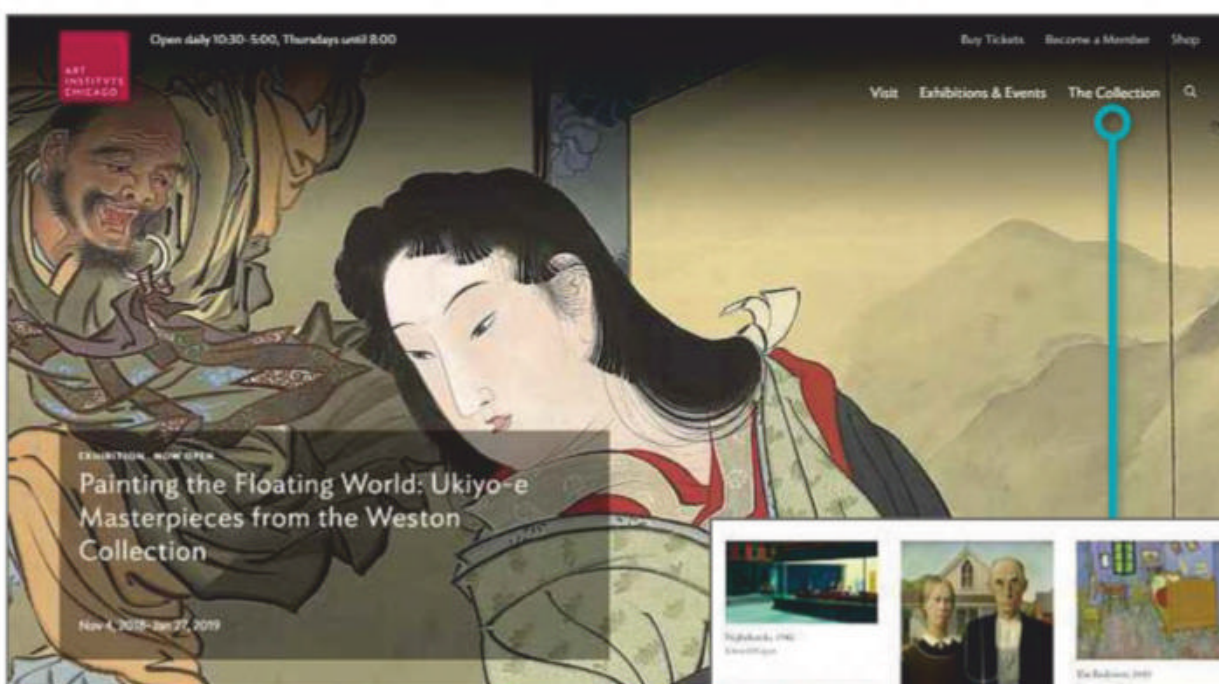
FOOD

Farm & Fork

www.farmandfork.co.uk

With few bricks-and-mortar butchers left on the high street, we warmly welcome Farm & Fork – a site that lets you order mouth-watering cuts of meat direct to your door. Beyond purchases (it's primarily a functional, no-nonsense online shop), you can check out the 'educational' content. The 'Recipes & Tips' tab is slightly misleading: it's home to a single, lonely recipe for slow roast pulled pork with garlic paprika – although, in fairness, it looks delicious. But the Know Your Meat page gives you something to sink your teeth into, highlighting the types of meat offered by Farm & Fork, and the various cuts used.

Our rating



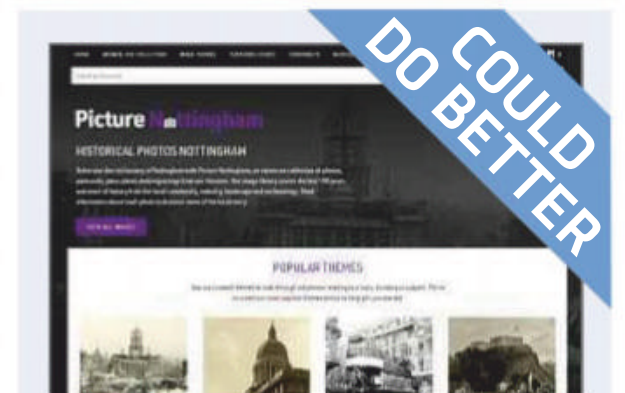
ART

Art Institute of Chicago

www.artic.edu

The Art Institute of Chicago is home to works by the world's most celebrated artists, with Bacon, Warhol and Dali rubbing shoulders with Picasso, Magritte and Cézanne. Even if you've no plans to visit the Windy City, this relaunched website lets you get up close and personal with the exhibits in its art museum in ways even real visitors can't. Clicking into The Collection, you can view famous paintings and sculptures, using your mouse to zoom right in. Elsewhere, upcoming events and exhibitions feature insightful write-ups, videos and images, and you can fill your tote bag with unique ornaments from the gift shop. It's a gallery that artfully exploits the power of an online presence.

Our rating



HISTORY

Picture Nottingham

picturenottingham.co.uk

Nottingham brought us Robin Hood, Raleigh bikes and – now – Picture Nottingham. This gallery explores the city's last 100 years via hundreds of photos organised into categories including Buildings, Sport and the irresistibly named Goose Fair. It's a sheer delight to browse – until you click a high-res image. Sadly, this isn't about Nottingham's rich heritage but flogging prints and licences of professional photos. Every image is bleached out with a watermark, thus demoting a fascinating resource to the level of a stock image website. It's a missed opportunity.

Our rating



Build a Better Site

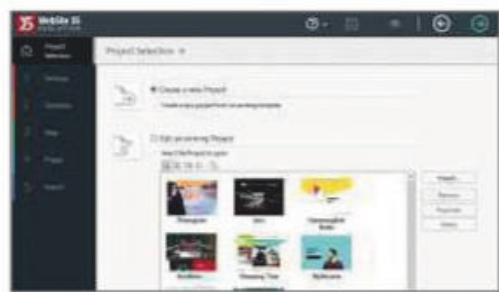
Specialist tips, top tools and practical help



Top Tips of the Fortnight

Website X5 evolves

Those of you who prefer to create websites offline using software will welcome the latest edition of Website X5 Evolution. Version 17 renders pages using CSS Grid, which promises to be faster and offer wider compatibility with browsers. You can also create websites that stretch across the width of the browser. It costs £59.99 from www.websitex5.com.



website-building tools. First up is a new tool called Activity, which can help you keep track of recent changes to your site and also lists maintenance jobs that need doing, such as updates to themes or plugins. Find out more at bit.ly/act464.

The mobile app has also received some new features. It can now list posts using the same nested structure your site uses, rather than date posted (see bit.ly/pages464). Another new tool provides a to-do list of things you should do next when using the app to build a site on a mobile device (bit.ly/setup464).

Many Wordpress.com updates

The people at WordPress.com have been making all sorts of minor improvement to their

Deal of the Fortnight

Tsohost (www.tsohost.com) is offering its Startup package, which you can use to host a WordPress website, for £3.50 per month if you sign up for two years.

Web-building Helpdesk

Q I've been using Wix (www.wix.com), as you recommended, but I find that the site doesn't always work as I'd expect it to. Some tools fail to appear when I click them. Am I doing something wrong? I'm running it in the Chrome browser.

Anthony Wark

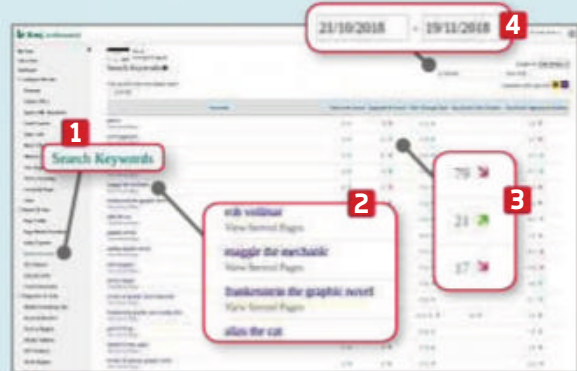
A Your browser may be blocking pop-ups, which Wix uses to open some of its tools and options. Check that you haven't got any pop-up blockers enabled. You may also find that Chrome itself is blocking some pop-ups. From the menu, open Settings, then scroll down and click Advanced. In the 'Privacy and security' section, click Content Settings. Click 'Pop-ups and redirects', find the Allow section and click the Add button. Type `[*.]wix.com` to add it to the allowed list.



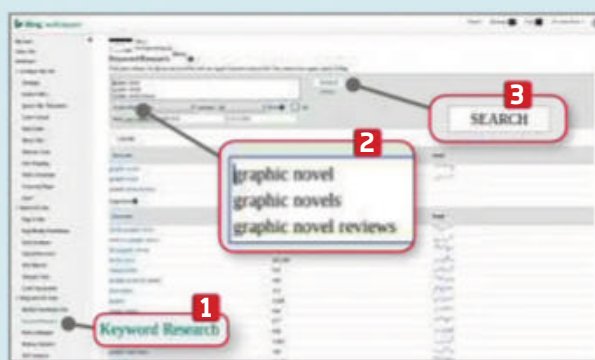
MINI WORKSHOP | Use Bing's Webmaster Tools to access key website information

Bing Webmaster Tools: bit.ly/bwmt464 | 10 mins | Any browser

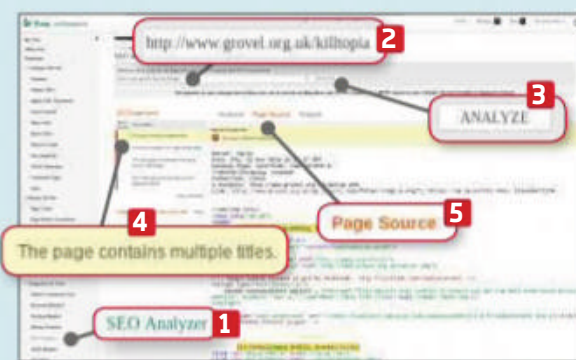
Both Google and Microsoft offer tools to help you analyse your site, but Bing Webmaster Tools goes further than Google, with keyword research (what people type to find your site) and search engine optimisation



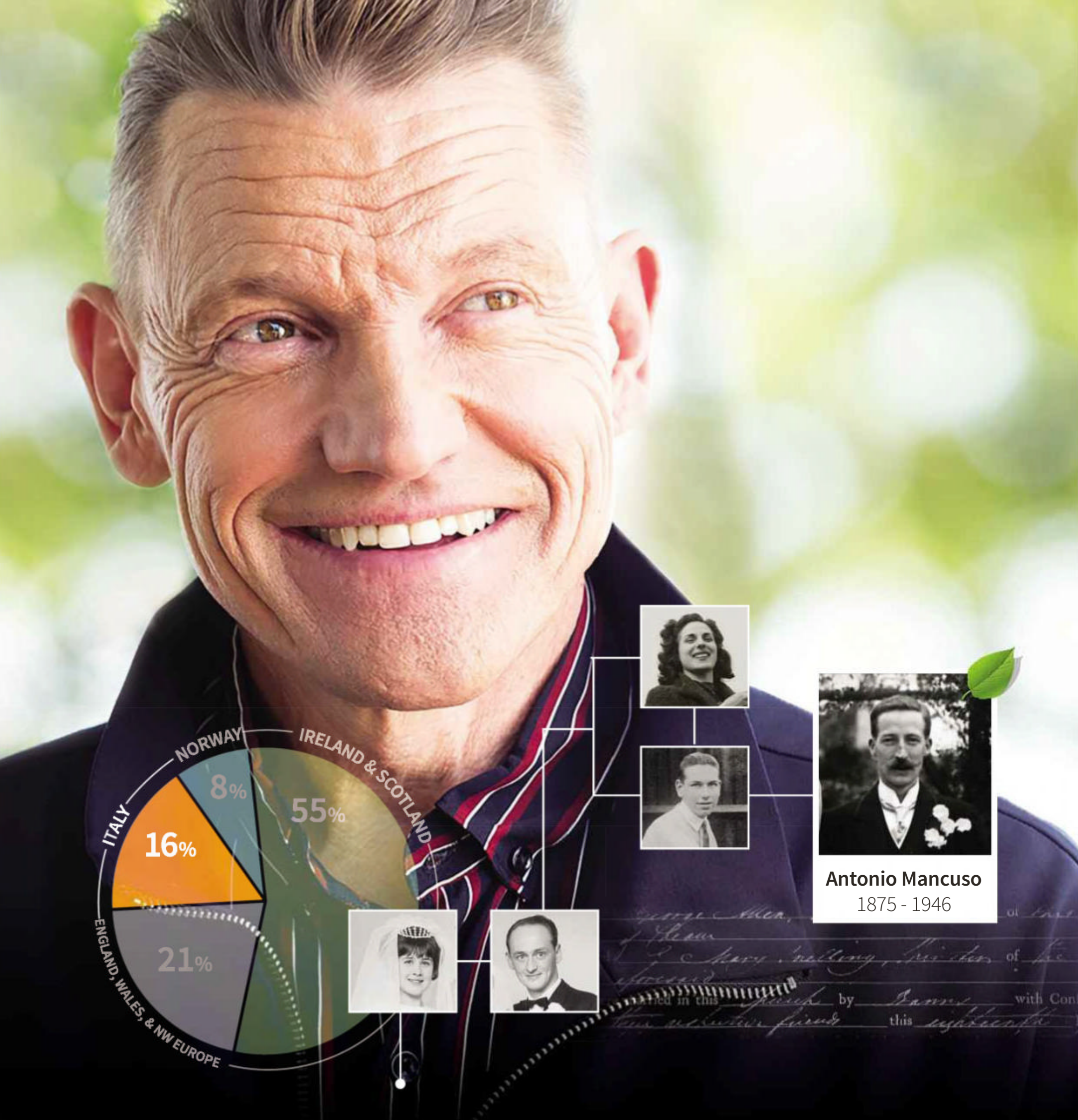
1 There are two aspects to keyword research. To see which keywords people have used to find your website, click Search Keywords. **1** This lists the keywords by popularity, **2** and shows whether it's increasing or decreasing. **3** You can change the dates **4** to see how the use of keywords has changed over time.



2 Microsoft also helps you discover related popular keywords that may be missing from your site. Click Keyword Research **1** and type your keywords into the box. **2** Click the Search button. **3** You'll see how often these keywords are used and suggestions of others you might like to consider.



3 The final tool helps you rid your site of elements that may negatively affect your search engine rankings. Click SEO Analyzer, **1** type the address of a page into the box **2** and click Analyze. **3** Click anything the tool highlights **4** to see what the problem is. Some elements may appear only in the Page Source tab. **5**



Discover your family story

Ancestry can help you build your family tree and explore your heritage. Combine the largest collection of online historical records with cutting-edge DNA science.

Start a 14-day free trial at [Ancestry.co.uk](https://ancestry.co.uk)*



*One free trial per person. Requires registration with valid credit or debit card. Cancel before trial ends or chosen membership will begin and you'll be charged relevant price. Membership automatically renews at same price at end of each membership period, unless you're notified otherwise. Cancel at least two days before renewal date by visiting your My Account section if you do not wish to renew.



What To Watch Online

Pick of the fortnight

NETFLIX**BBC****iPlayer**

Watch the Beeb's family-friendly new *Watership Down*

From 25 December

You'll either be relieved or appalled to hear that the BBC and Netflix have watered down *Watership Down* for their biggest-ever joint production. The original 1978 film, faithfully adapted from Richard Adams' 1972 book, traumatised a generation but also moved us. Mess with it at your peril.

At the time of writing, we're still waiting for a trailer of the reboot – the four one-hour episodes cost a rumoured £18m each. But insiders suggest it gets the balance right, avoiding Disney-style sanitisation while sidestepping the gore. Out go the apocalyptic visions and vivid strangulations, and in come CGI rabbits voiced by of-the-moment British actors including Olivia Colman (*The Crown's* Queen in waiting) and *X-Men* James McAvoy and Nicholas Hoult.

Watership Down arrives on Netflix outside the UK on 23 December, and in the UK a couple of days later to give BBC One (and iPlayer) time to show it first. You can rent the 1978 film on Amazon (bit.ly/watership464), if you're hard enough.



Enjoy new Stephen King stories in *Castle Rock*

From 14 December

In *Castle Rock*, Stephen King and *Lost* creator JJ Abrams weave 10 mysterious stories featuring characters from King's best-loved work. Even the cast feels like a reunion, with *Carrie* star Sissy Spacek appearing in one of the interlinked episodes, and Bill Skarsgård (*Pennywise* from *It*) starring as a Shawshank State Penitentiary inmate. Also look out for André Holland (*Moonlight*) and Scott Glenn (*The Right Stuff*). Watch the official trailer at bit.ly/castle464.

Castle Rock aired on US service Hulu in the summer, but to watch it here you'll need Amazon's 'add-on channel'



StarzPlay. StarzPlay costs £4.99 per month, plus Prime membership, after a free 7-day trial (bit.ly/starz464).



Dive into Amazon's *Aquaman*

From 14 December

Jason Momoa (*Game of Thrones'* Khal Drogo) began his career in *Baywatch*, and he's back in trunks as Aquaman in DC's most CGI-heavy adventure yet. Momoa is a



visually striking king of Atlantis, struggling to broker peace with the surface world. The latest trailer (bit.ly/aqua464) promises a non-stop extravaganza of heroics, sea creatures and famous faces, including Nicole Kidman and none other than Julie Andrews.

Amazon originally planned to premiere *Aquaman* on Prime Video on 21 December, but now UK audiences

will get it on the 14th – a week before the US.



Hunt demons with *Diablero*

From 21 December

Shaun of the Dead goes to Mexico in this schlocky horror show. A disgraced priest, legendary demon hunter and paranormal expert team up as the Diableros, out to rescue a kidnapped girl and ultimately save mankind from the supernatural underworld of Mexico City.

It's all great fun and packed with cliché-subverting silliness, so you'll stop noticing it's in English-dubbed Spanish after a few minutes. Watch the trailers on Netflix, with or without a subscription: bit.ly/diablero464.



We reveal what's new on Netflix, BBC iPlayer, Amazon Prime Video and other streaming services

N Watch Netflix's latest true-crime doc *The Innocent Man*

From 14 December

Netflix has cornered the market in documentaries about dodgy US court cases (*Making A Murderer* and the somewhat less unequivocal *The Staircase*). So *The Innocent Man*, based on John Grisham's non-fiction book about a wrongful conviction (bit.ly/innocent464), feels right at home.

The six-part series explores the aftermath of two murders in Oklahoma in 1988, using archive footage and interviews with key players including Grisham himself (who is an executive producer). There's no trailer, but

YouTube is full of Grisham discussing the case, including this hour-long talk: bit.ly/grisham464.



All4 to ditch adverts – for a price

Channel 4 is trialling an ad-free, subscription version of its on-demand service, All4. New All4+ ditches the commercials but costs £3.99 per month.

A web-only beta test of All4+ is currently underway with a sample of users, whose feedback will be assessed in early 2019. We'll let you know what happens next.

The news follows ITV's launch two years ago of ITV Hub+, an ad-free subscription version of its streaming service – also £3.99. You can sign up for a free seven-day trial at www.itv.com/hub/plus.

Meanwhile Channel 4's news team is to launch a new show on Facebook's ad-supported on-demand service Facebook Watch, which launched in the UK in August. To access Facebook Watch, click or tap the Watch icon in Facebook (bit.ly/fbwatch464).



8 Out of 10 Cats host Jimmy Carr conducts a new set of comedy panellists for this 10-part show, which sees team captains Katherine Ryan (another *Cats* regular) and US comedian DL Hughley aiming to solve the world's woes. The topics are deep (climate change, gender pay gap, AI) but the tone definitely isn't, as you can see from the trailer (bit.ly/thefix464).



N Watch comedy panel show *The Fix*

From 14 December



N Follow the Black Cats into relegation in *Sunderland 'Til I Die*

From 14 December

You don't have to love sport to love a sport documentary. From this year's *All or Nothing: Manchester City* (Amazon Prime Video: bit.ly/mancity464) to body-building classic *Pumping Iron* (Netflix: bit.ly/iron464), these tales of blood, sweat, tears and money are the

most human of stories.

And so to Sunderland, where cameras follow what Netflix quaintly calls an "English soccer club" through its doomed 2017-18 season. Chairman Ellis Short green-lit the documentary hoping it'd attract investors, but the filmmakers have ended up with something far more bittersweet. There's no trailer, but you can bookmark the Netflix page, where all eight episodes land on 14 December: bit.ly/sunderland464.

In case you missed it...

Gritty new German drama *Dogs of Berlin* has it all: murder, football, politics, corrupt cops and a beagle. Watch trailers for free, and



10 episodes with a subscription, on Netflix: bit.ly/berlin464.

Who Killed Jam Master Jay? is the latest of Netflix's *ReMastered* music-and-crime documentaries, this time exploring the 2002 murder of Run DMC's Jam Master Jay (bit.ly/jay464). It's the third film of eight, following *Who Shot the Sheriff?* about Bob Marley's death (bit.ly/sheriff464) and *Tricky Dick and the Man in Black*, about Richard Nixon's courting of Johnny

Cash (bit.ly/tricky464).

Jude Law, Susan Sarandon and Richard Ayoade lend their vocal talents to anime satire *Neo Yokio*, back with six new episodes on Netflix (bit.ly/yokio464). Also on Season 2, mere weeks after Season 1, is supernatural spy thriller *Counterpart* (bit.ly/counter464), available via Amazon StarzPlay (bit.ly/starz464).



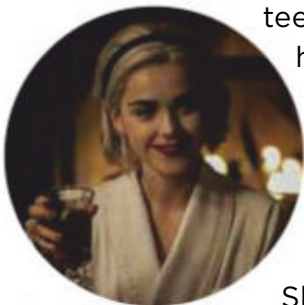
Best film and TV to stream This Christmas



N Celebrate Solstice with Sabrina

From 14 December

Fresh from settling a \$50m (£38m) lawsuit with a Satanic group (bit.ly/lawsuit464), Netflix's rebooted teenage witch has dusted herself down and made a Christmas special, or more accurately a Winter Solstice special. All the *Chilling Adventures* regulars are on board, including Kiernan Shipka as Sabrina and Lucy Davis (*The Office*) as Aunt Hilda Spellman. Get a taster from Netflix's US "holiday" trailer (bit.ly/holiday464).



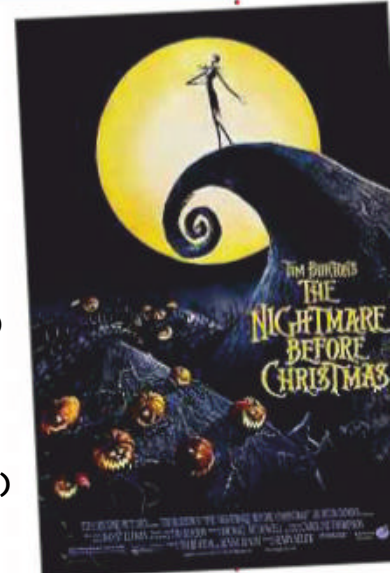
N Andy Serkis's star-studded Mowgli

Andy Serkis plays Baloo the bear and also directs the latest take on Kipling's *The Jungle Book*. Bare necessities it ain't – this CGI motion-capture animation has a darker feel than Disney's 1967 musical classic and 2016 live-action remake. Serkis directs his *Hobbit* co-stars Benedict Cumberbatch (Shere Khan) and Cate Blanchett (Kaa), along with



I'm streaming of a *White Christmas* and other classics

1. *White Christmas*: Now TV (bit.ly/nowwhite464); free on The Internet Archive (bit.ly/intwhite464)
2. *The Nightmare Before Christmas*: Now TV (bit.ly/nightmare464)
3. *The Muppet Christmas Carol*: Now TV (bit.ly/muppet464) – to 24 December
4. *Gone with the Wind*: Amazon Prime Video (bit.ly/amgone464); free on The Internet Archive (bit.ly/intgone464)
5. *It's a Wonderful Life*: Now TV (bit.ly/nowlife464); free on Gloria.tv (bit.ly/wlife464)
6. *The Sound of Music*: Now TV (bit.ly/nowsound464)
7. *Black Adder's A Christmas Carol*: Netflix (bit.ly/blackadder464)
8. *A Charlie Brown Christmas*: YouTube (bit.ly/charlie464)
9. *Bad Santa*: Now TV (bit.ly/badsanta464)
10. *Gremlins*: Amazon Prime Video (bit.ly/gremlins464)



Christian Bale (Bagheera) and 13-year-old Rohan Chand as Mowgli.

Mowgli makes for perfect festive family viewing, and it's available to watch on Netflix at bit.ly/mowgli464 (plus trailer for non-subscribers). The 2016 *Jungle Book*, starring Idris Elba as Shere Khan, is also a treat – now available to rent from Amazon (bit.ly/book464).



Watch *Vanity Fair* in one sitting

From 21 December

ITV's autumn blockbuster *Vanity Fair* comes to Amazon Prime Video, and its seven 50-minute episodes are perfect for squeezing into an afternoon on the sofa or well-appointed chaise longue.

Olivia Cooke (*Bates Motel*) is ambitious governess Becky Sharpe, and Michael Palin plays Thackeray himself, introducing his own story. Watch the trailer at bit.ly/vanity464.



N Watch back-to-back Netflix films

You can barely move for Netflix Original films this winter. The weirdest is thriller *Bird Box*, in which *Gravity* star Sandra Bullock plays a mum who's forced to wear a blindfold all the time. From 21 December at bit.ly/birdbox464.

Gravity's director Alfonso Cuarón, meanwhile, helms the new black-and-white drama *Roma*, available from 14 December (bit.ly/roma464). The film is a shoo-in for February's Oscars – unlike Kurt Russell's *The Christmas Chronicles* (bit.ly/chronicles464), which is hoovering up bad reviews faster than Santa can air-drop stockings. Dare you try this turkey?

Finally, there's feature-length live music and anecdotes from The Boss in Netflix Original *Springsteen on Broadway*, from 16 December at bit.ly/bruce464.



YouTube's ads of Christmas past

- Woolworth's 'Christmas Show' 1983 (bit.ly/woolies464): Eric Bristow and Joe Brown flog C90 cassettes, Speak & Spell and Commodore computers – all surprisingly pricey. Still, you could buy a flat for a grand back then.
- Quality Street 'Magic Moments' 1992 (bit.ly/quality464): Hearts melt when a boy gives a blizzard-bound lollipop lady a box of chocs.



- Sainsbury's 'Christmas is for Sharing' 2014 (bit.ly/sains464): The Royal British Legion helped make this genuinely moving ad to mark the centenary of WWI's Christmas Day truce.

- Watch the making-of at bit.ly/legion464.
- Yellow Pages 'Mistletoe' 1992 (bit.ly/yell464): In which "good old Yellow Pages" helped a little boy reach a girl for a Crimbo kiss.
- Marks & Spencer 'Christmas Food' 2006 (bit.ly/marks464): The voluptuous voiceover of *Ballykissangel*'s Dervla Kirwan put the "oh" into "golden roast parsnips" in this pure festive filth.



Web User's Best Buys



Web User and its sister titles test over 2,500 products every year

HARDWARE

SMART SPEAKER

Google Home Hub

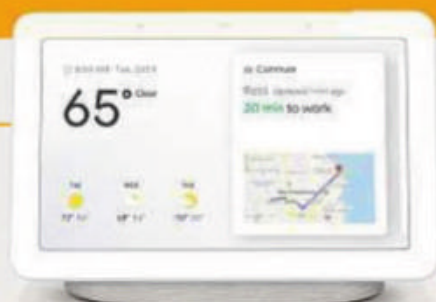
£139 from bit.ly/homehub463

Tested: Issue 463

Its low price, seamless integration with Google services and ability to double as a digital photo frame make the Google Home Hub the best smart screen we've seen.

KEY SPECS

7in LCD touch screen ■ 1,024 x 600-pixels resolution ■ Dual-band 802.11b/g/n/ac ■ Bluetooth 5.0 ■ 178 x 118 x 67mm ■ 480g ■ Choice of Aqua, Chalk, Charcoal or Sand ■ One-year return-to-base warranty



MONITOR

Philips Brilliance 241B7QPJKEB

£209.20 from bit.ly/phil462

Tested: Issue 462

This Philips monitor is superb value for money. Its impressive colour accuracy and contrast ratio make it ideal for watching films and browsing the web.

KEY SPECS

24in screen ■ 1,920 x 1,080-pixel resolution ■ 16:9 aspect ratio ■ IPS ■ 60Hz refresh rate ■ 1,000:1 native contrast ■ Webcam ■ HDMI, VGA and DisplayPort ports ■ 5ms response time ■ 2W internal speaker ■ Three-years return-to-base warranty



TABLET

Amazon Fire HD 8

£79.99 from bit.ly/amazon461

Tested: Issue 461

The Fire HD 8 offers excellent battery life, superb build quality, seamless Alexa integration and impressive performance – all at a great-value price.

KEY SPECS

Quad-core 1.3GHz processor ■ 16GB storage ■ 1.5GB memory ■ 8in, 1,280 x 800-pixel screen ■ 2-megapixel rear camera, VGA front camera ■ 802.11b/g/n Wi-Fi ■ 214 x 128 x 9.2mm ■ 341g ■ 1-year return-to-base warranty



BUDGET SMARTPHONE

Motorola Moto E5 Plus

£149 from bit.ly/motoplus460

Tested: Issue 460

Impressive specifications, a 6in screen, excellent battery life and a 12-megapixel camera that captures stunning images – the Moto E5 Plus is astounding value for money.

KEY SPECS

Quad-core 1.4GHz Snapdragon 425 processor ■ 2GB RAM ■ 16GB storage, expandable by 256GB ■ 12-megapixel rear camera, 8-megapixel front camera ■ 6in, 720 x 1,440-pixel screen ■ 161.9 x 75.3 x 9.35 mm ■ 200g ■ Fingerprint reader



LAPTOP

Acer Aspire 5

£629.99 from bit.ly/acer458

Tested: Issue 458

The Acer Aspire 5 is a no-frills, fast-performance laptop. It's not as slim and lightweight as top-of-the-range models, but is a reliable Windows workhorse that powers through tasks.

KEY SPECS

Quad-core 1.6GHz Intel Core i5-8250U processor ■ 256GB SSD ■ 8GB memory ■ 15.6in, 1,920 x 1,080-pixels screen ■ 1 x USB 2, 2 x USB 3, 1 x USB Type-C ■ 802.11ac Wi-Fi ■ Windows 10 Home ■ 382 x 263 x 21mm ■ 2.2kg ■ 1-year return-to-base



ROUTER

Linksys EA9500 Max-Stream

£224.99 from bit.ly/lksy456

Tested: Issue 456

The EA9500 Max-Stream is a superb router that's packed with features and sensibly priced. It delivers terrific wireless speeds, creates two 5GHz networks on separate frequencies and offers an excellent smartphone app.

KEY SPECS

802.11a/b/g/n/ac ■ 8 x Gigabit Ethernet ports ■ 2 x USB 3 ports ■ Guest-network mode ■ DLNA media server ■ 318 x 265 x 67mm ■ Two-years return-to-base warranty





Product Test

We test and compare the latest products



Apple iPhone XR

Tempted by one of the new iPhones? There's no need to aim too high – we think the cheaper XR is just as good as its pricier siblings

There's a good reason why Apple staggered the release dates of its latest iPhones: it needed to get its more expensive, top-of-the-range XS phones into people's pockets before they realised just how good the XR is. Not that the iPhone XR is what you'd call cheap – at £749, it's pricier than many flagship Android devices. But that's still £250 less than the equivalent iPhone XS, which is a significant saving.

XR vs XS

Where it counts, the iPhone XR isn't hugely different from its larger and more expensive siblings. It has a similar full-screen notched display to the XS and XS Max; it's clad in glass both front and rear; the internals are identical; and it runs iOS 12.

The differences are subtle. At 6.1in across the diagonal, the iPhone XR has a slightly larger display than the XS, but uses IPS technology instead of OLED. It's also available in different colours – black, white, coral, blue and red – with a single camera at the rear, rather than two. It also has two fewer antenna bands around the edge – a clue that it has only a 2x2 MIMO antenna and can't reach the same gigabit Wi-Fi download speeds as the XS and XS Max.

The XR is slightly less water-resistant than the XS, at IP67 (which means it can be dropped in water up to 1m deep for half an hour) instead of IP68 (up to 1.5m for the same time), although it will still shrug off a light shower and a dousing in tea or coffee. Lastly, it's available in different storage



“ The XR's A12 Bionic processor is currently the fastest chip to appear in any mobile phone ”

configurations to the XS – 64GB, 128GB and 256GB, instead of 64GB, 256GB and 512GB.

Performance

The XR contains Apple's latest hexa-core processor: the A12 Bionic. This is currently the fastest chip to appear in any mobile phone and, backed by 3GB of RAM, it powers the iPhone XR to some impressive benchmark results, as you can see in our tables, opposite.

It feels as responsive as you'd expect a new iPhone to



be, and it's fast enough to run any game at a smooth frame rate, although the display is capped at 60Hz, so it can't increase the frame rate above 60fps (frames per second).

Battery life is better than last year's iPhone X, largely thanks to the more efficient processor. It sits halfway between the XS and the XS Max, lasting 13hrs 29mins. This isn't amazing, as you can see from our chart, but it should comfortably get through a fairly demanding day of use.

Screen and camera

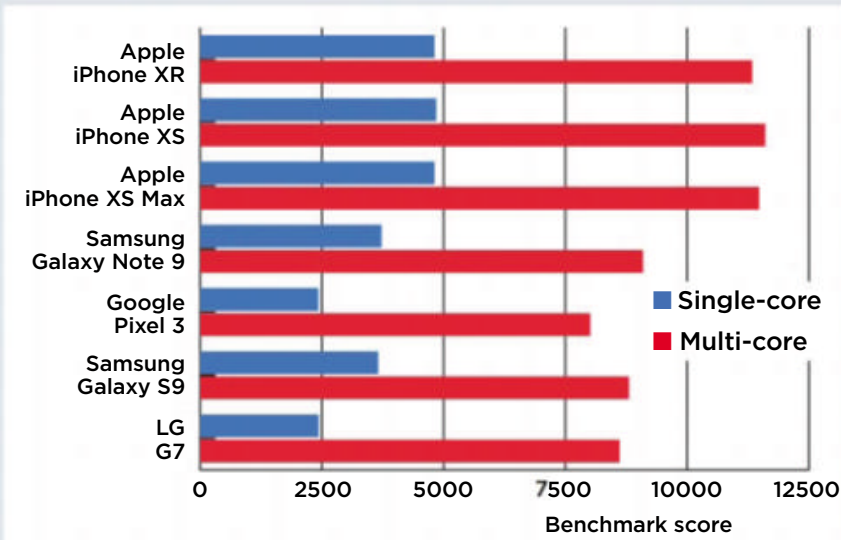
Despite having a lower pixel density than the XS (326ppi vs 458ppi), the XR's screen doesn't look at all fuzzy, and colour accuracy is near-perfect, as we would expect from an Apple iPhone. Brightness reaches 684cd/m² (candles per square metre), viewable on even a bright, sunny day, and the contrast ratio is unbelievably good at 1,736:1. Colour accuracy is excellent, too: we measured 93% coverage of the sRGB standard. While it isn't quite up to the level of the OLED displays on the XS and XS Max, it's not far off.

The main camera is the same on all three iPhones but you don't get the second camera that the XS models have, which means losing out on some of the advanced features that come with it. Even so, this is a great camera that's easy to use, reliable and takes superb photos.

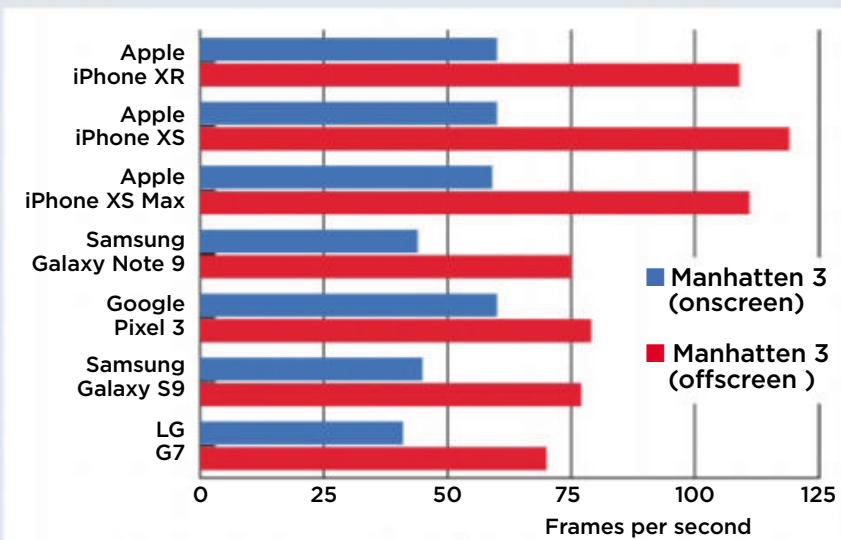
Let's be clear, though: you still get more for your cash with Android phones. The Samsung Galaxy Note 9, for instance, is £799 and includes a dual camera with a 2x zoom and a stylus. Alternatively, the price of the Samsung Galaxy S9 has now fallen to below £500, and is still as wonderful as when it first launched.

Elsewhere, the Huawei P20 Pro costs £600 and gets you three rear cameras; there's the recently launched Google Pixel 3 priced at £739; the LG G7, which has fallen to a ludicrously low £420; and the just-launched OnePlus 6T, yours for just £499.

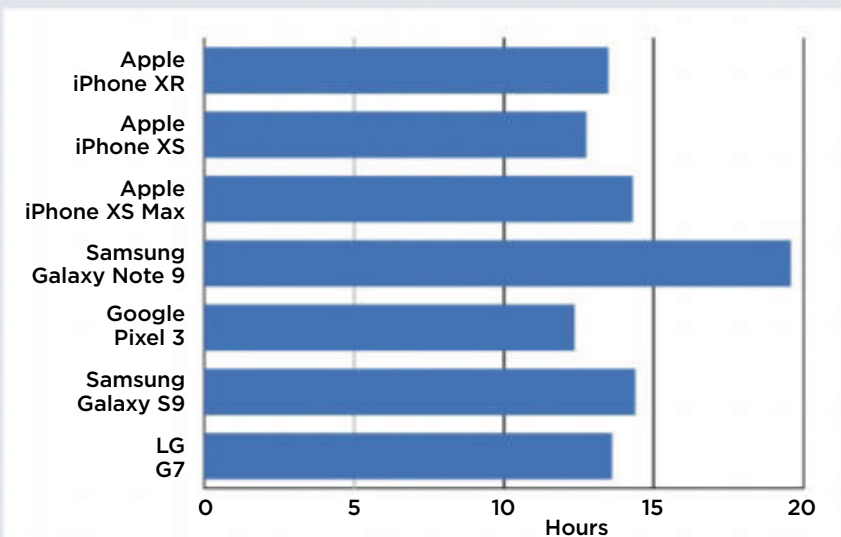
CPU performance (Geekbench 4)



Graphics performance (GFXBench GL)



Battery life



OUR VERDICT



The XR is not the best iPhone that money can buy, and it's not even the best-value handset available if you're happy to cough up £749. However, if you're dead set on a new iPhone and you're not willing to spend £999 or more, this is definitely the phone for you. It's far cheaper than the XS and XS Max, and although the

FEATURES ★★★★★
PERFORMANCE ★★★★★
EASE OF USE ★★★★★
VALUE FOR MONEY ★★★★★

screen isn't as good, the camera doesn't have a zoom and it's ever so slightly less water-resistant, the £250 saving is well worth it. You won't be disappointed.

PRODUCT INFO

Apple iPhone XR

Price: £749

Buy from Apple:

bit.ly/xr464

SPECIFICATIONS

- A12 Bionic hexa-core processor
- 6.1in LCD IPS display
- 1,792 x 828 pixels resolution
- 64, 128 or 256GB of storage
- 12-megapixels rear camera
- 7-megapixels front camera
- 802.11ac Wi-Fi with 2x2 MIMO
- Bluetooth 5.0
- NFC
- IP67 water and dust resistant
- Apple iOS 12
- 76 x 160 x 8.3mm
- 194g

FOR

- ✓ Cheaper than either iPhone XS
- ✓ Outstanding camera
- ✓ Industry-leading mobile performance

AGAINST

- ✗ No optical zoom
- ✗ Better battery life but still not amazing

PUSH THE BOAT OUT

Apple iPhone XS Max, £1,099

bit.ly/xs464



MORE AFFORDABLE ANDROID

Samsung Galaxy S9, £470

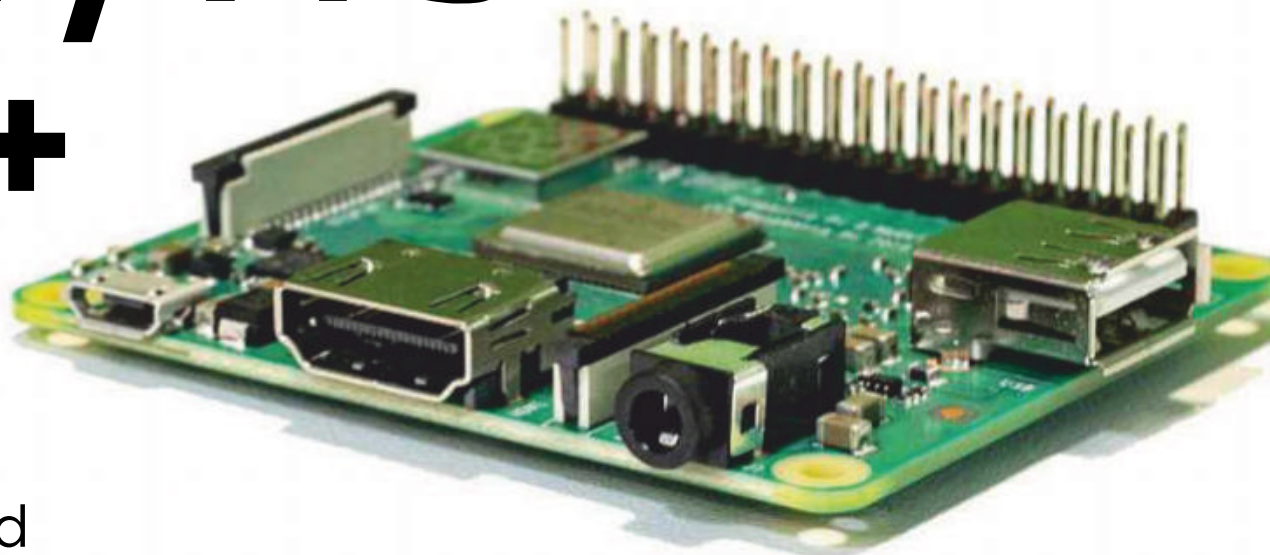
bit.ly/sams464





Raspberry Pi 3 Model A+

The Raspberry Pi 3 Model A+ is smaller and cheaper than the B+ but upgraded connectivity and components make it just as attractive



It's been four years since the launch of the original Raspberry Pi Model A+, so this new update feels long overdue. Where the Model B range pushes the mini computer's performance boundaries with each new version, the Model A sets out to be just as functional, but smaller and cheaper.

Hardware

The new Model A+ has the same quad-core Broadcom

processor as the Model B+, with the same 1.4GHz clock speed, so the basic performance is identical. The only significant difference is that the A+ only has half the memory: 512MB versus the 1GB of the B+ version. This means that certain actions, such as opening dozens of browser tabs, might lead to sluggish performance, but regular apps such as LibreOffice and your own programs should perform just as well as on the standard Pi.

The A+ model's physical format remains exactly the same as the old one, with a 65 x 56mm footprint that's around 25% smaller than a full-size Pi. That means existing Model A+ accessories and mountings will continue to work with this new version, and the board retains the standard 40-pin GPIO header, so it's fully compatible with regular Raspberry Pi accessories.

The downside of this is that the physical limitations of the old Model A+ have also been faithfully maintained. While the mainstream Model B has four USB ports, the Model A+ has just one, along with the familiar micro-USB power socket. Conveniently, there's a full-sized HDMI socket and a 3.5mm audio jack, which can also carry composite analogue video. However,

“Bluetooth 4.2 and dual-band 802.11ac Wi-Fi mean you can easily hook up a wireless keyboard and mouse”

there's no Ethernet socket.

What's different?

There is good news, though. Unlike the original Model A+, the new board comes with built-in Bluetooth 4.2 and dual-band 802.11ac Wi-Fi. This means you can easily hook up a wireless keyboard and mouse, and connect the Pi to a fast wireless network, still leaving your one precious USB socket free.

The new Model A+ has launched at \$25 (despite being British, the pricing of the Pi is in dollars to keep it

from fluctuating) so you can currently expect to pay around £23 for it in the UK – the same price as the old one. The Raspberry Pi 3 Model B+ is only barely more expensive, so if you're looking for a general-purpose computer and don't care about the size, the B+ is a more powerful option. However, we like the new A+ because its tiny size is genuinely innovative. With the inclusion of Bluetooth and powerful Wi-Fi on the main board, its lack of extra USB ports really isn't a problem.

PRODUCT INFO

Raspberry Pi 3 Model A+

Price: £23

Buy from The Pi Hut:
bit.ly/rpia464

SPECIFICATIONS

- 1.4GHz Broadcom BCM2837B0
- 512MB of memory
- 2.4GHz and 5GHz dual-band 802.11.b/g/n/ac Wi-Fi
- Bluetooth 4.2
- Extended 40-pin GPIO header
- Full-size HDMI port
- 1 x USB 2.0 port

FOR

- ✓ More compact than the regular Pi
- ✓ Affordable
- ✓ Wi-Fi and Bluetooth included

AGAINST

- ✗ Limited physical connectivity

OUR VERDICT



The limited connectivity of the original Model A+ meant it could never be the star of the Pi family, but the addition of Bluetooth and Wi-Fi transforms this concise computer into something vastly more versatile. The Model A+ can now replace a full-size Raspberry Pi in almost any role that doesn't require

FEATURES	★★★★☆
PERFORMANCE	★★★★☆
EASE OF USE	★★★★☆
VALUE FOR MONEY	★★★★★

a physical Ethernet connection or multiple USB accessories. At such a bargain price, it's harder than ever to justify not owning one.

PHILIPS

Monitors

Vivid, true-to-life colours
in an elegant design

276E7QDSW

innovation ✨ you



amazon



ebuyer.com



Best Free Software



PDF EDITOR

Icecream PDF Editor

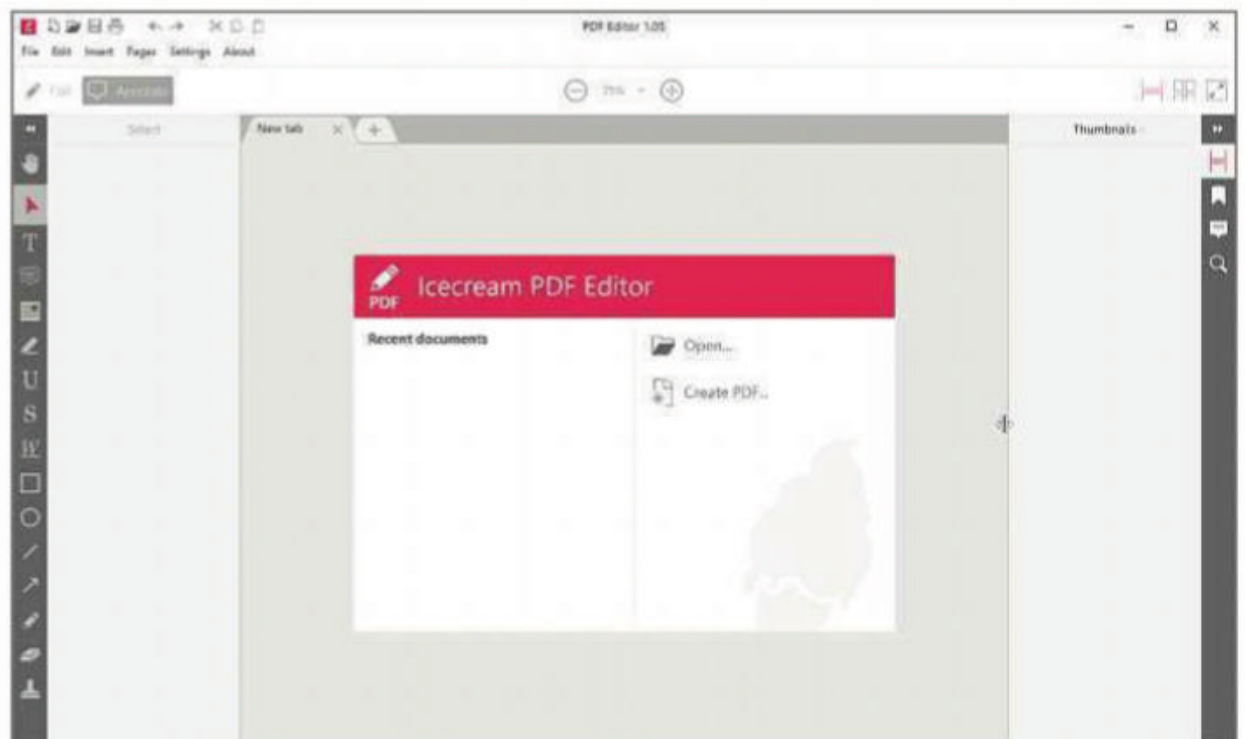
bit.ly/pdf464

Min requirements: Windows 7/8.1/10

File size: 17.3MB

You can make your own PDF files directly in both Windows and Mac OS (via the Print menu), but if you want to edit them, or add elements such as watermarks and annotations, then you'll need a third-party program. There are plenty of these to choose from, although some can be a little complicated to get to grips with, have annoying limitations or offer features designed for business users.

Icecream PDF Editor is a new editing tool that's entirely free and very easy to use, and offers all the features you are likely to need, with no restrictions



to worry about. You can use it as a simple PDF viewer, or edit text and other objects, manage pages and add items such as images, lines and shapes. It lets you rotate pages clockwise or anti-clockwise, add and edit annotations and stamps to pages, and print documents. You can even edit a PDF's metadata, removing existing information and adding your own.

The program also lets you create your own PDF files from scratch, setting the dimensions, orientation and number of

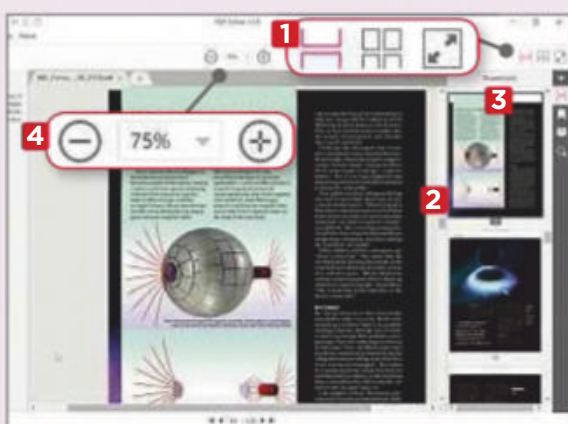
pages you require before adding content.

You can view single or double pages, and set a default zoom, which is useful if you have problems with your eyesight. Icecream PDF Editor also lets you quickly switch between different languages. The interface currently offers seven choices - English, German, French, Italian, Spanish, Portuguese and Russian - with more coming soon. Just select a language and the change will be made instantly.

We've seen a lot of free PDF editors over the years, and this is definitely one of the best.



MINI WORKSHOP | Edit PDFs with Icecream PDF Editor



1 Open a PDF in Icecream PDF Editor and you'll be able to start reading it. You can switch to a different layout using the top-right options. **1** Use the scroll bar **2** to move up or down, or click a thumbnail **3** to find the page you want. You can zoom in or out of the page using the controls. **4**

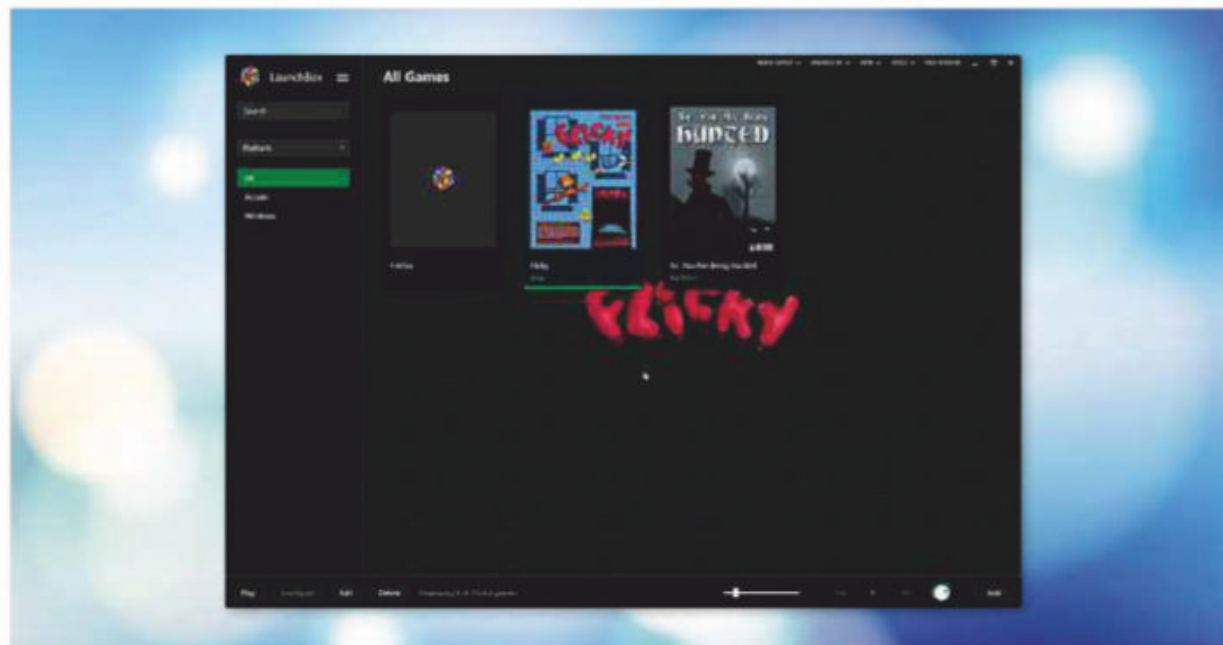


2 Pages can also be dragged up and down using the Hand tool in the sidebar, if you prefer. **1** You can add text **2** and sticky notes **3** to your PDF, highlight areas and add shapes **4** and lines. **5** There's also a selection of stamps **6** you can add to the document. **7**



3 Click the Edit button to edit the existing text in the PDF **1** or insert your own photos. **2** Click and drag the handles to resize the images. **3** You can adjust the opacity, **4** which is useful for creating and applying your own watermarks. Click Save **5** when you've finished.

This fortnight's top new software downloads to help you make the most of your PC, and they're all FREE



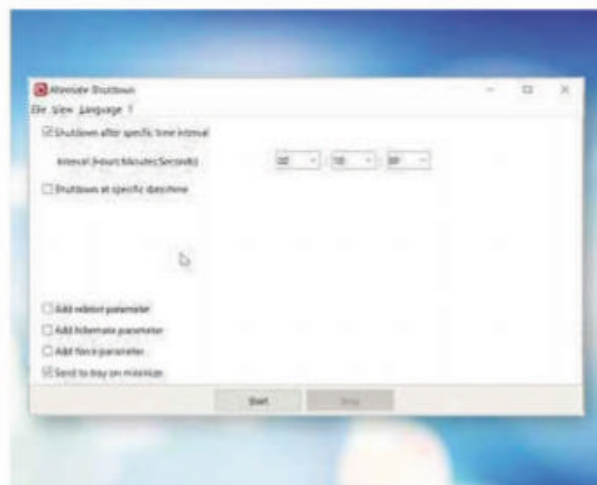
GAMES LAUNCHER

LaunchBox 9

www.launchbox-app.com

Min requirements: Windows 7/8.1/10 **File size:** 199MB

LaunchBox is a must-have for fans of old games. This portable database and launcher can handle pretty much any game you want to play, running older PC games via the bundled DOSBox and more modern releases and non-Windows games through emulators (you'll need to download the ones you want to use). This new release can auto-generate child playlists, and clean up videos, music, images and manuals. Performance has been greatly enhanced across the software, too.



SYSTEM TOOL

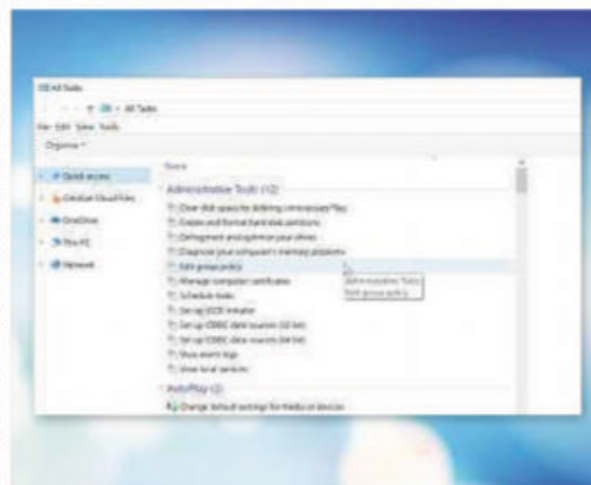
Alternate Shutdown

bit.ly/altshut464

Min requirements: Windows 7/8.1/10

File size: 772KB

Alternate Shutdown is a useful program that can shut down your PC when you're not around, either after a set period has elapsed or at a specific date and time. It's very easy to use, and can restart your PC when required or send it into hibernation. You can set it to force close any running applications to make sure the shutdown/restart happens without problems. Just select the parameters you want, then click Start.



SYSTEM TOOL

God Mode Launcher

bit.ly/god464

Min requirements: Windows 7/8.1/10

File size: 1.4MB

Windows has a useful hidden God Mode (also known as SuperMode) that displays all the admin tools and control options on a single screen. Unlocking God Mode requires you to give a folder a very long, complicated name, but this program saves you the effort. Just install it, and God Mode will open. The available tools depend on which version of Windows you're running. Just be sure to decline the bundled junk during installation.

New Windows Apps

PDF Ink

bit.ly/pdfink464

Min requirements: Windows 10

File size: 39.75MB

This app lets you sign, annotate, and fill in PDFs for free, and insert a signature, typed text or ink into any document. It also includes a PDF and Doc/DocX viewer.



Share 2 Print

bit.ly/s2p464

Min requirements: Windows 10

File size: 24.16MB

If an app lets you share content – but not print it – then this free tool can help. It uses any app's Share function to output to a connected printer.



Blender

bit.ly/blender464

Min requirements: Windows 10

File size: 319.2MB

Blender is a free and open-source 3D creation suite for 64-bit versions of Windows 10. The app offers the same features found in the desktop edition.



SYSTEM TOOL

Ultimate Windows Tweaker 4.5

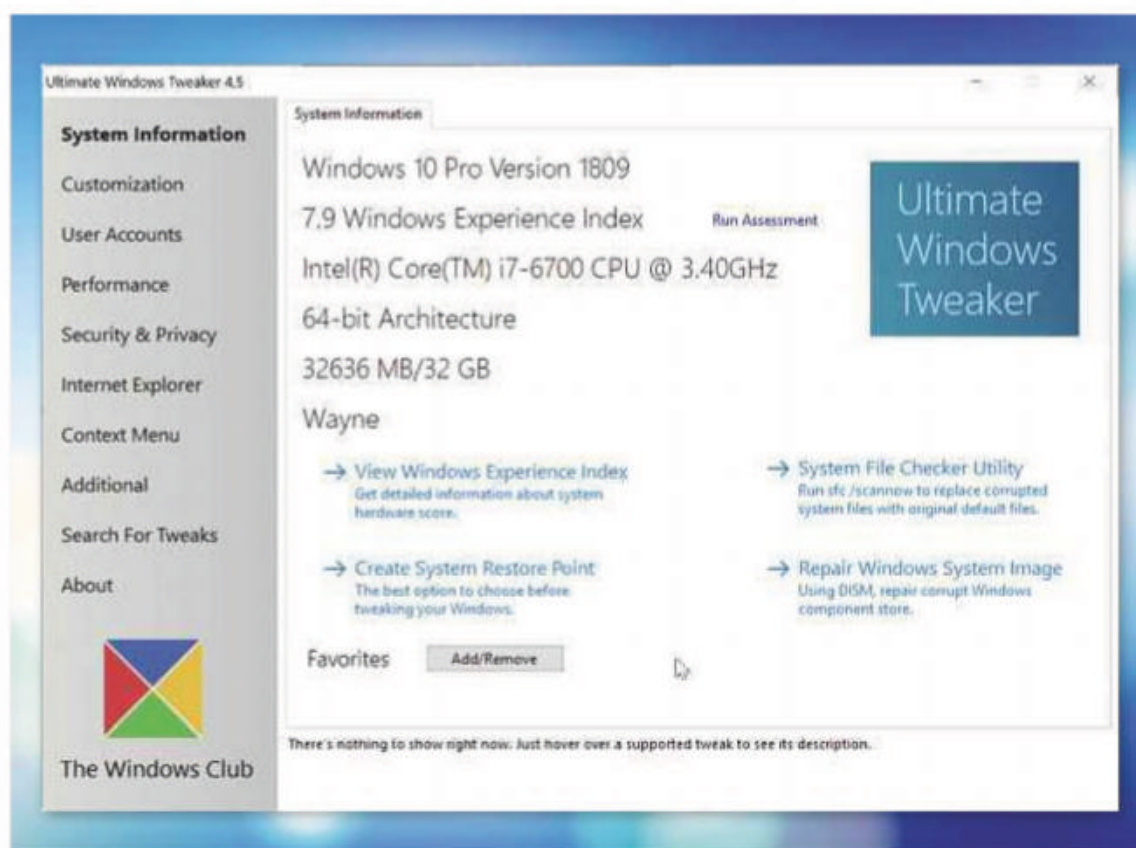
bit.ly/uwtweak464

Min requirements: Windows 10

File size: 678KB

Ultimate Windows Tweaker is a tiny portable tool for Windows 10 that offers over 200 tweaks, sorted into categories including Customisation, User Accounts, Performance, Security and Privacy, Internet Explorer, Context Menu and Additional. Hovering your mouse over a tweak tells you what it does, while selecting one and clicking Apply will action it. There's also a System Information page that shows data about your PC, and lets you run an assessment of it.

This is a major new release, adding support for Windows 10 1809 (the October 2018 Update) and a selection of new tweaks and general performance improvements.



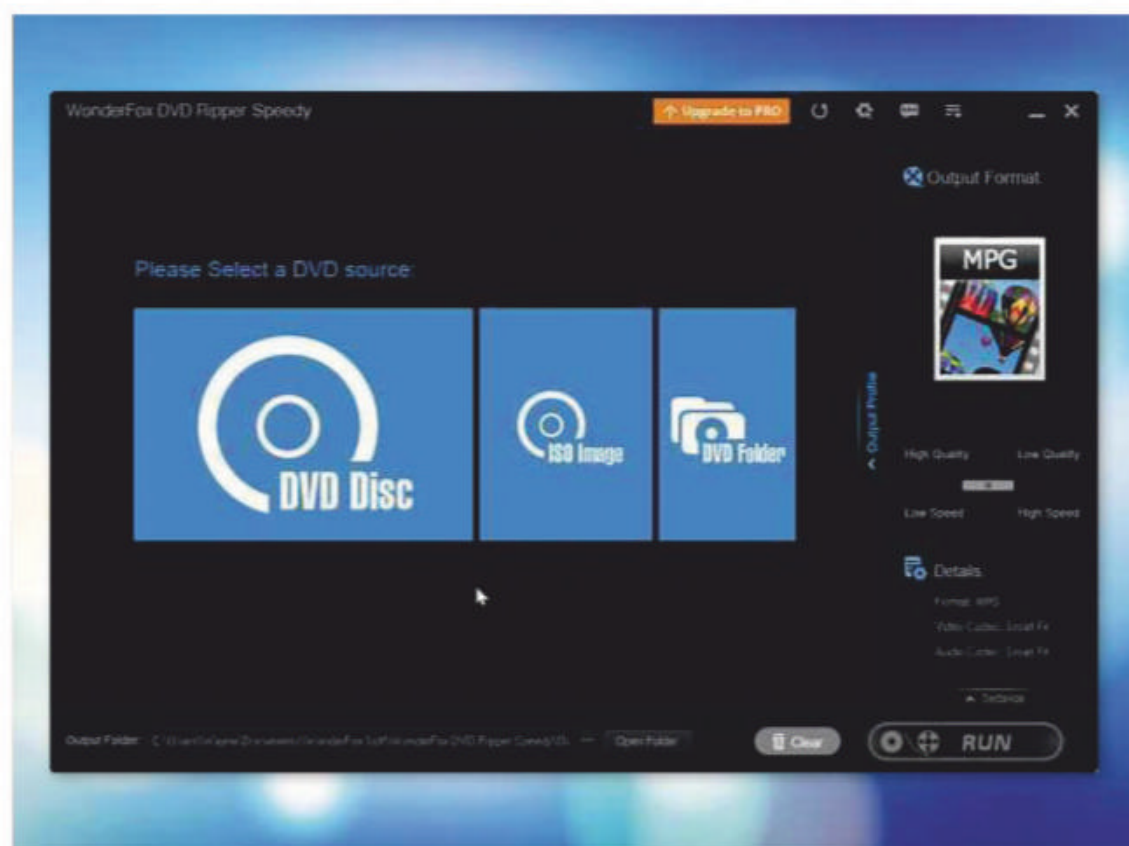
DVD RIPPER

WonderFox DVD Ripper Speedy 12

bit.ly/speedy464

Min requirements: Windows 7/8.1/10

File size: 41.1MB



WonderFox DVD Ripper Speedy simplifies the process of creating backups of your DVDs. To use it, just select your source – this can be a DVD Disc, ISO Image or DVD Folder – and it will automatically identify the main movie for you. You can crop and clip the video, apply a variety of effects, add and remove subtitles, and set the quality of the saved movie. When you've finished configuring everything, click the Run button and the software will perform the backup.

Note that DVD Ripper Speedy is a cut-down version of DVD Ripper Pro, and can only save the ripped files in MPG format.

ANTI-MALWARE TOOL

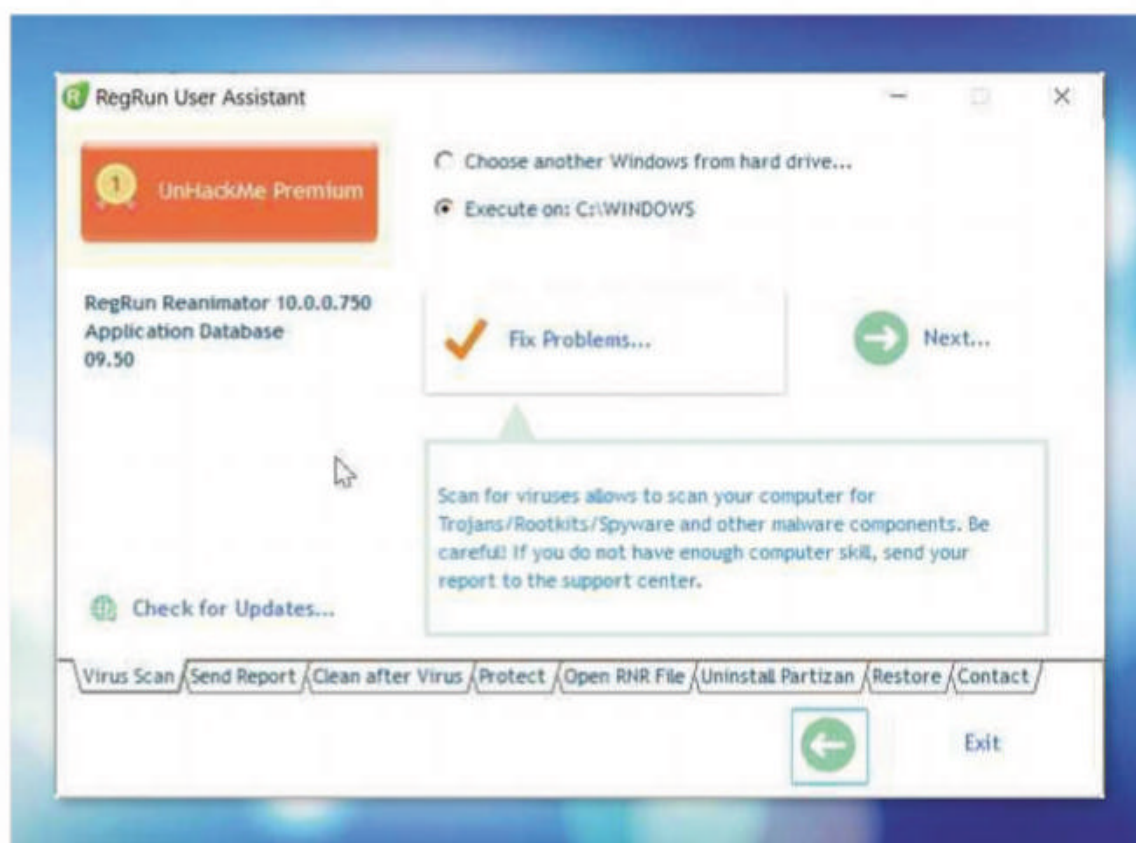
RegRun Reanimator 10

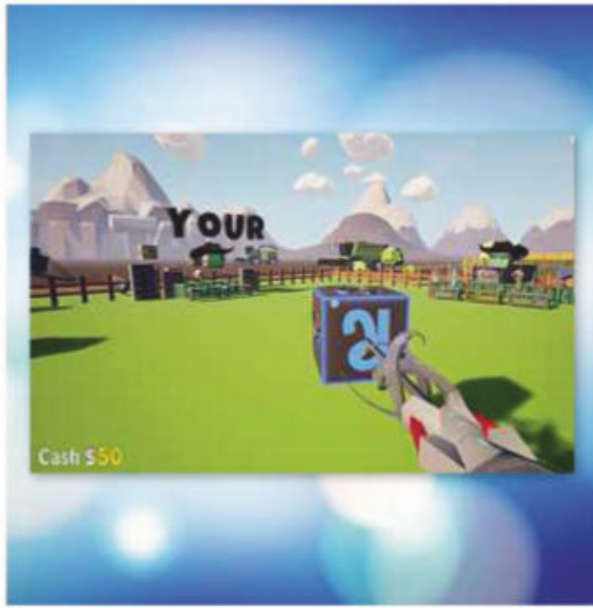
bit.ly/regrr464

Min requirements: Windows 7/8.1/10

File size: 15.1MB

RegRun Reanimator is a function-limited version of the paid-for RegRun Security Suite. It scans your system for Trojans, adware, spyware, some rootkits and other malware, and can remove anything it finds. It runs alongside any existing anti-malware software you have installed, making it a useful second line of defence. Install and run the program, update the database and either click the button to Fix Problems or choose one of the other options from the tabs below. This version has a new interface and other improvements. Be warned that the RegRun website is a bit of a mess, so make sure you follow the links to download the newest build.





GAME

Wild Wild Word

bit.ly/wwword464

Min requirements: Windows 7/8.1/10

File size: 123MB

The aim of this 3D educational game is to buy a letter gun, then use it to destroy items around the town – such as a tractor – breaking them down into the letters that make up their name (t-r-a-c-t-o-r). You can then sell required letters in the shop to earn more money and buy more powerful letter guns. Letters in high demand are shown floating above the shop.

Don't install...

Daphne

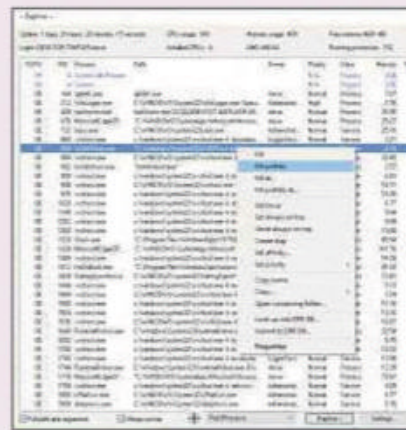
bit.ly/daphne456

Min requirements:

Windows 7/8.1/10

File size: 6.4MB

The appeal of this Task Manager alternative is its ability to kill PC processes quickly. However, it's certainly not going to win any prizes for attractive design and may seem baffling to the uninitiated. Additionally, Daphne hasn't been updated for over two years – and it shows!



...Install this instead

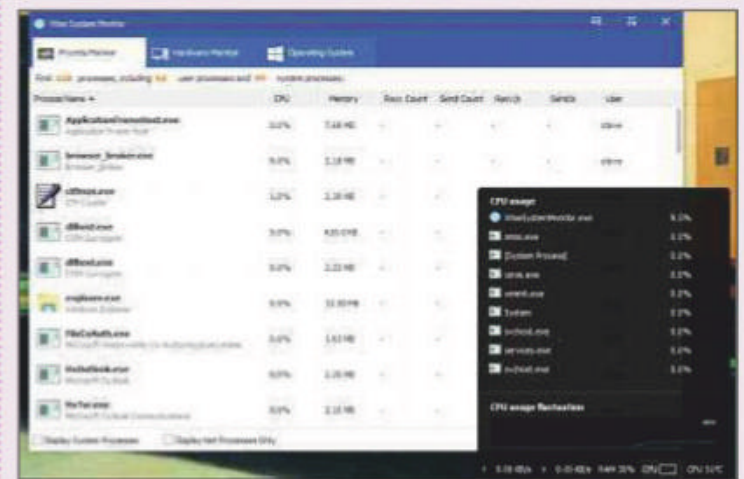
Wise System Monitor

bit.ly/wise456

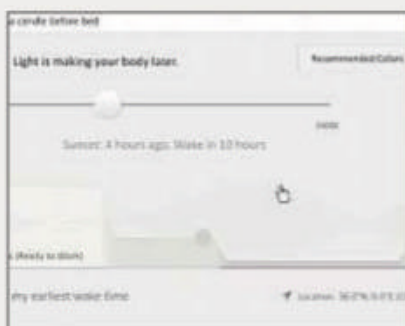
Min requirements: Windows 7/8.1/10

File size: 1.55MB

Wise System Monitor looks and feels like a Task Manager fit for modern PCs. Its smart design contains all the performance-monitoring tools you need. Each running process has a large icon and clearly displayed information – ranging from processor usage to sent and received data counts – so you don't have to squint and scroll to keep track of what's going on. You can easily control all your processes in a couple of clicks, shutting down memory hogs if necessary to boost system performance.



UPDATED | New tweaks and fixes for your favourite free programs



SCREEN TOOL

F.lux 4.84

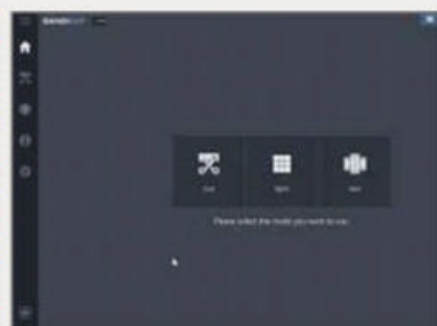
justgetflux.com

Min requirements:

Windows 7/8.1/10, Mac OS or Linux

File size: 818KB

F.lux changes your screen hue to match your environment and the time of day, making your display easier on the eyes. This update introduces a new greyscale mode to reduce distractions. There's also 'dusk-to-dawn' support for Philips Hue lights.



VIDEO EDITOR

Bandicut 3.1.4

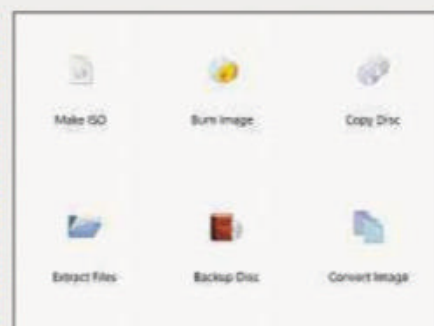
www.bandicam.com

Min requirements:

Windows 7/8.1/10

File size: 12.7MB

Bandicut is a simple video-editing tool that lets you quickly cut out part of a video, split a clip into multiple files, join videos together, merge segments and more, without decreasing the video quality. The latest version improves performance and adds an 'audio normalise' function.



ISO TOOL

ISO Workshop 8.2

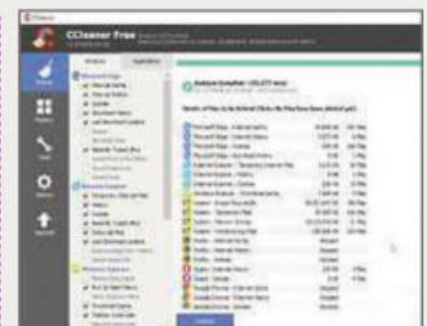
www.glorylogic.com

Min requirements:

Windows 7/8.1/10

File size: 4.2MB

ISO Workshop lets you create ISO files from your own content, view and extract files, convert and burn disc images and more. The latest version improves the file-copying process and offers better support for ISO images with Bridge file system. Be sure to decline the bundled junk.



SYSTEM CLEANER

CCleaner 5.49

www.ccleaner.com

Min requirements:

Windows XP/Vista/7/8.1/10

File size: 17.2MB

The Avast-owned system-cleaning tool, which cleans unnecessary junk from your PC in one click, gets updated on a monthly basis. This latest version improves Windows Log and Firefox cleaning, and fixes a problem that was causing corrupted Firefox profiles for some users. ■

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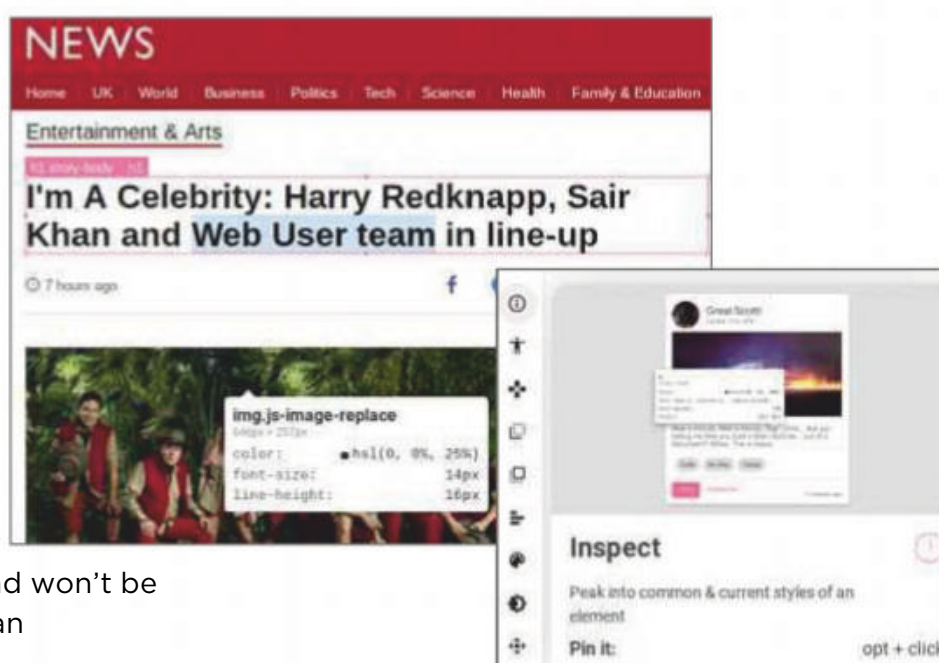
Best New Browser Tools



CHROME

Hack any element on any web page

Last issue, we recommended our favourite free services for creating your own website, but if you're a complete novice and want to get a feel for how web design works, check out VisBug (bit.ly/visbug464). This new Chrome extension from Google lets you play around with the elements on any web page using simple point and click. You can inspect the styles and grids used by the web designer, move and replace images, change the background colour and brightness, resize and realign the fonts, and even edit and delete the text. VisBug is very easy to use: just click its toolbar button when viewing a site to open a vertical panel on the left-hand side, featuring options such as Inspect, Move, Position, Font Styles and Edit Text. Any hacks you make only appear in your browser – don't worry about messing up the site! – and won't be there next time you visit. Google describes the add-on as an "artboard", and it's certainly lots of fun to play around with.



Block abusive adverts in Chrome 71

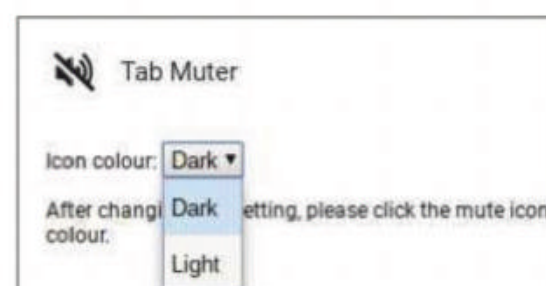
Back in February, Google raised eyebrows by adding a built-in ad blocker to Chrome, designed to filter adverts that failed to meet Better Ads Standards, such as those containing autoplaying sound and video, or flashing images. Naturally, Google's own ads were exempt from blocking – the poor company needs to make a living, after all – and it seems that the filter didn't go far enough, because the latest version of Chrome (71) introduces "further protections from harmful ad experiences". These protections address intrusive and misleading adverts that trick you into clicking them by pretending to be system warnings – or have 'close' buttons that don't actually close the ad, which are often used by scammers to steal personal data.

Chrome will now automatically block

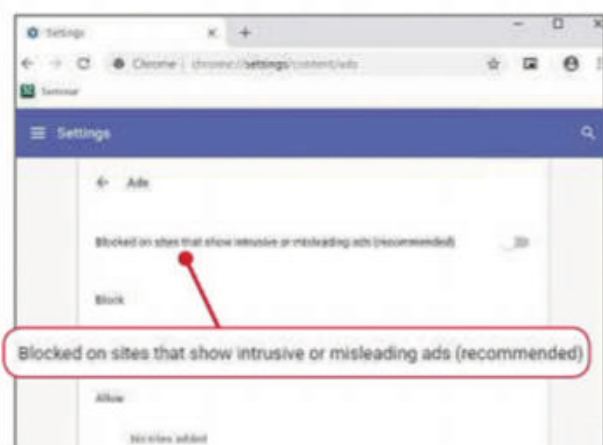
all ads on sites that engage in "persistent abusive experiences", not just the offending ones. If, for some strange reason, you decide you want to see such adverts on specific sites, you'll need to go into Settings, Advanced, 'Content settings', choose Ads and disable the filtering there.

Mute specific tabs in Chrome 71

Chrome used to offer the useful ability to mute noisy web pages by clicking the speaker icon on the relevant tabs, but this was replaced in version 64 of the browser by a more general option to Mute Site. The tab-muting control remained as a hidden 'chrome flag' that could be enabled manually, but Chrome 71 ditches it for good, which seems a tad unfair. Fortunately, you can restore the



feature using a new extension called Tab Muter (bit.ly/muter464). This adds a speaker icon to your toolbar that you can click to instantly mute and unmute the current tab, and which can be made light or dark depending on your preference. To quote one review of Tab Muter: "Ever since Chrome removed the tab-muting feature, I have felt as if my very existence has been hollow. This extension works perfectly and restored meaning to my life."



BEST BROWSER TOOL OF 2018

Our favourite browser extension of the year is undoubtedly I Don't Care About Cookies (www.i-dont-care-about-cookies.eu), which automatically hides the annoying cookie warnings that the new GDPR rules have obliged websites to display. It's available for Chrome, Firefox, Vivaldi, Opera and Safari.



This fortnight's most useful tips and add-ons to help you get the most from Chrome, Firefox, Opera and more

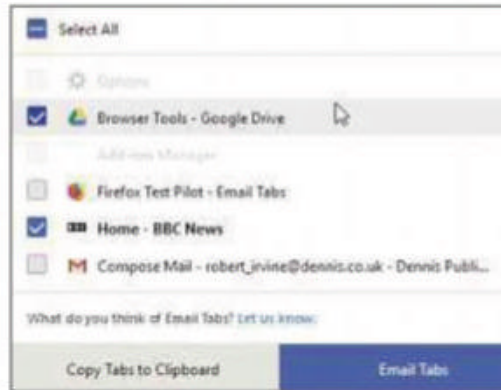


FIREFOX

Try Firefox's new Test Pilot experiments

It's been a few months since Mozilla last updated its Test Pilot website (testpilot.firefox.com), which lets you try experimental tools that may one day be added to Firefox, so we're pleased that November brought two new additions. The first, Email Tabs (bit.ly/emailtabs464), makes it easier to share web pages you have open. Instead of copying and pasting the URLs, just click its toolbar button, choose the tabs you want to share – or choose Select All – and click Email Tabs. You can then select an email template – links only, links with screenshots or links with full articles – and insert that content in a new message (Gmail only, at the moment) to send.

The other new Test Pilot experiment – Price Wise (bit.ly/price464) – lets you save products you want to buy from online stores, then notifies you when the price drops. Sadly, this currently only works with US retailers such as Walmart and Best Buy, and the American arms of Amazon and eBay. Hopefully, it will extend to UK stores if and when it “graduates” to stable release.



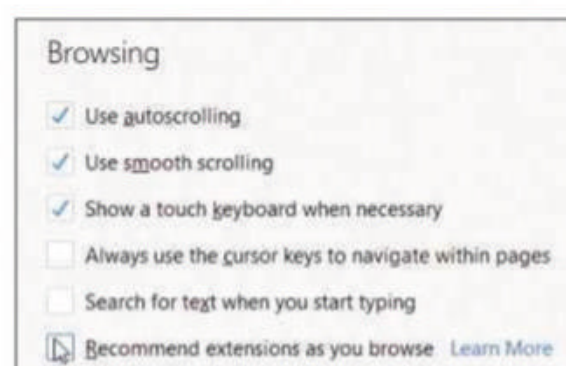
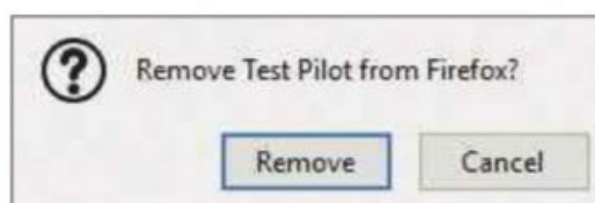
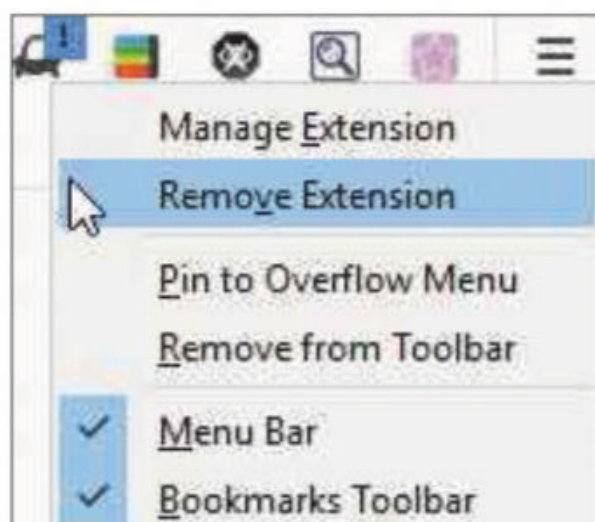
Remove add-ons from Firefox by right-clicking

The latest version of Firefox, 64, fixes a longstanding flaw in the browser (well, it's always annoyed us, anyway) regarding how you uninstall unwanted add-ons. Previously, you had to go to Tools, Add-ons, Extensions (or press Ctrl+Shift+A if you were familiar with that shortcut), find the tool in the list and click Remove. Now, as with Chrome, you can simply right-click the add-on's icon on your toolbar, choose Remove Extension and click Remove to be rid of

it for good. We're not sure why it's taken Mozilla so long to add this option, but as compulsive add-on installers (and uninstallers), we're glad it's finally here.

Stop Firefox recommending extensions

Another new feature in Firefox 64 that may not be so welcome involves Mozilla recommending extensions that it thinks you might be interested in when you visit certain sites. Although the company receives no money from developers for suggesting these add-ons, you may still find the recommendations intrusive and tantamount to advertising. Fortunately, it's easy to switch them off. Go to Tools, Options, General, scroll down to the Browsing section and deselect the option to 'Recommend extensions as you browse'.



OTHER BROWSERS



Add QR codes to web pages

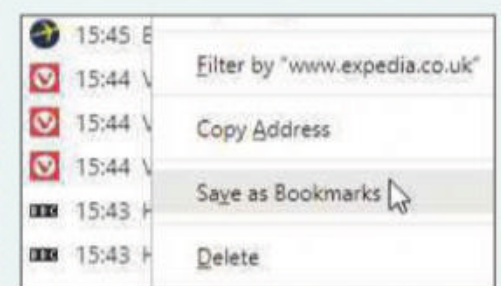
Even if you use Microsoft Edge on your Windows 10 computer, you probably use a different browser on your phone, which means you can't sync open tabs between devices.

One solution is to install the extension QR Code for Microsoft Edge (bit.ly/qrcode464), which lets you transfer web pages from your PC to your phone so you can carry on reading where you left off. It works by adding a QR code to the page, which you then scan with your phone's camera to open and read the page on the go. The add-on was free at the time of writing, but usually costs 79p.



Save history entries as bookmarks

Vivaldi already has the best History section of any browser, displaying previously visited pages as a calendar, graphs and charts. The team has now made another useful tweak, which lets you save entries from your history as bookmarks, without needing to open the pages first. Simply right-click an entry in your History list and choose 'Save as Bookmarks'. This also works with Vivaldi's History Panel, which you can open by pressing Ctrl+Shift+H. The new option is available in the latest 'snapshot' beta release of Vivaldi 2.2.



Best Free Apps



App of the Fortnight

TOOLS

NetSpot WiFi Analyzer

bit.ly/netspot464



NEW

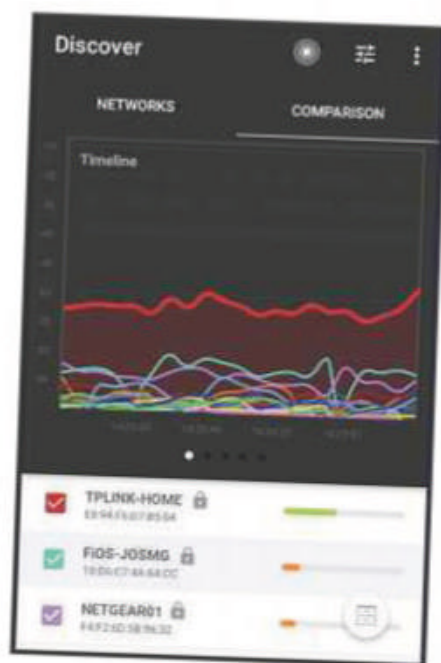
Ever wondered what's stopping you connecting to your Wi-Fi network from a particular bedroom, or worried that your neighbour's wireless network is interfering with yours and affecting its performance? If so, you're not alone. Most of us live in environments where multiple Wi-Fi networks are fighting for dominance and struggling to reach the farthest-flung areas of the house, which is why the developers of NetSpot for Windows (www.netspotapp.com) have released this brilliant free Android app.

Armed with NetSpot WiFi Analyzer, you can scan your environment to detect and compare all the Wi-Fi networks in the surrounding area. The app provides tons of information about the wireless world around you, including the signal strength of each network, the security protocol it uses and the broadcasting router's MAC address, as well as details of which channels are most congested. You can view this data as a live chart and filter your scans by network name, signal strength or band.

The app supports every Wi-Fi standard from the oldest to the most up to date, including 802.11a/b/g/n and ac, as well as 2.4 and 5GHz bands. It updates its analysis in real time, too, so you can take your mobile device with you from room to room to diagnose dead zones and uncover channel conflicts with neighbouring networks in different areas of your home.

NetSpot WiFi Analyzer doesn't offer as many features as the paid-for Windows versions, but we see this as another selling point for the app, because you don't need to be a network expert to get your head around it as

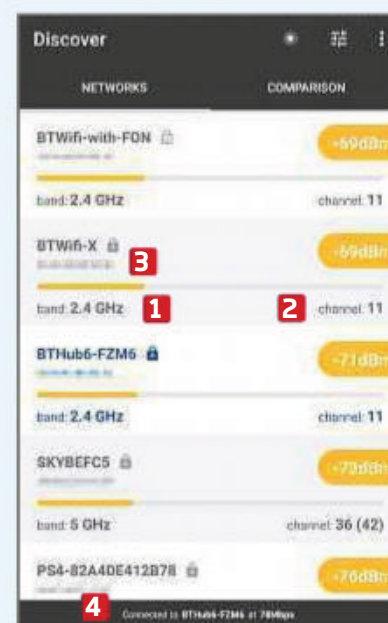
you do with other Wi-Fi tools. This means just about anyone can use it to troubleshoot Wi-Fi problems and boost the performance of their wireless network.



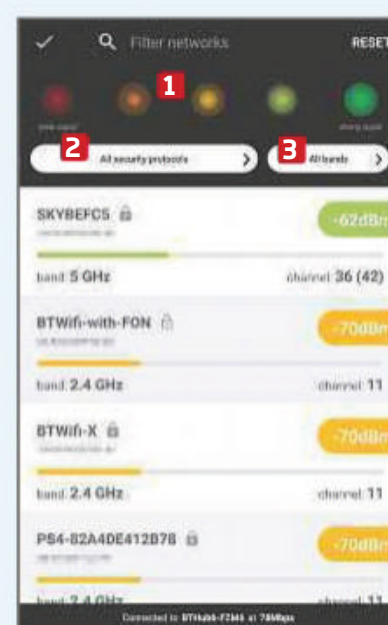
MINI WORKSHOP

Scan for Wi-Fi networks and diagnose problems

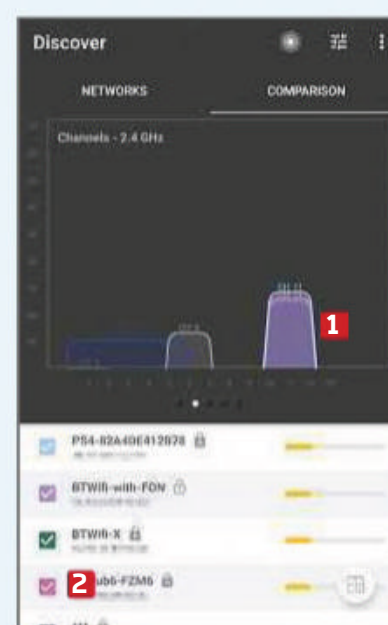
1 Start the app and give it access to location services when prompted. It will then analyse your environment and list all the Wi-Fi networks it finds, along with various details including bands, **1** channels **2** and MAC addresses (we've blurred these in the screenshot for security reasons). **3** At the bottom, you'll see details of the network you're using. **4**



2 By default, the app lists networks in order of signal strength, but you can filter the results by pressing the sliders icon in the top right. Tap the coloured icons along the top **1** to exclude or include specific signal strengths. Tap 'All security protocols' **2** to filter out networks protected by particular security encryption methods, or 'All bands' **3** to limit the results to either 2.4GHz or 5GHz frequencies.

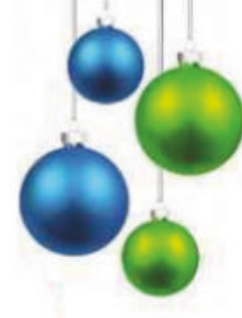


3 Pressing Comparison on the main screen reveals a chart that shows which networks occupy which channels. **1** Performance problems can arise when too many networks share the same channel, so look for your network's colour code in the list below, **2** then locate it on the chart to see if it's crowded by lots of others. If it is, you may be able to boost your network's speed by switching to a different channel.



Our rating





This fortnight's top free and paid-for apps for Android and iOS phones and tablets

PHOTOS

Google Photos

bit.ly/photosdroid464

bit.ly/photosios464

 (varies)  10

Google has just updated its Photos app for iOS with an impressive depth-control feature. You need an iPhone with a camera that supports Apple's Portrait mode feature to use it. Essentially, it works by allowing you to control the amount of blur in shots. Just select a photo you've taken in Portrait mode, tap the edit icon, then press it again and you'll see a slider for Depth. Tap the down arrow next to it and you can control the foreground blur, too. The feature is already available in the Android version of the app.



Our rating



PRIVACY

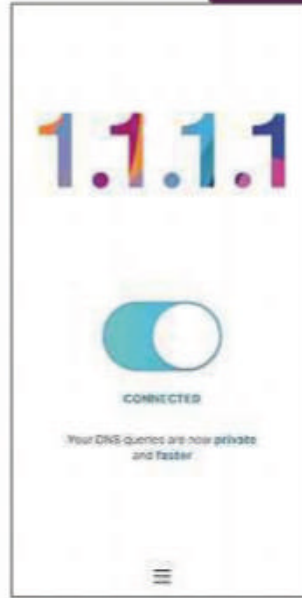
1.1.1.1

bit.ly/1111droid464

bit.ly/1111ios464

 5  10.3

Cloudflare has made its fast, private 1.1.1.1 DNS service even easier to use with the launch of this simple app. 1.1.1.1 is a free alternative domain name system (DNS) service launched by Cloudflare earlier this year. It protects your privacy by preventing your ISP from monitoring DNS queries – which is one way your online activity can be tracked. Configuring an alternative DNS server can be fiddly, which is what makes this new app so invaluable. Just open it and toggle the service on or off.



Our rating



STORAGE

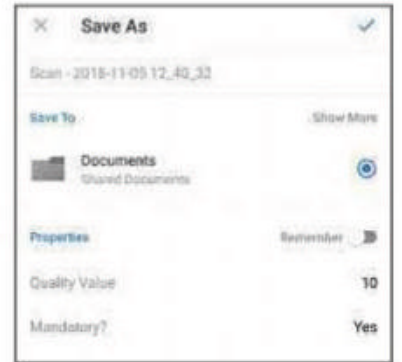
OneDrive

bit.ly/onedroid464

bit.ly/oneios464

 5  10.1

Microsoft is rolling out new, improved versions of its cloud-storage app for iOS and Android with a selection of useful features. A new Save As dialogue screen appears every time you use the app's built-in document-scanning tool, allowing you to add custom metadata to anything you scan with the app. Another new feature prompts you to share your scanned notes of a meeting with fellow attendees. The process of sharing Office documents has now been unified across devices, too.



Our rating



TOOLS

Files by Google

bit.ly/files464

 5

Last year, Google released a simple but brilliant app called Files Go, which put a lot of bloated Android file-management tools to shame. Now the company has updated the app with a new name – Files by Google – and a smart new look. Three tabs at the bottom of the tidy interface take you to the app's main functions. Press Clean to rid your device of any junk files that are taking up valuable space. Select Browse to navigate your device's storage and manage files. And tap Share to send and receive files instantly with other users of the app.



Our rating



GAME

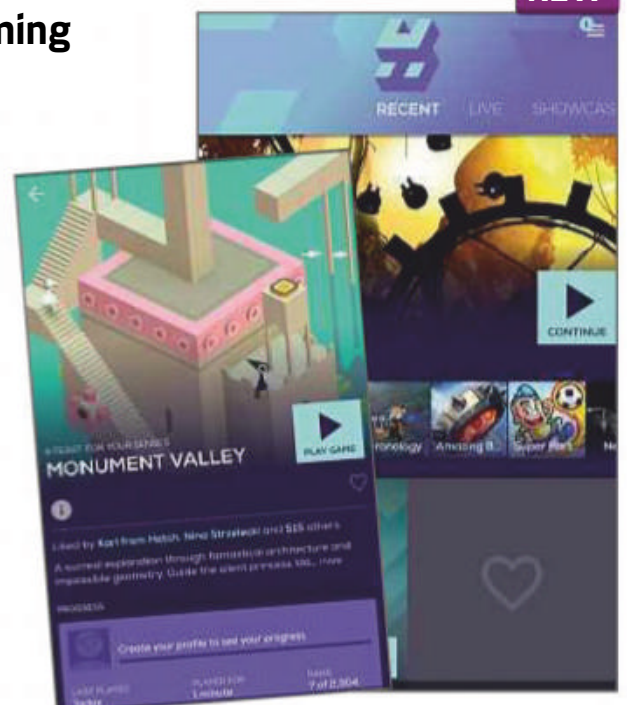
Hatch Cloud Gaming

bit.ly/hatch464

 6

Hatch works on the same principle as other game-streaming services, such as PlayStation Now, but for mobile gaming. It lets you play selected games over the internet for free rather than paying for individual titles and downloading them to your device.

Although it's only just come out of beta, Hatch already offers a wide selection of games, including Angry Birds, Monument Valley, Hitman Go and Threes. It's built around social networking, so you can invite friends to watch or join in. The system has been designed for 5G but works fairly well (bar the odd network glitch) over a solid Wi-Fi connection.



Our rating





5 NEW APPS WORTH PAYING FOR

PODCASTS

Pocket Casts

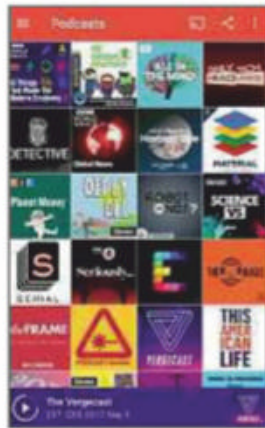
bit.ly/castsdroid464

bit.ly/castsios464

Price: £3.99

 5  11

This great-looking podcast app has been completely overhauled, with a fresh new design and lots of new features, including the ability to play individual episodes without subscribing.



GAME

Golf Peaks

bit.ly/golf464

Price: £2.99

 8

Golf Peaks is actually more of a puzzle game than a golf game. You have to climb various mountains by playing golf up them, then get your ball into the hole at the summit.



KIDS

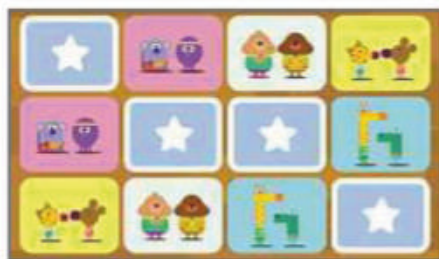
Hey Duggee: The Squirrel Club

bit.ly/squirreldroid464

bit.ly/squirrelios464

Price: 99p

 4.1  8



Based on CBeebies characters, the Squirrel Club app lets younger children create and customise their own characters and have fun with jigsaws, dressing up and more.

SECURITY

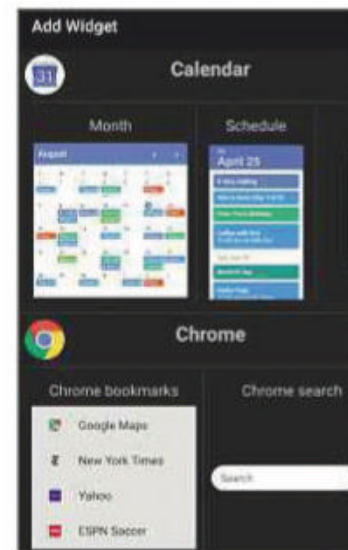
Widget Drawer

bit.ly/widget464

Price: 89p

 (varies)

If you use widgets a lot, this app could come in handy. It adds a handle to the side of your screen, allowing you to slide out a customisable 'drawer' of your favourite widgets.



REFERENCE

Sibley Birds 2nd Edition

bit.ly/sibleydroid464

bit.ly/sibleyios464

Price: £9.49 (Android), £9.99 (iOS)

 4.0.3  9.3

Love birdwatching? Planning a trip to the US? Then this app is just the thing to take with you. It provides detailed, up-to-date information on more than 930 North American species.



Pocket Casts



Golf Peaks



Hey Duggee: The Squirrel Club



Widget Drawer



Sibley Birds 2nd Edition



Don't install...

Days to Christmas

bit.ly/days464

Christmas is a time of magic and wonder, but don't expect either from this boring app. It's a laughably crude countdown to Christmas Eve (not even Christmas Day) that displays the number of days left to go and a tiny picture of a wrapped present against a lurid red background that will hurt your eyes every time you open the app. Hilariously, the developers are asking 89p for it.



...Install this instead

Christmas Countdown 2018

bit.ly/count464

 4.4

Whether you have a physical advent calendar or not, this app is a great way to build your excitement as you count down to the big day. You can choose from a variety of merry designs, each accompanied by festive music and animated snow. Better still, you get to unwrap a virtual gift – such as Christmas-themed HD wallpapers for your phone – every day throughout December. Amazingly, the app is not only free but also ad-free. The premium version (£1.99) lets you add a countdown widget to your home screen.



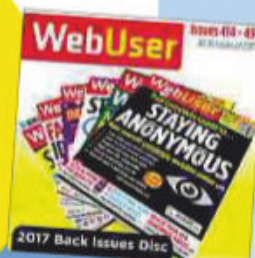


Take a Screen Break

Give your eyes a rest from your browser by taking our fiendish fortnightly challenges – guess our Christmas-song emoji and our tech month of 2018

**WIN A
WEB USER
2017 BACK
ISSUES DISC!**

Email your answers to webuser@dennis.co.uk
– one correct entry
will win a disc



CAN YOU GUESS THE CHRISTMAS SONGS FROM THE EMOJI?

- | | | | |
|---|---|---|---|
| 1 |    | 2 |    |
| 3 |    | 4 |     |
| 5 |       | 6 |      |

GUESS THE TECHNOLOGY YEAR MONTH OF 2018

Can you work out which month in 2018 the following tech news stories occurred in? No cheating!

1 Facebook is embroiled in a huge scandal when it is revealed that consulting firm Cambridge Analytica harvested the personal data of millions of its users.



2 Google enhances its Home smart speaker by adding the useful ability to make free phone calls over your Wi-Fi network without using your hands.



3 The UK's best-selling internet magazine explains how you can save hundreds of pounds a year by getting high-speed broadband without a landline.



4 To coincide with the web's 29th birthday, creator Sir Tim Berners-Lee publishes an open letter calling for the regulation of the dominant tech companies.



5 Communications regulator Ofcom starts auctioning the UK's 5G spectrum to improve mobile broadband speeds. Bidders include EE, Three and Vodafone.



COMPETITIONS

WIN 1 OF 3 Evoluent Vertical Mouse 4

The Evoluent Mouse 4 has been designed to support the hand in a neutral 'handshake' position, so you don't have to twist your forearm to use it. The optical sensor and adjustable pointer speed help to reduce hand movements. To enter, email your address to webusercomp@dennis.co.uk with 'evoluent' in the subject line. For more details, visit www.bakkerelkhuizen.co.uk and follow [@Evoluent2](https://twitter.com/Evoluent2) on Twitter.



WORTH
£125
EACH

WIN A... goTenna Mesh

Now available in the UK, goTenna Mesh lets you create your own personal wireless network, so you can send text messages and share your location. Once paired to a phone via Bluetooth, it creates an independent, long-range network with other Mesh devices. To enter, email your address to webusercomp@dennis.co.uk with 'gotenna' in the subject line. For more details, visit www.gotenna.com and follow [@gotenna](https://twitter.com/gotenna) on Twitter.



WORTH
£199



FAQ

Everything you need to know about the most interesting new technology trends and events

Initiative Q

Is it the next Bitcoin or just the latest online scam? **David Crookes** takes a look at the proposed digital payment system that's got the web in a whirl

What is it?

Initiative Q (initiativeq.com) is a new form of private currency that has been widely touted across social media. Claiming to be "tomorrow's payment network", it seeks to establish a new global currency standard called Q, enticing people to become early adopters by promising free Q cash for signing up. This has led to an online scramble of sorts, with four million people already jumping on board. But the jury is out over whether it's legit or something else entirely.

Free money, you say?

If you dangle the prospect of free money in front of people, it's inevitable that a good number of folk will immediately rush to sign on the dotted line. But in this instance, you're not receiving any money right now – at least, you're not getting any moolah that you can actually spend. Instead, Initiative Q is reserving currency in the hope that it will eventually be able to set up its payment network and hit the ground running. To that end, it's putting aside two trillion Q, expecting each one to be valued at roughly one US dollar.

Is that value nailed down?

No. A currency's value, as the company itself explains, is dependent on the equation of exchange, which takes into account not only the total value of all the



Qs but the volume of transactions. After all, we could set up a currency called *WebUser* today but if nobody used it, it would have no legitimacy or value. For Q to work, it needs to be a stable currency. To enable this, the company says the reserved reward Qs will be released gradually "at a rate that matches the growth in economic activity on the network". Complicated stuff, for sure.

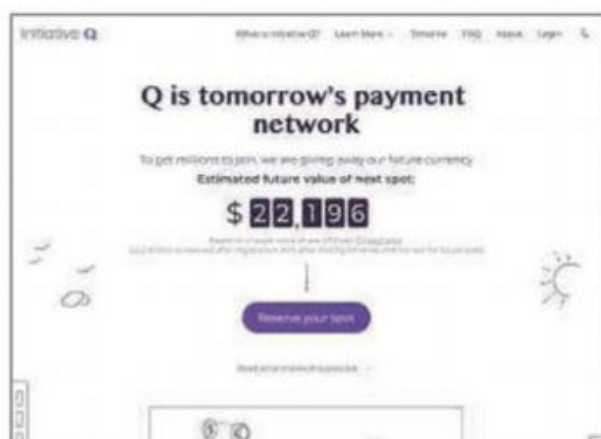
But isn't this just another cryptocurrency?

No. In actual fact, Initiative Q goes as far as calling cryptocurrencies such as Bitcoin "a brilliant solution to a problem that doesn't exist". Instead, Initiative Q says it prefers the core methods of the current banking systems and the same

professional monetary policies that governments use, saying they offer solid protection while sheltering users from fraud. The only similarity Q has with cryptocurrencies is that it will be a digital system that's trackable.

So how does it all work?

Right now, nobody is entirely sure. No product or service is available yet, nor has any system been developed to the point where it could be shown to the world. That won't happen until Initiative Q has its large user-base in place. Once it does, it will crack on with "building the payment system of the future" and attempting to produce a robust, easy-to-use and inexpensive network. To that end, it makes no secret of the fact that this will take time and that it may not even work at all.



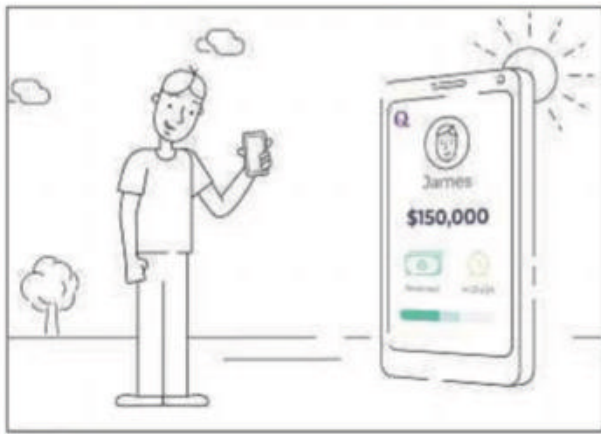
You can reserve your spot with Q now to beat the queue if and when it launches



Initiative Q has called the likes of Bitcoin a solution to a non-existent problem. Meow!

Will there be physical notes and coins?

No. Q is emphatically going to be digital-only. A paper on Initiative Q's website (bit.ly/digital464) says a digital system makes transactions cheaper, and those transactions will be made via a Q mobile app when we're out and about. The team says the currency will make good use of smartphone cameras, microphones and GPS – scanning barcodes in shops for

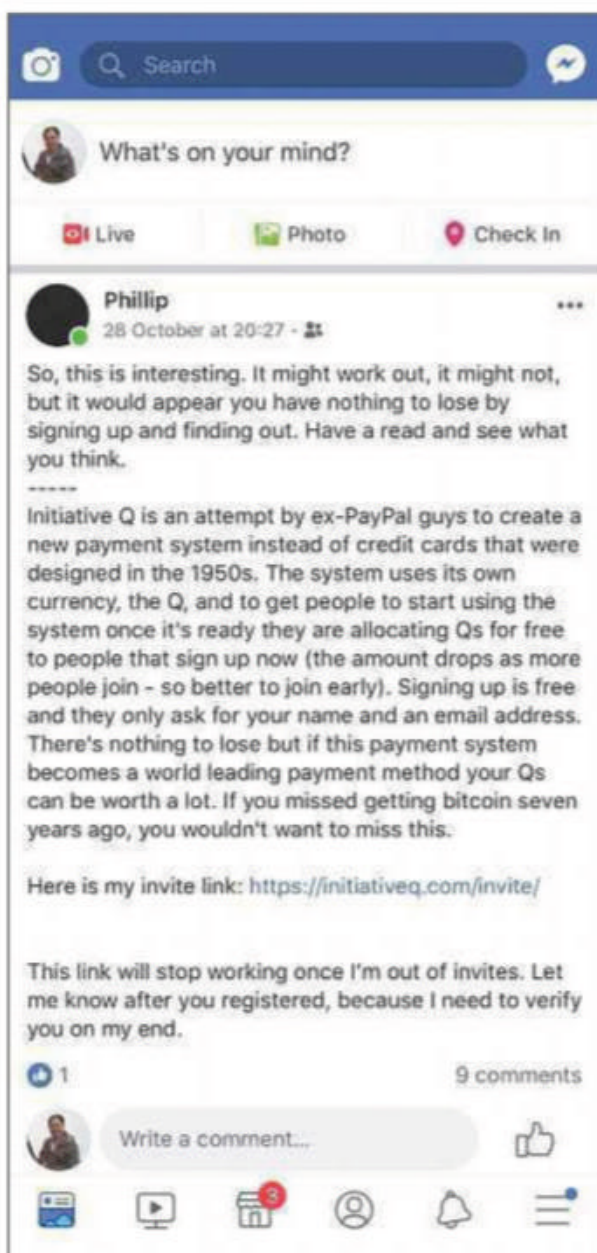


With \$150,000 in your Q account, you'll be able to buy a phone that's as big as you!

automatic billing, for instance. By standardising recent ideas and technologies, it hopes to make them more appealing to customers.

Wonderful. Where do I sign up?

So here's the clever thing. Initiative Q has been made invite-only, hence the reason it's taken social media by storm. The more people a current member gets to sign up, the more their Q count increases, earning them a higher reward. When they successfully complete their initial invites, they are named an Initiative Q Evangelist and allowed to invite even more people and reserve more Qs. What's more, to speed up the process of adoption, Initiative Q is giving people more Qs the earlier they sign up, and also giving away



Invites to sign up for Initiative Q are all over social media – even we received one

ARE MY NAME AND EMAIL ADDRESS ENOUGH?

Many invites to Initiative Q seek to entice people to sign up on the promise that no money is changing hands and that you only need to supply a name and an email address.

But that's for now. According to co-founder Saar Wilf, the company will at some stage require users to identify themselves more thoroughly. He says it's likely that the company will need bank details to allow Qs to be exchanged for other currencies, and we reckon you'll have to give your address and possibly date of birth, at the very least, if you want to make any transfers.

Wilf also says that information required under money-laundering legislation will have to be supplied, so bear all of that in mind before signing up with Initiative Q.



currency units for referring more people and completing future tasks, none of which are yet live. "It's maybe a get-a-bit-richer-slowly scheme," says the currency's brainchild Saar Wilf.

Wilf is the founder of Fraud Sciences Corp, which was acquired by eBay for £169m in 2001. The purchase saw Fraud Sciences' risk tools integrated with PayPal's fraud-management system, and much significance is made by Initiative Q of this PayPal connection.

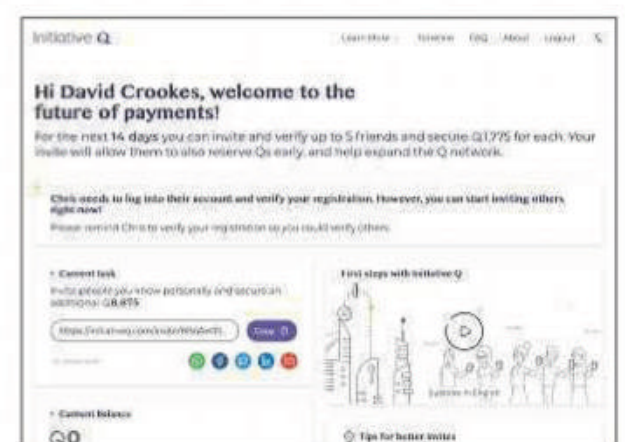
What's in it for Wilf and co?

It's fair to say that Initiative Q will make a lot of money if the system ends up in place, and give Wilf & co a good deal of control – he openly states that the team will take small transactional fees from payments made through the network. To get there, however, Initiative Q needs people to sign up to get around what it calls a "chicken-and-egg situation". In other words, buyers won't join a currency network if there are no sellers and sellers won't get involved if there are no buyers.

By dishing out a reserved share of two trillion Qs for free, Initiative Q hopes to break this barrier and solve the adoption problem. The hope is that once it eventually starts being used to buy and sell items, its value will rise in proportion, giving those who joined early a tidy windfall in the process. Or at least that's the plan.

Surely this is a pyramid scheme?

To some degree, it is – except Initiative Q only requires your name and email address at the moment (and there's no rule preventing you from setting up a new address solely for this very purpose). There's no mention of you having to pay



We took the plunge and signed up to Q and now we can invite five friends to join

any money upfront, so in that sense, Initiative Q is only doing what other tech companies such as Dropbox and Uber have done before it: that is, giving you incentives for signing new registrants. Even Google is not immune to the marketing potential of invite-only schemes – it launched Gmail in this way. The feeling that you're joining something exclusive that has already been endorsed by someone you trust plays a big part.

But can I trust it?

Without being able to see into the future, it's a tough call. We can't truly assess whether Initiative Q will succeed or whether it is simply amassing a huge database of names and email address from people willing to take a punt on such a scheme (it promises it will never sell personal data, even if the scheme doesn't succeed). It feels sincere enough and the website goes to great lengths to explain the ins and outs of the proposal but we're just going to have to wait and see, especially as the network isn't due to launch until late 2021 at the earliest (you can see a proposed timeline at initiativeq.com/timeline).

STAY 100% ANONYMOUS ON Google

COVER
FEATURE

Love Google's speed and simplicity, but hate its attitude towards your personal data? **Robert Irvine** reveals how to use your favourite Google tools while giving nothing in return

Google is notorious for its ravenous appetite for our personal information, and yet its tools are too good, too easy to use and – let's face it – too *free* for us to boycott them all on privacy grounds. But if you've ever felt uneasy when searching for something unusual on Google, watching a risqué video on YouTube or syncing your data in Chrome, you'll know that the one thing Google won't offer its users is anonymity – nor is it ever likely to.

Google's business model is almost entirely based on targeting us with

search results, adverts, recommendations and other data from its partners, which it believes to be relevant to our interests. If we stop sharing our personal data, we're not much use to Google, but Google can still be very useful to us.

In this cover feature, we explain how to keep using some of Google's most popular tools while preserving your privacy, from searching without being tracked to viewing YouTube videos without ads and switching to more secure versions of Chrome and Android.

SEARCH WITHOUT BEING SPIED ON

Google is synonymous with search, having founded its empire 20 years ago on its ability to deliver faster, more accurate results than contemporary search engines such as AltaVista, Lycos and poor old Ask Jeeves. The verb 'to Google' was even added to the Oxford English Dictionary in 2006, meaning "to find information on the internet", and it's the default search provider in most (non-Microsoft) browsers and smart devices (though Amazon's Alexa uses Bing). So why turn to anything but Google to perform your web searches? Well, where do we start?

What Google does with your data

Every term you search for in Google is stored by the company, along with your IP address, the location of the device that you're searching from and the links that you click in search results.

According to Google's privacy policy (policies.google.com/privacy), it collects this data using "cookies, pixel tags [hidden trackers], local storage, such as browser web storage or application data caches, databases and server logs", which is quite an arsenal of info-gathering methods.

Your search data is used to help Google "build better services" and, of course, target you with "relevant" personalised ads from its partners. This is where things get really creepy, because these ads are based on a marketing profile that Google creates about you, which includes details of your location, gender and age, and what Google deduces to be your hobbies and personal and professional interests. The ads don't only appear next to Google

searches, but track you around the web to the millions of other sites in Google's ad network. You can view your ad profile, with all its scarily accurate and amusingly inaccurate assumptions about you, at adssettings.google.com. This page also lets you turn off 'Ad personalisation', which means you'll still see ads but not relevant ones.

In fairness to Google, it's recently become more transparent about what data it collects about you and why, and now makes it easier to delete your search history (see What's New Online in Issue 462). However, even after deletion, it still maintains records about your searches, remembering that you searched for something at a specific time and date, albeit not what you specifically searched for.

Switch from Google to Startpage.com

If any or all of the above information makes you uncomfortable, but you're reluctant to forego the speed and convenience of Google search, consider switching to Startpage.com (www.startpage.com). This privacy-focused search engine uses Google search results, but with none of the intrusive baggage, so you can quickly find stuff online without stuff also finding you.

Unlike Google, Startpage.com doesn't store your searches, record your IP address, implant tracking cookies on your device or share your personal information with third-party companies and government agencies. It also uses HTTPS encryption to stop anyone snooping on your searches. Startpage.com's comprehensive privacy policy

(bit.ly/startpriv464) states that it uses only one cookie, "to remember the search preferences you saved [in Settings] for your next visit". This expires 90 days after your last visit and is anonymous, with the option to refuse it altogether if you prefer. Also, to support its upkeep, Startpage.com may display sponsored links at the top of your search results, but these are clearly



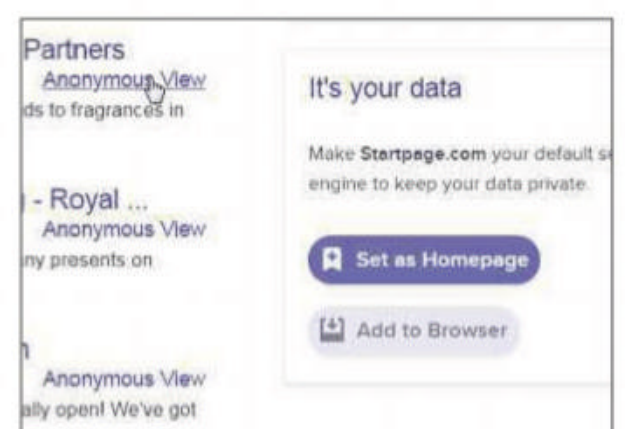
Startpage.com uses Google search results but respects your privacy and anonymity

labelled 'Ad' and have no access to your personal information.

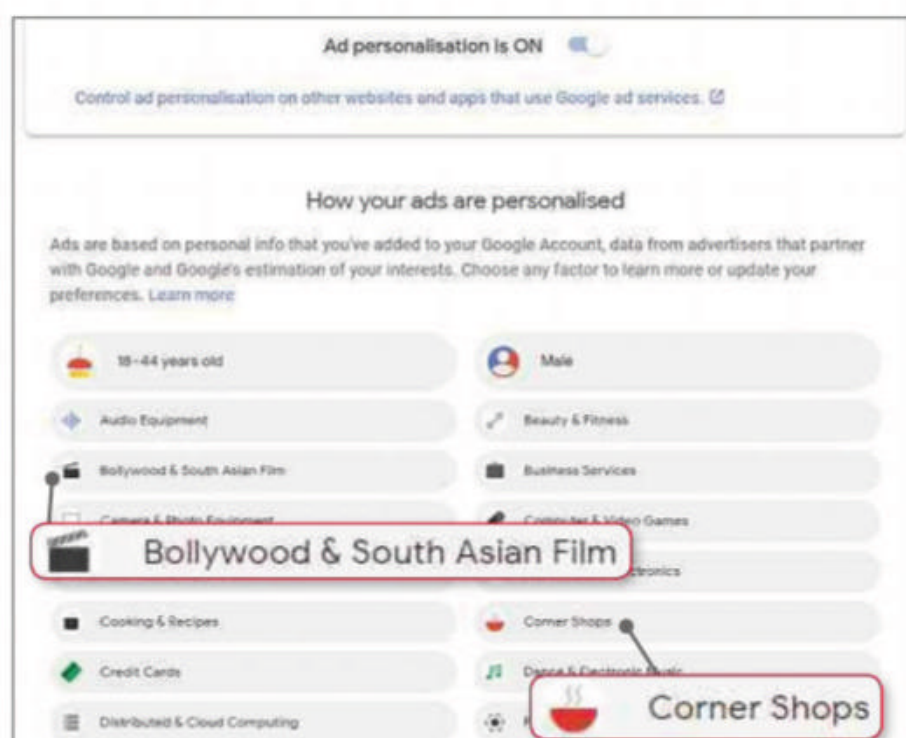
Try the new version of Startpage.com

Coincidentally, Startpage.com has just relaunched with a sleek new look and improved performance to deliver cleaner, faster search results and a more customisable design. One notable change is to the search engine's popular Proxy feature, which maintains your anonymity when you click through to search results by extending Startpage.com's protection – hiding your IP address, blocking cookies and concealing your activities on that page. This has now been renamed Anonymous View, to make its purpose clearer; just click that option next to a search result to browse that page using the proxy. Bear in mind that pages load more slowly in this mode – but you avoid the tracking that occurs when searching and browsing through Google, while still getting its reliably high-quality results. There are no sponsored links in Anonymous View.

Startpage.com can be set as the default search engine in your browser, offers equally private image searches and is available for Android and iOS.



Use Startpage.com's Anonymous View to browse search results using a proxy server



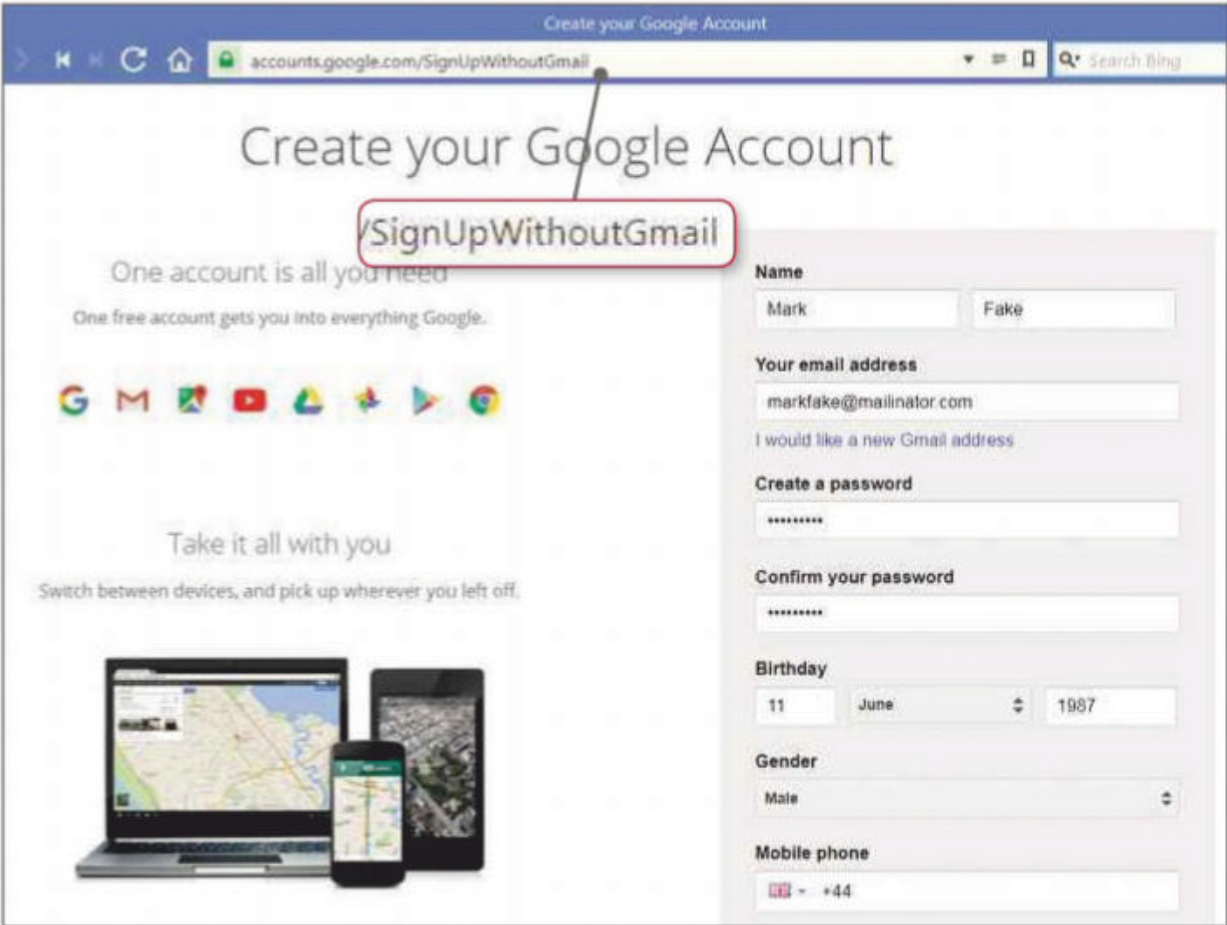
We're surprised to discover that – according to Google – our interests include Bollywood films and corner shops!

USE GOOGLE WITHOUT A GMAIL ADDRESS

“One account is all you need,” says Google, “one free account gets you into everything Google”. You may infer from this *Lord of the Rings*-style mantra that Google is referring to a Gmail account, which will tie you into its privacy-guzzling ecosystem for all eternity. However, it’s perfectly possible to use most Google tools without Gmail – and not just Search, YouTube, Maps and other publicly open sites, but those that require signing in, such as Drive, Docs and Photos.

Stick with your current email address

To register for a Gmail-free Google experience, just go to its Sign Up Without Gmail page (bit.ly/nogmail464) and enter your name (or pseudonym, if you like) and email address – which can be a fake one from a temporary service, provided Google allows it and it lets you receive Google’s confirmation email. Be sure not to click the ‘I would like a new Gmail address’ option – if you do, choose ‘I prefer to use my current email address’ to switch back. You’ll also need to enter your date of birth and gender (again, these can be fake), and provide your mobile number so Google can send you a verification code (this is harder to fake!).

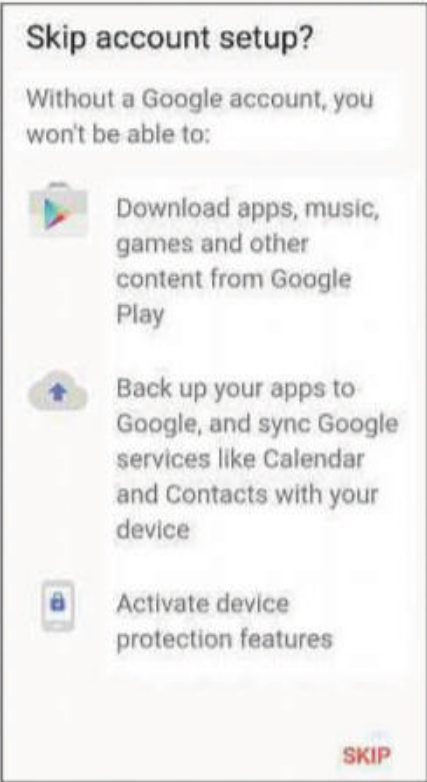


Sign up for a Google account using fake details and without getting a Gmail address

The chances are that you already have a Google account with an associated Gmail address, but if you feel like starting afresh, you can either delete it at myaccount.google.com/deleteaccount or just ditch your Gmail account at myaccount.google.com/deleteservices.

Use Android without a Gmail account

Contrary to popular belief, it’s possible to use an Android phone or tablet without a Gmail address, to stop Google spying on your mobile activities. However, this will prevent you from accessing the Google Play store (which we’ll cover later) and Android’s backup and syncing tools. When you set up your device, tap Skip when you’re prompted to sign into Gmail, then Skip again to confirm that you want to use Android without a Google account. A couple of screens later, you’ll be asked to opt into some extra Google services, but you can decline these and tap Agree to continue. Built-in Google apps including Maps, Chrome and YouTube will still work, as will the Contacts app, but be prepared for constant nags to sign into Google!

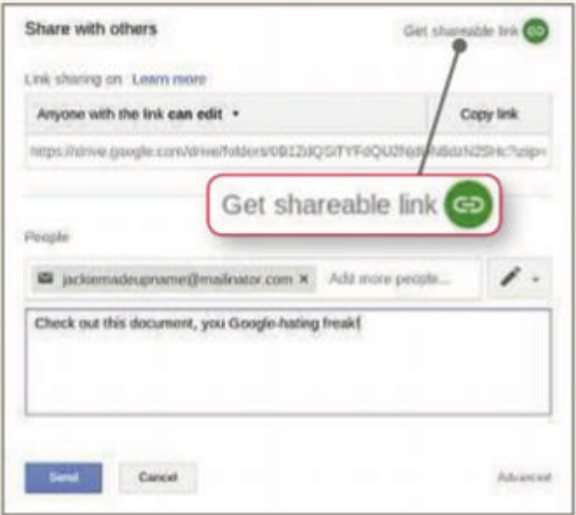


Use an Android phone without a Gmail account by not signing in

ACCESS GOOGLE DRIVE ANONYMOUSLY

Google Drive makes sharing documents, spreadsheets, images and other files quick and easy, but its privacy policy raises serious questions about who really owns the content you create and store in the service. Last year, it was revealed that Google uses “automated systems” to analyse the content you upload to Drive, so it can provide you with “personally relevant product features, such as customised search results”. It also states in its privacy policy (policies.google.com/privacy) that it collects information about the people with whom you “communicate or share content”.

If this makes you want to ditch Drive – or quit Google altogether – how will you access content that Google Drive users share with you? Fortunately, there’s a simple solution – though it relies on the other person rather than you. When someone wants to grant you access to a file or folder, they choose ‘On – anyone with the link’ from the Share options and select ‘Can organise, add and edit’ from the Access menu. They can then enter your email address and choose Send, or click ‘Get shareable link’ to share without using email, and you’ll be able to access the file or folder without signing into Google. You can even use a temporary email address to stop Google knowing your real one.



You don’t need a Google account to view and edit shared files in Drive

USE A MORE PRIVATE VERSION OF CHROME

With a 67% share of the browser market, Chrome is more popular than all its rivals put together, but because it's owned and developed by Google, it's hardly a paragon of privacy. There are frequent reports of vulnerabilities found in Chrome, which is a prime target for hackers, and even Microsoft has criticised Google for failing to patch flaws responsibly (bit.ly/flaws464). Of particular concern is the way your private data is synced using Google's servers, potentially sharing your browsing history, bookmarks, passwords and more with

the search giant.



Switch to another Chromium browser

Anyone wanting to browse the web anonymously is best off using Tor (see our cover feature in Issue 460, bit.ly/webuser460), which conceals who and where you are, and what you do online. However, it can't compete with Chrome for speed and versatility (or ubiquity). For a less nosy and less Google-like version of Chrome, you need to look to Chromium (www.chromium.org),

the open-source browser project that Chrome is based on.

Before anyone points out our blunder – yes, we know that Chromium is owned and developed by Google. However, it also provides the basis of at least 20 other browsers, some of which offer a more private (and more innovative) browsing experience than Chrome. However, using Chromium in its pure form isn't advisable, because the builds are intended for developers and don't update automatically.

Let's take a look at the best Chromium-based contenders.

Brave

www.brave.com



One of our top 10 recommendations in last issue's 'Best Free Software for 2019' feature, Brave recently

switched to using Chromium source code for performance reasons, but its focus remains on keeping you safe and private online. Brave's built-in tools include automatic blocking of ads, trackers and dodgy scripts; a private-tab mode that goes further than Chrome's by preventing cookies from following you around the web; a choice of secure password managers (unlike Chrome's feeble option); and automatic redirection to HTTPS sites. As Brave is now based on Chromium, you can even install your favourite Chrome extensions, so you get the best of both worlds. The browser is available for Windows, Mac OS, Linux, Android and iOS.



Brave uses the Chrome's source code but adds an array of privacy tools

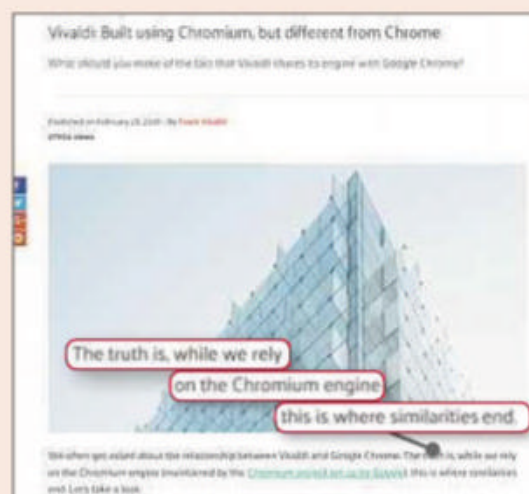
Vivaldi

vivaldi.com



At the start of this year, we named Vivaldi our best browser for 2018 and it hasn't let us down,

constantly refining its interface, adding useful new tools and quickly fixing bugs. Although Vivaldi uses the same Chromium engine as Chrome, and lets you install add-ons from the Chrome Web Store, it actually looks more like Opera and is packed with clever tools including tab stacking, mouse gestures, pull-out panels, tab previews and screenshot capture. The latest stable version introduced data syncing across devices, and Vivaldi emphasises that it uses its own encrypted sync system, not Chrome's. "As it's unable to get any data from Vivaldi users, Google does not benefit from Vivaldi being based on Chromium", which makes it a much more private choice.



Vivaldi is keen to ensure it doesn't suffer the Chrome's privacy issues

Epic Privacy Browser

epicbrowser.com



Epic could almost be described as "Chromium without Chrome", such is its obsession with

protecting your privacy and rigorous omission of features that could compromise it. For example, rather than storing your browsing data indefinitely, Epic automatically clears it at the end of each session.

Like Brave, Epic blocks ads, tracking cookies and scripts without needing third-party extensions, and has a built-in proxy that encrypts your data, hides your location and is automatically enabled when you use a search engine. Options found in Chromium that send information to external servers, such as address-bar autocomplete, are removed in Epic to prevent data leakage. On the downside, you can't install any add-ons aside from seven approved 'secure' ones, and Epic suffers from stability issues.



Epic Privacy Browser uses Chromium to keep you anonymous online



FREE YOUR ANDROID DEVICE FROM GOOGLE

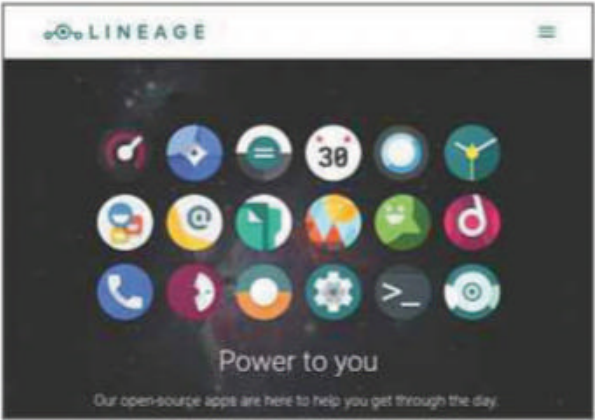
We explained on page 42 how you can skip signing into a Gmail account when setting up an Android phone or tablet, but this won't completely protect your privacy from Google or give you an unrestricted mobile experience (plus, as we said, you'll be nagged!). For full control over your data and freedom from Google, consider installing an alternative mobile operating system. And no, we don't mean iOS, but a 'custom ROM' that offers an open-source version of Android without Google tracking you.

Switch from Android to LineageOS

The most popular Android replacement is LineageOS (lineageos.org), which is a fork of the discontinued custom ROM CyanogenMod. The latest version of the OS is based on Android 8.1 (Oreo) and comes without any preinstalled Google apps, so the search giant has no way to spy on you (you can install a Google package if you miss them). Instead, it offers its own collection of essential tools, including a browser, calendar, camera, email client and messaging app.

Earlier this year, the developers added a "centralised security and privacy interface" called Trust, which lets you easily manage options such as encryption and security patches, and includes Privacy Guard, which controls individual app permissions. LineageOS is also more customisable than Android.

LineageOS can be installed without



LineageOS offers a more private version of Android with no Google apps

rooting – as long as you unlock your bootloader (the program that loads an OS when a device is turned on) and install a custom recovery (which wipes, backs up and restores data). This sounds complicated, but provided you have a compatible phone or tablet, you can simply follow the step-by-step instructions on the LineageOS wiki (wiki.lineageos.org). Find your device in the list at bit.ly/lineage464 and click through for an installation guide. You need to connect your device to your computer via USB.

Note that unlocking the bootloader will erase all the data on your device, so back up everything you need to your PC or the cloud before you proceed with LineageOS or another custom ROM.

Install apps without Google Play

If you plan to install an Android custom ROM, there are plenty of excellent replacements for individual Google

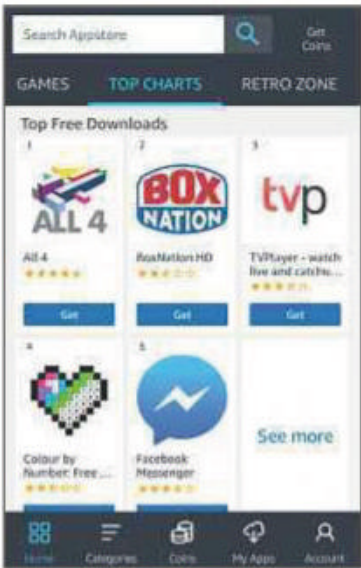
apps – Firefox instead of Chrome, Maps.me instead of Maps, ProtonMail instead of Gmail. However, without the Google Play store to hand, you may wonder how to get hold of new apps. The answer is to use one of the many alternative stores, which may not be as well-stocked as Play, but don't have as much rubbish and won't add details of the apps you install to your bulging Google marketing profile.

The best-known of these is Amazon App Store, which you can download to your device from www.amazon.co.uk/androidapp. This provides access to lots of big-name apps and games, both free and paid-for, including BBC iPlayer, Facebook Messenger, Minecraft, Opera and Spotify, as well as quirkier tools. You need an Amazon account and are encouraged to buy Amazon Coins to make purchases and get discounts (but you don't have to).

If you're feeling more adventurous – or you don't trust Amazon – APK Mirror (www.apkmirror.com) has alternative download links for Google Play's most popular apps, while F-Droid has thousands of apps you won't find in that store. One such app is NewPipe (bit.ly/newpipe464),

a lightweight front end for YouTube that lets you watch and download videos on your Android device without ads or tracking – much to Google's annoyance, we'd imagine!

To use these alternative stores on your current Android device, you need to allow the installation of apps from non-Google sources. On your phone or tablet, go to Settings, Security and select 'Unknown sources'.

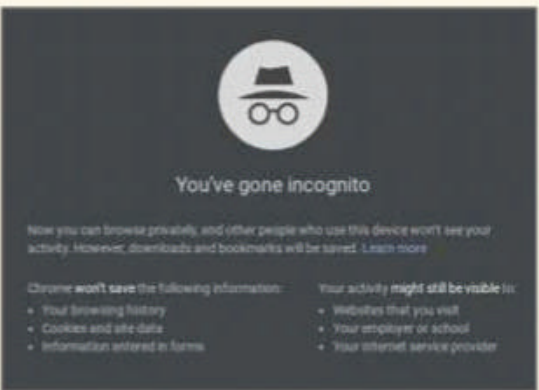


The Amazon App Store has lots of popular Android apps

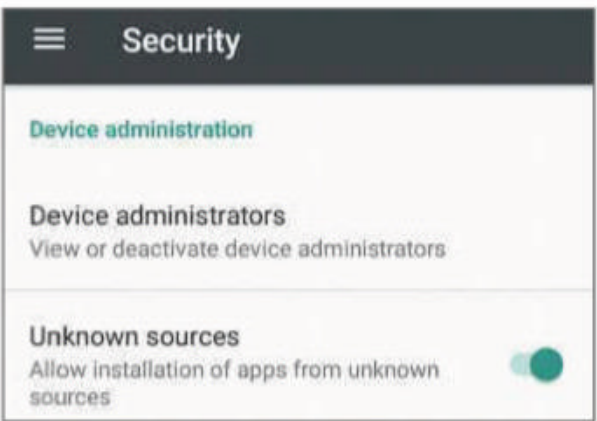
WHY NOT JUST SIGN OUT OF GOOGLE?

You may be thinking: "Ah, but you can use Google anonymously by signing out of your account – thus avoiding tracking, personalised ads and all that palaver". Sadly, this only works in theory – Google makes a point in its privacy policy of saying: "When you're not signed into a Google Account, we store the information that we collect with unique identifiers tied to the browser, application or device that you're using. This helps us do things such as maintain your language preferences across browsing sessions." This isn't as intrusive as hoarding and sharing your personal data, but it still means Google can identify who and where you are – even when you're signed out!

And you can forget using Chrome's incognito mode to protect your privacy online – all it does is stop Chrome saving your browsing history, website cookies and form data to your own computer. Google will still know where you're browsing from, and what you're looking at, as will your ISP or employer, and the websites you visit. To be fair to Google, it tells you upfront about the incognito mode's limits, but the name itself is pretty misleading.



Chrome's incognito mode is useful but doesn't keep you anonymous online



Allow apps to install from unknown sources to avoid Google Play altogether

WATCH YOUTUBE WITHOUT BEING WATCHED

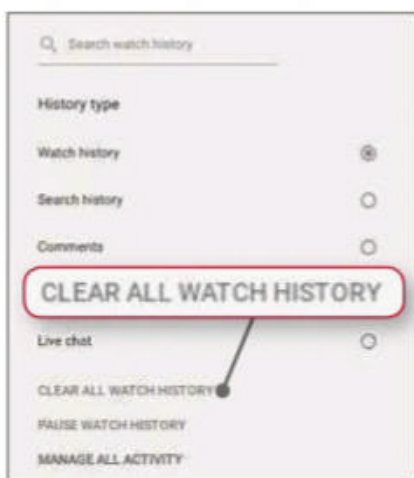
YouTube lets you find and view virtually any video you can think of, for free – but as with any Google service, this convenience and choice comes at a price, and the more content you watch on YouTube, the more data you contribute towards Google's profile of you – even if many clips you play aren't representative of your interests. This profile determines the type of ads you see on YouTube, which keeps the service free (unless you pay for an ad-free YouTube Premium subscription) but is more intrusive than you may realise. A tool called Customer Match lets companies upload their customer databases to Google and have them matched to YouTube users, so they can target those most likely to buy.

There are several steps you can take to stop your YouTube viewing habits being exploited. First, delete your 'watch history' by clicking the History link in YouTube's left-hand menu and

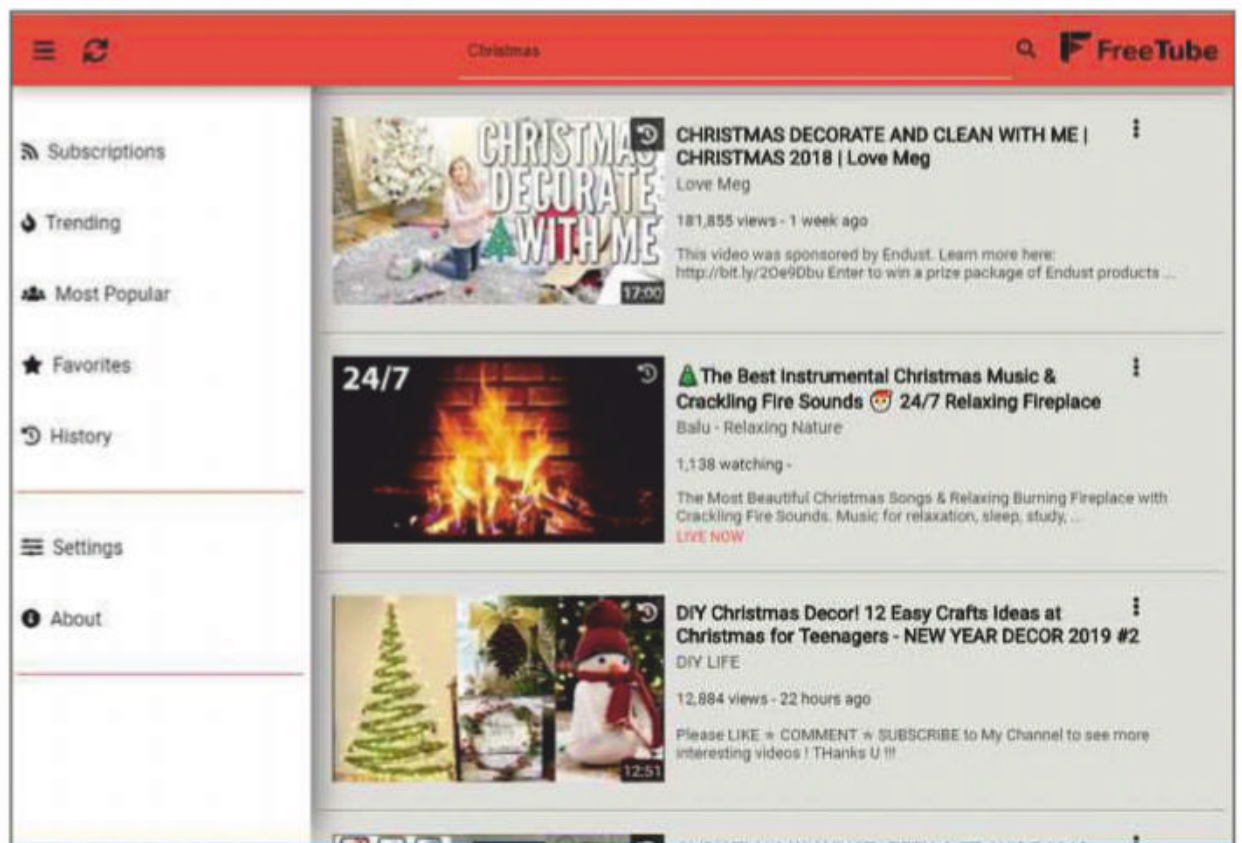
choosing 'Clear all watch history'. Stop YouTube storing what you watch in future by selecting 'Pause watch history'. Next, click Settings, choose 'History and privacy' and ensure all the options, including 'Keep all my liked videos private', are ticked.

Finally, you can

escape those pesky advertisers by turning off 'Ad personalisation' at adssettings.google.com, as discussed on page 41.



Clear your watch history to stop YouTube sharing your viewing habits



FreeTube is an open-source video player that lets you watch YouTube on your desktop without being spied on by Google

Switch from YouTube to FreeTube

If you love spending time on YouTube but don't trust Google with your data, there is an alternative way to watch that lets you access all the same content, but without the privacy worries – and no, we don't mean signing out of your Google account (see box, opposite). It's called FreeTube (bit.ly/freetube464) and is an open-source YouTube desktop player (hosted on GitHub) that's been "built with privacy in mind".

Available for Windows, Mac OS and Linux, FreeTube lets you watch, search and even download YouTube videos, without sitting through ads and without Google tracking you using cookies and JavaScript. You can even subscribe to YouTube channels without signing into an account, while your 'watch history' is stored locally and privately, rather than

being analysed and targeted by Google and its partners.

FreeTube's interface closely resembles YouTube's, which makes it very easy to use, and its built-in HTML player is fast and good quality, with a floating Mini Player that lets you watch as you browse. There's also an extension for Firefox and Chrome (bit.ly/freetubeext464) that opens YouTube videos directly in FreeTube.

One catch is that YouTube can still see your IP address when you 'request' videos. However, FreeTube's developer suggests that this can be concealed by using a VPN or Tor.

Be aware that FreeTube is still in beta, so you may encounter the occasional bug. Moreover, since Google is no fan of alternative YouTube front-ends, it might not be around forever! ■

NEXT ISSUE

on sale Friday 28 December 2018

HEY ALEXA! OK GOOGLE!

Master your smart speaker – we reveal the most amazing things your voice assistant can do



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Best free Flickr alternatives



With Flickr downgrading its free 1TB storage to a distinctly ungenerous 1,000 pictures, now is the ideal time to find an alternative home for your photos. **Steve Clark** eyes up the best online photo-storage services



NEXT ISSUE
How to
download
and save your
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28 December

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FEATURES ★★★★★ PERFORMANCE ★★★★★ EASE OF USE ★★★★★

WebUser
GOLD
AWARD

What we liked:

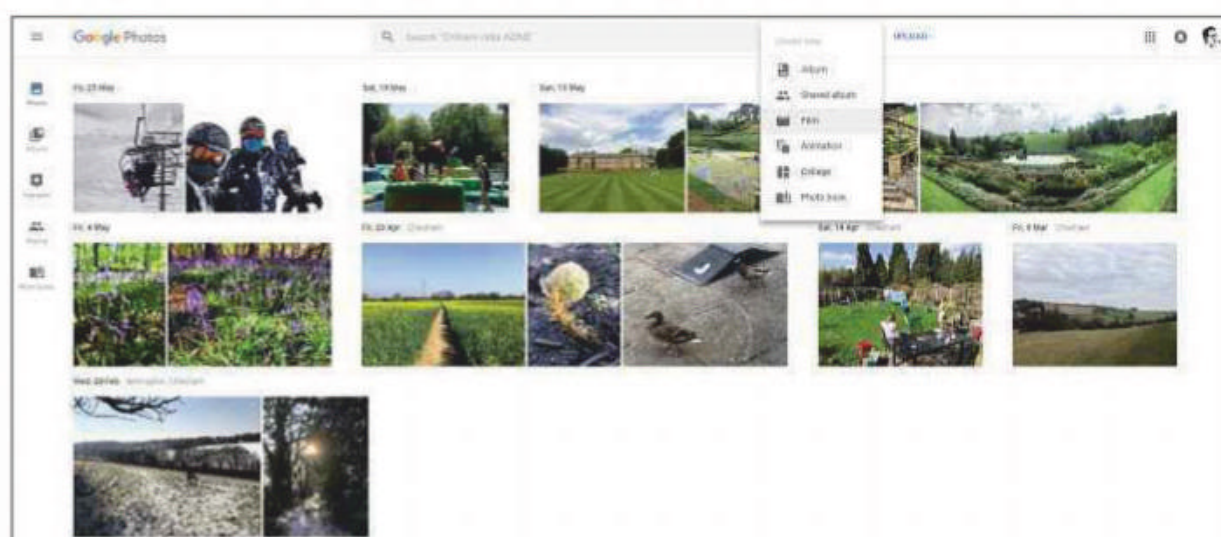
Once upon a time, Google Photos was part of the ill-fated Google+ service. Now, spun out as a standalone app, it's a near-faultless photo-

focused storage service that offers users unlimited storage for free.

First, a note about that 'unlimited storage'. There's no such thing as a free lunch: if you take advantage of its infinite space, Google will cap your image resolution to 16 megapixels and 1080p for videos. If you're a home user uploading snapshots from your phone or budget digital camera, it shouldn't be a problem. But if you want your high-res photos stored in all their original glory, you'll be limited to 15GB across all Drive services, including Photos.

Google's paid-for storage upgrades are good value – 100GB costs just £1.59 a month, and more options are being rolled out under the new Google One plan (one.google.com), which shares storage across Photos, Drive and Gmail, and can be shared with family members.

The layout is uncomplicated, whether on the web or the identical smartphone app. With its spacious overview, viewing, uploading, sharing and editing is effective and intuitive. When you



open a photo, the viewing experience remains faithful, with no rogue pixellation or downgraded resolutions. And that big old Search bar is clever enough to find all your photos of, say, a field, without you needing to tag them.

Google Photos' crowning glory is the Assistant. Tucked away on the left-hand sidebar, and also under the Create tab at the top of the screen, there's a media editor that's smart enough to tweak a photo's lighting, add filters, animate still images and cut videos into GIFs. Once you're happy with the results, press Save to store the AI's handiwork (don't worry, it won't overwrite the original). You can also use the Assistant for your own creations, including animations, collages and films.

How it can be improved:

It's difficult to find a flaw – though you may feel uncomfortable about giving Google even more of your data (see page 40). The 'Backup and Sync' tool (bit.ly/sync464), which automatically backs up photos from your PC, Mac and connected cameras and cards, could be more prominently displayed.

OUR VERDICT

Google Photos is simple, smart and reigns supreme. Its free unlimited storage – and app for every platform – is unbeatable, and the minor caveats will only affect professional photographers.



OneDrive | onedrive.live.com | ★★★★★☆
 FEATURES ★★★★★ PERFORMANCE ★★★★★☆ EASE OF USE ★★★★★

WebUser
SILVER
AWARD

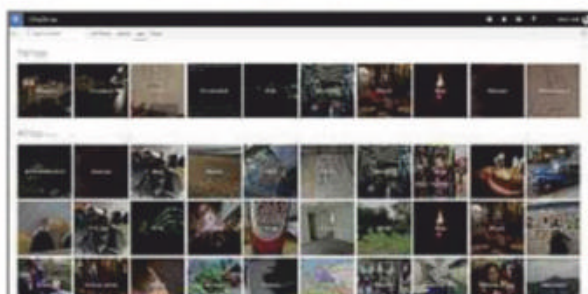
What we liked:

Microsoft's OneDrive – our preferred cloud-storage service for some time – is a simple tool that integrates well with both desktops and smartphones.

Sign up for free to get 5GB storage plus Microsoft Office Online, which includes Word and Excel (Office 365 subscribers get 1TB of storage for free). However, it lacks Google Photos' pin-sharp focus and elegance of use.

The sidebar's Photos hub lets you explore all pictures chronologically. The menu across the top lets you view them by Albums, Tags and Places. Select a photo to unlock an array options, including edit, share and embed.

A nice touch is OneDrive's album creator, which automatically collates your photos based on the date they were taken. As a 'smart' cloud-storage solution, we were also impressed with OneDrive's ability to cleverly recognise and tag themes, including people, animals, sunsets, cities and much more (weirdly, even '#doors' and '#meetingrooms' had their own tags).



How it can be improved:

OneDrive's interface looks very cluttered. While the Albums and Tags worked excellently, the Places tab was another matter: locations were spot-on, but in a collection of thousands, just 12 photographs were stored here. In our experience, cross-device syncing sometimes takes longer than with other services we tested.

OUR VERDICT

As an all-rounder, OneDrive is the best – especially with its free web-based Office apps – and we highly recommend it if you already use Office 365. But if you're only saving photos, you should go for purpose-built photo-only storage.

Shoebbox | shoebboxapp.com | ★★★★★☆
 FEATURES ★★★★★☆ PERFORMANCE ★★★★★☆ EASE OF USE ★★★★★

WebUser
BRONZE
AWARD

What we liked:

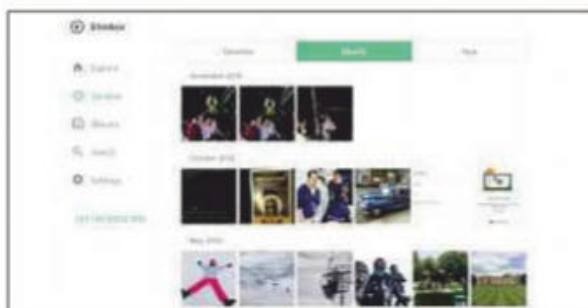
If you'd rather keep your data away from the internet giants, stash your photos in Shoebbox. It offers Android and iOS apps, and browser-based uploads – although, if you're

using Windows or Mac OS, the desktop app is a smarter choice because the website doesn't always load properly. Syncing is immediate, and the Search function reads metadata, so you can quickly find pictures based on times, dates and specific locations.

The 'forever-free' plan offers unlimited photo backup, though image resolutions are capped at 10.6 megapixels. That's probably fine for home users because phone cameras generally hit 8 to 16 megapixels – and it's tough to spot the difference without zooming right in. But it's not suitable for serious photography enthusiasts.

How it can be improved:

We'd welcome some smart features, such as facial and object recognition,



without compromising Shoebbox's simplicity. We'd also like to see the free option offer a higher megapixel count. It won't be a problem for most Shoebboxers, but degrading image quality for cloud storage is a risky gamble. People hate to miss out on anything, even if it's just a few undetectable megapixels.

OUR VERDICT

Shoebbox's basic offering is a mixed blessing. The pure photo experience keeps its multi-platform apps ultra-clean and easy to use, but if it's going to rival other photo storage services, we think it needs more attractive benefits.

BEST OF THE REST

iCloud

www.icloud.com

There's barely a cigarette-paper's difference between Apple's iCloud and OneDrive – our recommended general cloud-storage service. Both offer 5GB for free and syncing is quick and simple. But the old-fashioned iCloud doesn't categorise images, which forces you to create and manage your folders. It all comes down to price: if you're an iPhone owner wanting a massive 2TB storage and don't need free Microsoft Office, then iCloud's £7 a month is good value.



Dropbox

www.dropbox.com

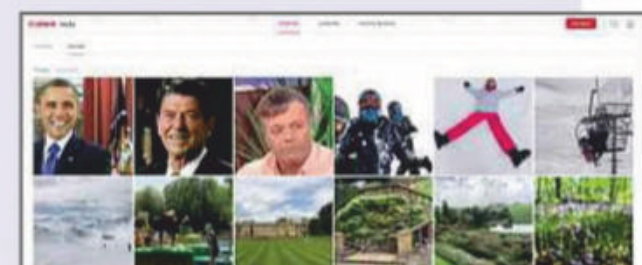
Once the cloud-storage king, now struggling against its better-equipped rivals, Dropbox suffers the same problem as iCloud: lack of file-type organisation. Files and photos are lumped together, leaving you to sort everything out yourself. Free users only get 2GB storage, though images aren't downgraded or capped. But we appreciate the File Explorer integration, which, like Windows' local OneDrive folder, makes uploads quick and easy.



Canon Irista

www.irista.com

Irista, from top camera brand Canon, gives free users an uncommonly generous 15GB just for signing up, which is tempting in a sea of 1GB and 5GB offers. Sadly, it's let down by an inconsistent service: syncing across devices is slow, uploading is slow, and we struggled to add even modestly sized pictures without receiving error messages.



Tweak your browser...to make it faster

Wayne Williams unlocks hidden power in Chrome, Firefox and Edge by changing default settings and activating experimental tools

CHROME



Hack Chrome's hidden flags

Most of Chrome's hidden experimental features are on the Experiments page, which you can access by typing `chrome://flags` into the browser's address bar and hitting Enter. Although you can browse the list of flags to find the ones to change, it's much easier to use the search box at the top and look for them by name. A number of them are worth enabling or changing.

If images are loading too slowly, find the 'Number of raster threads' flag and set it to 4, which is the maximum number. Next, find the 'Accelerated 2D canvas' flag and make sure it's on. This will use your graphics processor instead of software rendering. You can have the browser close tabs quicker by enabling the 'Fast tab/window close' flag. The 'Experimental QUIC protocol' flag lets you enable the QUIC (Quick UDP Internet Connections) transport protocol developed by Google. This aims to speed up latency-sensitive applications such as web searches.



Delve into Chrome's flags to discover secret speed-boosting features

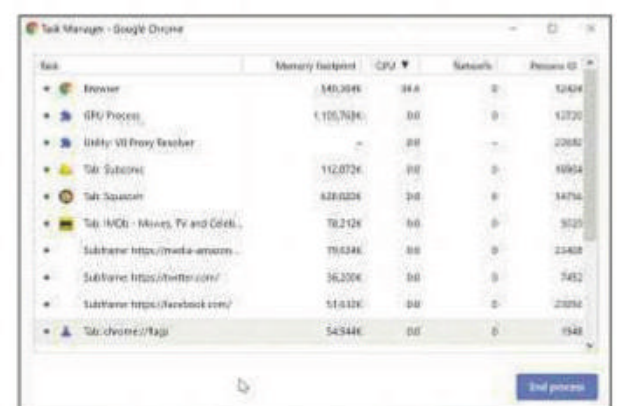
When enabled, the 'NoState Prefetch' flag can pre-download resources to improve page-load speed, while the 'Parallel downloading' flag accelerates downloads.

Finally, if your browser goes offline, it will auto-reload all tabs, including background ones, when it goes back online, causing congestion. Enable the 'Only Auto-Reload Visible Tabs' to stop this happening.

Use Chrome's secret Task Manager

Your browser will slow down if it's using too much memory. Chrome has a hidden Task Manager that shows which tabs and extensions are consuming the most memory and making the most demands on your processor. You can close the worst offenders yourself, or select one and click 'End process'.

To launch the Task Manager, press Shift+Esc. Tasks can be sorted by name, memory footprint, CPU, network or process ID.



Find out what's slowing you down using Chrome's hidden Task Manager

memory footprint, CPU, network or process ID.

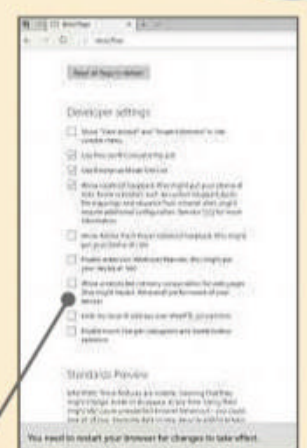
Remove or disable unwanted add-ons

If you have a lot of add-ons installed, they could be slowing down Chrome. Type `chrome://extensions` into the address bar and disable or delete any unwanted add-ons – ones installed by third-party programs, for example.

USE FLAGS IN MICROSOFT EDGE

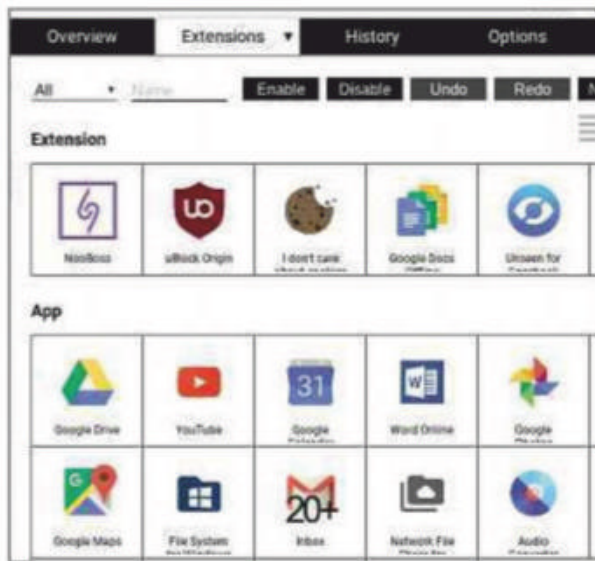


Like Chrome, Microsoft's Edge browser has a section for experimental features that you can access by typing `about:flags` into the address bar and pressing Enter. Unlike Chrome – and Firefox, for that matter – Edge doesn't offer many settings you can change: Enable TCP Fast Open settings are no longer offered because they were causing users problems. If your PC has a decent amount of memory, you can try enabling the option to 'Allow unrestricted memory consumption for web pages'. This should speed up browsing, but you should keep an eye on your system performance and be sure to close unused tabs and restart Edge from time to time.



☐ Allow unrestricted memory consumption for web pages

Boost Edge's memory usage for a potential speed gain



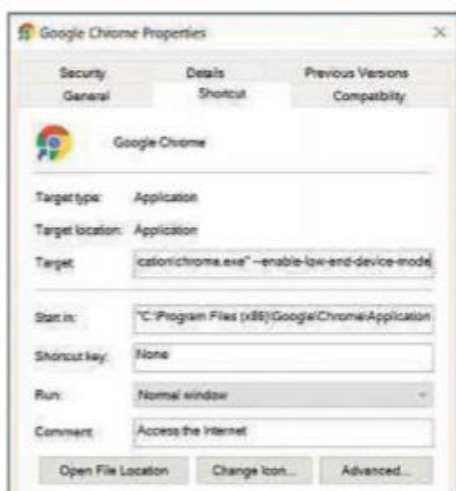
NooBoss lets you manage add-ons easily and disable them on specific sites

Alternatively, install NooBoss (bit.ly/nooboss464), which makes managing dozens of extensions much easier. It displays all your installed add-ons in a pop-up panel that lets you see at a glance which extensions are currently active, and remove or disable them all with a single click. NooBoss also lets you create rules so that specific add-ons are only activated when you visit certain websites – for example, an ad blocker on a particularly ad-stuffed site – which stops Chrome using too much memory.

Enable Low End Device Mode

If your PC is underpowered, try running Chrome in Low End Device Mode.

Right-click the icon you use to launch



Try the low-end hack to make Chrome run faster

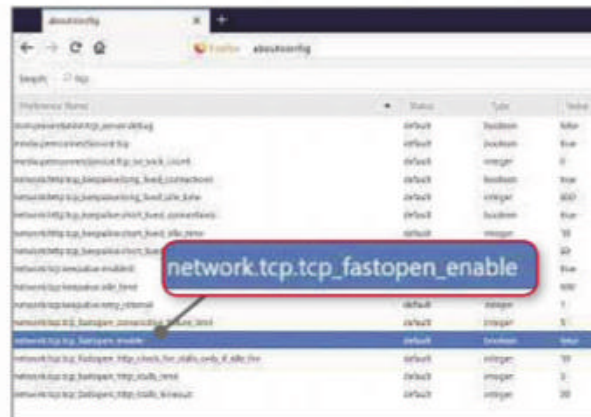
device-mode then click OK. This should reduce Chrome's memory usage.

Chrome, and select Properties. The Target box lets you add some parameters to the browser. In the Target field, put a space after chrome.exe and type --enable-low-end-

key negotiations, so there's just the one round trip to the server before the HTTP traffic starts. This means pages often load significantly faster.

Google only offers the feature in its Android and Chrome OS versions (via the flags section) and Microsoft used to offer it in Edge but has since dropped it. It's still available in Firefox, though: open the browser, type `about:config` into the address bar and search for `tcp`. You'll see a 'network.tcp.tcp_fastopen_enable' setting. Double-click this to enable it.

Bear in mind that TCP Fast Open is an experimental feature so you might run into problems (this is the reason it's hard to find elsewhere).

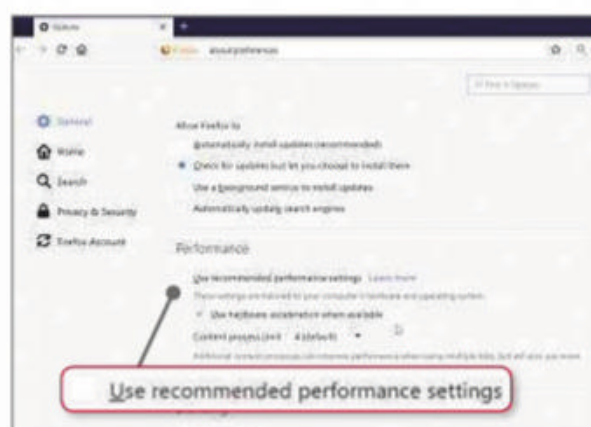


Firefox's hidden TCP Fast Open setting may make pages load faster in Firefox

Toggle hardware acceleration

Firefox Quantum uses your PC's graphics processor (GPU) to accelerate web browsing. This should make it much faster, but if you have an old or underpowered PC with no dedicated graphics card, it's possible the opposite will be true, in which case you might want to consider disabling this feature and seeing if that improves the situation.

To do this, click the three-line hamburger button in the top-right corner of your browser, then click Options. Scroll down to the Performance section and untick 'Use recommended performance settings'. Untick the 'Use hardware acceleration when available' box below that. You can also adjust the content-process limit from here, raising or lowering it. The default is 4. The more content processes you choose, the



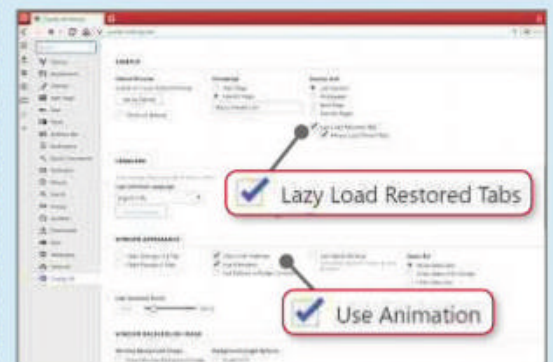
Tweak Firefox's settings to get the right balance between speed and memory

SPEED UP VIVALDI



The Vivaldi browser (vivaldi.com) is rapidly gaining in popularity. It's based on Chromium – see our cover feature on page 40 – and offers settings you can adjust to boost performance. Type `vivaldi://settings/all/` into the address bar and press Enter. Under Startup, make sure Lazy Load Restored Tabs is enabled, if you have the browser set to load the previous session when it restarts. Under Appearance, disable Use Animation; and under Themes, tick the Edit button for your current theme. Make sure Accent Colour From Active Page is disabled. It's also worth disabling the background image under Start Page, although this will make it look less attractive.

Finally, select Tabs and disable resource-hungry features such as popup and tab thumbnails.

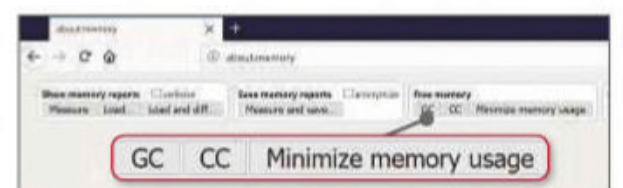


There are several tweaks you can try to speed up Vivaldi

better the performance should be when using multiple tabs. However, this also consumes more memory, which may have a negative impact on your system.

Free up Firefox memory

Firefox is a renowned memory hog and if you open a lot of tabs and rarely restart your browser, it can consume vast amounts of system RAM. To free up memory and speed up your browser, type `about:memory` into the address bar and click Enter. The Free Memory section lets you run a global garbage collection (GC), which clears old and unused JavaScript objects, or a cycle collection (CC), which clears web pages. Click the 'Minimise memory usage' button to run both the GC and CC processes multiple times, freeing up the maximum amount of RAM.



Speed up Firefox by running a garbage collection to free up memory

FIREFOX



Enable TCP Fast Open

TCP Fast Open (TFO) is designed to replace the old T/TCP system and speed up the opening of successive TCP connections between two endpoints. The old TCP protocol uses a "three-way handshake" (three round trips to the server). By combining TCP Fast Open and something called TLS False Start, the initial handshake performs all the

BEST TECH PODCASTS FOR 2019



Podcasts are more popular than ever, but where should you turn for talk about tech topics? **Steve Clark** picks 20 to subscribe to in 2019

TECH THOUGHTS & TIPS

PC Pro

bit.ly/pcprosc464

Hosted by the magazine's editor-in-chief Tim Danton and featuring *Web User* columnist Barry Collins, the *PC Pro* podcast is like an hour-long fireside chat, as tech experts demystify technology's latest trends and topics. New episodes debut every fortnight, so you're never short of fresh opinions.

Clockwise

bit.ly/clock464

Clockwise's simple setup – "Four people. Four tech topics. Thirty minutes" – has affable hosts Mikah Sargent and Dan Moren taking the lead, joined by a rotating panel discussing everything from the state of social media to smart toilets. You can catch up on new episodes every Wednesday.

Chips with Everything

bit.ly/chips464

The *Guardian's* Chips with Everything is a snack-sized show that's deliciously filling. Part interview, part documentary, episodes run between 20 to 30 minutes – just enough time for host Jordan Erica Webber to take a sideways glance at today's technology trends and their impact on the world.



Internet of Things

iotpodcast.com

If you're after some breezy chat, tech journalist Stacey Higginbotham's Internet of Things podcast is not for you. This weekly show is geared towards a tech-smart audience interested in consumer and business technology, platforms, privacy and politics. Expert guests offer tips and advice in each hour-long episode.

INTERNET CULTURE

Reply All

bit.ly/reply464

Reply All is investigative journalism for the internet, exploring such online phenomenon as the 'Instagram for Doctors' app, Tinder weirdos and message-board mysteries (bit.ly/ilx464). As one testimonial puts it, "it's a podcast that tells gorgeous, painfully human stories that happen to have bits of technology sprinkled in".



IRL

irlpodcast.org

"Online life is real life" is the strapline of In Real Life – a bi-monthly podcast produced by Mozilla (of Firefox fame). Unlike most tech podcasts, IRL isn't a talking shop. You'll hear real-life stories, like the community that built a better internet or the girl paid to write messages on Tinder.



This is Only a Test

bit.ly/test464

The official podcast for Tested – the tech, science and geek culture site run by TV's former *Mythbuster* Adam Savage – is a rambling 90-minute show that, like its parent site, covers "anything that's awesome". You can also watch it on YouTube (bit.ly/tested464).

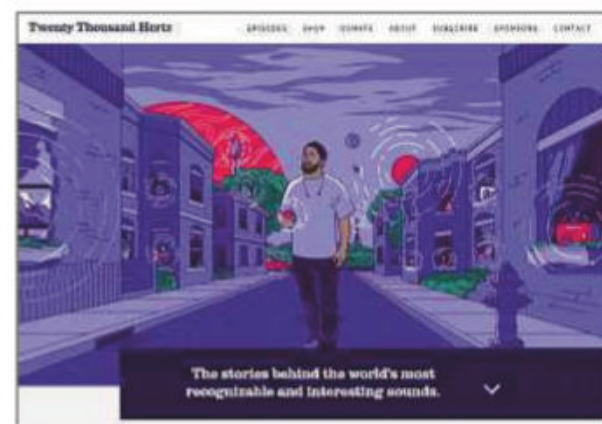


DEEPER INSIGHTS

Twenty Thousand Hertz

20k.org

Twenty Thousand Hertz studies the history of world-famous pieces of audio – from jingles to sound effects and startup noises – and why they're so effective. Produced by an award-winning sound-design studio (they certainly know their onions), the podcasts range between 20 and 30 minutes, and feature in-depth interviews that cut through the noise.



Bloomberg's Decrypted

bit.ly/decrypt464

As you'd expect from the business-orientated Bloomberg, Decrypted offers serious, in-depth reports. These 'peek-behind-the-curtain' podcasts shine a light on various global technology topics, such as how Facebook's ads really work and why Bitcoin still matters. Experts are



interviewed, data extrapolated and secrets uncovered – all in 30 minutes.

TechStuff

techstuffpodcast.com

For 10 years, HowStuffWorks TechStuff, hosted by Jonathan Strickland, has served up fascinating insights into technology old and new (one week it's AI, the next it's DARPA). Where topics span beyond the 40-minute run-time, they're chopped into multiple episodes. The show occasionally reruns TechStuff Classic podcasts, so newcomers don't miss out.



TED Talks

bit.ly/tedtalks464

TED Talks is to podcasts what Stephen Fry is to Twitter – it's the iconic 'brand' that everyone follows. With its vast range of topics and experts, enjoy eye-opening content that changes the way you see the world. If you're pushed for time, check out the bite-size Ted Talks Daily (bit.ly/tddaily464).



TOPICAL TECH CHAT

BBC Click

bit.ly/click464

The BBC has loads of science and technology podcasts – visit bit.ly/scitech464 for the full selection – but start out with the World Service's Click. This weekly podcast (effectively a 40-minute radio show), covers global technology news. As with most Beeb content, podcasts are only available for 30 days before they're wiped.



TheVergeCast

bit.ly/vergecast464

The Verge team gathers every Friday night to discuss the stories behind the week's news. It's a chilled-out weekly news round-up – just a few friends gabbing about technology. These are supplemented throughout the week with reviews and coverage of events.



Episodes range from 30 minutes up to a whopping 90 minutes.

The Two Technies

munchtech.tv

Each Saturday, the Two Techies Aaron and Jamie make sense of events in the tech world. It's a polished production for what is essentially two mates having a chat. Each episode lasts "around an hour or less", with occasional well-known 'techie' guests – most notably Apple guru Steve 'Woz' Wozniak.



This Week in Google

bit.ly/twig464

Google dominates the internet, and the TWiG team – Leo, Jeff, and the IoT podcast's Stacey Higginbotham – are giving the tech giant the hard-eye (like our cover feature on page 40). Don't expect fawning fandom: This Week in Google is fair-minded – happy to praise the company's successes but equally unafraid of calling out its missteps.



FUTURE TECHNOLOGY

Future Tense

bit.ly/fute464

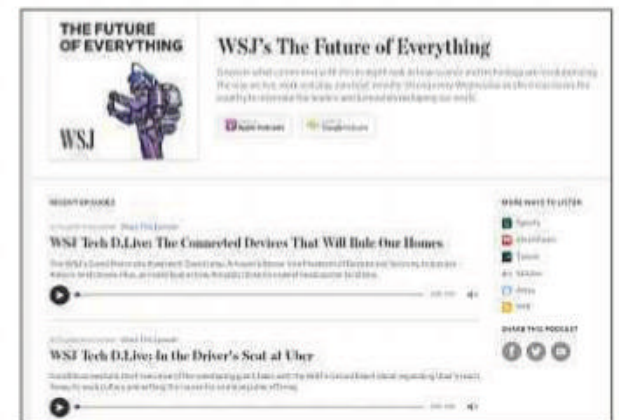
The Australian Broadcasting Company's Future Tense is a podcast for those who are on the bleeding-edge of technology. Discover how the very latest tech is transforming our culture and our lives. Given its broadcasting background, Future Tense has that serious news vibe, focusing on interviews with leading experts and insiders.



Wall Street Journal's Future of Everything

bit.ly/foe464

Using technology news as a launchpad (think cryptocurrencies, quantum computing and cyber-attacks), the WSJ's Future of Everything takes a 20-minute gander at where our digital future lies. For instance, if voting machines can be hacked, could we one day vote on our smartphones?



SECURITY BREACH

Latest Hacking News

latesthackingnews.com

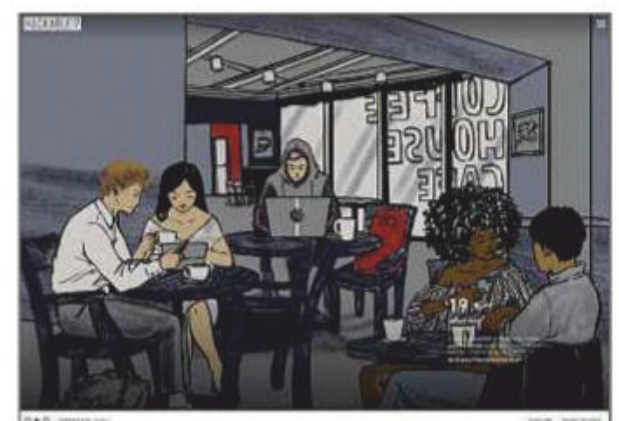
Clocking in at six minutes apiece, Latest Hacking News is the quickest way to catch up on the day's cybersecurity news. It's aimed at IT professionals (they use terms that'll send you scurrying for Google), but that gives it absolute authority. Check out the website for additional news coverage.



Hackable

hackablepodcast.com

Hackable is brought to you by the godfathers of anti-virus, McAfee. Over the course of 30 minutes, the cybercrime podcast reveals the many ways we're vulnerable to hackers. Let's put it this way: after listening to Hackable, you'll never go near another virtual-reality unit.



Smashing Security

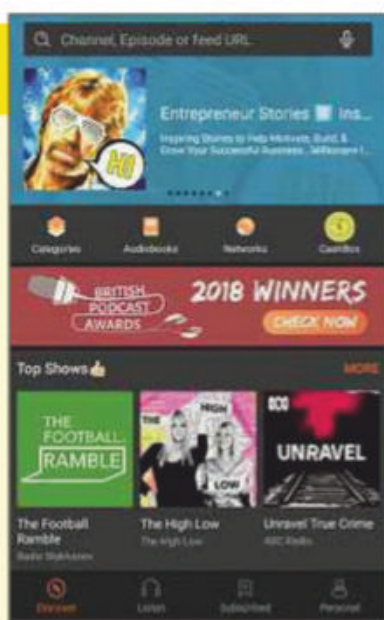
smashingsecurity.com

Winner of the 'Best Security Podcast 2018', Smashing Security claims it's "not your typical cybersecurity podcast". It's a light-hearted round-table chat about hacking, cybercrime and online privacy that brings some much-needed levity to an otherwise serious subject. ■



HOW TO LISTEN TO PODCASTS

To get started, download a podcasting app. We rate the cross-platform Castbox (castbox.fm), but iTunes, Spotify and Google Podcasts (bit.ly/gpod464) are also great options. If you're strictly into BBC podcasts, Auntie recently unveiled BBC Sounds (bit.ly/sounds464) for instant access. Next, start searching. Most podcasts are available on every platform, but switch to another app if you can't find your show. And don't forget to only download episodes when you're connected to Wi-Fi – streaming podcasts chews through your mobile data.





Practical WebUser

16 pages of workshops, tips, projects and problem solving

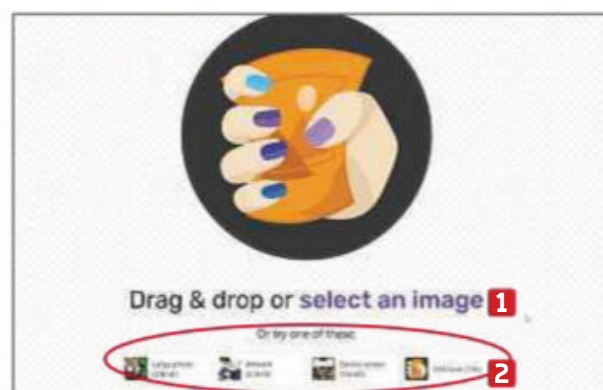
Optimise images on the web

Squoosh is a new online tool from Google that quickly and intelligently reduces the file size of your images. Here's how to use it

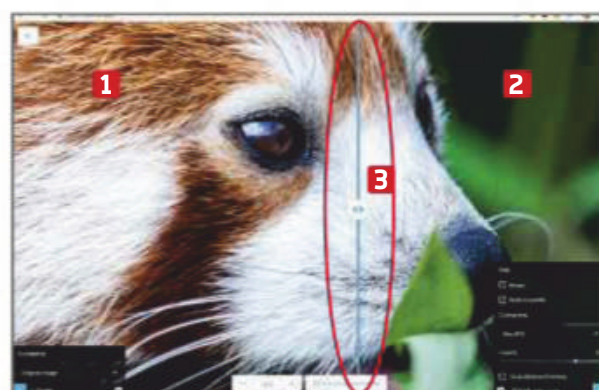
Squoosh: squoosh.app | 🕒 10 mins | **Any browser**

Launched at the recent Chrome Dev Summit, the open-source web app Squoosh is a simple browser-based image editor that reduces the size of your photos at super-fast speeds. It's designed for Chrome but works in all the major browsers, and offers some unique encoding methods for Firefox and Safari. Squoosh's main purpose is to optimise

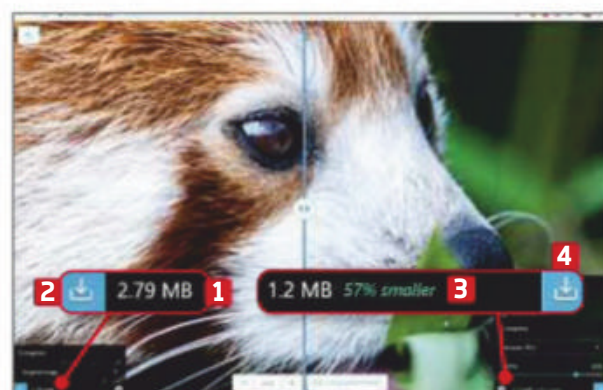
images for the web to speed up browser page loads, but you can use it to reduce the size of your photos for any purpose, such as emailing and sharing on social media. It works with a number of compression technologies including OptiPNG, MozJPEG and Google's own WebP, and you'll see the effects of your changes as you make them.



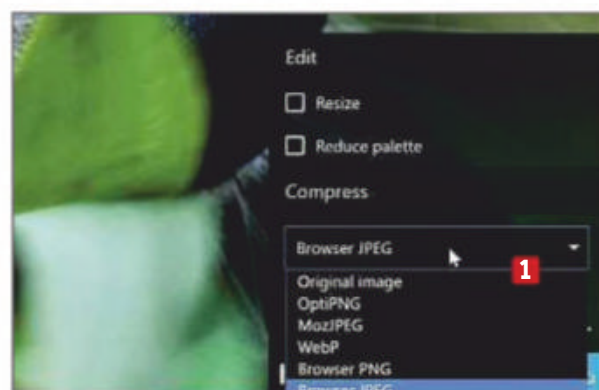
1 Get started by either dragging and dropping an image you want to optimise to the program window, or by clicking the 'select an image' link **1** and navigating to the relevant file. If you just want to experiment with the tool, you can load one of the sample images listed below. **2**



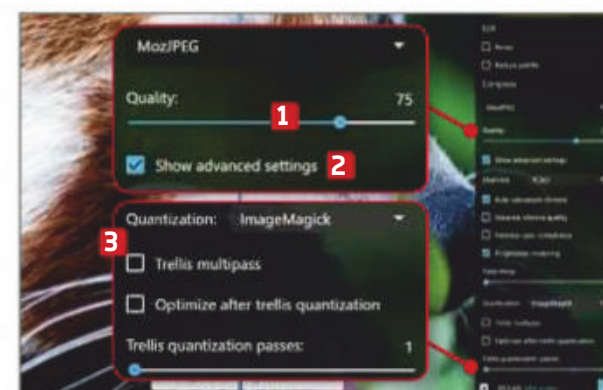
2 We've selected Squoosh's 'Large photo' - a 2.8MB image of a red panda. The picture is divided into two halves. The left side shows the original quality; **1** the right, the compressed result. **2** Drag the divider **3** left or right to change the proportions. You can also drag the image around.



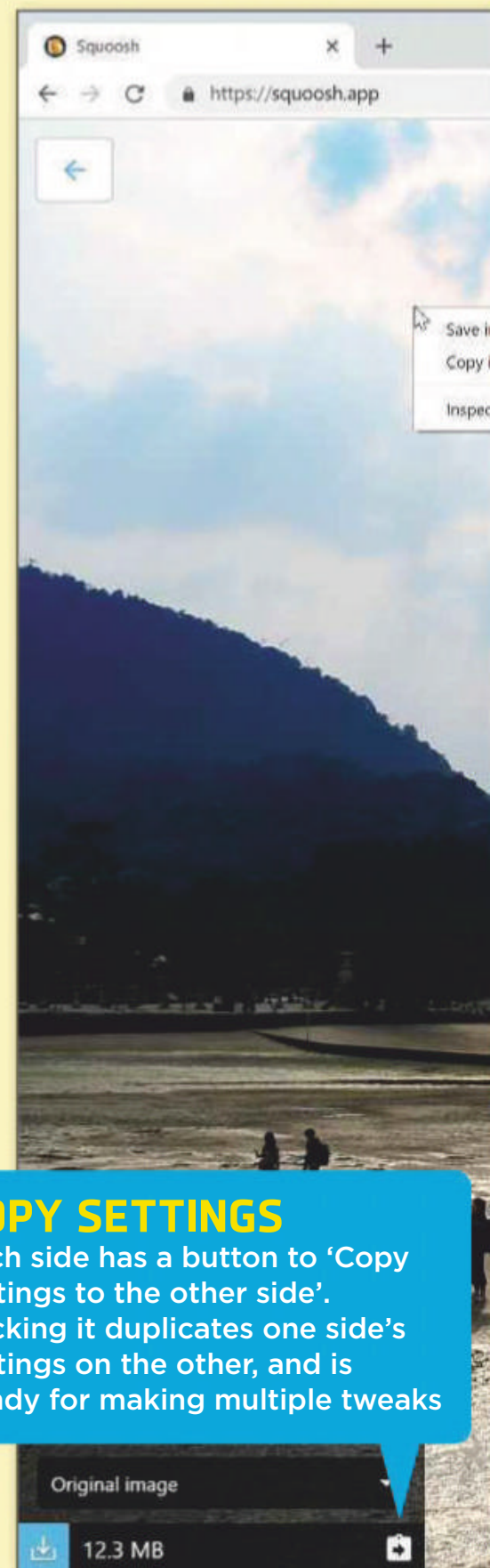
3 The size of the original file is shown on the left, **1** along with a button for downloading a copy of that image; **2** the size of the optimised version is shown on the right, along with the percentage reduction. **3** You can download the compressed image by clicking the button. **4**



4 Squoosh offers several compression options and it's worth experimenting with them until you find one that works for you and delivers consistent results. They're all good, though. Click the down arrow and pick one from the list. **1** Each method presents you with different options to play around with.

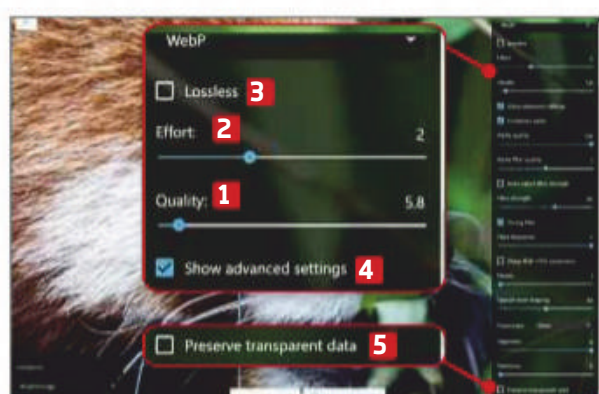


5 The Browser JPEG option provides a slider for tweaking the quality. MozJPEG also offers a quality slider **1** along with advanced settings. Select 'Show advanced settings' **2** and you can tinker with the different options below, including changing the Quantisation method. **3**

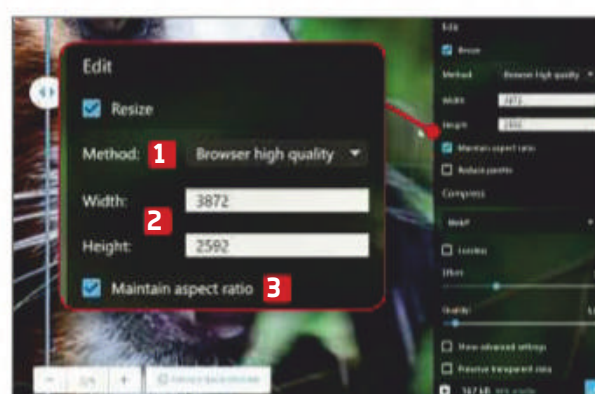


COPY SETTINGS
Each side has a button to 'Copy settings to the other side'. Clicking it duplicates one side's settings on the other, and is handy for making multiple tweaks

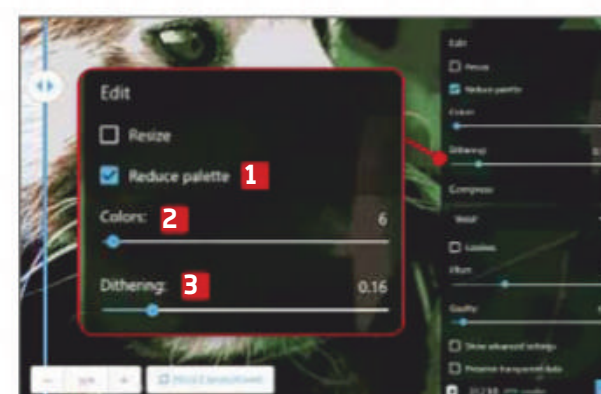




6 Google's own WebP method lets you adjust the Quality **1** and Effort **2** put into compressing the file, and enables the Lossless setting (reducing a file's size without losing quality). **3** There are advanced settings on offer, **4** and you can choose to preserve transparent data in the image. **5**



7 Another way to reduce an image's file size is to shrink it. Click Resize and choose a method in the drop-down menu. **1** Enter new Width and Height measurements, **2** and choose whether to maintain the aspect ratio. **3** Disabling this lets you pick Stretch or Cover to fit your image to its new dimensions.



8 Reducing the number of colours can also make an image's file size smaller, though the change will be more noticeable. Tick 'Reduce palette', **1** then use the sliders to adjust the number of colours **2** and Dithering. **3** The results can be striking. It may take a little while for Squoosh to make the changes.



Monitor your online accounts for hacked passwords



Spybot Identity Monitor: bit.ly/spybot464 | ⌚ 20 mins | 🖥️ Windows 7, 8, 10

EXPERT TIP

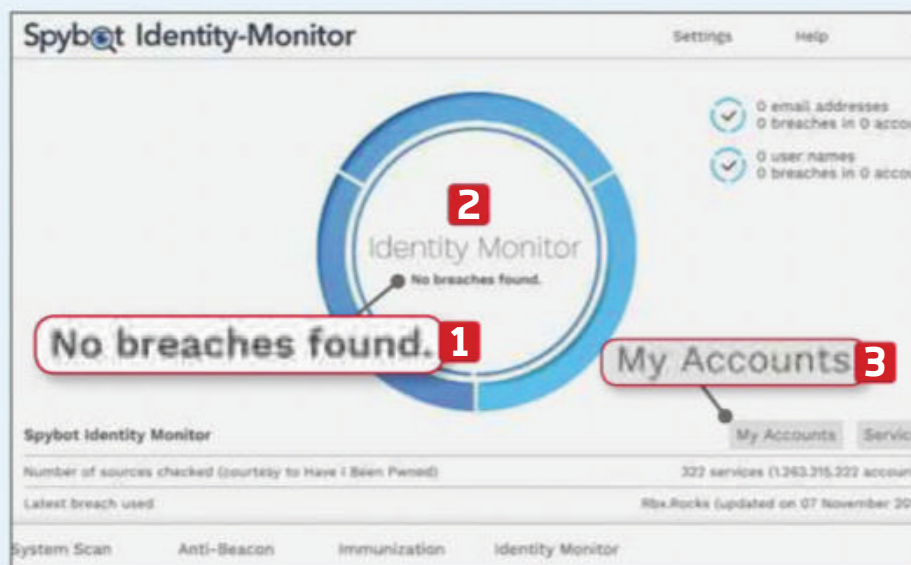
Andy Shaw says

If you just want to carry out a security spot check, perhaps to find out if a friend or relative has had a password exposed as a one-off, go to the Have I Been Pwned website at haveibeenpwned.com, which is where Identity Monitor gets its database of breaches from. For long-term security, and to keep an eye on any future breaches, we recommend you load all your family's usernames and email addresses into Identity Monitor.

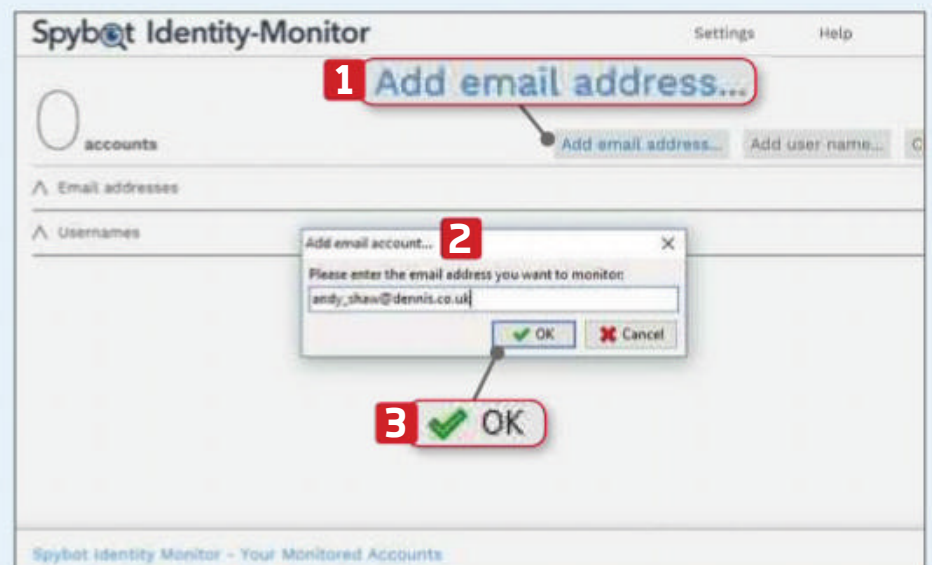


Spybot is renowned for its Search & Destroy malware hunter – one of the first free programs to detect and shut down spyware. The brand is still at the forefront of free security software with its latest offering, a new version of Spybot Identity Monitor. This handy tool monitors an online database of hacked sites and services, so you can keep an eye on whether your email addresses, usernames and passwords are safe to use.

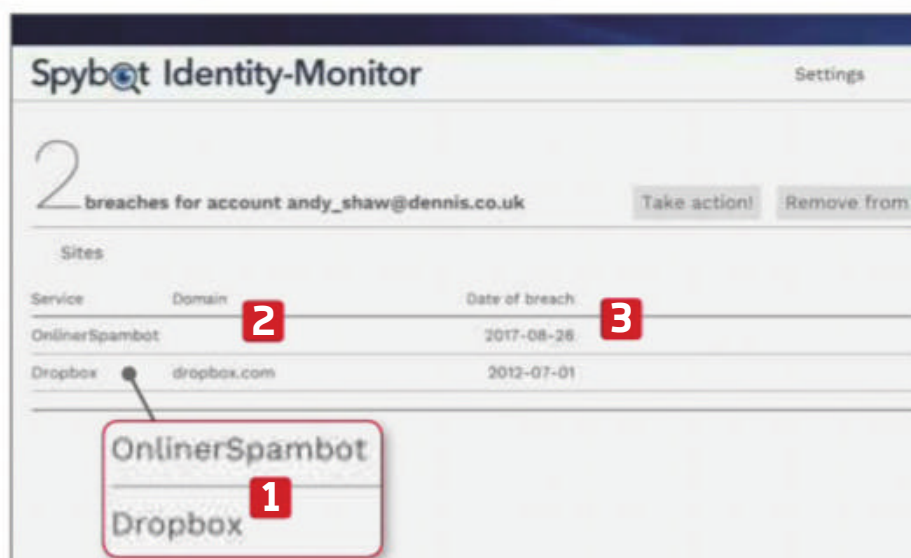
There are two options for downloading and installing the software, either as a direct download or as a Windows 10 app, which you can download from the Store at bit.ly/spy464. Both look identical and work in the same way. During installation, you can choose whether you want the program to check for updates every time it starts.



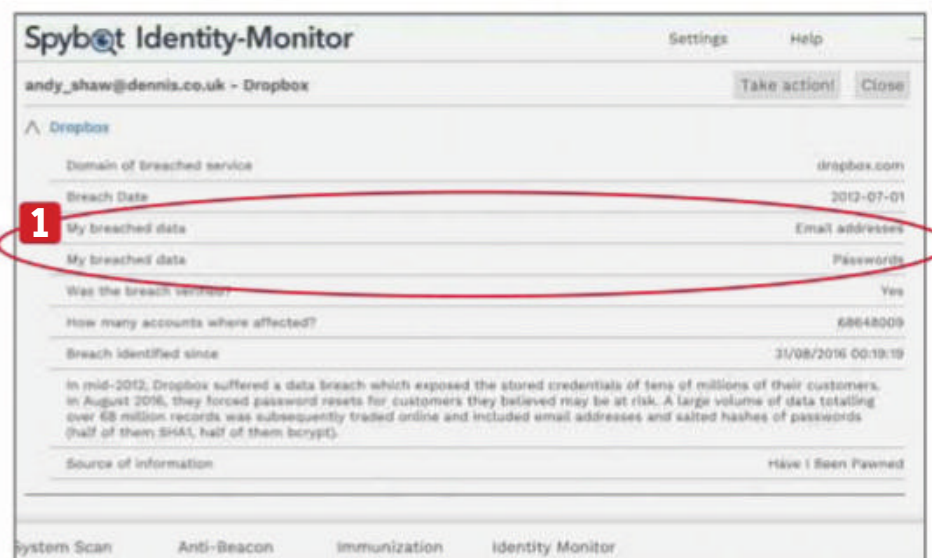
1 When you launch the software, the interface will show that everything is fine, with Identity Monitor declaring 'No breaches found'. **1** Don't get too complacent, though – this is because you haven't connected any user accounts yet. Click the Identity Monitor disc **2** or the My Accounts button **3** to start adding accounts to the service.



2 Click the 'Add email address' button **1** to add an email account to the software. Type your primary email address into the box **2** and click OK. **3** If you're very lucky – or you're using an email address you rarely give out online – you may have escaped any security breaches.

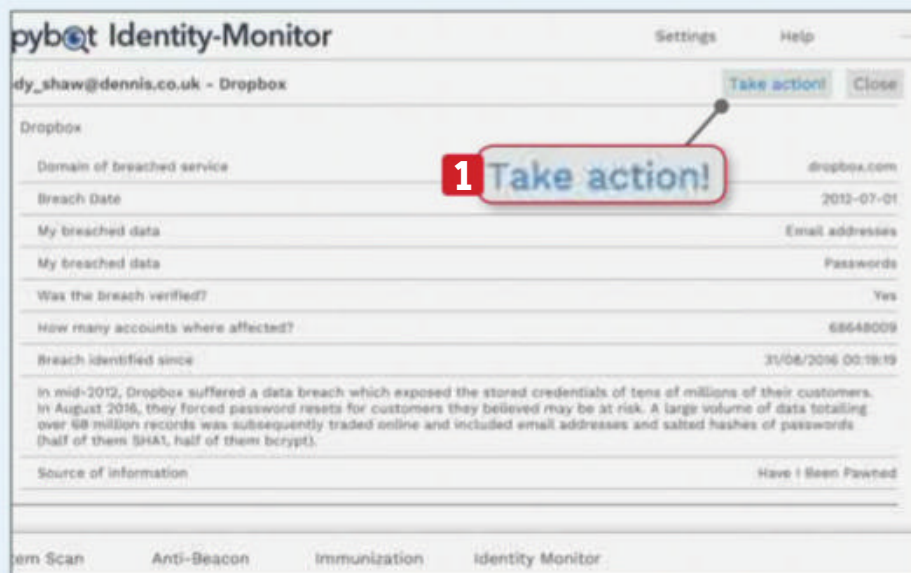


3 It's more likely, however, that the software will report back that your email address has been breached. If this is the case, click the email address for a breakdown showing any breached sites you have registered with. **1** Some basic information is displayed, including the name, the domain **2** and the date it was breached. **3**

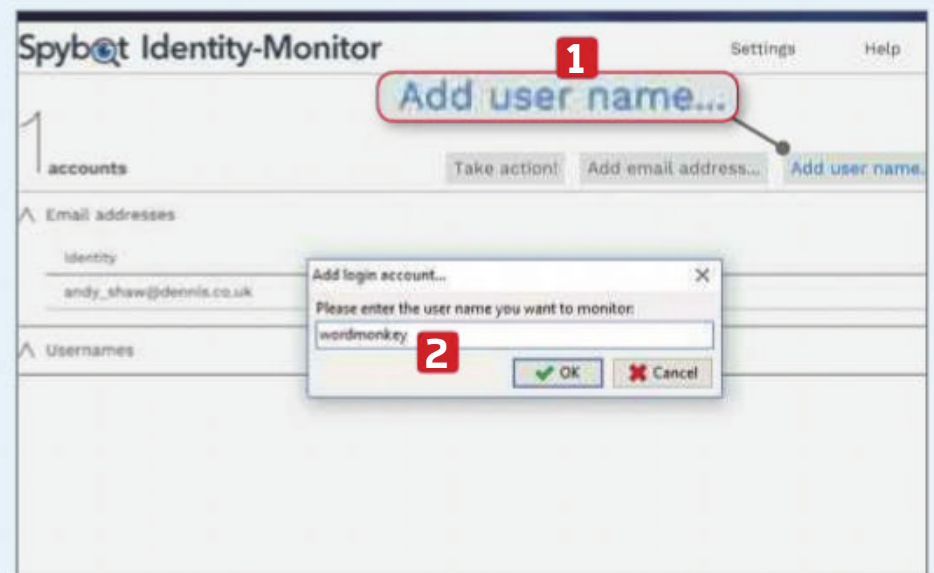


4 Click one of the breaches to get a full breakdown of information about it. This tells you what information was leaked **1** so you can decide what to do about it. For example, if Passwords is listed under 'My breached data', you should change your password on that site and any other that uses the same combination of password and email address.

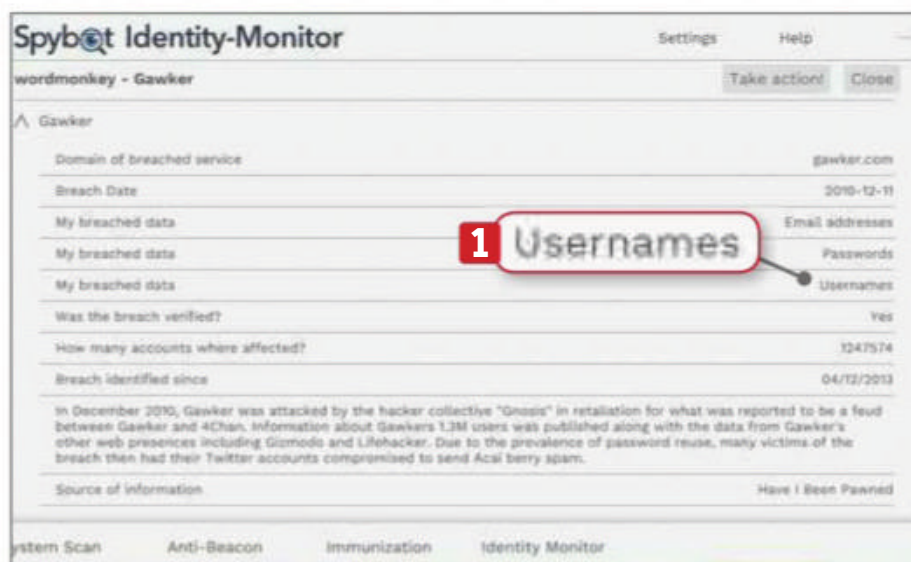




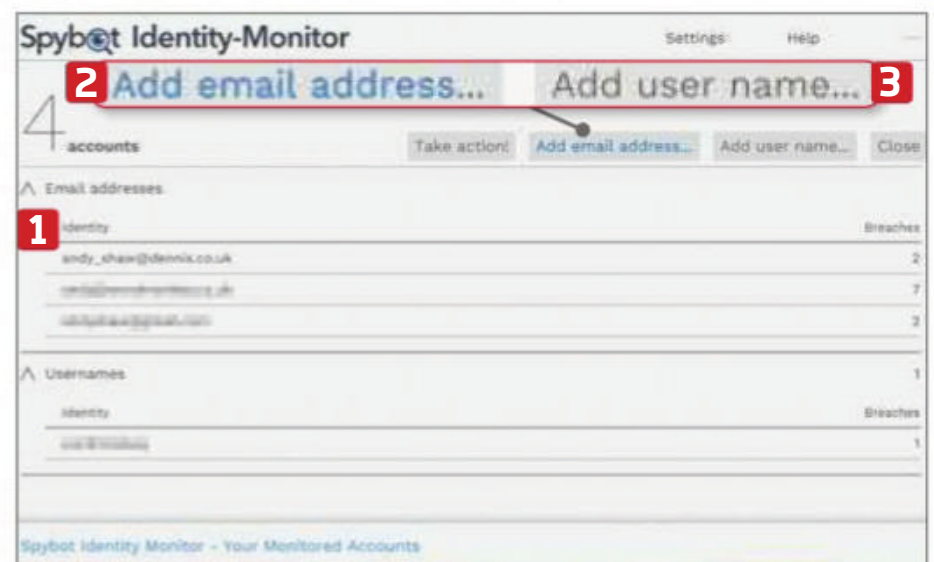
5 The advice on what to do can change from one breach to another, depending on the data that was exposed. If you're not sure what a particular breach means, click the 'Take action' button **1** for more advice.



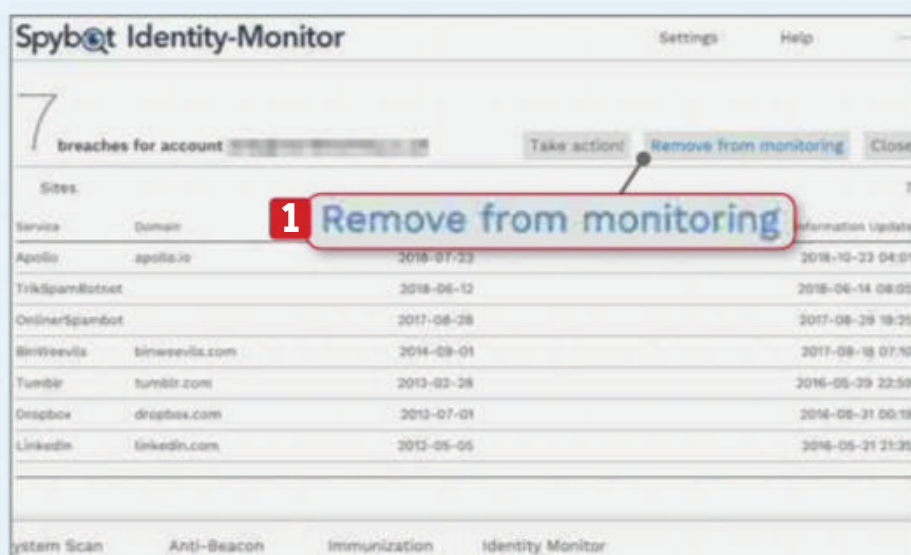
6 Not all breaches are based on email addresses – some compromise your usernames. Back on the My Accounts screen, click 'Add user name' **1** and type in a username **2** that you use often. Click OK to see the results.



7 As before, you're shown a list of sites that have had their user's details stolen. Some of these may be the same as the results from the email-address breaches, if both identifying factors have been stolen. On the details screen, you'll find Usernames listed in the 'My breached data' field. **1**



8 You can enter as many addresses and usernames as you like and have the software keep an eye on all of them. Just go back to the My Accounts screen to see an overview, **1** then click the 'Add email address' **2** or 'Add user name' **3** buttons to add more.



9 If you change your mind, you can remove an address or username from the monitoring tool. From the My Accounts screen, click the item you want to remove. On the next screen, click the button to 'Remove from monitoring'. **1** Confirm the action by clicking Yes in the window that pops up.



10 Click Settings. **1** You can add Identity Monitor to the Windows Scheduled Task tool **2** so the program launches each time you log on, to check for new breaches. You can also set the software to update automatically. **3** It should recognise if you have Windows set to Dark Mode, and change automatically, though you can choose this option manually by setting Dark Mode to 'Always on'. **4**



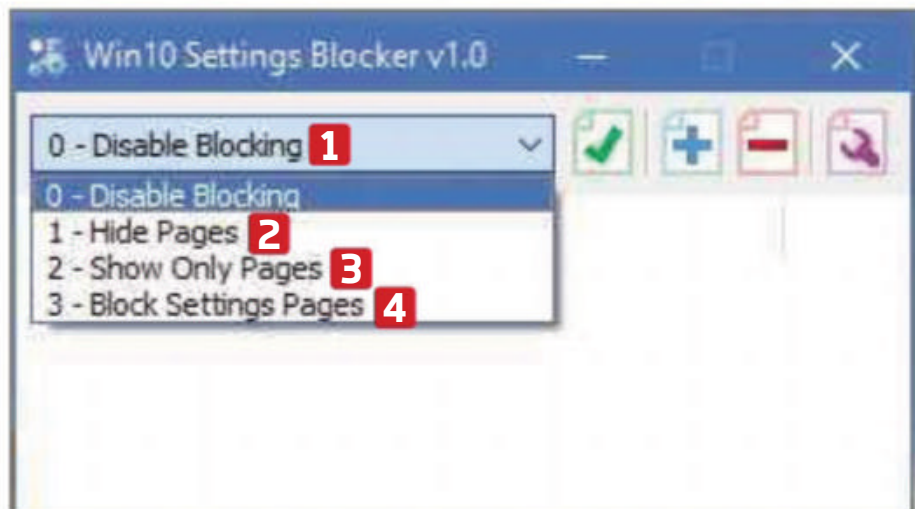
Stop people changing your computer settings

You know how it is: you carefully set up your computer just how you like it and generously share it with your family, only to find that someone has made a load of annoying changes. Microsoft now lets administrators block

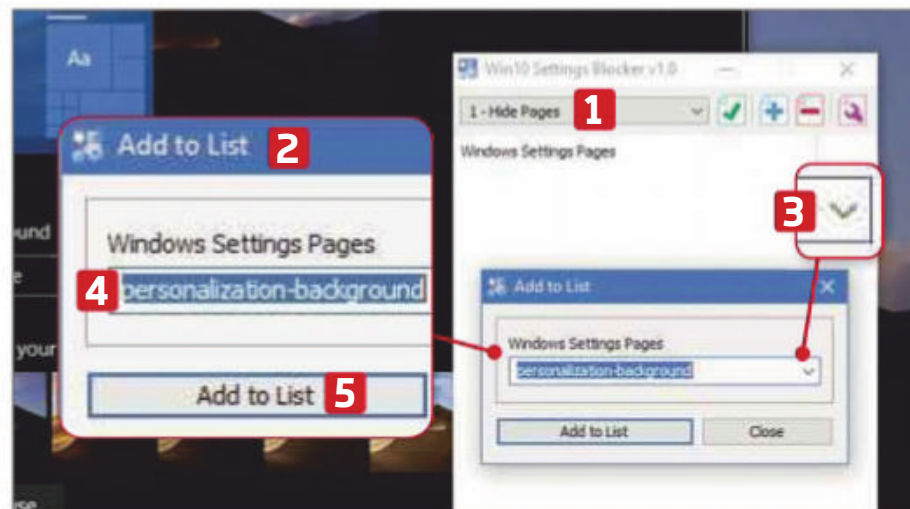
certain settings but it requires tweaking the Registry, which is a bit of a bother. The Win10 Settings Blocker tool simplifies this process.



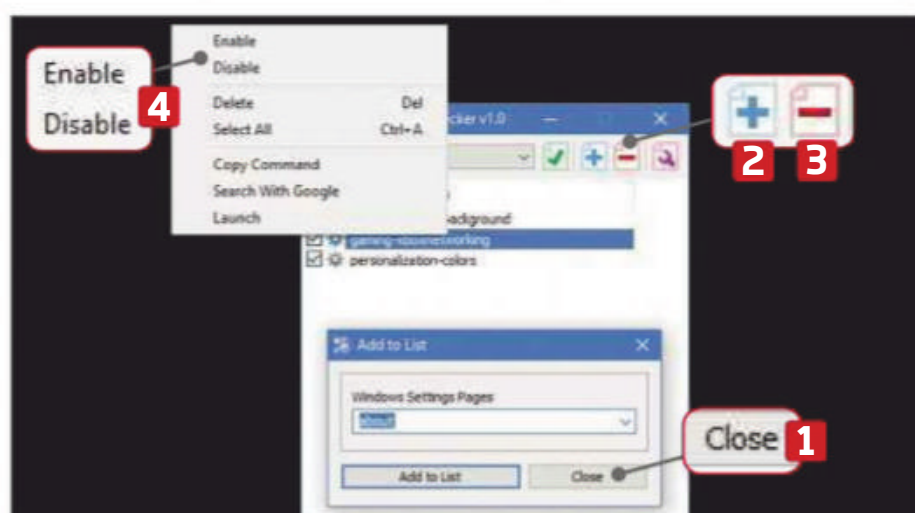
Win10 Settings Blocker: bit.ly/settings464 | 10 mins | Windows 10



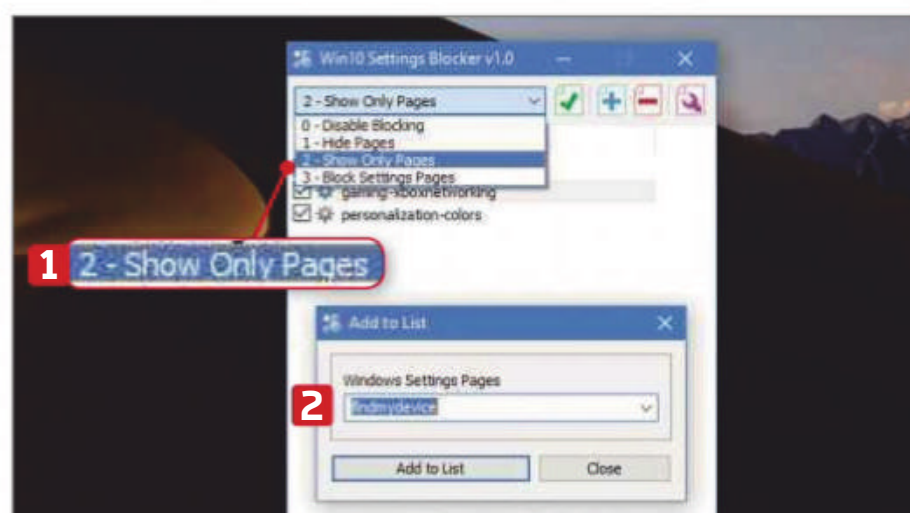
1 The default setting in Win10 Settings Blocker is Disable Blocking. **1** Clicking the drop-down menu reveals Hide Pages, **2** Show Only Pages **3** and Block Settings Pages, **4** which stops users making changes in the Control Panel and the Settings window.



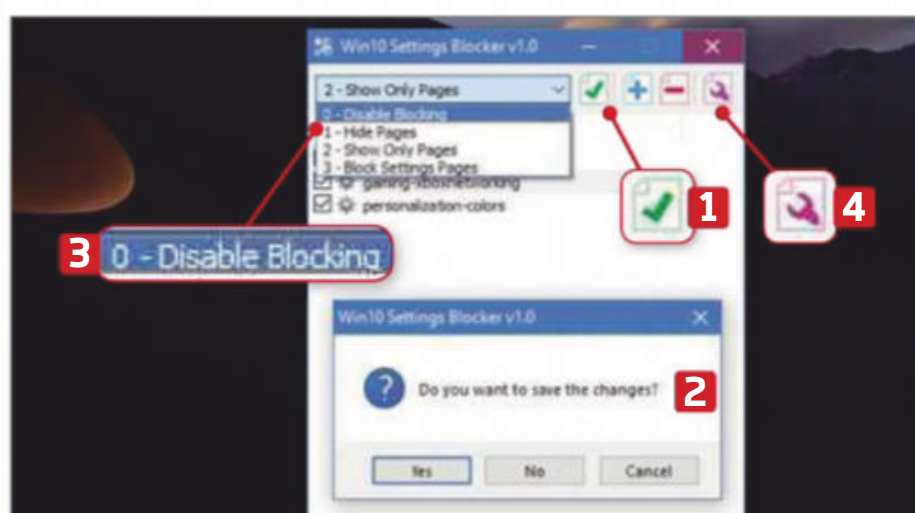
2 Select Hide Pages **1** to open a window that lets you 'Add to List'. **2** Click the down arrow to see every available Settings category and sub-category. **3** We're going to stop people changing our background by hiding it. Select 'personalization-background' **4** and click 'Add to List'. **5**



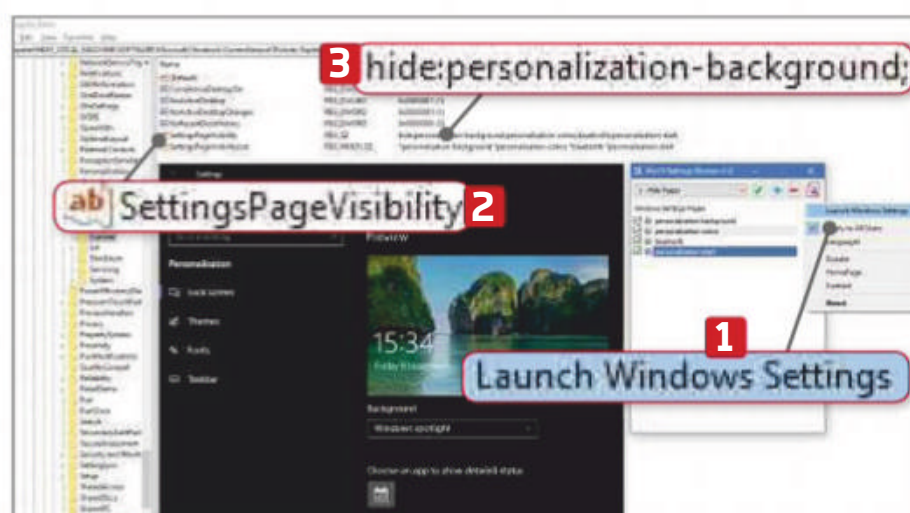
3 Repeat Step 2 to hide another setting. Click Close **1** when you're done. To add more settings later, press the blue cross **2** to recall the 'Add to List' window. You can also highlight a setting and click the red minus **3** to 'Delete from the list'. Right-click a setting to quickly enable or disable it. **4**



4 Alternatively, to set what users can see and change from the Settings app, switch the drop-down from Hide Pages to Show Only Pages. **1** You can either hide or show - you can't create two separate lists. Follow the same steps as you did to hide apps, adding each setting to your list. **2**



5 Click the green tick **1** to save your list. You're prompted to save your changes **2** if you try to close it. To reverse all changes, switch to Disable Blocking **3** and save. Your settings remain in the list, but are disabled. To check that the changes are working, click the spanner icon **4** to open Options.



6 Select Launch Windows Settings **1** and try to go to a setting you hid. Changes can be seen in the Registry at HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\Policies\Explorer. Next to SettingsPageVisibility, **2** look for 'hide' or 'showonly' entries. **3**



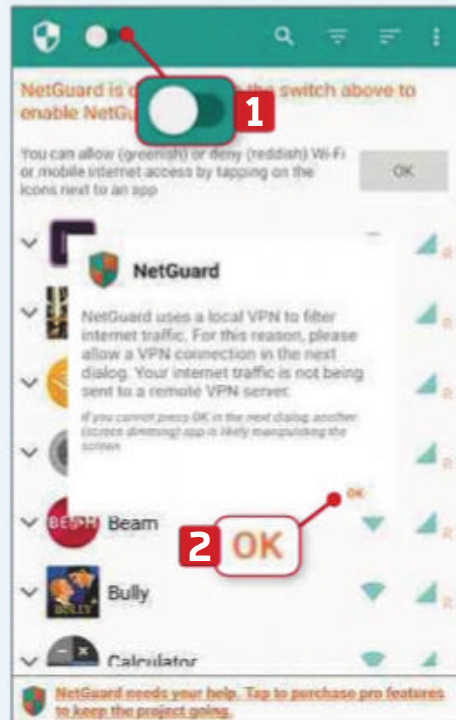


Block any Android app from accessing the internet

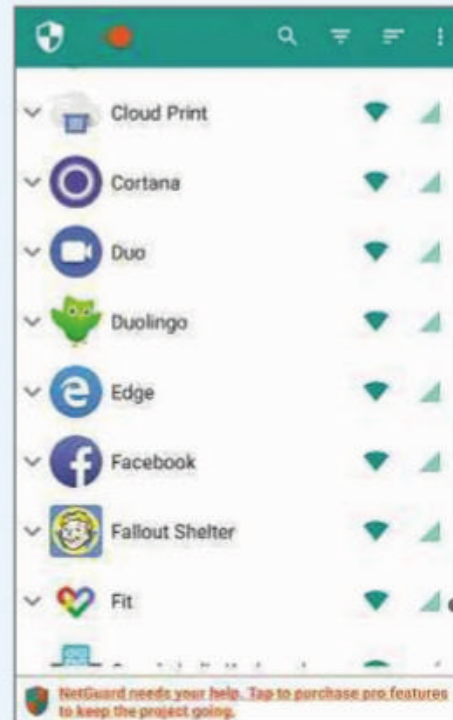
Are you noticing a data drain on your smartphone? Want to keep specific apps offline? NetGuard makes it easy to stop apps abusing your mobile data or Wi-Fi. Not only will this Android firewall keep your data under lock

NetGuard: bit.ly/netguard464 | ⌚ 10 mins | 🤖 **Android 5.1+**

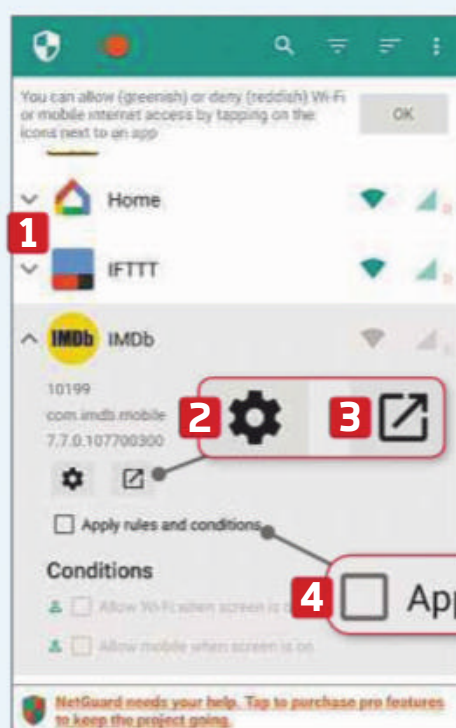
and key, it'll help save your phone's battery life and prevent unruly apps from leaking your personal data. Best of all, you can use NetGuard on almost any Android phone.



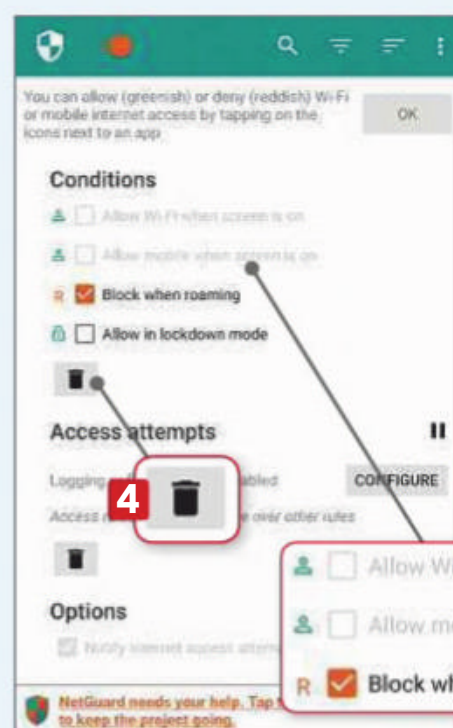
1 NetGuard is disabled by default, so start by switching the app on. Toggle the switch at the top of the screen **1** and click OK **2** on each subsequent pop-up. This grants permission for the app to run a local VPN that monitors your web traffic. Once set, a VPN key displays on-screen.



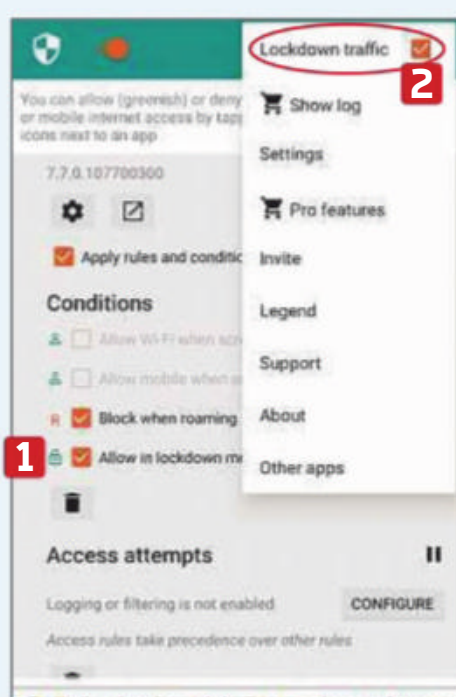
2 Scroll through NetGuard's app list. Tap the Wi-Fi icon, **1** Mobile Data icon **2** or both. A green symbol denotes network access is allowed, while a red one means it's blocked from accessing the web. Pull down the notification bar to see how many apps are allowed and how many are blocked.



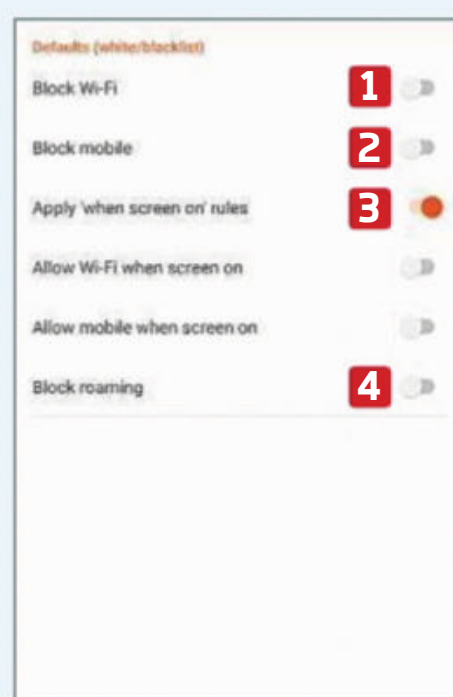
3 Click the down arrow beside any app. **1** The top options are the App Info cog **2** and the pop-out, **3** which opens the app. Below is a tickbox marked 'Apply rules and conditions'. **4** Unticking this greys out the Wi-Fi and Data icons, preventing you from removing network access.



4 Scroll down to Conditions. With Wi-Fi access revoked, you can select 'Allow Wi-Fi when screen is on' **1** and do the same for mobile data. **2** 'Block when roaming' **3** is ticked by default, to save data when abroad, but you can untick it if you like. Click the bin **4** to return to the original settings.



5 The other option in Conditions is 'Allow in lockdown mode'. **1** For this to take effect, you'll need to first switch on lockdown mode. To do this, tap the three-dot menu and tick the box next to 'Lockdown traffic'. **2** Now all apps are denied permission to go online – except those you've specifically allowed.



6 For additional control, tap the three-dot menu and select Settings. There are plenty of options to explore, but we recommend visiting 'Defaults (white/blacklist)' first. Use the switches to determine universal Wi-Fi **1** or mobile data **2** use, or limit 'When screen on' settings. **3** To completely block roaming, even for apps you've allowed, switch on 'Block roaming'. **4**



Weekend Project

Get to grips with some serious tech tinkering to boost your computer and other devices

M T W T F S S



How to...

Create your own personal Spotify streaming service

Download our recommended software to an old PC to stream your music collection to any device. **Wayne Williams** shows you how

Music-streaming services such as Spotify have completely changed the way we listen to music. Instead of buying physical CDs and paying for individual downloads, you can subscribe to a service that streams your favourite songs. It's also a great way to discover new music. Back in Issue 460 (bit.ly/webuser460),

we showed you how to make your own Netflix; in this issue's Weekend Project, we look at creating your own Spotify-style music-streaming service. It's surprisingly easy to do – all you need is an old PC to act as a server and some special software. Once you've set up your server, you'll be able to listen on Android, iPhone, Chrome and more.



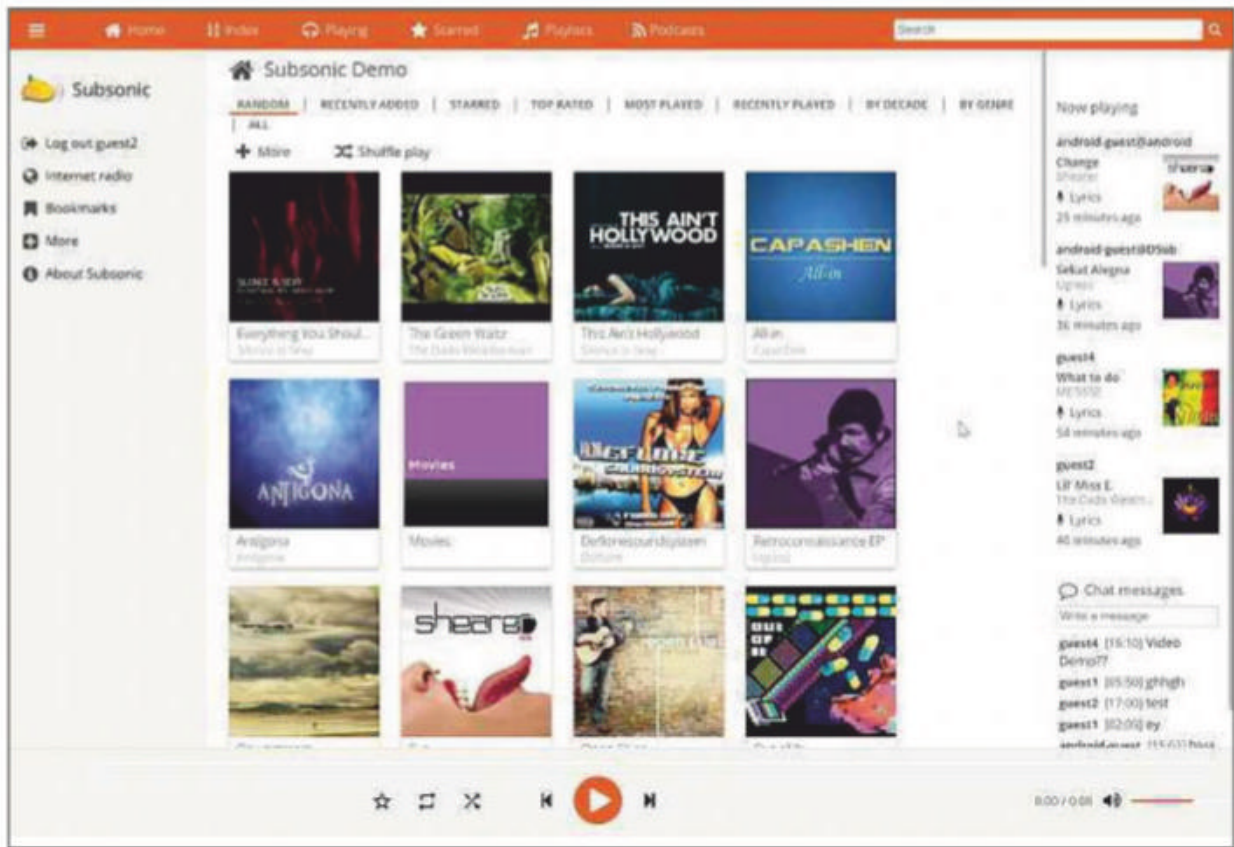
What you'll need

The key component is a PC with a hard drive that's large enough to store your personal music collection. On average, most good quality tracks tend to clock in at around 10MB each, which means a 1TB drive should be big enough to store around 100,000 songs. If you have a huge collection of music, or your hard drive is too small, you could upgrade your PC with a larger drive. Fitting an

internal hard drive is a simple procedure, or you can just buy an external one that plugs into a USB socket. You can pick up a 4TB model for around £100.

You will also need a copy of Subsonic (www.subsonic.org). This personal media-streaming server software is available for Windows, Mac OS and Linux. The program is entirely free, but you may want to consider the paid-for version, since it only costs \$1 a month (78p),

or \$99 (£77) for a lifetime subscription. This buys you access to the mobile phone apps; video streaming; a personal server address; the ability to stream to Chromecast, Sonos and compatible DLNA/UPnP devices; the option to share media on Facebook and Twitter; and no ads in the web interface. The free version comes with a 30-day trial of Premium, so you can try before you subscribe to the service.



The demo account lets you try Subsonic without installing anything

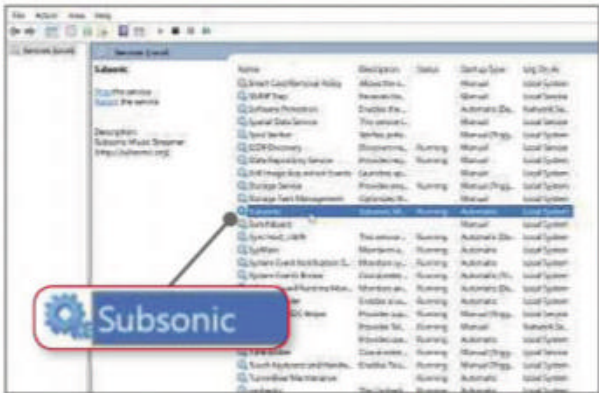
Test drive Subsonic

Subsonic has a demo page you can try before setting up the software for yourself. Just fire up your browser and go to bit.ly/demo464. The demo site is filled with a large number of tracks by artists you probably won't have heard of. You can play a track, find out more about it or view other songs by the same artist. You'll be logged in as 'guest1'.

If you decide you want to install the software yourself, follow our Mini Workshop, below.

Using network drives in Windows

If your music is stored on a mapped network drive – in other words, on another computer or network-attached



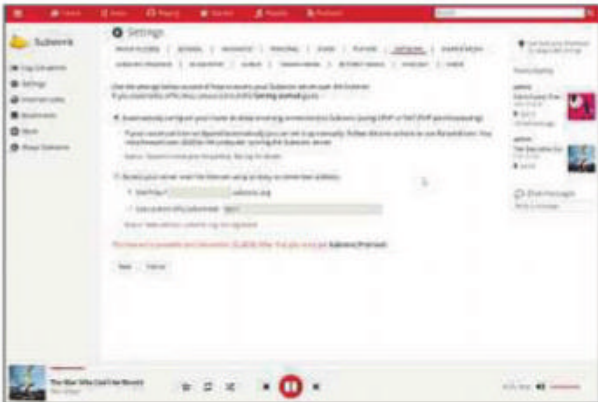
If your music is stored on a mapped network drive, you need to configure Subsonic

storage device – you'll need to take some steps before you can access it. Subsonic runs as a service on Windows and you need to change the settings so it runs as the currently logged-on user rather than the system user. To do this, type

services into the Windows search box and press Enter. Locate the Subsonic service, right-click it and select Properties. Click the Log On tab. Select 'This account' and enter your Windows username and password, then click OK. Right-click the Subsonic service and select Restart.

Make songs accessible over the internet

If you want to stream your music collection over the internet – like a personal version of Spotify – then you'll need to enable this feature. Click the Home button on Subsonic, then click the 'Configure network settings' link. On the screen that opens, tick the option to 'Automatically configure your router to allow incoming connections to Subsonic (using UPnP or NAT-PMP port forwarding)' and click Save. If your router allows this feature to be configured automatically, then you should be good to go. If it doesn't – and not all routers do – then you'll see a 'Failed' message and will need to set up port forwarding manually. You'll find instructions for this on Port Forward (portforward.com).



Go to Network Settings to make your server accessible over the internet

MINI WORKSHOP | Install and configure Subsonic

1 When you run the installer in Windows 10, SmartScreen blocks it. Click 'More info', then 'Run anyway'. Click OK at the prompt and complete the installation. Shortcuts are added to the Start menu that let you stop or start the service. Open your browser and go to <http://localhost:4040>. Click the 'here' link. **1**

2 On the page that opens, click the link to 'Change administrator password'. This lets you secure your server. Tick the 'Change password' box **1** and enter your new password twice. **2** You can also enter your email address **3** but this is optional. Now log in (as 'admin') with the new details.





3 Back on the 'Getting started' page, click the link to 'Set up media' folders. You can change the main Music folder and add additional folders. **1** The program regularly scans for new music, and you can change how often this occurs. **2** Click 'Scan media folders now'. **3** When it's finished, click Save, **4** then Home. **5**

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3		Sky: Broadband Unlimited	£18.00 (£30 after 18 months)	18 months	11Mbps avg. speed	∞ unlimited *	£216.00
4		Virgin Media: Player Bundle + Fibre Broadband + Weekend Calls	£32.00 (£51 after 12 months)	12 months	54Mbps avg. speed	∞ unlimited	£384.00

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* Fair-usage or restriction policy applies.

Data supplied by www.broadbandgenie.co.uk. Correct as of 26 November 2018.

Ofcom

Broadband Genie's helpline is powered by Simplify Digital, the Ofcom-accredited switching service

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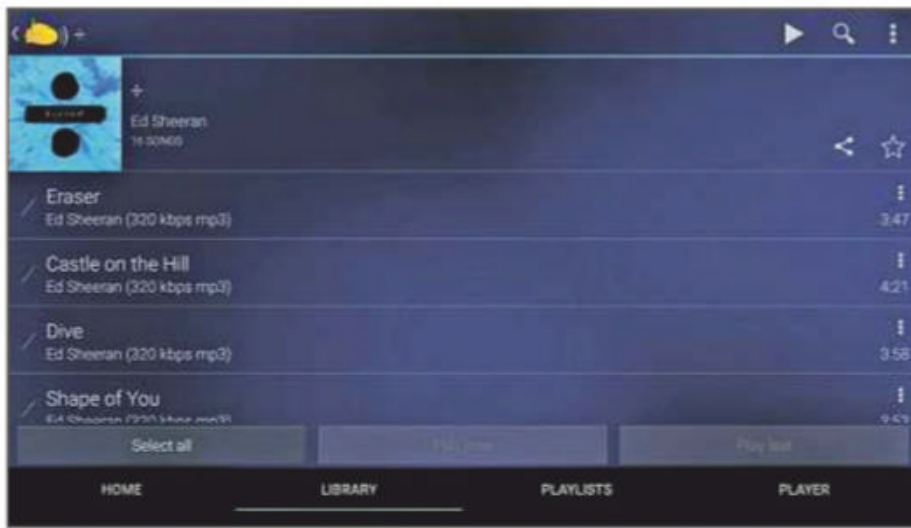
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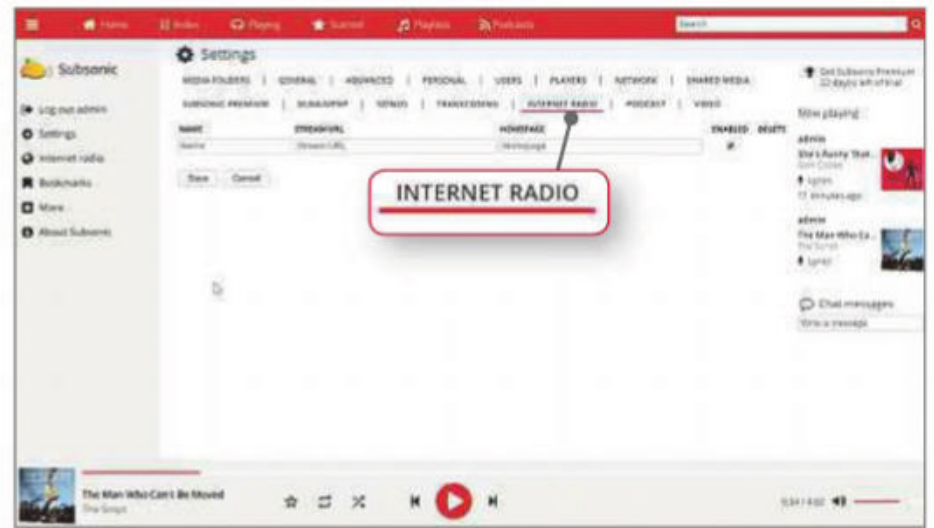
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There's an official free Subsonic app available for Android



Subsonic lets you configure and play internet radio

We've found that even if you see an error message, you might still be able to access your server over a network and the internet, so test it before you do anything too complicated.

The Network Settings screen also provides the option to access your server over the internet with a personalised, easy-to-remember address: **yourname.subsonic.org**. You can create a custom URL for it as well. Customising your server in this way is only possible if you have a Subsonic Premium account, but you can try it using the free Premium trial. If you don't want to upgrade to a paid-for account, you can log into your server remotely using your IP address and the port number. This will be something like: 192.166.0.2:4040. If you're not sure what your IP address is, type `cmd` into the Windows search box and press Enter. In the Command Prompt window, type `ipconfig` and press Enter.

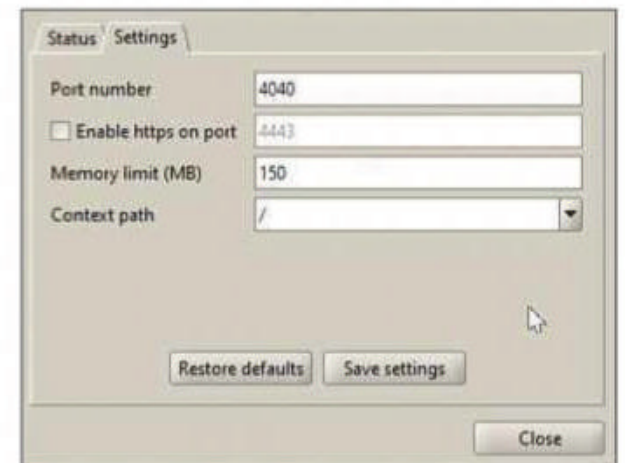
The number you require will be shown next to IPV4 Address.

Stream to your phone

If you have an Android phone, you can install the official Subsonic Music Streamer app (bit.ly/subandroid464) or any of a number of other compatible apps. There's no official Subsonic app for iOS but plenty of compatible choices. Explore the full app list at bit.ly/apps464. You may need to upgrade to a Premium account to continue using this once your free trial expires, but not if you opt to use your mobile device's browser to stream your music.

Change the port and enable HTTPS

By default, Subsonic uses port 4040 because it isn't likely to be blocked. However, you can change this if you wish. Right-click the Subsonic icon in the

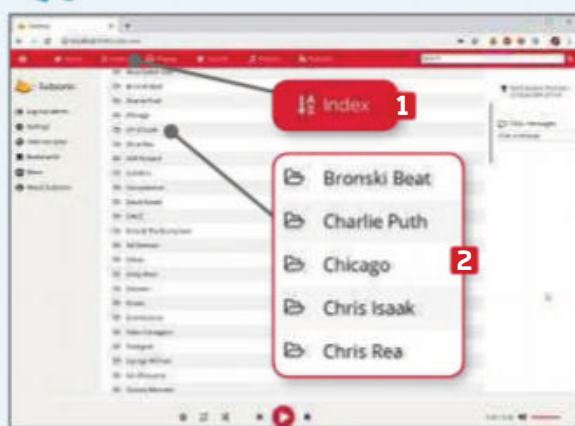


Access Subsonic's Control Panel via the icon in the notification area

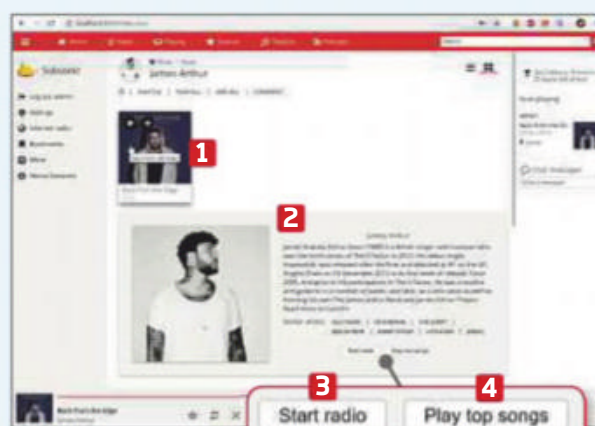
notification area and select Subsonic Control Panel. Click the Settings tab and type in the new port number you want to use, then click 'Save settings'. From here, you can also enable HTTPS and give it a port number (by default, this is 4443). It's worth enabling HTTPS for the added security it delivers. ■



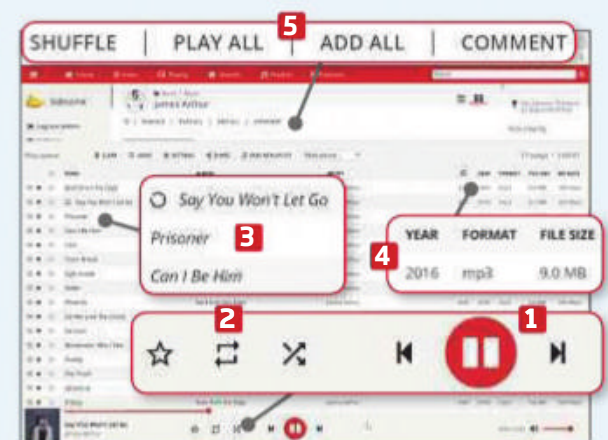
MINI WORKSHOP | Listen to music in Subsonic



1 Under Users on the Settings page, select a user (admin or another) and make sure they have access to your music folder. Next, click Index **1** and click your music folder. You're presented with a list of artists. **2** Subsonic prefers music to be organised in an artist/album/song structure. Click an artist's name.



2 Subsonic shows all the albums you have for that artist or group. **1** Hover over a thumbnail and click the Play button to start playback. Below is a biography on that artist from Last.fm. **2** Clicking 'Start radio' **3** streams songs from similar artists, while 'Play top songs' **4** plays the selected artist's most popular tunes.



3 The bar at the bottom lets you control playback **1** and favourite, repeat or shuffle songs. **2** Hover over the bar to display the play queue, **3** along with details including length, year, format and size. **4** You can manage what music is playing with the links at the top, and add comments. **5**

NEXT ISSUE

How To... Update your PC's BIOS

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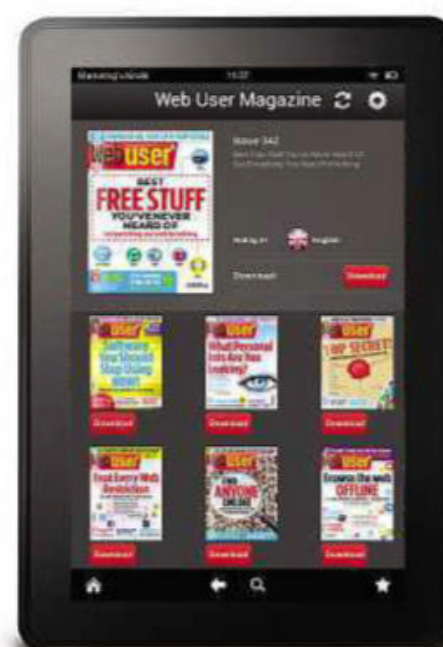
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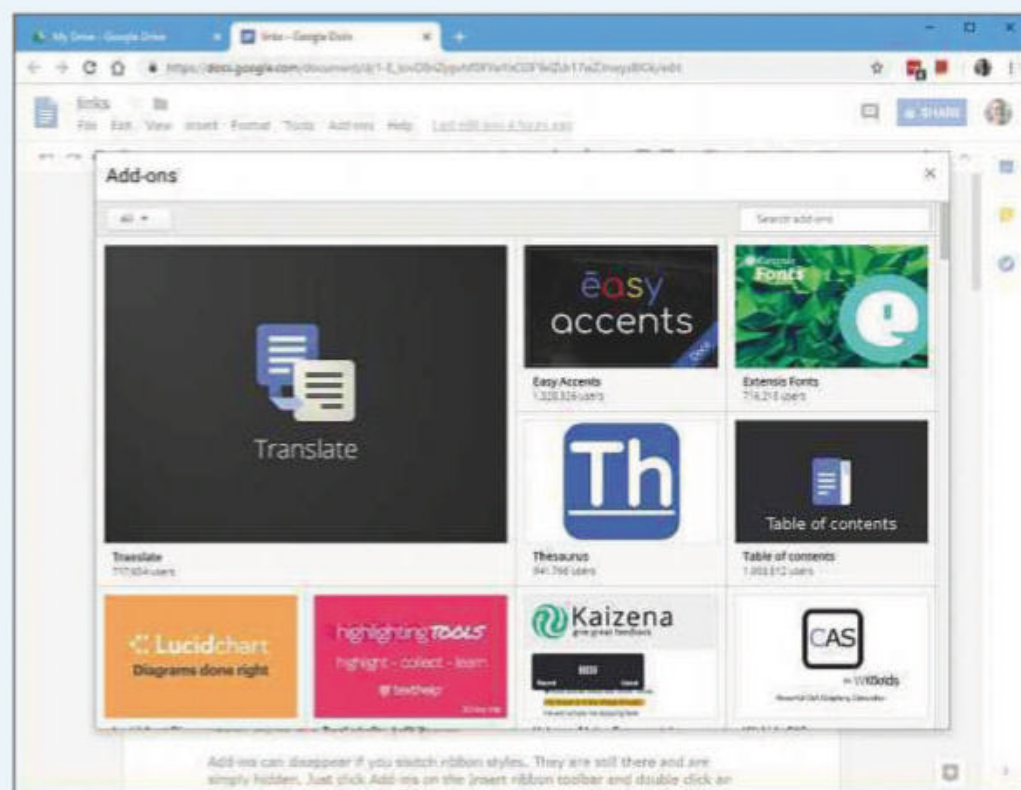
Add extra tools to Microsoft's Office and Google Docs web apps

Use Microsoft add-ins and Google add-ons

The Microsoft Word web app at office.live.com is a great web-based word processor, but one of its best assets is its ability to use add-ins. These add extra tools, features and functions to Word. To browse and install add-ins, open or create a Word document at office.live.com, select the Insert tab and click Add-ins. Click the Store link to see what's available. Some are free, while others require payment.

Google's office web applications at drive.google.com also support add-ons. Open or create a Docs document, then open the Add-ons menu and click 'Get add-ons'. Use the button at the top to select categories. Hover your mouse over an add-on and a +Free button pops up to install it. Sometimes extra features can be unlocked for a price.

Add-ons from Google and add-ins from Microsoft provide extra tools for Docs and Word



Add clip art to documents

Adding pictures is an eye-catching way to add interest to a page of text. There are several online stock-photo libraries, but searching through their images can be tedious and time-consuming. Instead, install the Pexels add-in for the Word web app to access photos from within a document. Open a Word file at office.live.com, select the Insert tab and click Add-ins. Click the Store link, type [pexels](https://pexels.com) into the Search box and press Enter, then click the Add button.

An Open Pexels button appears on Word's Insert toolbar, which opens a panel on the right that lets you search for free photos. Hover your mouse over a photo and a heart button lets you add it as a favourite. Another button opens

the image in a new tab so you can view it in full or download it.

Alternatively, you can ignore these buttons and just click the thumbnail image to instantly insert it into the Word document at the current cursor position. Right-click it after inserting it in the document to access picture-editing tools such as shapes, crops, rotation, resizing and so on.

Pixabay Images is another option that offers free photos for both Word and Google Docs. In Word, click Add-ins in the Insert toolbar, search for Pixabay and click Add to install it. Then click

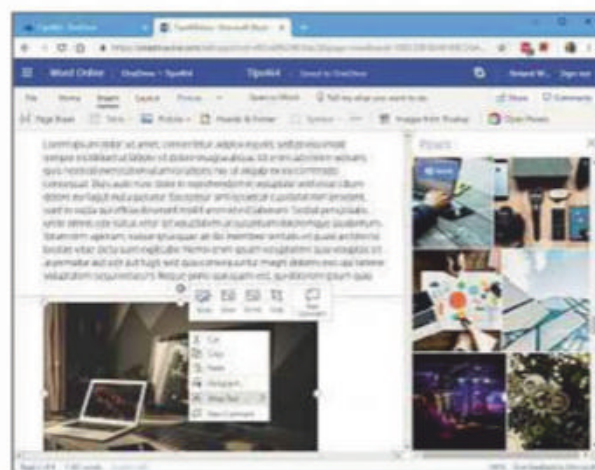
Images from Pixabay in the Insert ribbon, search for any topic and click a photo to insert it in the document.

In Google Docs, go to the Add-ons menu, click 'Get Add-ons' and search for Pixabay, then click the +Free button. You can now access Pixabay from the Add-ons menu to open a search panel on the right. Find an image and double-click it to insert it into the document.

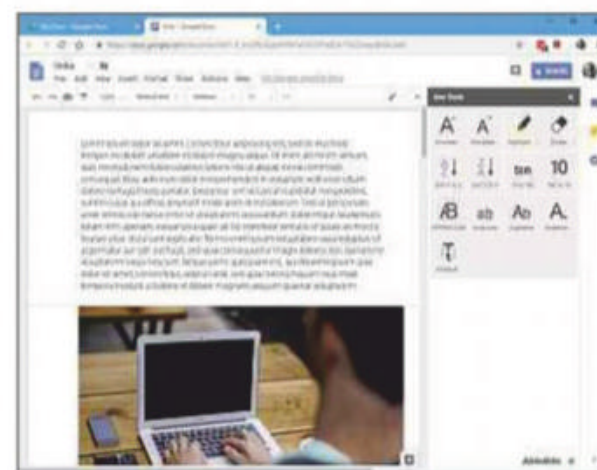
Get a Doc toolkit

Google Docs has lots of useful tools in its add-ons catalogue and Doc Tools

If you see words that look like they've been typed in a typewriter, follow the instructions and type them exactly as they appear, paying close attention to spaces and punctuation.



Add images to Word and Docs documents with the Pexels and Pixabay add-ons



Doc Tools is a collection of simple but useful tools for Google Docs





is one of our favourites. Go to Add-ons, 'Get add-ons' and search for Doc Tools. To use it, go to the Add-ons menu and click Doc Tools. A panel opens on the right containing more than a dozen new functions: increase/decrease text size; highlight text in different colours; erase text; sort or reverse sort a text selection; convert numbers to words or words to numbers; and several capitalisation options. It's a useful additional toolkit that enhances what's already in the app.

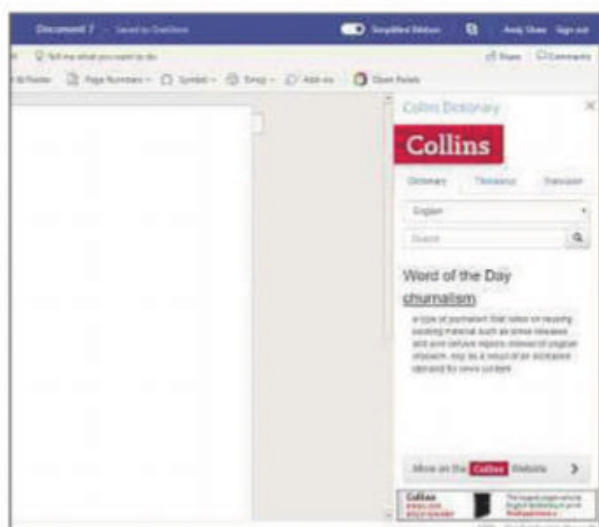
Use Word research tools

When writing reports, ebooks and so on, you will probably need to do some research on your topic. The Wikipedia add-in for Word is great for this. Sure, you can open Wikipedia in a new tab, but the add-in lets you research from within the Word document.

Search the Add-ins store for 'wikipedia' and click the Add button. Click Wikipedia in the Insert toolbar to open the panel on the right and enter a word or phrase into the search box. There are links to show sections, images, tables and other content, and the text of the Wikipedia article is shown by default.

What makes this so useful is that you can click and drag over text in the Wikipedia article and a plus button pops up above it. Click it and the highlighted text is inserted at the current cursor position, in quotes with a proper citation link below that includes the source and a link back to the original article on Wikipedia. It's an incredibly efficient way to quote sources in your document.

Collins Dictionary is another very useful add-in. Word automatically highlights misspelt words, but Collins Dictionary goes much further. Install it and open it in a panel on the right. Double-click a word in a document and the Collins panel on the right shows definitions, derived forms, word origin, synonyms and translations into popular languages, with an option to hear them spoken, and more.



You can add a Collins dictionary to Word Online for free

TAKE IT TO THE NEXT LEVEL

More advanced tips for when you're feeling brave

Uninstall add-ons and add-ins

Installing add-ons and add-ins doesn't install anything on your computer – you won't benefit Windows by removing them because they are only used when writing documents at Word Online or Google Docs. However, if you have a lot of them installed, it could make the web apps slow, and you should be aware that add-ons and add-ins have access to everything you write, so it's a good idea to remove any you don't need.

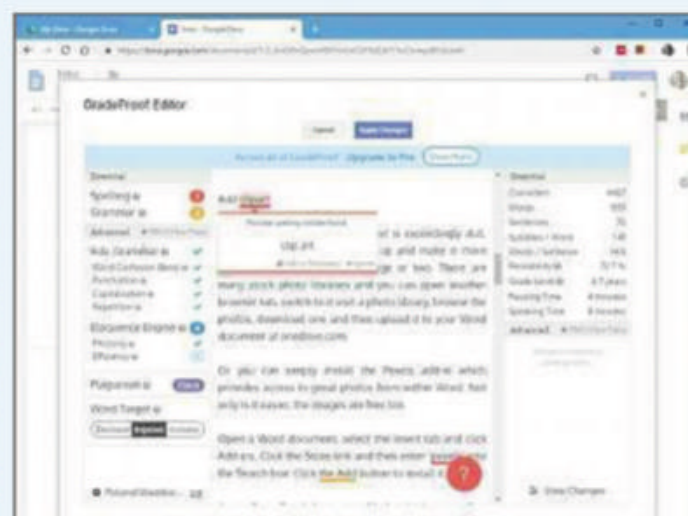
To do this, open a Word document, click Add-ins on the Insert tab and select My Add-ins. Move the mouse over an add-in and click the three-dot menu, then select Remove.

Open a document in Google Drive and show the menu if it is hidden. Click Add-ons, then 'Manage add-ons'. Click the Manage button next to an add-on and select Remove from the menu that's displayed.

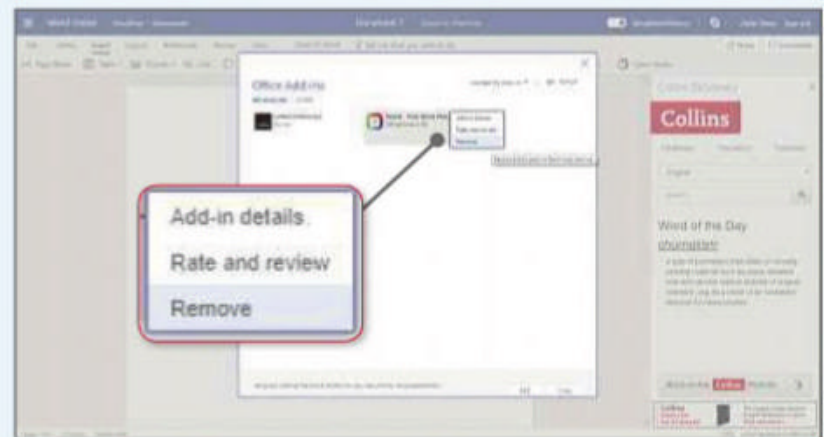
Improve your writing

Once you've completed a document, it's good practice to check the spelling and grammar, and correct any errors. The basic tools built into Microsoft Word and Google Docs will help with this task, but there are add-ons that do a much better job at highlighting problems and suggesting fixes.

Go to Google Drive and open a document, then click the Add-ons menu. Select 'Get add-ons' and search for GradeProof. In Word, click Add-ons in the Insert menu, then click Store and search for GradeProof.



Check your writing with GradeProof for Word Online and Google Docs



To uninstall a Microsoft add-in, click its menu icon and choose Remove

Install it and select it from the menu or ribbon.

GradeProof opens a panel that shows writing statistics such as readability and grade level, and provides a section with potential improvements. Click View Suggestions. You have to create a free account the first time you use it – ignore any paid-for plans (unless you want one). Your document is then displayed with spelling and grammar suggestions. Click the coloured numbers to highlight problems and see suggested fixes.

For alternatives to GradeProof, use WritingAssistant for the Word web app and ProWritingAid for Google Docs. Both are well worth trying.

Goodbye to the ribbon

A decade ago, Microsoft abandoned its standard drop-down menus in Microsoft Office apps and introduced the ribbon toolbar. Controversy has raged ever since – people either love it or hate it – and now the company has introduced a new type of ribbon.

Go to office.live.com and open or create a Word document. In the blue bar at the top, there is a switch that

lets you choose between the old ribbon and the new simplified ribbon. Try both to see which one you prefer.

Word add-ins disappear when you switch ribbon styles – don't worry, they are still there but are just hidden. Click Add-ins on the Insert ribbon toolbar and double-click an add-in to either add it to the ribbon or open it as a panel on the right. If your screen display is wide enough, you can open two add-ins as panels.

Ask the Expert

Roland Waddilove, computer programmer and PC journalist since 1981, answers all your technical questions. Email us for help at webuser@dennis.co.uk



GENERAL PC

Enhance a File History backup

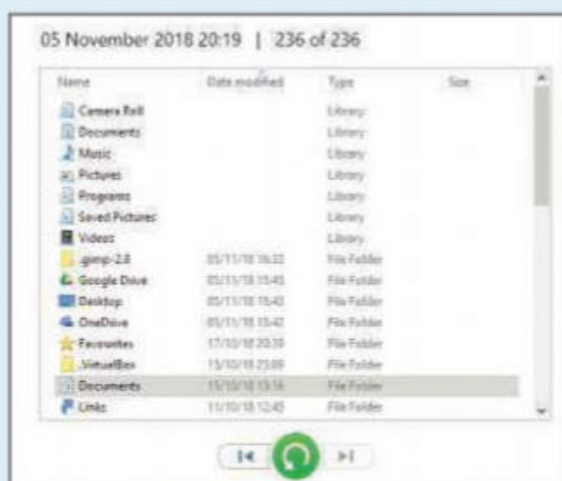
Q I have File History enabled on my PC, to make backups of all my files on an external USB drive. If there's a problem with my PC – for example, if I have to replace the hard drive or reinstall Windows – will I be able to restore everything from the backup?

Kevin Morgan, via email

A File History is useful but it has limitations. It makes copies of the files in C:\Users\YourName on an external drive. If one or more files or folders are lost or corrupted, they can be restored from the USB drive.

To do this, open the Windows 10 Settings app and type **file history** in the search box. Click 'Restore your files with File History' in the search suggestions and the restore tool opens. Browse the folders, files and dates, select what you need and click the large green restore button.

Sometimes the File History backup is not recognised after reinstalling Windows. However, the files and



File History is useful for restoring lost files, but not an entire drive

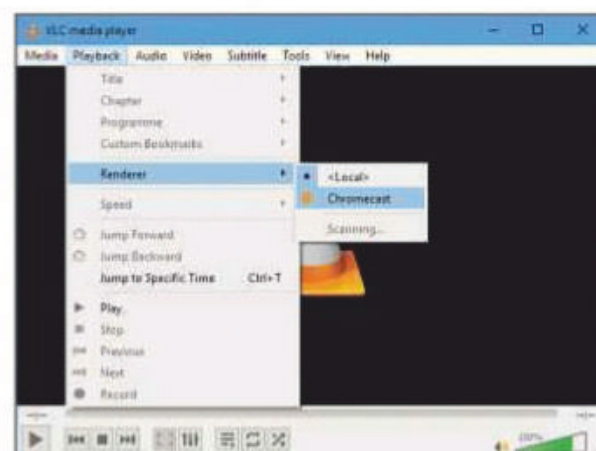
folders on the USB drive can be browsed with Explorer and manually dragged back to the internal hard drive to restore them.

File History requires a working PC, so it can't be used to restore an entire hard drive. This requires a different type of backup tool – one that creates an image of the whole drive. AOMEI Backupper (www.backup-utility.com) and EaseUS Todo Backup Free (www.easeus.com) are two examples.

It's best to go for a belt-and-braces approach and have a full drive-image backup as well as File History, so all types of disaster are covered.

Chromecast than a NAS drive.

Some PC applications now support Chromecast and the latest version of VLC media player (www.videolan.org) has an option on the Playback menu to output video to a Chromecast plugged into a TV. If your PC has sufficient hard-drive space for your media files, you could use VLC to stream video to the TV. If not, transfer all your media files to a large external hard-drive and plug that into your PC. VLC supports nearly all file formats and is well known for being able to play almost anything.



Send videos to a TV from your PC using VLC media player

GENERAL PC

Fix a Windows PC that won't update

Q I have two laptops: one has updated to Windows 10 version 1809 but the other one failed and is still on version 1803. In 'View update history', all the updates that were on the 1803 laptop have gone and the list is empty.

Robert Cull, via email

A Windows Update sometimes causes problems and often there's no obvious cause. There are a number of ways you can try to fix the problem.

Right-click the Start button and select the Admin version of either Command Prompt or Windows PowerShell. In the window, type the following, pressing Enter after each line:

```
sfc /scannow
DISM.exe /Online /Cleanup-image /scanhealth
DISM.exe /Online /Cleanup-image /Restorehealth
```

VIDEO

Stream video files to TV

Q I need a NAS (Network Attached Storage) server to replace my old Iomega Screen Play Director HD Media Player and very old Iomega Screenplay Pro. These devices were directly linked to my AV receiver, so I could play compressed MKV and MP4 video files straight to the TV with the supplied remote. I could also play the DVDs I'd ripped as ISO files, which retained all the menus and hidden extras. I'd like to go on to rip my Blu-ray collection.

I've been recommended a Synology drive (www.synology.com) and told to use software like Plex (www.plex.tv) to stream from it. Is that the best option?

I have a Samsung TV and a Samsung Blu-ray player, both of which are 'smart'

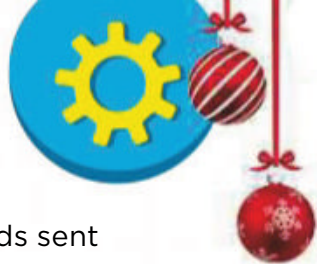
and connect to the network. I currently use an old Kodi box to play the media files with newer codes that my old Iomega device couldn't handle.

Andy C, via email

A Synology makes excellent NAS drives that will do what you want, but they aren't cheap. Check prices with and without hard drives installed – you may be able to source and fit your own drives to keep the cost down.

A less expensive alternative is to plug a £30 Chromecast dongle (bit.ly/cc464) into the TV. Phone and tablet apps can send video output to a Chromecast and anything that appears in the Chrome browser on a PC can be sent to the TV by clicking Cast on the menu. It's certainly much easier to set up a





Each command can take several minutes to complete, so be patient. Afterwards, open the Control Panel, click Troubleshooting, then 'View all' and run Background Intelligent Transfer Service, Internet Connections and Windows Update. Return to the Command Prompt (or PowerShell) and delete any existing updates by typing the following commands, pressing Enter after each line:

```
net stop wuauserv
net stop bits
rename c:\windows\
SoftwareDistribution
SoftwareDistribution.bak
net start wuauserv
net start bits
```

Hopefully, this will fix the problem. It's worth noting that sometimes an update that doesn't work is modified by Microsoft in response to user feedback. For example, it pulled the initial October update due to a problem, then fixed and re-released it. You may just have to wait a while and try again.

BROWSERS

Solve memory overload

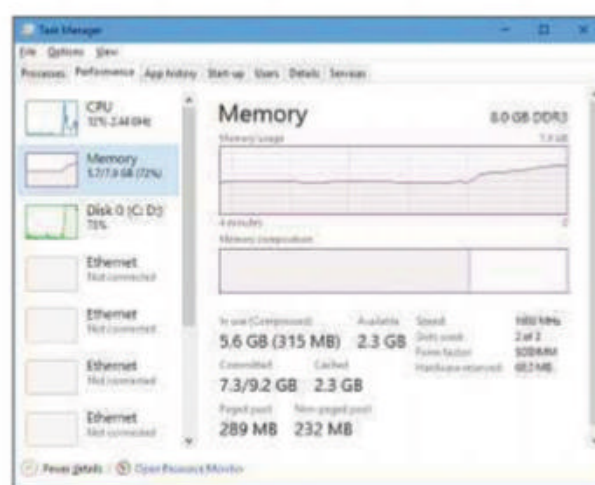
Q I have been having problems with Windows – sometimes, when browsing websites, it slows down so much it almost stops. If I leave it for several minutes, it starts working again and I can switch tabs or go to a new site, but for long periods it does nothing. I'm using Chrome on Windows 10. Is this a plot to make people use Edge?

Chris Dawson, via email

A This could be a problem with your PC's memory – either a fault with existing memory or simply that you don't have enough for all the open web pages. A computer with only 4GB of memory can be overloaded by a couple of applications and a dozen browser tabs. In this case, Edge will suffer the same problems as Chrome.

When its RAM memory is full, Windows makes space by writing it to the hard drive, which can make the computer slow to a crawl or even freeze it entirely. Run the Task Manager (Shift+Ctrl+Esc) to see how much memory is used. Anything over 90% usage is likely to be a problem.

The best solution is to upgrade your PC's memory to 8GB. This requires opening it up, so you may need expert help, but it's a fairly straightforward DIY task on most computers. There are lots of PC upgrade guides online – just search YouTube for 'xyz memory



Use Task Manager to see your PC's memory usage and type of memory used

upgrade', where 'xyz' is the model of your PC.

Your PC manufacturer's website should have details of compatible memory modules. You can also try Crucial's website (uk.crucial.com), which scans your PC to find the correct memory upgrades. Open Task Manager, select the Performance tab, then click memory on the left – the modules used are displayed on the right. Once you know what type you need, shop around for the best deals.

EMAIL

Find emails in an empty inbox

Q I have a problem with Outlook 2016 on Windows 8.1. My incoming emails are not appearing in my inbox. It's fine

for sending emails, and records sent emails in the Sent box of that address. There's also no problem when I use a different email address with Outlook.

Mike Sargent, via email

A It sounds like the email account is set up correctly because you are able to send emails and the messages appear in the Sent box. However, it's still worth checking the email configuration for that account. Go to File, Account Settings, Account Settings. The email server for incoming messages often uses a different URL to the one for sending messages. Is it correct?

The most likely cause of the empty inbox is that a default filter has been applied to the view. It could be set to show only emails containing a certain keyword or from a specific sender, for example. If there are no emails matching this filter, the inbox will appear to be empty. Perhaps you've previously searched for emails to delete and the filter you used is still in place.

Go to the ribbon toolbar and select the View tab. In the Current View area, click View Settings. Click Filter and check each tab for anything that might be filtering out inbox messages. Remove the filters.

Clicking the Reset View button might also fix the problem.

MAC OS

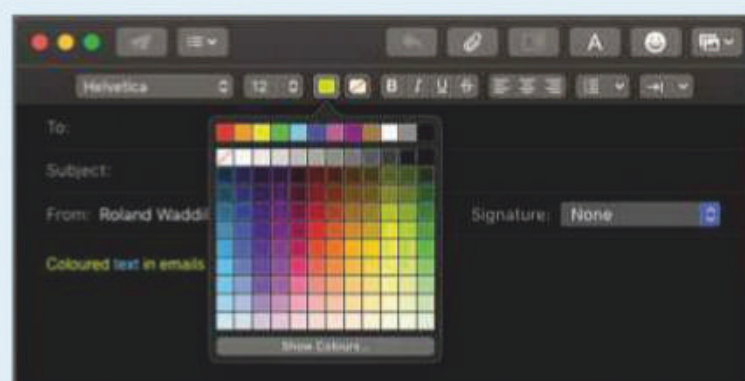
Make emails more colourful

Q I use an Apple Mac and would like to make my emails more colourful. Is there any way of doing this?

Brian Todd, via email

A Are you are using the Mail app? This has formatting tools that enable fonts, styles and colours to be selected. When writing an email, there are two colour buttons in the toolbar – just to the right of the font selector – that display a colour palette. One is for the text and the other is the background colour.

If you're having problems selecting colours, then the default message format might be set to plain text, which doesn't allow formatting. Go to the Mail menu and select Preferences.



Colour can only be used in rich-text email messages, not plain text

Go to the Composing tab and select Rich Text next to Message Format.

If you are using Gmail, go to the compose window and click the 'A' in the toolbar at the bottom, then click the 'A' in the formatting toolbar that appears. There are two colour palettes for text – one for the foreground and one for the background.

Outlook Email provides a similar tool: when writing an email, click the red underlined 'A' to set the colour of the text.



This fortnight Roland has set up a new laptop with a partitioned hard drive, a fresh OS, online syncing and more

Your Top Tips

Our pick of the best advice from our readers. Please send questions and answers to webuser@dennis.co.uk

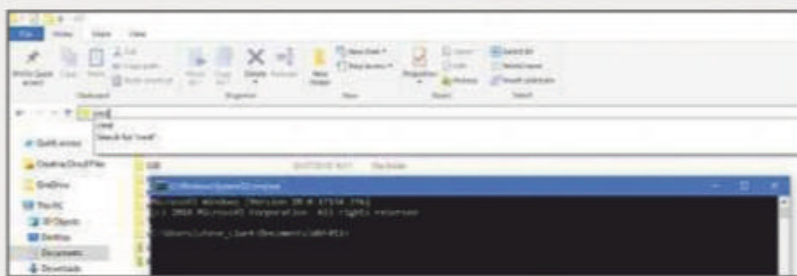


TOP TIP

GENERAL PC

Open Command Prompt in File Explorer

Remember when holding Shift and right-clicking items in a folder let you 'Open Command window here'? I tried this the other day, only to find Windows 10 now forces you to use PowerShell. However, I found a way to use Command Prompt again: open your desired folder, click the folder icon in the location bar and type `cmd`. Press Enter and the Command Prompt



Run Command Prompts from a specific file location

window opens in that location.

Mind you, if you need CMD with admin rights, you'll need to go the long way round.

Michael Barber, via email

Back Issues disc winner



BROWSERS

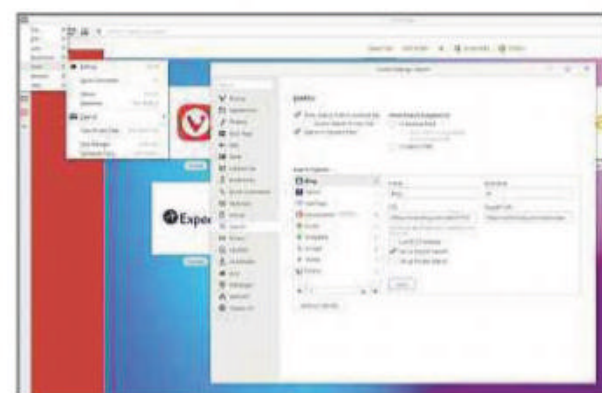
Tweak Vivaldi search options

In Vivaldi (vivaldi.com), go to Settings, then Search to set your default search engine, add new ones and change their order. I have 'Show Search Field in Address Bar' ticked so I get a separate search box with a drop-down arrow showing a list of available search engines.

If you have 'Search in Address Field' ticked, searches will normally be carried out using your default search engine. If you want to use one of the other search engines, you need to type its 'nickname' followed by a space, then whatever search terms you're using. For example, if you search for 'purple boots' using Qwant, you type `q purple boots` and press Enter. Nicknames are usually the initial letter of the search engine and are listed in Settings, Search.

You can have both 'Search in Address Field' and 'Show Search Field in Address Bar' ticked, but the former requires you to use the 'nickname+space' method when searching with any non-default search engine. There are options in Settings, Search for Search Suggestions, which you can also enable.

Madeline S, via email



Vivaldi's Search settings let you choose how you search online

BROWSERS

Customise Google's menu

I mostly use my browser for search, so Google is the natural choice for my homepage, and it's also useful for getting instant access to Google's other tools.

BROWSERS

Block Chrome pop-ups



Stop every pop-up with this strict browser tool

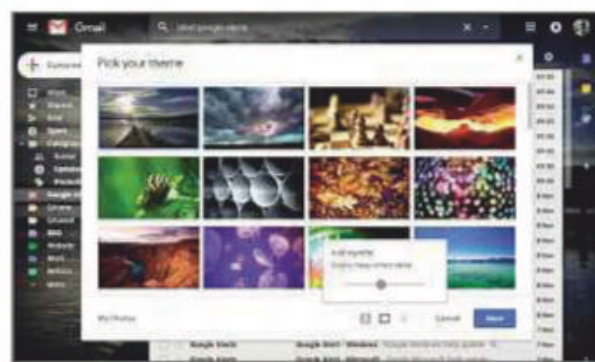
'Popup Blocker (strict)' (bit.ly/popup464) is a lightweight Chrome add-on that's available from the Chrome Web Store. As the name indicates, it's strict, which means it warns

you of pop-ups on sites before you are aware of them. If you're given a warning for a pop-up you don't want blocked, just select 'trust' to overrule the block.

FratPark, via email

Images are automatically organised into albums, so click an album thumbnail and select a photo. There are three special-effects buttons at the bottom of the theme window: text background colour, vignette and blur. Click them to open a panel with controls to adjust the strength of the effects and make Gmail backgrounds more interesting.

Harry Bass, via email



Select one of your own photos for Gmail and add image effects such as 'vignette'

EMAIL

Customise Gmail backgrounds

It's hard to make your email inbox look exciting, but you can liven things up by using one of your own photos in the background. In Gmail, click the cog icon and select Themes. Ignore the theme thumbnails and click My Photos at the bottom. You need to be using Google Photos for this to work – the app is free, stores unlimited photos (up to a reasonable size) and is great for storing photos taken on your phone.

GENERAL PC

Stop Windows watching you

I found an odd setting in Windows 10. Open the Settings app (Windows+i) and open the Privacy section. Select 'Activity history' on the left and, on the right, you'll see 'Store my activity history on this device'. Clear the box unless you can think of a good reason to keep it!

Barry Holmes, via email



Click the icon that looks like a grid of little squares in the top-right corner of the page to open a panel of icons for Google sites, such as Photos, YouTube, News, Gmail and so on. You can click and drag the icons to change the order, putting your favourites at the top. As you do this, the panel expands to show more icons, which can also be dragged around.

Clicking the '+' button to open a new tab opens a different default page with the same icon at the top. While it looks the same, it's different to the one on the search page, so you'll need to customise this one to move your personal favourites to the top, too.

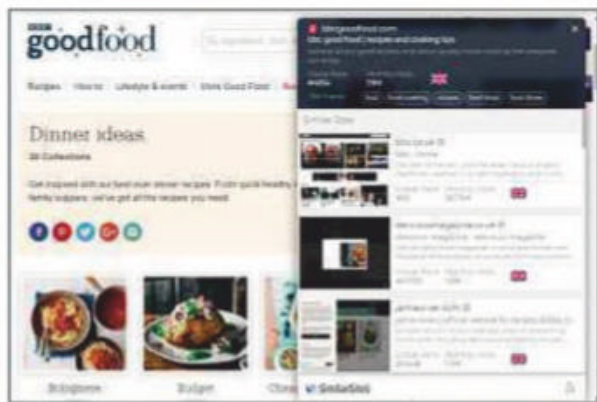
David Hart, via email

BROWSERS

Find similar websites

Search engines are great at finding specific items online, but they're not so good at finding things that are similar to one another, such as if you have a favourite site and want to find others that are like it or cover a similar topic. For this, I use a Chrome add-on called Similar Sites (bit.ly/sims464). It adds a button to the Chrome toolbar which, when clicked, shows a panel containing a list of similar websites to the one you're currently browsing.

Evan Wedge, via email



The Similar Sites add-on finds websites similar to the one you're currently viewing

BROWSERS

Add vertical and horizontal spaces between bookmarks

Is anyone else's bookmarks bar or folder looking a little cluttered of late? Then you'll appreciate both bit.ly/verti464 and bit.ly/hori464. Visit these sites and you're instructed to drag and drop the 'me' button into position (use vertical for the bar and horizontal for the folder). It instantly creates a divider that separates your numerous bookmarks.

Ed Arbogast, via email

SOFTWARE

Convert audio to text for free

I enjoyed your recent coverage of speech-recognition software (Issue 457, bit.ly/webuser457). However, using the tools for pre-recorded audio doesn't



Get text transcripts of your recordings

always give the best results. After hunting around, I stumbled upon the free Ofoc to audio-to-text converter (bit.ly/ofoc464). Just upload your mp3 – there's also support for WAV, WMA and OGG – and choose a speech-recognition service. Once complete, the tool spits out a text file of the audio.

Matt Bartlett, via email

GENERAL PC

Rename your PC's network

If you want to change your network's name on your PC, without renaming it for others, I've found two ways to do this. Unfortunately, they only work in Windows 10 Pro and not the Home edition. The first involves tweaking the Local Security Policy: press Windows+R, type `secpol.msc` and press Enter. On the sidebar, you'll see Network List Manager Properties. Click this and double-click your network. In the resulting pop-up, go to the Name section and tick the Name box (it's most likely set to 'Not configured'). Type your name,

then click Apply and OK.

To use the Registry, press Windows+R, type `regedit` and press Enter. Go to: `HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\NetworkList\Profiles`

Look for your specific network in the subfolders of the Profile folder. Once located, double-click 'ProfileName'. In 'Value data', give your network its new name. Save and restart your computer to complete the change.

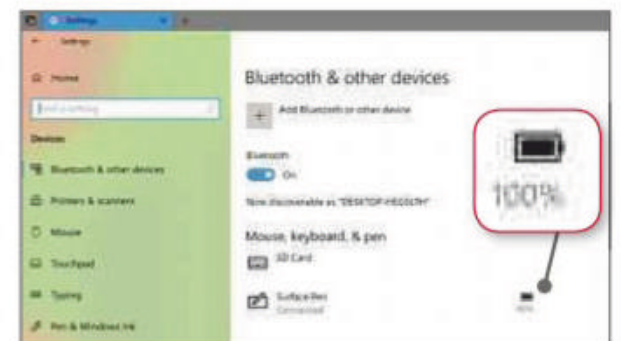
Sheila Walters, via email

GENERAL PC

Check Bluetooth battery life

Want to know the battery levels of your Bluetooth devices and peripherals without opening device-specific programs? In Windows 10, open the Settings menu (Windows+i), go to Devices, then 'Bluetooth & other devices' and scroll down until you find your Bluetooth-connected device. The exact battery level is displayed next to it.

Christopher Hinton, via email



Windows 10 lets you quickly check your Bluetooth battery levels

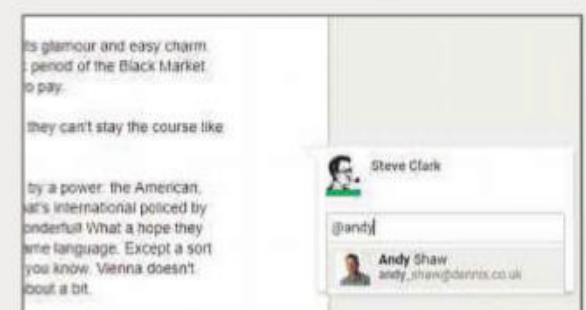
BLUNDER OF THE FORTNIGHT

OFFICE

Tag colleagues when you share Docs

Collaborating in Google Docs is a godsend in my line of work and I prefer it to Microsoft's shared documents because it seems to sync much quicker. However, when a lot of people are working on a single document, it can be difficult to keep track of all the changes and work out who's taking ownership over certain elements of the project. This has led, on more than one occasion, to people overwriting or disregarding sections they aren't aware they need to look at.

It was when we nearly lost a client that a colleague pointed out that you can tag people in comment boxes using an '@' or '+' symbol – in a similar way to Facebook and Twitter. By



Google Docs' tagging keeps everyone in the loop

default, the tagging tool uses your Google contacts, but if you need to add a new colleague, type their email address in the box to share. Doing so notifies them by email, so there's no excuse for missing anything.

Allen Hayworth, via email

Have you managed to fix a PC-related disaster?
If so, please send your story to webuser@dennis.co.uk



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Readers' Helpdesk

Can you help your fellow readers with their computer problems? Send your questions and answers to webuser@dennis.co.uk

GENERAL PC

Find missing defaults

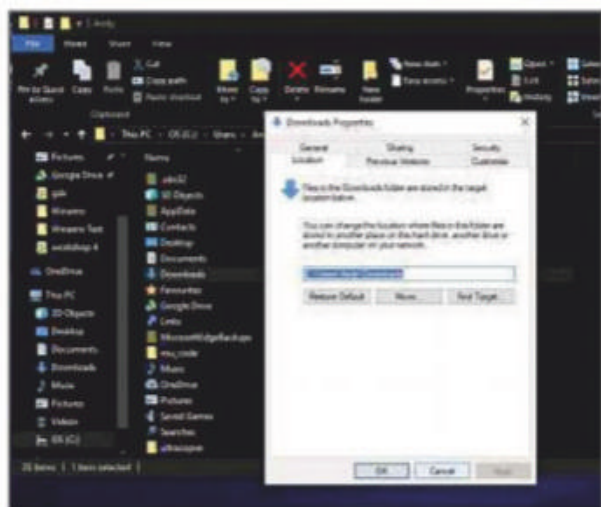
Q Last week, I attempted to download the free version of Malwarebytes but it failed. When I tried a second time, my PC displayed an error message that read: "Location not available. C:\users\bonker11\Download is unavailable on this PC. Make sure that the device or driver is connected or the disc is inserted."

My submenu contains all the correct headings – Pictures, Download, Music and so on – but the Download folder is empty and displays the above message.

David H, via email

A It's possible that the folder has been corrupted, so restoring it may solve the problem. Restart Windows and log in as an admin. Then go to C:\Users, find your username and click to open it. Right-click the Downloads folder and choose Properties. Select the Location tab and click Restore Default. Finally, restart your PC.

Andy Shaw, Technical and Reviews Editor, Web User



Restore your key folders to their default locations if Windows can't find them

GENERAL PC

Restore missing notifications

Q I've just noticed that I'm not receiving any notifications and probably haven't been since I installed the October Update. How can I get them back?

Harry Gibbons, via email

READERS RESPOND

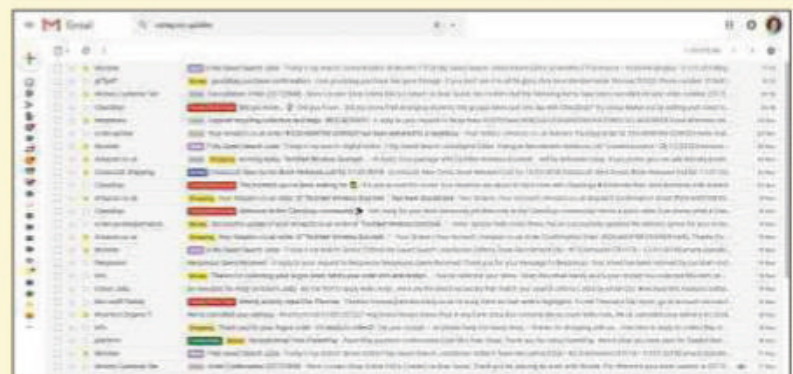
Embrace the new Gmail

A In Issue 461 (bit.ly/webuser461), a reader gave advice on how to load a basic HTML view to make the redesigned Gmail look more like the old version.

I didn't like the new look

at first either, but there are lots of tweaks you can apply to improve it.

First, try clicking the Settings cog, then 'Display density' and choosing either Comfortable or Compact. This removes the attachment icons and makes everything more uniform. Compact is a tad too small for me, but you may prefer it. I've also compressed



You can customise Gmail's new interface in lots of ways

the folders so they're just icons – simply click the menu button in the top-left corner. Once you've learned what the icons mean and have colour-coded your folders, you'll be left with an interface that's devoted more or less entirely to email messages – that's hard to grumble about!

Richard Hanson, via email

CAN YOU HELP?

webuser@dennis.co.uk

Following the closure of our forums, you can now seek help or suggest solutions to other readers' problems by emailing webuser@dennis.co.uk or via www.facebook.com/webusermagazine or twitter.com/webusermagazine.

HARDWARE

Q The USB port on my HP Pavilion laptop stopped working after I tried and failed to install an external Blu-ray player. It recognises some of my USB devices (including a Wi-Fi dongle and a 32GB memory stick) but not others. My USB hub's power light doesn't come on, either.

I've tried performing a System Restore and updating the drivers, but neither has fixed the problem.

Philip AJ May, via Facebook

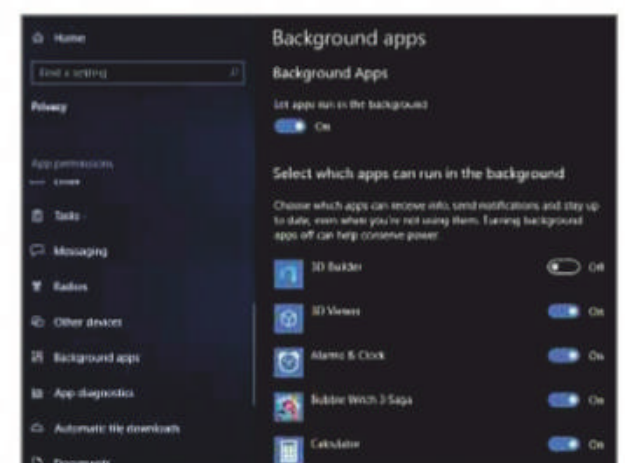
HARDWARE

Q Does anyone have a cure for 'delayed action' typing?

John Hewett, via Facebook

A The solution isn't obvious, but many people have found that they simply have to reset the 'Background apps' switch in the Windows 10 Settings app. Open the app (Windows+i) and click Privacy, then scroll down to 'Background apps' on the left and click it. Make sure the 'Let apps run in the background' switch is On. If you change the setting, you need to reboot your computer for it to take effect.

Andy Shaw, Technical and Reviews Editor, Web User



If Windows 10's notifications don't work, check that 'Background apps' is turned on

Star Email

More mistakes you must never make online

I was interested to read your article in Issue 462 (bit.ly/webuser462) about the things you must never do online, though I would never do anything as foolish as forget to cancel a free trial (except that one time with Experian) or accidentally sign up for a mailing list or 10 (thank heavens for GDPR cutting them off!).

Anyway, I thought you might like to hear my own nuggets of wisdom about things you should avoid doing on the web, as learned and observed from my own experience.

- Never buy something from eBay that appears to be a bargain, but is actually being sent from China. Not only will you have to pay a hefty delivery fee, but the item may never turn up, and

when you try to contact the 'seller', you may find their account has been mysteriously closed.

- Never accept friend requests on Facebook from exotic-looking women you think you might have met once, only to discover that they don't actually exist and are actually a bot that posts spam messages all over your wall and tries to pull the same scam on your friends.

- Never have a Yahoo email address when everyone else has sensibly moved to Gmail and Outlook. You may find



your messages frequently end up in people's Spam folders and remain unread.

- Never give your real phone number when signing up with a website or filling in an online form unless you really have to. You're leaving your number open to endless calls about you being in a fictitious accident.

- Finally, never believe a Ryanair promotion about flights being a tenner. Once you actually try to book them, you'll quickly discover they're at least 10 times that amount.

Mark Ridgeway, via email

The BBC isn't worth the licence fee

I have to agree with Barry's column in Issue 462, 'Don't give the BBC box seats for streaming'. I now watch less than five



hours of TV a day in general. Channels showing weekday afternoon garbage on Saturdays is all wrong, the only thing new on Channel 4 the other day was rugby, which I don't watch anyway, and the BBC has no proper entertainment at all.

The only decent programme is *Beck* on BBC Four (pictured). We watch less than eight hours a week on the BBC but we still have to pay the licence fee.

The other options are little better. I turn to Amazon Prime Video in despair some nights. If Netflix cost less, I might go for that - but losing the licence fee would help. The BBC should be split up and privatised.

Martin Fletcher, Thorpe Hesley

So long, Web User Forums

I am very sad to see that the Web User Forums have been closed, though I can

understand why - only a half a dozen or so of us seemed to use it on a regular basis, and no forum can exist on such low numbers.

I know I had a reputation(!) for my criticisms of Windows 10, which I still stand by, but I enjoyed reading the posts, and getting or giving help where necessary.



Best wishes to all contributors over the years, and I hope the magazine continues the good work of the forum members, and goes from strength to strength.

Roy5051UK, via email

Remember your passwords with a song

It seems that in every issue of *Web User*, you tell us to choose strong and hard-to-guess passwords for our online accounts

Quiz Answers: Issue 463

- | | | | | |
|---|------------------|--|--|--|
| 1 | Neil Armstrong | | | |
| 2 | Mao Tse Tung | | | |
| 3 | Isaac Newton | | | |
| 4 | Marie Antoinette | | | |
| 5 | Rosa Parks | | | |
| 6 | Socrates | | | |

WINNER!

Well done to **Alison Ritchie** who wins a Web User Back Issues Disc



TECH YEAR

2000





– or at least the experts on your Stay Safe Online page do. However, lots of people still use obvious ones like the name of their cat or the football team they support. I've found this out from speaking to friends and family (who were also careless enough to tell me their passwords in the first place!

My solution is to use the lyrics of a song to create the password, or at least the first letters in words from the opening lines). For example, "Yesterday, all my troubles seemed so far away" becomes "yamtsffa". To make things more secure, you can capitalise the letters representing nouns: "YamTssfa". And to be even safer, swap letters for numbers and symbols that look like them: "Y@mT55f@".

I think this is a great system that makes passwords easy to remember but difficult for hackers to guess. Obviously, I don't use the above example (although maybe Paul McCartney does) but it shouldn't be difficult for readers to come up with something similar of their own.

Colin Pursley, via email

Bring faster mobile speeds to rural areas

I had to laugh when I read your news story in Issue 465 about how 5G could replace home broadband. Where I live in Wales, we're lucky to get any mobile signal at all, so I can't see how mobile internet is going to provide a fast enough connection for browsing the web and streaming films at home, let alone powering my Wi-Fi network.

Perhaps all these urban trendies who boast about their mega-fast internet speeds should bear in mind that those of us who live in rural areas aren't as lucky. And perhaps mobile networks should focus on expanding and improving their coverage in the countryside, rather than catering

exclusively to city dwellers and those who already have fast and reliable connections.

Emlyn Rhys-Davies, Montgomery



What you say...

WHAT TECH DO YOU HAVE ON YOUR CHRISTMAS LIST THIS YEAR?

A dot-matrix printer and a 250MB hard drive. Oh wait, that was 25 years ago. Nah, I want a Huawei MediaPad M5 tablet and a Google Hub.

Daniel Roe

A smart home that is truly smart and doesn't rely on a Wi-Fi signal from your broadband.

Dean Stockton

An Amazon Echo Dot. I'll probably connect it to my DAB radio to listen to online radio, instead of my phone's Bluetooth.

Martin Phillip

A book that tells me how to work the technology that's coming out so quickly that by the time I learn how to use it, newer versions have come out and I have to start again.

Barry Toomey

FACEBOOK IS PAYING £4.5M TO FUND THE TRAINING OF REPORTERS AT UK LOCAL NEWSPAPERS (bit.ly/local464). WILL THIS HELP PAPERS SURVIVE?

No. I think local newspapers are doomed given the state of ours in Rossendale, Lancashire. I still read it, but the news comes faster online in local groups.

Roger Woods

The whole idea of a newspaper is dying. As with the high street, the internet is killing the 'radio star'.

Gareth Jones @wiganstar

We used to have two free newspapers delivered weekly in Nottingham. They

were very good for local businesses and neighbourhood news.

Brian Brown

My worry is that local blogs I follow run by freelance journalists might go to the wall if Facebook follows through on this.

Nat Grove

SLOW BROADBAND IS PUTTING PEOPLE OFF MOVING TO THE COUNTRYSIDE (bit.ly/moving464). WOULD IT DETER YOU?

In a word: yes. The bit of countryside I live in has fibre, so I'm quite lucky in that respect. I get around 50Mbps.

Lee Dodgson

I live in the countryside and my broadband is actually faster than the nearest town. I get 38Mbps.

Deafinitely Moi @Gary_Olsen

Going back to dial-up speeds is off-putting. People should have at least 10Mbps everywhere. I get 37Mbps with Sky, but they're increasing it to 60Mbps for free.

Cunningham Hutchison @MrChutchy

WOULD CUTTING YOUR SOCIAL-MEDIA USE MAKE YOU HAPPIER (AS SOME EXPERTS CLAIM bit.ly/socialmedia464)?

Yes and it does. Sometimes you need to have a break. If people need me, they have my mobile number and can also use WhatsApp, Facebook Messenger or email.

Gavin Green

No, because I use it to get all my news and sport and it saves me having to use lots of different sites.

Paul Emsley

I use Facebook to keep in touch with people I don't get to see often enough and to build a carefully curated news feed. I'm happy enough!

Caroline Chapman @cornfedmind

! Page 404

Facebook and Google killed journalism – they can't be the ones to save it, says **Barry Collins**



Searching for the saviour of journalism

Facebook has dropped off what appears to be a Christmas present for my industry. It's donating £4.5m to the National Council for the Training of Journalists, a gift it claims will eventually result in 80 new journalists destined to serve regional news publishers. Please sir, can we have some more?

There's a bitter irony about Facebook funding journalism. In fact, there's only one company I can think of that has done more to undermine journalism in the first place – and I'm going to come to Google in a minute.

Facebook is, of course, the transmission medium of choice for fake news. Write any fact-free, politically motivated hatchet job; present your website as a legitimate news source; pay Facebook to target the audience most likely to believe your septic spin; declare yourself the 45th President of the United States of America. That's basically the Trump campaign in a nutshell. I don't recall Facebook being that bothered about "supporting

high-quality journalism" while it was banking £33m on Facebook ads from the Trump campaign in 2016. It even sent staff to work in his office.

And while some might see the £4.5m as making amends, it's questionable if there will even be enough regional publishers left to employ these 80 trained journalists when they come out of college. Regional media has been ravaged by online competition for advertising. Johnston Press, one of the largest local and regional newspaper organisations in the country, came a heartbeat away from folding recently. Many others have already tumbled.

Even if these well-trained reporters can find a desk to sit behind, all that training may go to waste. Have you seen the websites of local newspapers recently? So desperate are they for ad-generating traffic, they're more likely

to be writing about who took a shower in *I'm A Celebrity Get Me Out Of Here!* than exposing corruption at the local council. They're staffed by desperate, desk-bound clickbait jockeys whose work cannot in any meaningful sense be described as journalism.

Which brings us to Google. The search engine's monopoly is, of course, the

“ Local newspapers these days are staffed by desperate, desk-bound clickbait jockeys ”

reason clickbait 'journalism' exists in the first place. Deprived of the revenue from print advertising, the regional press is trying to dredge

pennies from Google instead, writing stories that will rank highly in search results, not stories that matter to local people.

And it's not only the local press who resort to such tactics. Almost any publication you can think of will be driven by 'search engine optimisation', with 'editors' forced to smash out stories that will attract Google clicks above all else. That's why the best hope for journalism isn't Facebook's crumbs from the table, but the EU's Article 11 – a controversial piece of proposed legislation that could effectively tax Google for every link it publishes to an online news story. The idea is to return some revenue to the source of the story, rather than letting Google get all this content – as wretched as much of it is – for free.

Consequently, Google is threatening to close Google News in the EU. With journalists no longer reduced to writing clickbait headlines to get the search engine traffic, could real journalism make a comeback? It's a desperately slim hope, but it's the best we've got. Here's hoping for a Christmas miracle.



WebUser

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