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Issue 432

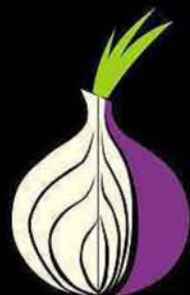
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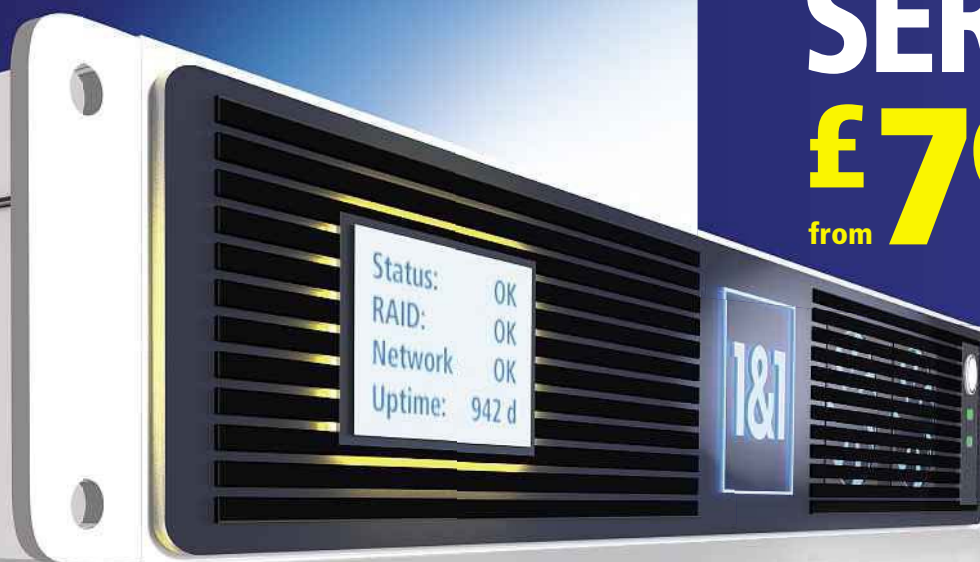
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- Beat Restrictions
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PERFORMANCE THAT YOU CAN RELY ON

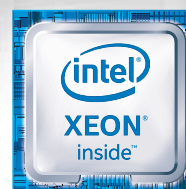
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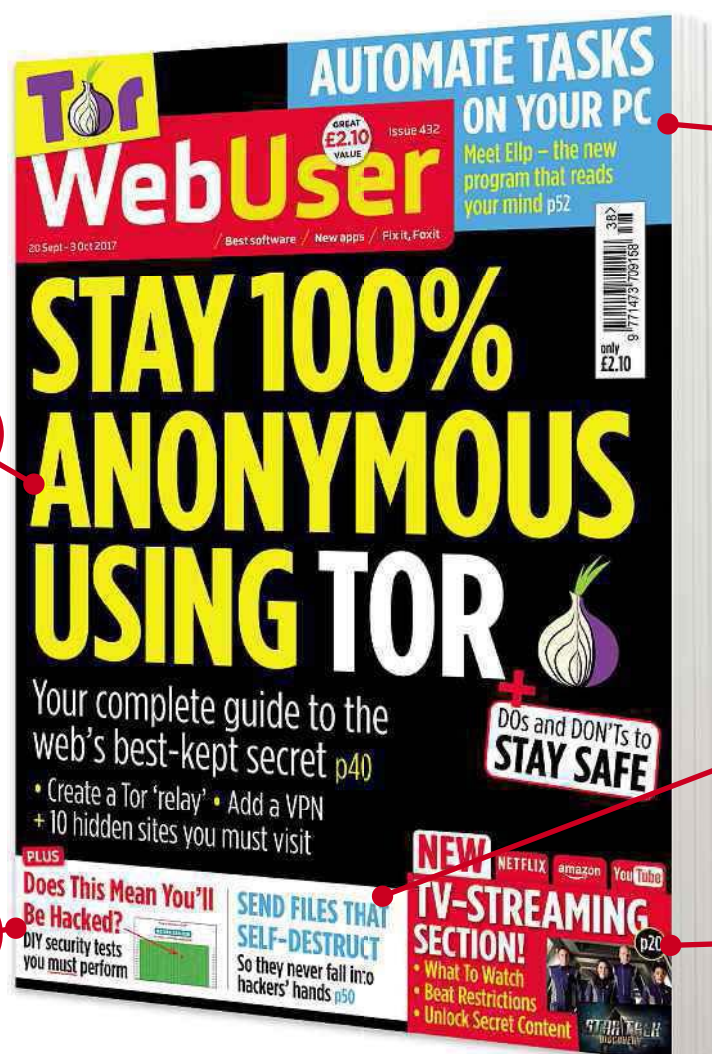
Roll up for the mystery Tor

Warning: this magazine contains strong language, flashing images and scenes you may find disturbing. I'm joking – it's all good, clean fun as usual! I just wanted to preempt any concerns you may have after seeing the word 'Tor' on the cover. The Onion Router, to give the software its full name, has a shady reputation but its creators claim only 3% of Tor traffic involves nefarious activities (bit.ly/tor432). As we explain in our cover feature on page 40, Tor has many benefits: it lets you browse the web anonymously, securely and without restrictions, and you

won't be exposed to unpleasant content unless you expressly seek it out.

Also in this issue, I'm delighted to unveil our new TV-streaming section, What to Watch Online, which rounds up the cream of video-on-demand services so you can make the most of Netflix, BBC iPlayer, Amazon Video and more. Who would have thought cream and onion make such a winning combination?!

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



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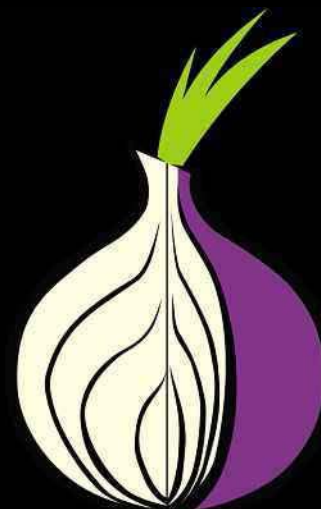
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 Average sales, Jan-Dec 2016, 28,298 copies per issue

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Practical WebUser

Workshops, tips, projects and problem solving

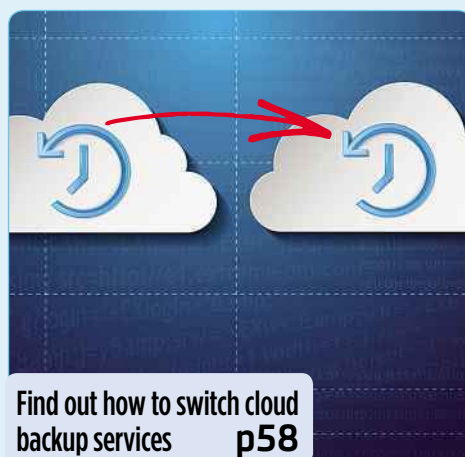
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What's New Online

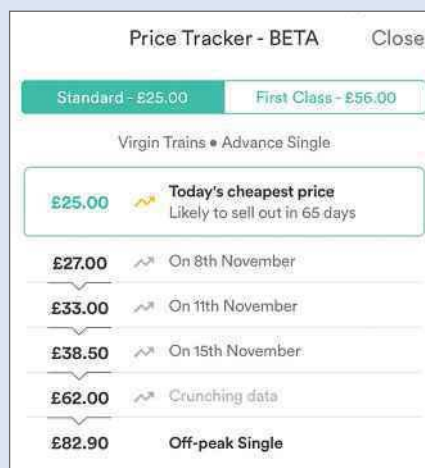
Predict the price of train tickets

We've all been there – you check the price of a train ticket only to go back the next day and find it's shot up. A new tool from ticket-booking company Trainline provides a solution to this problem by letting you predict how much the cost of your journey will rise.

By analysing price trends from billions of customer searches, the Price Prediction feature not only tells you the price of your Advance ticket now, but how it is likely to increase in the future.

If you're organising travel well in advance, the Trainline app lets you know how long you have to decide before the price rises. Train tickets tend to be released 12 weeks before the travel date, and become more expensive as that date approaches.

For example, Trainline says a standard-class Advance single fare from London Euston to Manchester



Piccadilly costs £32 at 80 days before the day of travel. This rises to £38 at 41 days before, £42 at 13 days before, £87 at two days before and £126 on the day of travel itself, which means you could potentially save £94 if you buy your ticket early enough.



Price Prediction is expected to become increasingly accurate as more people use it, although you should bear in mind that Trainline charges its own booking fees.

bit.ly/trainline432

Find a parking spot using Google

maps.google.co.uk

If you find yourself driving around in circles looking for a parking spot in London or Manchester, Google Maps can help. The mobile app now uses historical data to show you how difficult it is to park in certain spots in those cities. The



service, which has been available in the US for several months, has now expanded to European locations including the tourist hotspots of Paris, Prague, Alicante, Malaga, Rome and Milan, as well as cities in Brazil and Canada.

The idea is that you can use it to find less crowded areas and better plan your journey. Simply request directions to a destination and tap the 'parking difficulty' icon to see whether parking is easy, medium or limited. In the US, you can also view nearby car parks (or 'parking lots') – a feature we assume will come to the UK in the near future.

Buy from Amazon without a bank card

bit.ly/amazon432

For most of us, online shopping feels as natural as popping to the high street but many people are understandably reluctant to hand over their credit and debit card details on the internet. In some cases, there is actually no information to pass on since about 1.5 million adults in the UK don't have a bank account. Amazon is now ensuring that everyone can make a purchase with its service called Top Up. This lets you visit a retailer offering PayPoint, scan a barcode and deposit cash.

The barcodes are generated through Amazon's website or mobile app (look under Gift Cards & Registry in the menu). You can add between £5 and £250, and get £5 promotional credit if you top up £20 or more. Since the top-ups have an expiry period of 10 years, you don't have to worry about spending the cash too quickly or all at once.



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

Share non-square Instagram images

www.instagram.com

Having previously restricted you to square images when posting multiple videos and photos in an album, Instagram now lets you choose landscape and portrait formats. As long as images are shared in the same format in your post (meaning you can't have a mix of landscape, square and portrait), you can post up to 10 images at a time.



5 TO FOLLOW ON TWITTER



[@trumps_feed](https://twitter.com/trumps_feed)

Donald Trump follows 45 Twitter accounts and this bot retweets anything they post

[@HolyKaaba](https://twitter.com/HolyKaaba)

The Holy Kaaba in Mecca, the most sacred site in Islam, is now tweeting

[@TabloidArtHist](https://twitter.com/TabloidArtHist)

Check out fine-art equivalents of tabloid celebrity photos and images from popular culture

[@torproject](https://twitter.com/torproject)

The subject of this issue's cover feature has more than 210,000 Twitter followers

[@big_ben_clock](https://twitter.com/big_ben_clock)

The real clock may be silenced but Big Ben is still 'bonging' on Twitter

Speak like an elephant

helloinelephant.com

Ever wondered how to greet an elephant the next time you see one?



Try letting out an increasingly intense growl before reducing the level of noise and you should get a favourable

response. You can

see exactly how this works using a fascinating new online tool called Hello in Elephant, which translates English words and emoji into elephant speak, so you can hear the sound these magnificent animals would make and see videos of the actions they would perform. Created to raise awareness of African elephants, it's based on decades of research into their communication habits.

Get the clearest view yet of Earth

s2maps.eu

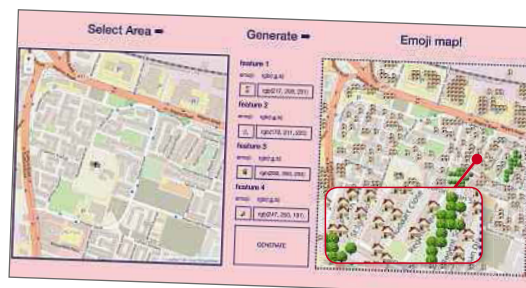
Images taken of Earth by two satellites orbiting at an altitude of 488 miles have been stitched together to create a stunningly clear view of our planet. Snapped by the European Space Agency's Sentinel-2 satellites over the course of a year, the resulting single image consists of more than 80 trillion pixels – and not a cloud in the sky! You can zoom into the image to pick out houses and roads; overlay borders and labels; and explore an interactive 3D globe. There's also a tour that does all the hard work for you.



Create a map using emoji

bit.ly/emoji432

This map generator lets you select any location in the world to populate the landscape with dozens and dozens of tiny emoji. From that point on, you can customise the map by swapping the four default emoji with your own (go to getemoji.com for a list). You can also alter the base colours of the map to change where the emoji appear.



Discover a GIF's popularity

giphy.com

You can now see how popular a GIF is on Giphy – as long as it's been created by an official artist or partner. Look to the left-hand side to see how many GIFs are available and the cumulative GIF view count.

Use stickers in Gboard

bit.ly/gboard432

Update Google's keyboard for Android to the latest version to share new stickers in any app that supports image pasting. Just tap the emoji button and choose an image. Sticker packs can be downloaded from the Play store.

Expose pavement hoppers

bit.ly/pavement432

The charity Guide Dogs is collating information on motorists who park on pavements. Click the entries on the map to see images of the vehicles and share photos of any mounted cars you discover, along with their location.

Need to Know

Apple launches its most expensive iPhone yet

What happened?

Following leaks to the press by a “disgruntled employee”, Apple announced its latest iPhones at a highly anticipated launch event. Much of the attention focused on the price of the iPhone X (or 10) which, at \$1,000, makes it Apple’s most expensive phone yet. While UK pricing had yet to be confirmed as we went to press, it’s believed it could cost as much as £1,000.

As well as the iPhone X, which marks 10 years of the company’s groundbreaking phone; Apple is set to release the iPhone 8 and iPhone 8 Plus, along with an updated operating system, iOS 11. Rumours have been rife and suggest that the phones will be all glass, feature updated cameras and have 3D facial recognition for security and for creating animated emoji. The iPhone X will feature a 5.8in OLED display, have 3GB of memory and is expected to come in three capacities: 64GB, 256GB and 512GB.

One major change rumoured earlier this year had the TouchID fingerprint scanner moving to the back of the device or being integrated into the edge-to-edge display. However, more recent rumours suggest that Apple has decided to scrap TouchID altogether and will instead only permit facial recognition as a means of unlocking the device and for using security features such as Apple Pay. The iPhone 8 is likely to lack some top-end features, and may therefore be more reasonably priced, comparable to handsets already on sale.



Apple was set to announce details of its new iPhones on the day we went to press



Although the \$1,000 price is seen as a milestone or psychological barrier by many people, previous versions of the iPhone that included extra storage have actually exceeded that mark. Apple may also have some offers that make the iPhone X’s price more palatable, including bundling free subscriptions to its Music and iCloud services.

How will it affect me?

The rising cost of iPhones isn’t driving up prices across the rest of the market and you can still find a reasonably priced Android phone, so don’t panic about being forced to spend a grand on your next handset.

If you’re salivating at the prospect of the iPhone 8 or iPhone X – and they’re bound to look fantastic – you’ll probably have to wait until the end of September to pick one up. If you want to keep using an iPhone but are put off by the price of the new models, Apple is likely to reduce the cost of its existing handsets, so you’ll still be able to find a slightly cheaper option.

Nor will you have to wait long for the new features to filter through to other handsets. Apple’s innovations are frequently imitated by other phone manufacturers. That said, copying ideas goes both ways: the iPhone’s new edge-to-edge display can already be found on Samsung’s Android phones.

What do we think?

If you want the best, you have to pay for it, but it’s hard to imagine that the millions of consumers buying these \$1,000 handsets really need or even want the gadgetry inside. How much extra would you pay for facial recognition? Or animated emoji? What price for an entirely glass phone?

These features are intriguing and the technology behind them highlights Apple’s ability to cram anything and everything into a phone. But none of the additions are what we really, really want. A 2016 survey by YouGov revealed that half of users want a longer battery life, a fifth want a shatterproof screen and a sixth crave a water-resistant handset. Instead, we get a thinner, more breakable phone – that costs more.

Yet millions of us will buy the new iPhone, most often on contract to avoid paying the full price upfront. While surveys may suggest that people want sensible improvements to their handsets, it’s also clear that many of us will buy the new iPhone regardless of the price or the usefulness of its new features. Hopefully, we’ll have enough money left over to buy a glass-protecting case and an extra battery pack.

As we write, Apple has yet to make its official announcement about all its new products, so we’ll take a closer look at them in next issue’s FAQ.

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

Google Drive Desktop to close next year

What happened?

Google has confirmed plans to shut down the Desktop version of Drive, giving users of the cloud-storage service until March to switch to its successor, Backup and Sync.

Google first announced back in July that it was working on a new way for its users to back up and sync their files in the cloud. Backup and Sync is designed to replace the Google Photos Desktop uploader and the Drive app for Windows and MacOS. Instead of separate apps that require you to actively upload files, Backup and Sync will keep any folder you choose synchronised across devices and available in the cloud.

How will it affect you?

Google will stop supporting the Drive app on 11 December, and the app will stop working entirely on 12 March. These deadlines only apply to the Desktop Drive app, not the web-based Drive service, which is continuing as usual.

If you're ready to make

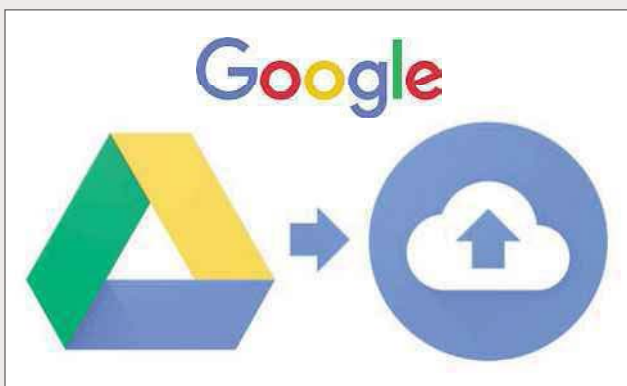
the switch, you can download Backup and Sync now (bit.ly/backup432) rather than waiting until March. When you install it, pay attention to which folders you're asking Google to back up to the cloud, so you don't accidentally put something on its servers that you'd rather Google didn't have access to.

What do we think?

Google Backup and Sync has all the benefits of the Google Drive app, but is simpler to use – and that's a definite bonus. It's easy to fall behind on backups, and offering an automated service for free should help us all protect our most precious files.

That said, there's little doubt Google would like us to use up our free storage quota so we have to pay for more space. If you're considering upgrading to paid-for storage, it's worth first looking at other providers to see if they offer you a better deal.

See our Weekend Project on page 58 for advice about switching service.



WhatsApp launches paid-for version

What happened?

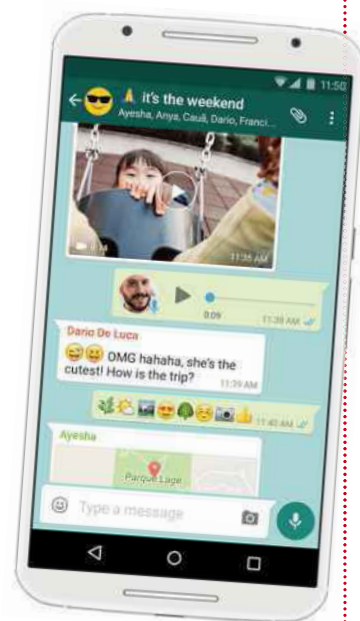
The Facebook-owned messaging app WhatsApp doesn't charge its billion users, but it's about to start making some people pay, with a new version that lets businesses contact customers.

Full details of the plan haven't yet been confirmed because WhatsApp is still building and testing the new business tools, but it's believed that the WhatsApp Business app will be free for smaller companies, while larger corporations will have to pay. As part of the plan, WhatsApp business accounts will get a verified badge next to their numbers, so recipients are reassured that they are being messaged by an authentic company and not a spammer or scammer.

How will it affect you?

The standard version of WhatsApp will still be available for individual users for the foreseeable future, so don't panic: you're not being asked to cough up to use the messaging app. However, the plan for the new business version does mean that once these tools have been tested and tweaked, companies will be able to use WhatsApp to contact you. Under law, companies can't contact you unless you've agreed first, as with email marketing messages.

Of course, many companies already use WhatsApp to keep in touch



with customers. You may have a hairdresser who accepts bookings via the messaging app, or an airline that sends flight updates via text message. This app will extend that functionality.

What do we think?

These companies need to find a way to make money, and charging businesses for extra tools is certainly one way of building a revenue stream. It's actually quite refreshing that WhatsApp isn't targeting non-commercial users. However, it's hard not to be concerned at the idea of receiving spam-like messages in WhatsApp. Email inboxes are widely considered to be drowning in useless messages, so much so that some companies are ditching it as a communication tool. Let's hope WhatsApp doesn't fall into the same trap.

Voice assistants vulnerable to 'silent hacking'

What happened?

Smart speakers from some of the industry's leading companies have been found to be vulnerable to an exploit that allows hackers to take control of them by issuing silent commands.

Researchers at Zhejiang University in China recently discovered a technique known as 'DolphinAttack', which involves modifying the sounds of an individual's voice so they are inaudible to human ears, but still capable of issuing commands to voice assistants such as Siri, Cortana and Alexa.

The microphones built into some of the most popular home speakers, including the Amazon Echo and Google Home, and common consumer devices such as tablets and laptops, are able to pick up these inaudible commands and perform tasks seemingly at random. Specifically, researchers were able to send commands using ultrasonic frequencies in a range above 20,000Hz, something that a human can't possibly recreate vocally or listen out for.

In lab tests at the university, the trick worked with smart assistants developed by Google, Amazon, Apple, Microsoft, and Huawei. The tests allowed researchers to not only turn on each device, but activate functions such as airplane mode, open websites and interact with any smart home device linked to the speaker.



The researchers have advised device manufacturers and developers to ensure that commands issued at frequencies outside the range of normal human hearing should be ignored.

How will it affect you?

Devices that are capable of modulating a voice and playing it back at high frequencies cost as little as \$3 (£2.28), but the researchers found that the hacker would need to be within six feet of the targeted speaker to go entirely undetected and successfully target your device. And unless the speaker is first unlocked, a tone sounds to alert the user. So don't lose any sleep over hackers targeting your smart speaker

with inaudible frequencies – unless you share a home with them!

What do we think?

With smart devices becoming increasingly popular, this kind of vulnerability raises concerns that appliances such as smart locks or connected thermostats could be silently controlled by a hacker. However, we believe that the hacking threat you face through owning a smart speaker is probably no greater than from any other internet-connected device.

Furthermore, we expect manufacturers will act quickly to patch such vulnerabilities as soon as they become aware of them.



FIRST LOOK

Sony LF-S50G

bit.ly/sony432

Every tech manufacturer seems to be releasing a smart speaker this year, and the latest is Sony's LF-S50G Bluetooth speaker. Announced at the IFA 2017 trade show in Berlin, this compact and stylish Google Assistant-enabled device will cost £200 when it's released in November.

The device echoes the design of Apple's own Siri-powered HomePod smart speaker: it's cylindrical in shape, measuring little more than 162mm in height,



and has a circumference of 110mm. Hidden beneath its mesh exterior, an LED screen displays the time, which can be dimmed or turned off as required.

The LF-S50G matches Google Home for features – open your command by saying "OK Google" and it will answer your queries, control your smart devices and play music and radio. The only feature missing is Spotify Connect but, on the plus side, it includes NFC for faster Bluetooth pairing.

What really sets Sony's speaker apart from the crowd, though, is its use of smart gesture controls. Using your finger to trace a circle in the air over the top of the speaker will

adjust the volume, while swiping your palm over the top changes the audio track you're listening to.

Sony has also gone all-out with audio quality. The LF-S50G uses a two-stage diffuser to spread sound evenly throughout a room and this is enhanced by the use of a "two-way facing" speaker, designed to improve sound coverage.

As smart speakers go, the £200 asking price is a little high, but that's acceptable if the sound quality and features are a notch above its rivals.

It's clear that the Sony LF-S50G offers a viable alternative to both Google Home and Amazon Echo and, despite stiff competition from Panasonic's new connected speaker and Apple's HomePod, it should be more than capable of holding its own.



WHAT'S THE RUMOUR

Is Google buying HTC?

After several difficult years, consumer-electronics company HTC is now rumoured to be in the process of selling its phone business to Google. Despite being the contract manufacturer for Google's Pixel line of phones, HTC hasn't been very successful of late. In fact, the company has had a terrible few years, with sales falling more than 54% over the past 12 months alone.

Back in 2015, the firm's share price fell below its market valuation, essentially confirming that from an investor point of view, it was worthless. Since then, things have shown no signs of improving. The company, which was once a dominant force among Android device manufacturers, is now only a fringe player, and it appears as though



its owners may finally throw in the towel by selling to Google.

Sources claim that Google is only after HTC's phone business, so HTC as a corporate entity could still exist after the buyout – it just won't make phones any more. HTC has an extensive OEM business (manufacturing and selling hardware for other brands), but it isn't clear whether these will be snapped up as part of the deal.

LIKELIHOOD RATING



Acquiring HTC's phone business would allow Google to bolster its own manufacturing arm with new facilities, designers and engineers. In the long term, Google would like to replicate Apple's business model with its own Pixel line of phones, having control over every aspect of the business including the hardware. By acquiring HTC's major – albeit

failing – phone business, Google would gain full control over the production of its hardware and have access to a wealth of expertise, making it better equipped to compete with Apple. However, if Google buys HTC, you're unlikely to ever see the release of another HTC-branded phone – as was the case when Google owned Motorola – because this would represent a conflict of interest.



What's new on Kickstarter

Our favourite new project on the crowdfunding site

Magphone

bit.ly/magphone432 | From £10

Finding a safe spot for your phone while travelling, cooking or relaxing may be a first-world problem but that doesn't make the Magphone any less of a terrific idea. This portable phone holder uses magnets to secure your handset to its dock and lets you position it at any angle you like. Just slip the supplied metal plate between your phone and case to magnetically place your device on any flat surface. There's also a MagDisc dock that lets you stick your phone to your car's dashboard. The team hopes to raise £20,000 for the project by 10 October.



WEBOMETER



WE LIKE...

↑ £645m to be spent on 'superfast' broadband

The UK government has recovered £645m in funding from its superfast broadband rollout initiative. The reinvestment of these funds will provide 900,000 extra homes and businesses with access to broadband of 24Mbps.



↑ SanDisk unveils largest microSD card

Western Digital, SanDisk's parent company, announced at IFA 2017 in Berlin that it was launching the world's largest microSD card, with a massive capacity of 400GB. The card will cost \$250 (around £225).



WE DON'T LIKE...

↓ Students waste weeks of school time on phones

A survey of 500 secondary-school teachers by UK internet company Nominet found that schools waste 11 days per year policing phone-related disruptions, equivalent to 17 minutes per day.



↓ Security flaws found in syringe pumps

Security experts have uncovered vulnerabilities in wireless syringe-infusion pumps, which could be exploited remotely by hackers to cause harm to patients.

The pumps' manufacturer – Smiths Medical – claims an attack is "highly unlikely" and doesn't plan to patch the bugs until next year.



Stay Safe Online

News about the latest threats and advice from security experts

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

Data leaked from 'six million' Instagram accounts

The personal details of up to six million Instagram users have reportedly been leaked online after a bug in the platform made private account information publicly accessible.



The flaw, which exposed the email addresses and phone numbers of both private and public accounts, was subsequently exploited by hackers, who were able to harvest the data into a dark-web database, where contact details were being sold for \$10 (£7.50) each.

While the vulnerability was initially thought to have only affected a small number of A-list celebrity accounts, including singers Selena Gomez, Taylor Swift and Harry Styles, The Daily Beast reported that hackers claimed to have the contact details of as many as six million users.

Responding to the leak, Facebook-owned Instagram said it was working with law enforcement, adding that the bug was now fixed and that no passwords were stolen.

bit.ly/insta432

Equifax customers hit by security breach

More than 143 million people's data may be at risk after credit-monitoring firm Equifax was hit by a security breach. In a statement revealing the breach, Equifax said: "Criminals exploited a US website application vulnerability to gain access to certain files. The company has found no evidence of unauthorised activity on Equifax's core consumer or commercial credit reporting databases."

The statement added that Equifax identified unauthorised access to "limited personal information for certain UK and Canadian residents".

Based on the company's investigation, the unauthorised access is thought to

have occurred between May and July 2017 and was discovered on 29 July. However, it has only just been disclosed.

Commenting on why it took so long to alert customers, Equifax said it acted to stop the intrusion as soon as it discovered the unauthorised access, engaging "a leading, independent cybersecurity firm which has been conducting a comprehensive forensic review to determine the scope of the intrusion, including the specific data impacted. Because this incident involves a substantial amount of personal identifying information, the investigation has been complex and time-consuming. As soon as we had enough information to begin notification, we took appropriate steps to do so".

bit.ly/equifax432



Security Helpdesk | Your questions answered by security specialists

THIS ISSUE'S EXPERT:
Marty P Kamden,
CMO of NordVPN
(www.nordvpn.com)



Q How can I avoid 'malvertising', like the malicious adware spread through Facebook Messenger?

Tom Keane, Facebook

A Malvertising is increasing by about 300% per year, and malicious ads are

typically spread through legitimate websites or by claiming to be a legitimate advertiser. Current global ransomware attacks show that they can use almost any online advertising platform. To stay safe, you should follow these simple rules to protect your identity and your devices:

- You should regularly clear your browsing data to get rid of any cookies – the small pieces of code that download to your browser when you visit a website. When you return to that website, the cookie records this information so targeted ads can be directed at you.
- Protect yourself against

malicious ads by using an ad blocker. Ads help fund free media content, but while the ad industry is scrambling to find solutions to malvertising, it's best to stay safe and use an ad blocker such as uBlock Origin. But be aware that with each additional extension, your browser's fingerprint becomes easier to identify.

- Anti-tracking and anti-cookie extensions are among the best ways to stay private. For example, Disconnect Private Browsing (disconnect.me) protects you from tracking and malware by blocking third-party cookies and social networks such as Facebook, Google, and Twitter. Privacy Badger

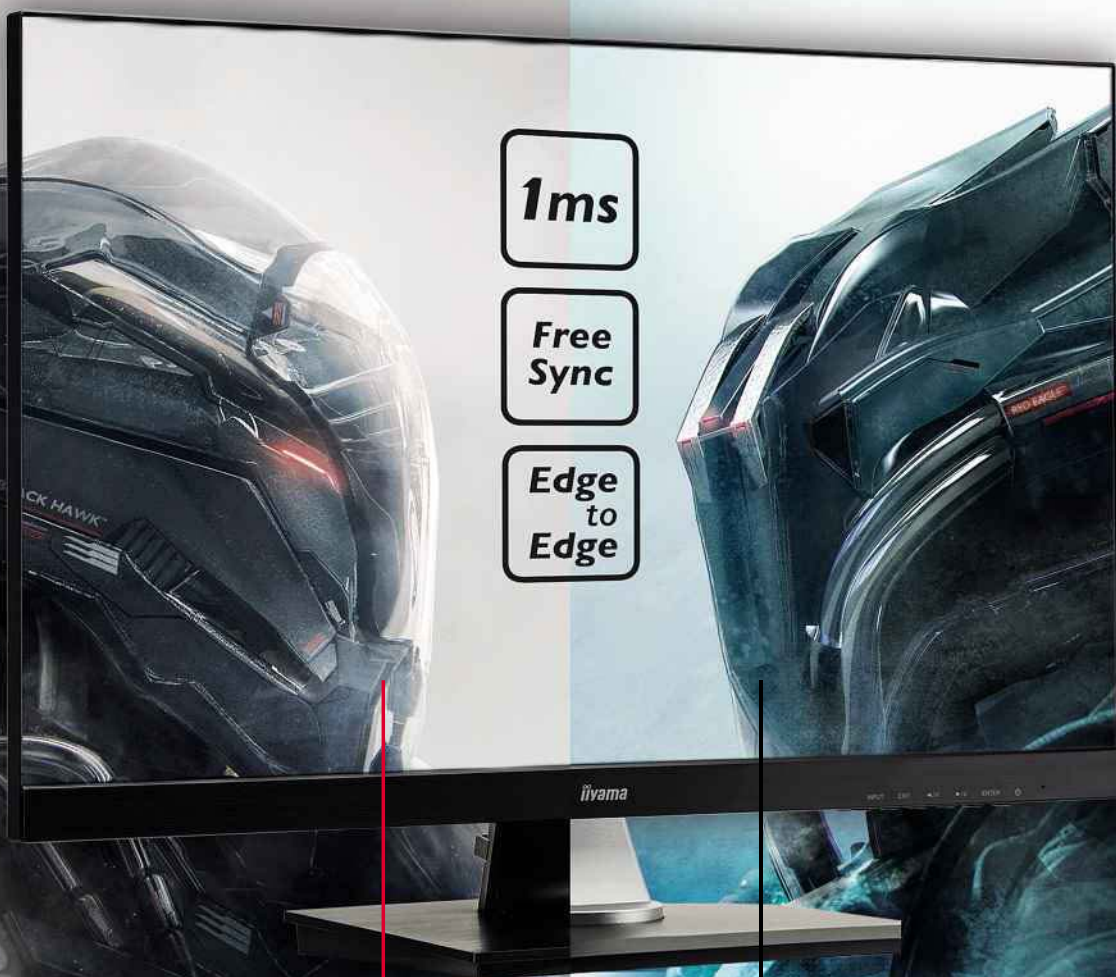
(bit.ly/badger432) from the non-profit Electronic Frontier Foundation is another good option.

- Install software that blocks ads and protects your privacy. NordVPN has just launched CyberSec (bit.ly/cybersec432), a new security tool designed to block ads, malware, botnets and other threats. It comes with a VPN, so it serves a double function: encryption and ad blocking. CyberSec resembles a content blocker, but runs on the network level. NordVPN's Android, Windows and MacOS apps have a built-in CyberSec option.

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★ Best New Websites

Site of the Fortnight

VIDEO

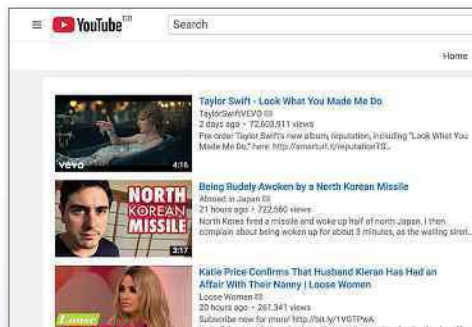
RELAUNCH

YouTube

www.youtube.com

You don't need to be an eagle-eyed viewer to see the most obvious change to YouTube's website: its logo has been redesigned for the first time in 12 years. The revamp also brings with it a new dark theme (tested during the extensive beta phase), while also ensuring the layout looks consistent across screens small and large. By removing the distracting visuals of old and simplifying the left-hand menu, the videos are pushed front and centre. There's also a new typeface and colour scheme, along with some handy touches on mobile devices, including Library and Account tabs, and the ability to speed up and slow down videos.

Our rating



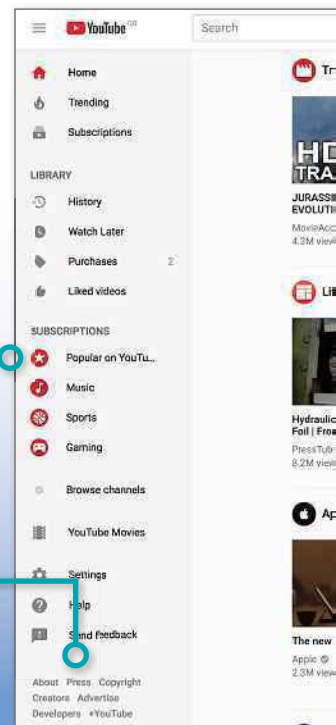
MATERIAL DESIGN

The new look applies Material Design to give the site a cleaner and smoother look



VIDEOS

YouTube is hoping to adapt its player to better suit the shape of individual videos



RELAUNCH

SHOPPING

TKMaxx

www.tkmaxx.com

At first, we thought TKMaxx *really* wanted us to buy a pair of Pearlz Velvet Knot Trainers because every product we clicked took us back to its page. Then we realised it was the result of an annoying bug. Unfortunately, it's not the only one. The mobile site has teething problems and there are some major irritants in the desktop version: for example, clicking Search nearly always opened the drop-down menu for Bag. Iron these out, though, and TKMaxx would have a good site on its hands. After all, it's visually improved and has well-laid out pages, a straightforward checkout process and plenty of items to buy.

Our rating



RELAUNCH

FASHION

Sock Council

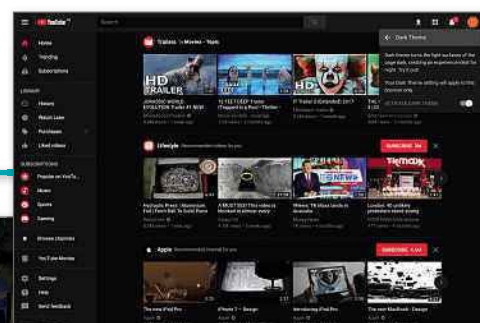
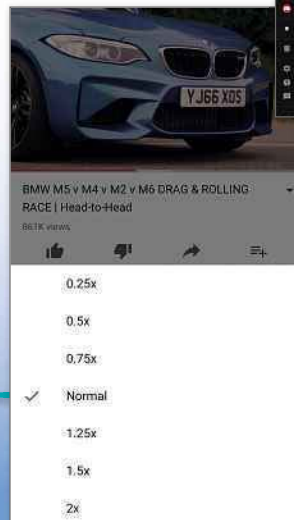
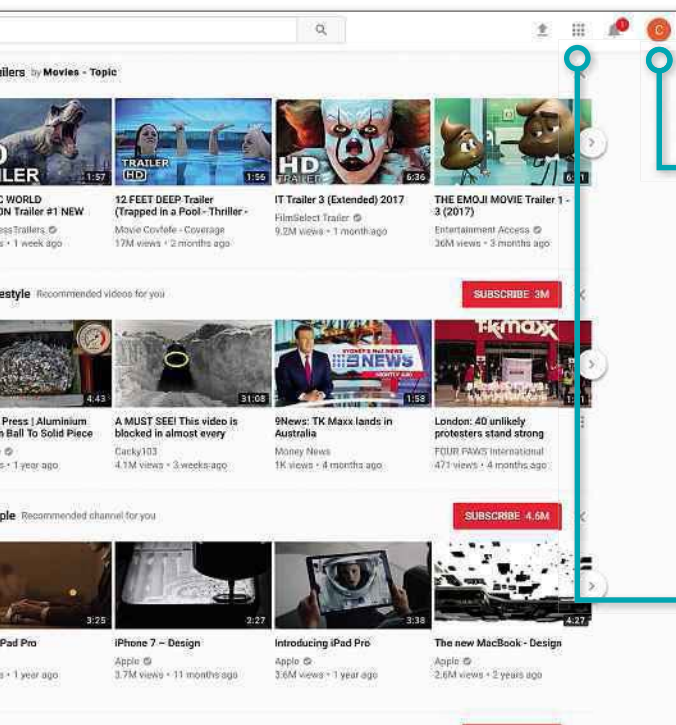
www.sockcouncil.com

Fancy a new pair of snazzy socks? Then stroll over to this cleanly presented site to check out a wide range of stylish designs. As well as letting you sort by newness, popularity, rating and price, you can zoom in to see the socks up close. There are also comprehensive descriptions, a simple checkout and other items to buy including t-shirts, hats, sweatshirts and mugs. The main problem is that stocks appear low – a number of goods were either sold out or down to their last item. But the socks look great, the blog is informative and there's an infectious sense of fun.

Our rating



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



DARK THEME

Click your profile image to activate the dark mode for easier-on-the-eye night-time viewing

MOBILE

The mobile app now includes the ability to alter the playback speed of videos



RELAUNCH

NEWSPAPER

The Sentinel

www.stokesentinel.co.uk

Delivering news and current events about the Staffordshire city Stoke-on-Trent, this revamped site now feels faster, bolder and easier to navigate. Its responsive design works equally well on all screen sizes and there's a welcome emphasis on photos, with larger images and galleries you can browse on a single page. The healthy mix of news, entertainment and sport includes a breaking-news blog and specific sections for Stoke City and Port Vale football clubs. We like that you can enter your postcode to see information about your area, and enjoyed reading the lively reader comments.

Our rating



RELAUNCH

MOTORSPORT

Go Motorsport

www.gomotorsport.net

This website helps you find motorsport events and local clubs across the nation. Run by the governing body of UK Motorsport and catering for both spectators and competitors, it offers tailored search engines that let you type in keywords or a postcode; specify a category and distance; and check if permits have been issued. It's a shame there is so little prominent news on the events themselves to whet your appetite, but there's lots of information about the volunteer roles you can take, along with detailed sections about education and club development.

Our rating



RELAUNCH

FOOD

Young's Seafood

youngsseafood.co.uk

There's something fishy about this site but dive in and you may find yourself hooked. Created by seafood business Young's, it primarily serves to promote different product ranges, but also suggests tasty-looking recipes to cook up using the company's products. Each recipe – whether it's a homemade curry sauce or a fish-finger pie – is well illustrated and explained, and can be shared on social media. You can also buy food online, read about the history of Young's, learn about its Fish for Life sustainability scheme and remind yourself of the health benefits of seafood.

Our rating



BACK ISSUES DISC 2016



Our **2016 Back Issues Disc** containing all 26 issues from last year is now on sale from Amazon

For more information, visit bit.ly/wudisc16 or search for 'webuser disc' on Amazon

You can still buy our **2015 Back Issues Disc** from bit.ly/wudisc15





FOOD

Born & Bred

wearebornandbred.co.uk

We can't vouch for the quality of the food but Born & Bred promises to send fresh, seasonal ingredients based around easy-to-follow recipes direct from Yorkshire to your door. The website does a fine job of explaining the process step by step and detailing exactly what to expect in every artisan recipe box it sends out. There's a comprehensive FAQ, profiles of suppliers and an online deli if you prefer to buy one-off items rather than a put-together package. Choosing your meals is simple and there's lots of nutritional information. The only annoying thing is the persistent prompt to sign up to the newsletter.

Our rating



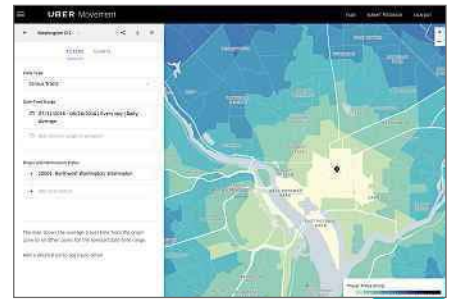
POLICE

Greater Manchester Police

www.gmp.police.uk

England's second largest police force has taken an unusual approach to navigation on its relaunched site, using app-like icons to direct you to its various services. The design works well, especially on mobile devices, opening further options to help you find the sections you're after. To make browsing even easier, it provides both Quick and Full search engines. The pages are simply presented and informative, and there's a handy news feed that incorporates Flickr, a crime map and details of wanted criminals and recent incidents. GMP's Twitter feed is also infamous for being very droll.

Our rating



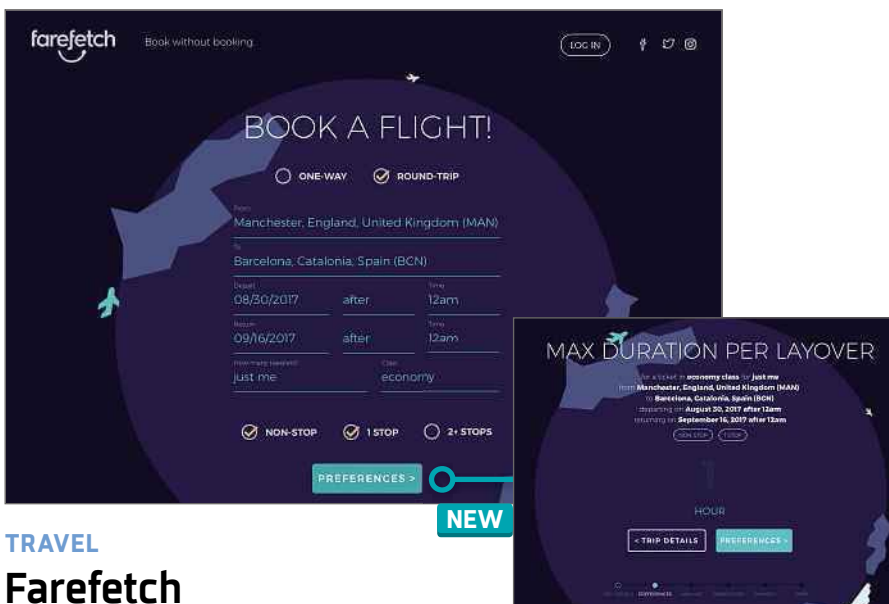
CITIES

Uber Movement

movement.uber.com

Uber Movement helps urban planners make informed decisions about our cities by using data to work out the impact of events and road closures on travel times. It also compares travel conditions across different times of the day and month. Even if you're not an expert in such matters, the site is intriguing. Gathering GPS info from Uber drivers, it currently covers Bogotá, Boston, Manila, Sydney and Washington DC, and other cities are coming soon – hopefully, some in the UK. You can change the date-time range, add origin and destination zones, explore travel times and view colourful maps and charts.

Our rating



TRAVEL

Farefetch

www.farefetch.com

Looking for the cheapest flights online can be a laborious task but this clever new fare-seeking website gets savvy travellers to find them for you. Just set a minimum price for your desired flight before sending your request to travel-booking pros. Working with your departure and return dates, passenger numbers and choice of airport, these 'farefetchers' compete to find you the best deal – the first to do so pockets the difference between the price you set and the actual cost of the flight. Be aware, though, that you can't amend or cancel flights once they're booked, and that the price may not include extras such as baggage.

Our rating



NEWS

Cornwall Live

www.cornwalllive.com

Created by the same folk behind The Sentinel relaunch (see our review on page 15), Cornwall Live is near identical in its approach – except it's the hub for a host of Cornish papers. As such, it has similar sections – News, Sport, Entertainment, Traffic and Travel – along with a live blog, some fun features and data relating to specific areas. We like that the comments facility has been overhauled to let you create threads in response to other users' posts and rate each other's messages. Annoyingly, videos are set to autoplay but at least you're not bombarded by surveys, which is often the scourge of local-news sites.

Our rating



Build a Better Site

Specialist tips, top tools and practical help

Top Tips of the Fortnight

Chrome to show warning on non-HTTPS websites

Google is taking further steps to encourage webmasters to upgrade their sites from standard HTTP to the more secure HTTPS. If a non-HTTPS site gives a visitor the option to enter information, Chrome users will see a warning message that the site is not secure. However, this doesn't just apply to filling out forms and sending personal information, but also includes basic items such

as search boxes. The simplest way to fix the problem is to remove any such boxes from your site, but if you'd rather keep them, contact your web host and ask about upgrading to HTTPS.

Upload WordPress images in the background

If you publish WordPress posts from your Android phone, you'll be pleased to know that the app (bit.ly/wpa432) has recently been enhanced. The standout upgrade is that image uploads now take place in the background, so you can start an image uploading, then go back to the post and keep working on it – or even publish it – without having to wait for the image to finish uploading.

Deal of the Fortnight

GoDaddy (uk.godaddy.com) is offering '.com' domains for 99p for the first year.

Web-building Helpdesk

THIS ISSUE'S EXPERT:

Lucas Kowalski, WordPress Developer, Wholegrain Digital (www.wholegraindigital.com)



Q I use WordPress and want to learn a programming language. Should I go for PHP, since that's what WordPress sites are built on?

Graham Burrows, via email

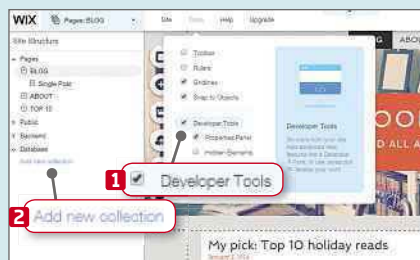
A Yes, PHP seems to be the perfect language to start with for web development, especially if you plan to use WordPress in the future. It's easy to learn but powerful at the same time, and definitely something you should know if you want to write your own themes or plugins. On the other hand, JavaScript may be a good alternative. It's not complicated and is very flexible. You can run JavaScript on the client and server side, and there are uncountable benefits of using JavaScript with WordPress. Give both a try and see which one suits you better.



MINI WORKSHOP | Build a dynamic website with Wix Code

Wix Code: bit.ly/code432 | 10 mins | Wix account with access to Code

Wix Code (which we wrote about in Issue 429) can use a database to create dynamic pages from a set template. We'll show you how to use it, but you have to be signed up to the Wix Code beta at bit.ly/code432



1 Go to the site you want to add dynamic pages to from the Wix Editor and click the Tools menu. Tick Developer Tools. **1** In the Site Structure sidebar, click Database, then 'Add new collection'. **2** Give your database a name and choose a function from the drop-down list below – in this case, Site Content. Click Create Collection.



2 A spreadsheet opens for you to create your database. Use the '+' button on the right **1** to add more fields to your database. Use the '+' button below the last row **2** to create more records. Click the Cog next to your database in the sidebar **3** and choose 'Add a Dynamic Page'.



3 Choose Item Page, click Next, then Create Page. Use the Add icon **1** to add a text element to the page, select it and click the 'Connect to Data' icon. **2** From the 'Text connects to' option, choose the field in the database you want to use. **3** Repeat for the other fields and link the pages to the rest of your site.





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What To Watch Online

Pick of the fortnight

NETFLIX



Stream *Star Trek: Discovery*

From 25 September

Set 10 years before the *Original Series* (and marking 50 years since it first screened), *Star Trek: Discovery* follows the crew of the USS Discovery as they take on the Klingon Federation in a war they're only just beginning to understand. The 15-episode first season was entirely funded by Netflix and each instalment will appear on the streaming service the day after it's shown on CBS in the US. Annoyingly, the season will be broken into two 'chapters', with a break between 6 November and January 2018.

The crew of the Discovery includes Sonequa Martin Green (as Lieutenant Commander Michael Burnham), Michelle Yeoh and Jason Isaacs. Netflix says the new series will "embrace the same ideology and hope for the future that inspired a generation of dreamers and doers", though that hasn't stopped some sceptical Trekkies accusing the producers of disregarding series creator Gene Roddenberry's utopian 'rules', such as there never being conflict between Starfleet crew members. However, judging by the exciting, high-quality trailers, we think Netflix is on to a winner.

You can discuss every episode as soon as it 'drops' on Netflix on our sister site Den of Geek (www.denofgeek.com).

N Catch Bond in *Spectre*

From 22 September

Nearly two years after it hit cinemas and earned a colossal \$880m (£675m), the most recent James Bond film is now available to watch on Netflix, in all its action-packed, product-placing and slightly preposterous glory. Until Daniel Craig changed his mind last month, *Spectre* was believed to be his final outing as 007, and he certainly would have gone out with a bang, with Christoph Waltz providing a worthy foe and Monica Bellucci making the most of her short screen time.

Surprisingly, none of the other 23 Bond films are currently on Netflix, at least in the UK.



now Watch the Sky-Fi channel

Until 8 October

Sky has launched a month-long Sky Cinema channel dedicated to sci-fi films, and you don't need a Sky subscription to enjoy it. The 'Sky-Fi channel' is screening the entire Star Wars series – including *The Force Awakens* and *Rogue One* – alongside all 10 Star Trek movies and sci-fi classics including *Close Encounters of the Third Kind*, *Minority Report*, *Blade Runner* and *The Terminator*.

You can stream the channel for free on Sky's Now TV service (for two weeks, at least) by signing up for a Sky Cinema Pass, which offers a 14-day free trial and also lets you watch Sky's 11 other movie channels. If you've had a Sky Cinema Pass before or you've already used your free trial, you can buy a pass for £9.99.



amazon Watch Oscar winner *Moonlight*

From 29 September

The winner of the Academy Award for Best Picture (once that embarrassing

wrong-envelope business was sorted out) – which tells the moving story of a young black man coming to terms with his sexuality against a backdrop of poverty and drug abuse – will soon be streaming for your consideration on Prime Instant Video.



i Watch *Strike - The Silkworm*

Until 10 October

Based on the novels by Robert Galbraith (aka JK Rowling), *Strike* follows war veteran-turned-detective Cormoran Strike as he mopes about London solving complex cases. Following the critically acclaimed 'Cuckoo's Calling', which is still available on iPlayer, 'The Silkworm' is the second story in the series – a two-parter in which Strike investigates the disappearance of an author. 'Career of Evil', a third instalment, will be screened next year.



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



Stream BT TV to any device

BT's redesigned TV app for phones and tablets (bit.ly/bttv432) lets you watch live channels and on-demand programmes on the go. These include AMC (home of *Fear The Walking Dead*), Comedy Central, Discovery and BT Sport. The new app offers better integration with the BT TV Player on your set-top box, so you can carry on watching a show where you left off, record programmes remotely from your mobile device and save them to view later. BT Player is also available online, so you can stream to your PC or laptop.

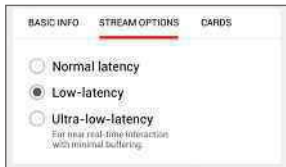


Chat with YouTube creators in real time

Live streams on YouTube are usually accompanied by live comments, but the two are rarely in sync, with the

discussion often some way behind the action. YouTube has now fixed this problem by

introducing a new 'ultra-low-latency' option (bit.ly/latency432) that lets content creators interact with viewers in near-real time "with minimal buffering", so they can answer questions, read



feedback on their streams and moderate troublesome commenters.

See Best New Websites on page 14 for more about YouTube's new features.



Install Plex for Kodi

Media-streaming software Plex is now free to use on rival service Kodi, so you can watch all your video content in one place without needing to switch between the two. The Plex add-on (bit.ly/plex432) was previously only available to Kodi users with a Plex Pass subscription, but now everyone can use its slick interface to manage and enjoy



their videos, photos and music, giving you the best of both worlds.



Test the new iPlayer for iOS

The BBC has long let Android users play around with experimental versions of its iPlayer app, and now iPhone and iPad users can join the fun. The Beeb is actively recruiting guinea pigs for its iOS Beta programme to test "improvements to the download experience" before everyone else. To join the beta testing, click the 'Keep me updated' button at bit.ly/iplayer432 and, if successful, you'll be contacted within seven days with full instructions. You need to be running iOS 9.1 or later.



Streaming deal of the fortnight

Get a cheap Fire TV stick

LoveFilm subscribers lamenting the closure of the DVD postal service on 31 October have been thrown a bone by Amazon in the shape of a discounted Fire TV Stick. Visit www.amazon.co.uk/firetvstick, add a Fire TV Stick to your basket and the promotional code from your LoveFilm cancellation email. This will knock £15 off the £39.99 cost of the device, so you can buy it for £24.99. The Fire TV Stick comes with an Alexa Voice Remote and gives you access to all the main streaming services, including of course Amazon's own Video and Prime Video options.



Readers' Streaming Picks

We asked *Web User* readers what they've been streaming online. Here's what you told us

I enjoyed watching the first season of *Stranger Things* and am looking forward to the second season coming to Netflix later this year.

Paige Slater

The Netflix TV series *The Mist*. 10 episodes was not enough.

Cunningham @MrChucklies

I watched the first few episodes of *The Grand Tour* on Amazon Prime Video, then gave up. Big budget, but very little charm.

Andy Jacks

I watched *Twin Peaks: The Return* on Now TV. What a crock, frankly.

Doug Warner

Narcos on Netflix is definitely the best show I have watched so far. It pulled you into the action straight away.

David Stelfox @SuperRon08

GLOW, *Jessica Jones* and *Animal Kingdom*.

Andrew @ataccounting

What's the best show or film you've watched online? Let us know at webuser@dennis.co.uk

Product Test

We test and compare the latest products

Budget phone head-to-head

Don't have the cash to splash out on the most expensive flagship phones? We review three of the latest great-value alternatives



While the big-name phone manufacturers would love us all to rush out and buy their latest top-of-the-range models – preferably, every time they launch a new one – they also cater for those of us who can't or won't pay top dollar for a new phone.

Here, we've compared three of the latest budget Android smartphones: the Moto E4, the Nokia 5 and the recently revamped Samsung Galaxy J5. These new models can do most of the things that the best smartphones can do, but won't cripple your wallet.

The cheapest of the three is the Moto E4, which costs £119.95 for the SIM-free model (which means you can insert your own Pay As You Go SIM from any provider and stay contract-free). The Nokia 5 is also affordable, with SIM-free models available from £179.99. If you want the Samsung Galaxy brand, you'll need to pay a little more – the J5 was originally launched last year but has had its components tweaked for this year's version and is a little more expensive than its predecessor at £219 SIM-free.

If you don't mind being tied to a contract, you should be able to get any of these

PRODUCT INFO

Samsung Galaxy J5 (2017)

Price: from £219
Buy from Amazon:
bit.ly/sams432

FOR

- ✓ Great performance for the price
- ✓ Much improved camera
- ✓ Flagship-like design

AGAINST

- ✗ Priciest phone of the group



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

PRODUCT INFO

Nokia 5

Price: from £179.99
Buy from Amazon:
bit.ly/noki432

FOR

- ✓ Unbelievably bright display
- ✓ Great build quality and design
- ✓ Excellent battery life

AGAINST

- ✗ Camera struggles in low light



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

PRODUCT INFO

Moto E4

Price: from £119.95
Buy from Amazon:
bit.ly/moto432

FOR

- ✓ Stellar design
- ✓ Budget price

AGAINST

- ✗ Performance is middling
- ✗ Behind pricier rivals in most areas



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



phones on very affordable monthly plans through your preferred network, but it pays to shop around.

Build quality

You may expect build quality to be closely linked to price but all three of these phones have the kind of high-quality metal cases you'd expect to see on more costly models.

The Galaxy J5 can't be faulted and provides a flagship feel at a fraction of the price. At first glance, it looks a lot like Samsung phones of old, right down to the centrally placed Home button, which now doubles as a fingerprint reader. But flip it over and you'll see improvements over last year's version. Samsung has managed to get rid of the chunky camera bump of last year's model, so the rear camera now sits flush with the case. This means you can place it flat on your desk with no risk of scratching the lens. Its all-metal unibody design feels more substantial than the plastic casing of its predecessor, with rounded, "chamfered" edges that allow it to sit snug in your palm.

The Nokia 5 feels every bit as high-end as the Galaxy J5. Its soft round edges make the device easy to hold, and its

sturdy aluminium body looks like it should survive a knock or two. It also has a fingerprint sensor built into the Home button.

Even the cheaper Moto E4 comes with a metal body and looks every bit as good as its rivals, with a gently curved, textured back and rounded edges. Its slightly raised glass front seamlessly joins the metal body, with no overhanging lip. Our only gripe is the conspicuous Moto logo not-so subtly placed above the display.

All three phones are equipped with micro-USB charging ports, so if you were hoping to move over to

USB-C (which charges devices faster), you'll have to look elsewhere. Thankfully, none of the phones has ditched the 3.5mm headphone socket, so you can still use your existing headphones with them.

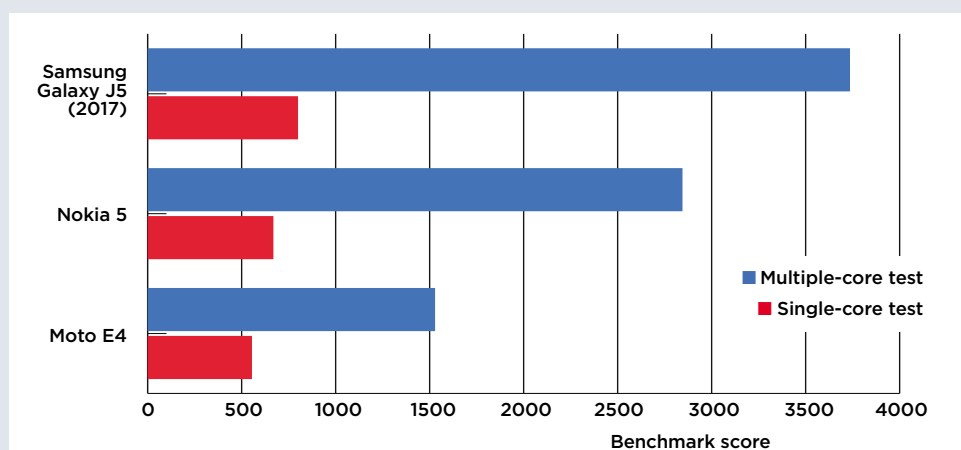
Screen and display

While the build of these phones is able to compete with their top-of-the-range counterparts, there's a marked drop in screen quality. All three displays have resolutions of 1,280 x 720 pixels. Still, the Samsung Super AMOLED panel is rich and vivid, covering 98.5% of the sRGB standard colour

palette and the Nokia 5 does almost as well in this test, managing 92.8%. However, the Moto E4 trails far behind with only 75.7% coverage.

The Nokia 5 is the best for reading in glaring sunlight and has a maximum brightness of 578cd/m² (candles per square metre), which is one of the brightest screens we've ever seen. To put this in context, the maximum brightness of the Moto E4 is 386cd/m² and Samsung's is even less impressive at 300cd/m². This is on the low side and means it wouldn't be ideal for outdoor use in very bright sunlight, although it's passable.

Geekbench 4 Performance Tests



Performance

While build and screen quality is fairly even between the three phones in this test, the difference in their performance is noticeably affected by price. The most expensive of the three – the Samsung Galaxy J5 – did the best in our tests, helped along by its dual-core Exynos 7870 processor and 2GB of memory. In Geekbench 4's multi-core test, it scored 3,736, which is an increase of almost 50% over the results we saw with last year's model. It impressed in single-core performance, too, scoring a total of 800.

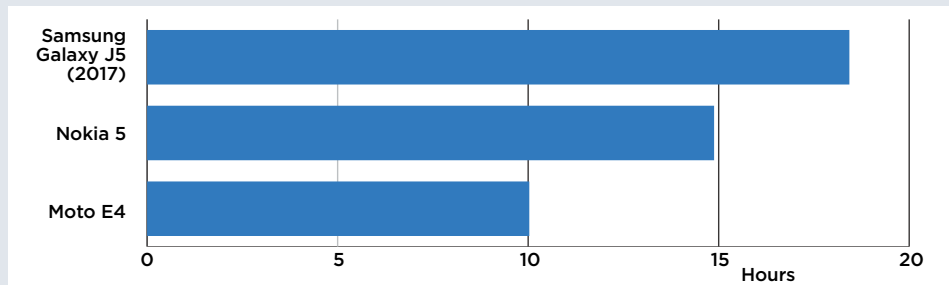
The Nokia 5's eight-core 1.4GHz Snapdragon 430 processor and 2GB of RAM sound impressive but it failed to match the performance of the J5, scoring 2,845 in the multi-core test and 669 in the single-core test.

“Build and screen quality is fairly even between the phones but their performance is noticeably affected by price”

The Moto E4 is the cheapest of the three by some margin and only managed a result of 1,529 in the multi-core test and a single-core result of 555. It, too, comes with 2GB of RAM but has a less-impressive quad-core Mediatek MT6737 processor.

Interestingly, we didn't get the same order of results when running our 3D-gaming tests, where the Nokia 5 produced the best results, running the GFXBench Manhattan 3.0 on-screen test at 14fps (frames per second). This isn't fast enough to seamlessly run the most demanding 3D games but it's impressive for a phone of this price and it knocked the Samsung's Galaxy J5 into second place with its 10fps result in the same test. Bringing up the rear again was the Moto E4, which only managed 5fps, although it's still fine for running most casual games.

Battery Life



Battery life

We test battery life by fully charging the phones, setting their screens to the same brightness, then running a looping video on the devices, measuring how long it takes for the phone to run out of power and shut down.

The test was aced by the most expensive phone – the Galaxy J5 – which lasted for 18 hours and 26 minutes. It's an impressive result that will

Camera quality

Few people these days use a dedicated camera and most of us now take snaps with our phones, so it's important that it's a good one. Budget phones are notorious for cutting corners in this area, as was evinced by last year's version of the Samsung Galaxy J5, which had a tendency to over-expose photos. Despite having similar specs on paper, with a 13-megapixels resolution sensor, the 2017 version is a marked improvement over the old model. The images we took with it were clear and well-defined, with outstanding colour reproduction and very little visible noise. It handled low-light situations very well, while daylight shots were packed with detail. Even tricky subjects such as foliage were captured with outstanding clarity. No doubt about it, this is a much more versatile camera than you'd expect for the price.

The Nokia 5's rear camera is also a 13-megapixel model. Detail is good, and there isn't any noticeable smearing, although the default settings produce results that look

a little drab. Toggle on the HDR and images suddenly come to life: everything becomes a lot brighter and more colourful. Without HDR enabled, colours are dark, but image detail is good. Low-light HDR performance isn't the best, though, with image noise obscuring detail. Turning on the flash improves the lighting and gives much sharper pictures, but also gives everything an unwelcome blue tint.

The cheapest phone of the group once again suffers from its budget restrictions. The Moto E4 is only capable of taking 8-megapixel photos, although in good light you're generally treated to a clear and vibrant shot with well-balanced tones. Brickwork – a notoriously tricky test for a budget phone camera – is well defined, too. However, in low light, the Moto E4 doesn't fare so well. We found it struggled to capture enough light, resulting in grainy shots and ill-defined images. The built-in flash helps cut through the darkness but affects the overall tone. For better images, you'll have to spend a bit more. ■

OUR VERDICT

Samsung's updated Galaxy J5 does everything you could ask for. It's a solid performer when compared side-by-side with its competition, battery life is excellent, the new design is top-notch and its camera is much improved over last year's model. However, at more than £200, it may be priced beyond your threshold for a budget phone.

The Nokia 5 is an attractive phone, but it lacks a standout feature to justify choosing

it over the J5. Its biggest strength is the extremely bright screen and its impressive battery life, but we don't feel that's enough to swing the deal.

For the price, Motorola's Moto E4 is a very impressive phone. Its performance may be middling, and the camera has its limitations, but overall it's an attractive and capable handset with no serious shortcomings. If you can't afford the J5, it's a great-value handset that's well worth considering.



Ultra Wide-Color

with 4K in an immersive design

Colours like you've never seen before. This brilliant 4K UHD resolution display with Ultra Wide-Color offers the richest and most vivid colours wrapped in an immersive curved design for a your best creations yet.

innovation ✨ you



UltraWideColor



CurvedDisplay



4K Ultra HD UltraClear 4K Ultra HD

40" 4K curved display
(BDM4037U)

MISCO
A Systemax Business

ebuyer.com

amazon.co.uk

BT Business Direct

PHILIPS



Web User's Best Buys

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

HARDWARE

HYBRID LAPTOP-TABLET

Lenovo Yoga Book

£548.97 from bit.ly/lenw431
Tested: Issue 431



The Yoga Book laptop-tablet hybrid genuinely feels like a step forward, with its virtual keyboard and fantastic writing surface that makes it an exceptional note-taking device.

KEY SPECS

Quad-core 2.4GHz Intel Atom x5-Z8550 processor ■ 4GB memory ■ 64GB storage ■ 10.1in 1,920 x 1,200 pixel screen ■ 1 x Micro USB port ■ 802.11ac Wi-Fi ■ Windows 10 ■ 256 x 170 x 9.6mm ■ 690g ■ One-year return-to-base warranty

NAS DRIVE

Synology DS216j

£161.13 from bit.ly/syn430
Tested: Issue 430



The DS216j is a great-value network storage device with lots of features that make it incredibly flexible. It's not the most powerful choice, but it can do most of the things other NAS drives can do, including pricier models.

KEY SPECS

Dual-core 1GHz Marvell Armada 385 32-bit processor ■ 512MB DDR3 memory ■ 2 x drive bays (drives not included) ■ 20TB (2 x 10TB drive) maximum capacity ■ 165 x 100 x 225.5 mm ■ 880g ■ Two-years return-to-base warranty

SSD

Samsung 960 Evo

£211.16 from bit.ly/s9e428
Tested: Issue 428



It looks expensive on paper, but the Samsung 960 Evo is an excellent 500GB SSD that came at or near the top of all our performance tests. It comes with Samsung's Data Migration software to clone your existing Windows installation from your old hard drive.

KEY SPECS

250GB - 1TB capacity ■ AES-256 encryption ■ M.2 connection ■ 200TBW write tolerance ■ Samsung Magician, Samsung Data Migration software

£500 PC

Mesh Home PC

£499 from www.meshcomputers.com
Tested: Issue 426



The Mesh Home PC is compact and quiet, with a great processor. It has a premium operating system in Windows 10 Pro and includes an SSD and a dedicated graphics card.

KEY SPECS

Quad-core 3.4GHz Intel Core i5-7500 processor ■ 8GB memory ■ 120GB SSD, 1TB hard drive ■ 2GB Asus GeForce GT710-2-SL graphics card ■ 6 x USB 2 ports; 2 x USB 3 ports ■ Windows 10 Pro ■ Lifetime labour warranty, two-years parts, one-year collect-and-return

INKJET PRINTER

Brother MFC-J5330DW

£125.78 from bit.ly/brot425
Tested: Issue 425



Provided you can find space for this bulky printer, you won't be disappointed, because it's very reasonably priced, cheap to run and produces great-looking prints - especially photos. You won't have to wait long for them to print, either.

KEY SPECS

4,800 x 1,200dpi maximum print resolution ■ 1,200 x 2,400dpi maximum scan resolution ■ 250-sheet input capacity ■ 100-sheet output capacity ■ Double-sided printing ■ 802.11n Wi-Fi ■ 530 x 398 x 304mm ■ 16.9kg

TABLET

Apple iPad

From £339 from bit.ly/ipad424
Tested: Issue 424



Apple has reduced the price of its new standard 9.7in iPad, making this tablet the cheapest it's ever produced. Battery life is excellent, performance is swift and the screen and build are top quality.

KEY SPECS

Tri-core 1.5GHz processor ■ 8-megapixels rear camera ■ 9.7in 2,048 x 1,536 pixels-resolution screen ■ 1.2-megapixels front camera ■ 32/128GB storage ■ 2G RAM ■ iOS 8.1 ■ 240 x 169.5 x 6.1mm ■ 437g ■ One-year return-to-base warranty

SOFTWARE & SERVICES

INTERNET SECURITY

Kaspersky Internet Security 2018

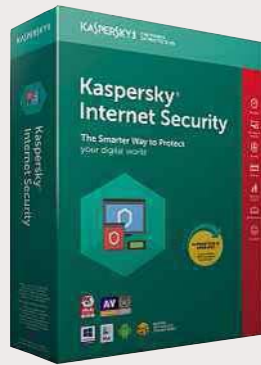
£19.95 from bit.ly/kaspersky2018

Tested: Computeractive Issue 493

Kaspersky is rock solid at protecting your PC from the worst of the web, and has come top in nine of our most recent tests, blocking all malware with its robust defences. Use the URL above to save £15.04 on the software (normal price £34.99).

KEY FEATURES

Antivirus and firewall tools ■ Protects online shopping and banking ■ Identity and privacy tools ■ Dangerous-website alerts ■ New software updater ■ Secure-connection VPN ■ Advanced ad-blocking system ■ Multi-device version ■ Compatible with Windows 10



Web User Gold Award winners

PASSWORD MANAGER

Sticky Password Premium

From £19.95 per year from

www.stickypassword.com

Tested: Issue 431

Packed with features, this password manager is very secure and good value for money.



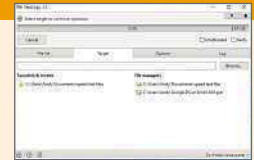
FILE-COPYING TOOL

TeraCopy

Free from bit.ly/ter430

Tested: Issue 430

TeraCopy is a great file-copying tool that's very easy to use and offers lots of useful features. Its handy shortcuts make regular copying tasks much faster.



ONLINE SITE BUILDER

Wix

Free from www.wix.com

Tested: Issue 429

Wix's website-creation tools are brilliant, with lots of templates and innovative features that make creating your site a breeze.



ONLINE VIDEO EDITOR

YouTube Editor

Free from www.youtube.com/editor

Tested: Issue 428

Easy-to-use tools and connection to the biggest video-hosting site make up for shortfalls in this editor's interface.



ONLINE IMAGE EDITOR

Pixlr

Free from pixlr.com

Tested: Issue 427

This sophisticated online tool comes stuffed with useful features you'd normally only find in Desktop software.



ONLINE STORAGE

Google Drive

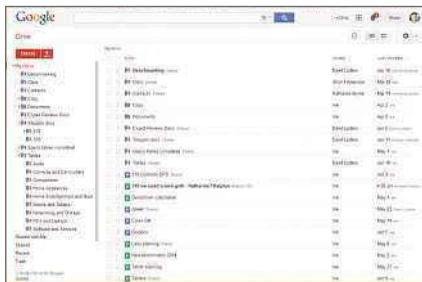
From free from drive.google.com

Tested: Issue 389

Google Drive is easy to use and has lots of free storage with the option to buy more if you need it. The Windows software integrates seamlessly with Explorer, so saving and syncing files is like keeping them in any other PC folder.

KEY FEATURES

16GB free storage ■ Web-based office software ■ Works with XP, Vista, 7, 8+ and 10 ■ Chrome browser add-on ■ Android and iOS apps ■ 100GB extra storage for £1.36 per month; 1TB for £6.01 per month; 10TB for £60.16 per month



INTERESTED IN MAGAZINE STANDARDS?

If so, IPSO, the regulator of magazines and newspapers, is looking for people to join their Readers' Advisory Panel. The panel – which will meet three times a year – will support IPSO's work and give readers the opportunity to share their views on media issues. No experience is required, just an interest in editorial standards. IPSO will cover travel expenses and pay you £200 for every meeting you attend.

If you are interested, please go to: www.ipso.co.uk/about-ipso/vacancies/

ipso. independent press standards organisation

↓ Best Free Software

VIRTUAL PRIVATE NETWORK

ProtonVPN

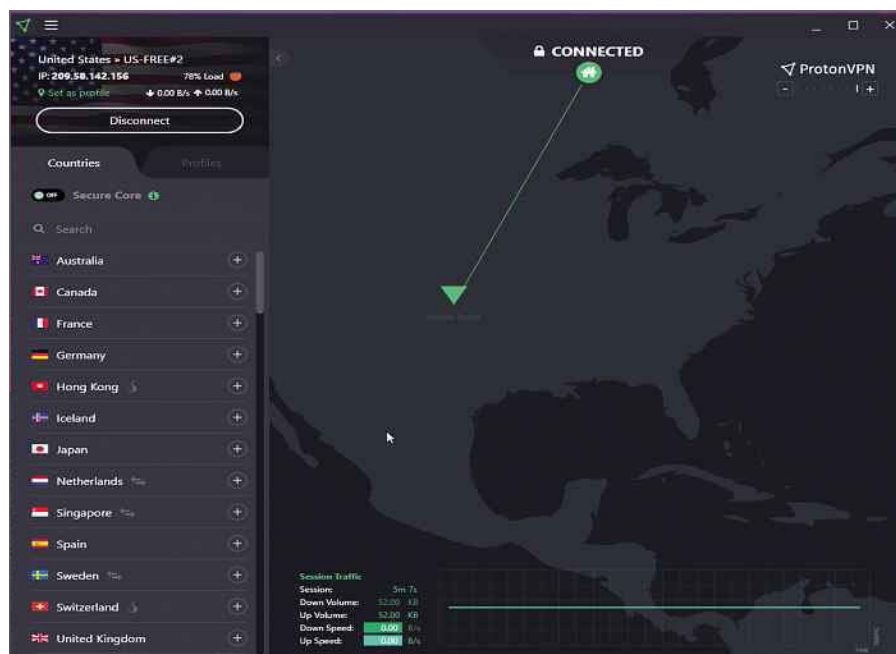
bit.ly/provpn432

Min requirements: Windows 7/8+/10, MacOS, Linux or Android

File size: 22.3MB

Other than Tor (see our cover feature on page 40), one of the best ways to protect your privacy online is by using a VPN (Virtual Private Network). ProtonVPN, from the company behind the privacy-focused ProtonMail (see page 44), is free and designed with security as its main focus. To ensure your browsing can't be compromised, ProtonVPN secures your connection with the highest strength encryption, and doesn't record anything you do, so there are no logs or tracking to worry about.

Like most free VPN tools, ProtonVPN has some restrictions to be aware of: it limits the number of countries you can pretend to be browsing from to just three, throttles your connection speed



and only allows you to run it on one device. If you require more privacy and security features, you can upgrade to one of the paid-for plans.

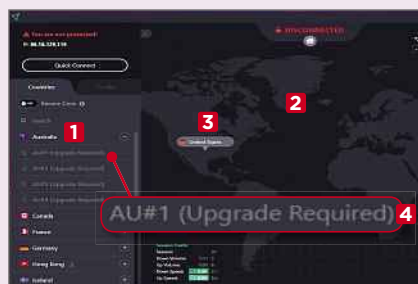
The Basic version costs \$4 (around £3) a month and ups ProtonVPN's speed. It also gives you access to all countries and can be run on two devices. The Plus version costs \$8 (£6) a month, can be run on five devices and offers some powerful privacy features including Secure Core, which redirects your traffic through privacy-friendly

countries such as Switzerland and Iceland. It also lets you route all your traffic through the Tor anonymity network with a single click. You get a seven-day trial of this version with the free download.

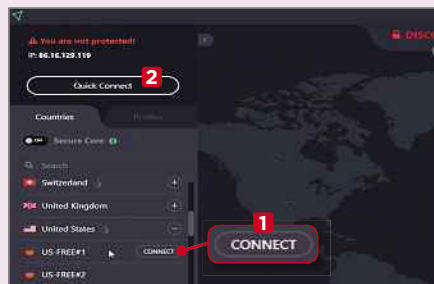
If you're not that worried about security, the free version of ProtonVPN will no doubt suit your needs adequately, although due to demand free users are requested to sign up to the waiting list to be notified when a download slot becomes available.



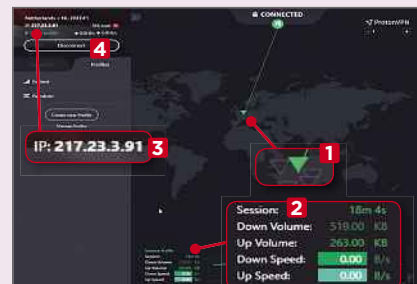
MINI WORKSHOP | Browse securely using ProtonVPN



1 ProtonVPN displays a list of servers in different countries that you can connect to, **1** as well as a map with the servers plotted on it. **2** Select a server on the map to view it. **3** The majority of servers aren't available to free users and will be marked as Upgrade Required. **4**

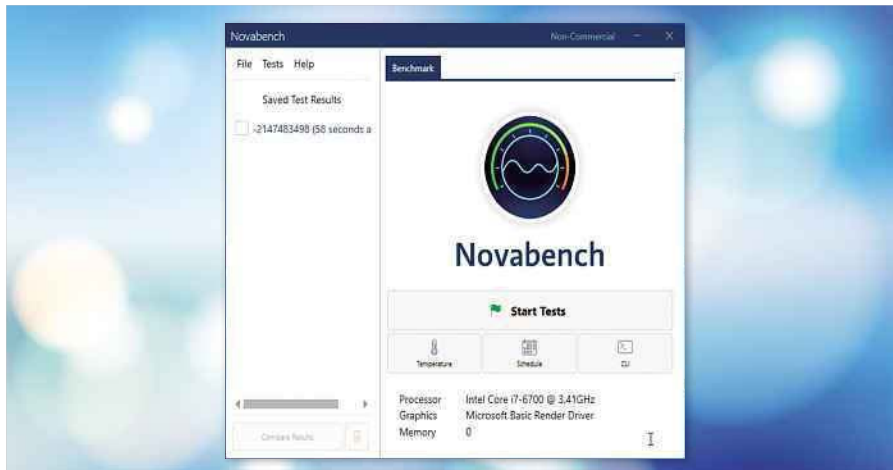


2 Find a server to connect to. Hover your mouse over it and you'll see a Connect button. **1** Click this to make the connection (it will take a little while). If you don't care where in the world you're shown as browsing from, you can just click the Quick Connect button at the top. **2**



3 Once connected (it may take several attempts), you'll be able to see where you're connected to **1** and monitor your session traffic, including the download and upload speeds. **2** The current IP address will be shown at the top. **3** When you're ready to end your VPN connection, just click the Disconnect button. **4**

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



BENCHMARKING TOOL

Novabench 4

novabench.com

Min requirements: Windows 7/8+/10 or MacOS **File size:** 92.1MB

Novabench runs a series of benchmarking tests on your PC or Mac to reveal how well it performs, and to highlight potential problems. There are installer and portable versions available. The new version has a redesigned interface and updates the processor tests. There are new Direct3D 11 and OpenCL GPU tests, too, as well as a new drive-read speed test. The score-comparison site – which lets you see how your PC compares with others – has also been improved.



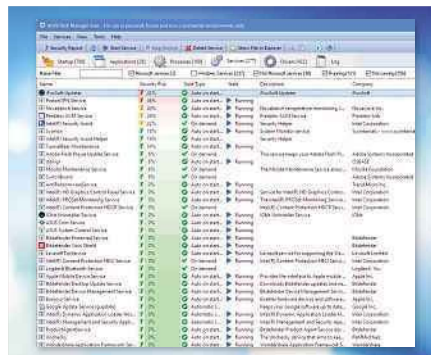
ASTRONOMY TOOL

NASA's Eyes – Eclipse 2017

bit.ly/eclip432

Min requirements: Windows XP/Vista/7/8+/10 **File size:** 34.8MB

On 21 August 2017, there was a total eclipse of the sun visible from across much of the US. If you didn't get to see it on the day – because you weren't in America – this interactive, web-based 3D simulation will show you what you were missing. You can click anywhere on the Earth to view the eclipse, and adjust the timeline to watch it change. Install the program, then click the eclipse link on the website to open it.



TASK MANAGER

AnVir Free 9

www.anvir.com

Min requirements: Windows XP/Vista/7/8+/10 **File size:** 4.11 MB

This program is an alternative to the Windows task manager and displays running applications, processes and services in a tabbed interface. You can manage the programs that start with Windows, start and stop services, and view a security report. AnVir Free is actually the full version – free for personal non-commercial use – and the latest release adds security analysis of drivers, and info on 64-bit processes.

New Windows Apps

wTorrent

bit.ly/wtorrent432

Min requirements: Windows 10
File size: 21.6MB

wTorrent is a native app for BitTorrent that supports torrent files and magnet links, and offers support for file priorities, rate limiting, video playback, changing the incoming port and more.

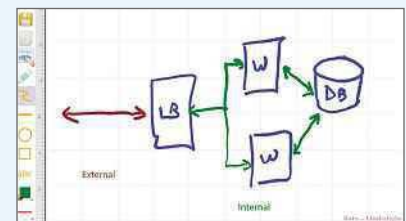


Mediabyte Whiteboard

bit.ly/whiteb432

Min requirements: Windows 10
File size: 20.2MB

This is a real-time whiteboard communication tool. Draw on the board, and friends who have the app installed will be able to see and collaborate on your creations in real time.



Audio Modifier

bit.ly/amod432

Min requirements: Windows 10
File size: 19.2MB

Audio Modifier lets you apply a range of effects to a voice recording or WAV file. Available effects include concert hall, backwards, low battery, helium, cave, bathroom, robot and alien.



UNINSTALLER

IObit Uninstaller 7

bit.ly/uninstall432

Min requirements: Windows XP/Vista/7/8+/10

File size: 12.3MB

IObit's Uninstaller lets you batch-remove multiple programs as well as all leftover traces, such as temporary and installer files, and Registry entries. You can filter the list of installed software by All Programs, Recently Installed, Large Programs, Infrequently Used and Windows Updates, and also reorder the list by Name, Size, Install Date or Version. There are additional sections for Windows Apps and Toolbars & Plugins. The latest version of IObit Uninstaller completely removes bundleware and bundled plugins, and updates important software easily and quickly. The scan engine and uninstall process have been improved, and you can choose from two skins - White and Classic.

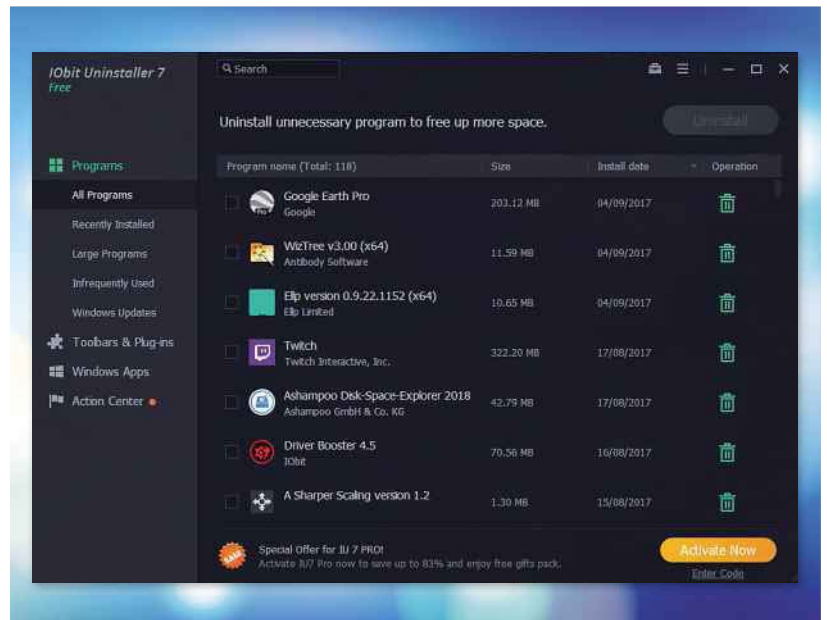


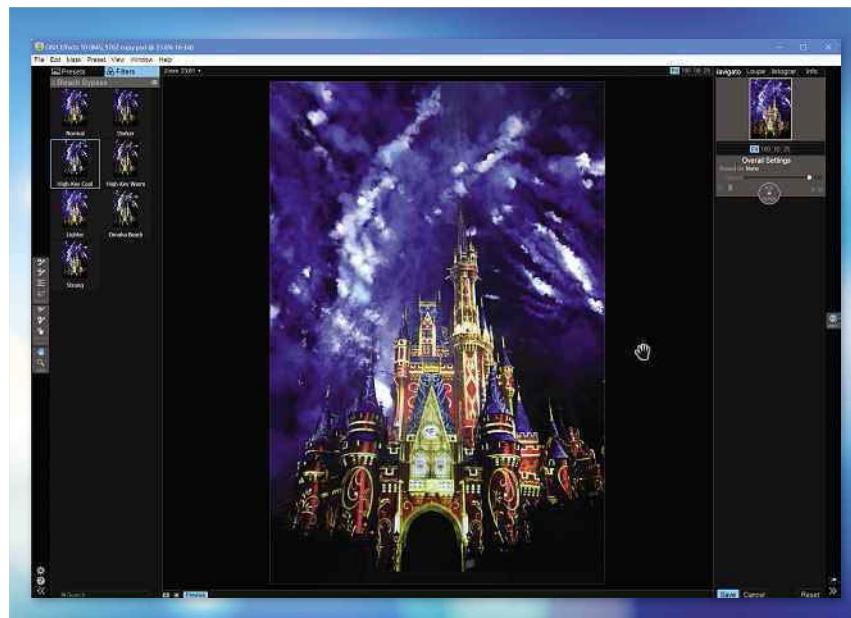
IMAGE EDITOR

On1 Effects Free

bit.ly/on1effect432

Min requirements: Windows 7/8+/10

or MacOS **File size:** 416MB



Originally priced at \$59.99 (£46) but now entirely free, this powerful image-editing program offers hundreds of filters, presets, borders and textures that you can apply to your photos. To download the program, you first need to enter some details, including your email address, but this doesn't take long. As well as working as a standalone tool, the effects can be integrated with Adobe Photoshop, Adobe Elements, Adobe Lightroom and Apple Photos. The software supports all the major imaging formats and lets you create your own custom presets. You can also use On1 Effects Free to make quick adjustments to your images.

DISK TOOL

WizTree 3

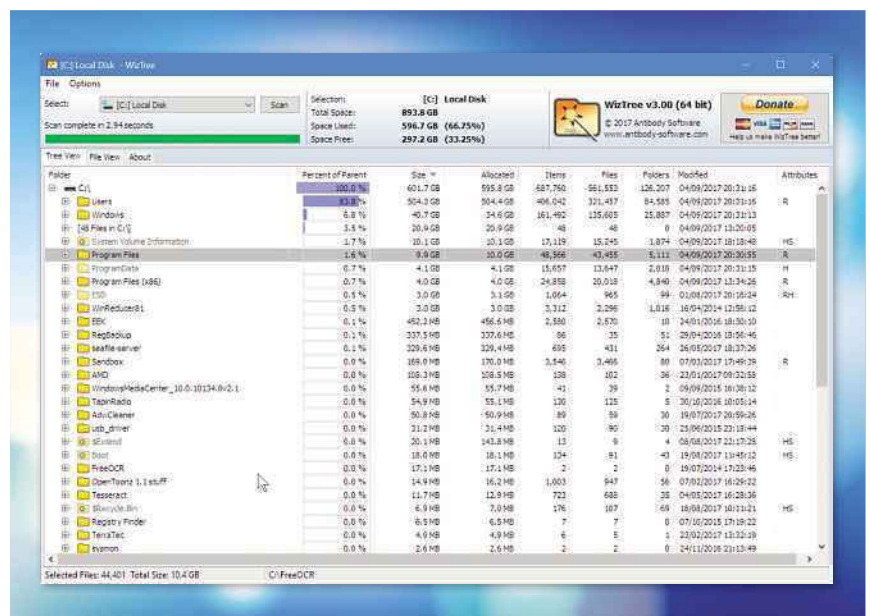
antibody-software.com

Min requirements: Windows XP/

Vista/7/8+/10 **File size:** 2.8MB

WizTree is a very speedy drive analyser that checks any nominated hard drives to identify the files and folders taking up the most space, so you can delete or move them. To use the program, just select the drive you want to check from the drop-down menu and click Scan. The results will appear below and let you switch between Tree View and File View. You can then reorder them and explore the contents of your drive.

This latest version of WizTree is even faster, and the file finder offers improved support for highly fragmented MFT (Master File Table) files. There's also now a separate 64-bit build available to download.





GAME

Archimoulin

bit.ly/archm432

Min requirements: Windows XP/Vista/7/8+/10 **File size:** 119MB

If you're a fan of point-and-click adventures but also enjoy platformers, then you'll love Archimoulin, which combines both to great effect. It's a short, highly-polished student project, in which the aim is to gather the ingredients needed to create the perfect birthday cake for your mother. You'll need 7-Zip (www.7-zip.org) to open the download, which is in 7z format.

Don't install...

StickyPad

bit.ly/spad432

Min requirements: Windows 7/8+/10
File size: 771KB

StickyPad is a simple and straightforward sticky-note tool but it's riddled with distracting irritations. For starters, it uses Windows XP-style icons, which look dated and out of place, and it doesn't let you use non-text elements such as images in your notes, which is limiting. It also turns every note into a Desktop icon, even if it's closed, which creates a lot of clutter very quickly.



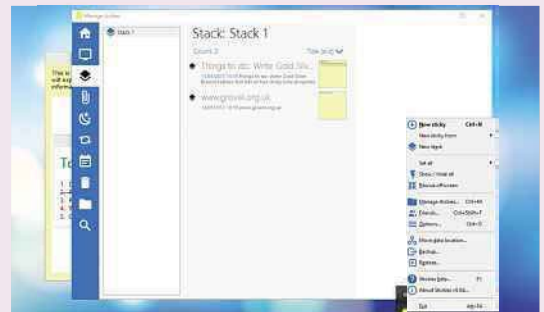
...Install this instead

Stickies

bit.ly/stickies432

Min requirements: Windows XP/Vista/7/8+/10
File size: 1.6MB

Stickies is packed with useful options, but there's nothing too complicated, so you can explore its tools at your own pace. You operate the program from a small icon in the notification area. To add a new note, just press Ctrl+N and start typing. You can resize and rearrange your notes as you please, organise them into stacks and choose how they're saved. As well as simple text, you can paste in almost anything, including images, URLs and file attachments. Stickies also lets you share notes with others over your network, and offers a solid backup-and-restore option.



UPDATED | New tweaks and fixes for your favourite free programs



PARTITION MANAGER

Aomei Partition Assistant Standard 6.5

www.aomeitech.com

Min requirements: Windows XP/Vista/7/8+
File size: 9.9MB

This program lets you create, copy, merge, resize and split partitions, and even recover damaged ones. The latest version adds a Secure Erase Wizard for solid-state drives (SSDs) and an enhanced Windows To Go Creator. It also fixes various bugs.



SYSTEM TOOL

Glary Utilities 5.83

www.glarysoft.com

Min requirements: Windows XP/Vista/7/8+/10
File size: 16.2MB

Glary Utilities is a collection of useful tools for fixing common problems, optimising Windows and protecting your privacy. This latest updated version improves the speed of the quick search by 30%, and adds support for new programs to the drive cleaner and tracks eraser.

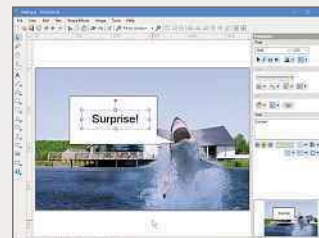


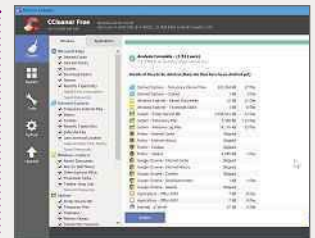
IMAGE ANNOTATOR

iPhotoDraw 2.4

www.iphotodraw.com

Min requirements: Windows XP/Vista/7/8+/10
File size: 23.7MB

Annotate your photos by adding captions, watermarks, measurements, name tags, objects and more. This new version of the program adds text bullets and numbers, a round-corner effect, a Zoom To Selection and a new Save As option. Annotations are stored separately so your original image remains intact.



SYSTEM CLEANER

CCleaner 5.33

www.piriform.com/ccleaner

Min requirements: Windows XP/Vista/7/8+/10
File size: 9.3MB

Yes, it's time for another update to our favourite system-cleaning tool. This release improves cleaning in Firefox and Edge, and fixes Automatic Update, which continued to tell users about an existing update after the setting had been disabled. ■

GET FREE SOFTWARE FIRST subscribe to Web User at subscribe.webuser.co.uk



Best New Browser Tools



CHROME

View beautiful places on your new tabs

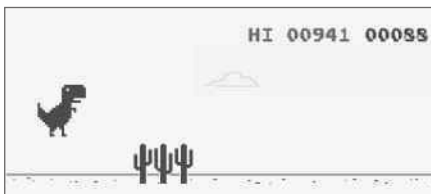
As regular readers of this section know, we love extensions that decorate your New Tab page with pretty pictures, and Mustsee (bit.ly/mustsee432) is one of the most attractive we've come across. Open a new tab to view random photos of beautiful places as selected by travel experts: if you don't think an image is special enough, click the target button at the top of the page to view another one.

The add-on isn't just aesthetically pleasing, but also lets you learn about the places in the pictures by clicking the 'learn more' button in the bottom-left corner. You can even get directions if you're feeling particularly inspired. Our selection included gorgeous shots of Casa Vicens in Barcelona, Antelope Canyon in Arizona and Bryggen Wharf in Norway. Mustsee is a must-install.



Play Chrome's dinosaur game full-screen

We love Chrome's hidden dinosaur game, which you can play to keep yourself amused when you go offline or by visiting chrome://dino and pressing the spacebar. Now Google has made it even better by adding an 'arcade mode', which enlarges the game to fill your browser and removes the unsightly error message. To activate this mode, simply press the spacebar twice when viewing the page. As before, the aim of the game



is to guide your running dinosaur across a barren landscape, making it leap over cacti by hitting the spacebar. That's all there is to it, really, except the pace gets increasingly faster and further obstacles appear in the form of pterodactyls and a surprise switch to 'night mode' when you exceed a score of 750.

Unload unused tabs to view later

The more tabs you have open in Chrome, the more memory it uses, but you might be reluctant to close



pages you want to view later. Rather than adding multiple bookmarks, you can use Dog Ear (bit.ly/dogear432) to temporarily 'unload' unused tabs, and save them in a list to reopen later. Just click the toolbar button to unload tabs individually, or right-click it and choose 'Dog Ear all tabs'; the list of unloaded tabs then appears on your New Tab page so you can easily restore them. Dog Ear works in a similar way to the popular add-on OneTab (www.one-tab.com), but it's even more efficient.

Convert all website fonts to Comic Sans

Celebrating its 23rd year in the graphic-design industry, Comic Sans MS

is surely the most stylish and sophisticated font available, and the best way to get people to take your work seriously. Yes, we're being sarcastic, but that doesn't stop us being amused by a new extension called Comic Sans Everything (bit.ly/comic432), which converts all text on web pages to the font once described as "the most hated in the world". You can turn the effect on and off with a single click, and switch between upper- and lower-case letters. Even if you're not a Comic Sans fan, it's a fun add-on for pranking other people and – more usefully – could prove beneficial for dyslexic PC users: the font is recommended by the British Dyslexia Association (bit.ly/dyslexia432).



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



FIREFOX

Mute sound on all websites automatically

Whoever first thought that auto-playing audio on websites was a good idea was either hard of hearing or had a very twisted sense of humour. With the possible exception of YouTube, we can't think of any sites on which it's welcome to have sound blast through your speakers or headphones the minute you load them, which makes 'Mute sites by default' (bit.ly/mute432) a brilliant idea. As its name suggests, this add-on assumes that you don't want to jump out of your skin while browsing the web and silences all online sound accordingly, unless you tell it not to. You can 'unmute' a tab by either clicking the speaker icon, pressing Ctrl+M or right-clicking and choosing Unmute Tab; and create a whitelist of sites on which to always allow auto-playing sound.



Check your Firefox version number

So, which version of Firefox are you running? If you had to look to find out – by going to Help, About Firefox and waiting for the info window to open – you'll appreciate a new add-on called Version in Toolbar (bit.ly/version432). This shows your current version number in an icon on the toolbar (Firefox 56

is set for release on 26 September), so you can instantly see whether the browser is up to date.

There's an accompanying

Minor Version in Toolbar, which tells you the full number – for example, 56.0.3 – but this isn't essential unless you're fastidious about such things!

Discover the real location of websites

Web domains can be deceptive – many sites with URLs ending in '.com' aren't located in the US, while webmasters



seeking a quirky name often buy a domain from another country so the address ends in '.co' (Columbia), '.ch' (Switzerland) or '.ly' (Libya). To discover exactly where the site you're viewing is based, install Country Flag Plus (bit.ly/flag432), which shows the relevant country's flag in your address bar. Click this for further info, including the server's IP address, geographical coordinates and the location pinpointed on a map. The add-on supports more than 240 countries and lets you choose between three flag sizes. It's interesting stuff: we learned that Amazon.co.uk is hosted in the Netherlands, and Channel 5 is in Italy!

OTHER BROWSERS



Browse more fluidly in Edge

After a slow start, Microsoft's Edge browser is finally gaining some useful extensions, though the tally is still only in double figures compared to the thousands available for Chrome and Firefox. Our favourite recent addition is Mile Wide Back (bit.ly/mile432), which makes it easy to move back and forth through your browsing history, and between open tabs, with fewer clicks. It uses the concept of an "infinitely wide" button on the left-hand side of your screen: you left-click to navigate back in your browser history, right-click to go forward and rotate the mouse wheel to cycle through open tabs.



Sort your Vivaldi downloads by type

Back in Issue 424, we reported that Vivaldi had introduced the useful option to sort the files in your Downloads folder by various different criteria, including name, size, date added, date finished and web address. This feature has now been made even more useful with the ability to sort downloads by type, too, which makes it much easier to find the items you want. Just click the menu bar above the Downloads list and use the options provided to choose how you want to sort your downloads.



Best Free Apps

App of the Fortnight

TRAVEL

Guides by Lonely Planet

bit.ly/guidesdroid432

bit.ly/guidesios432

 4.3  9

Lonely Planet is now 45 years old, so it's about time the travel-publishing giant made its beautifully written guides available on your phone and tablet to browse offline.

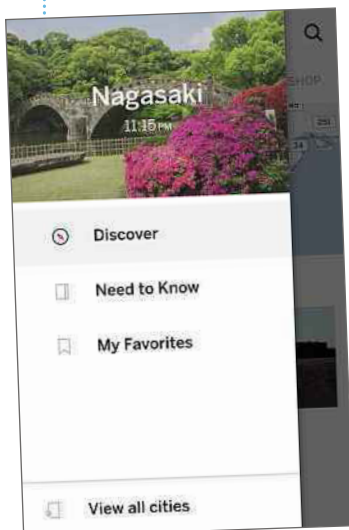
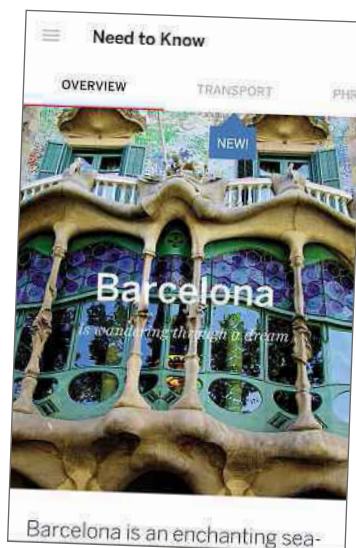
Some of its guides, anyway. The app currently only covers cities, so while you'll be able to access a downloaded guide even if you're up a mountain or down a canyon, far away from an internet connection, you won't find a guide that covers that location (unless it's Table Mountain in the middle of Cape Town, or a canyon between two blocks of New York skyscrapers). What's more, the app currently only covers around 100 cities, which isn't many – as you'll realise when you start searching. No Riga, Seville, Melbourne or Tijuana, and that's just the first four cities we thought of! But more are being added every month, and you can vote for cities to help push them up the shortlist.

But while the guides are low(ish) on quantity, they're high on quality. Each one contains curated collections of articles produced by Lonely Planet writers who know the locale intimately or even live there. Tap an item – such as a restaurant or landmark – to open a whole section about it, including ratings and prices. Annoyingly, you can't select an

item on the zoomable map to open its page; you have to tap its name or thumbnail. Each guide also has a 'Need to Know' section with a public transport map and other local info, plus an audio phrasebook with basic phrases in a few languages. To unlock all 19 languages, you'll have to cough up £5.49 via an in-app purchase.

You don't need to create an account to use the app, but it's free to do and means you can save pages to My Favourites for quick access – see our Mini Workshop, right.

NEW



MINI WORKSHOP

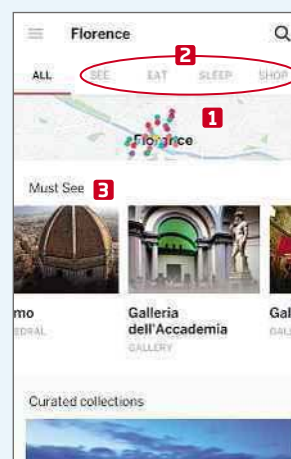
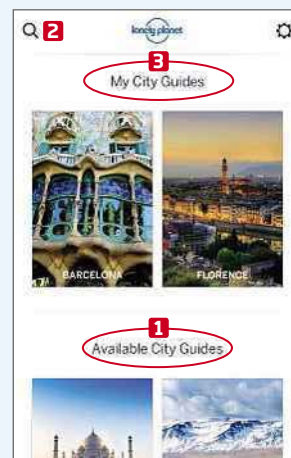
Explore cities with Lonely Planet



1 Install and launch Guides. Select Log In to set up a Lonely Planet account (you can do this later) or tap Skip to go straight to the City Guides screen. **1** Swipe up through the 100+ cities or tap the search icon. **2** If your searched-for city doesn't yet have a guide, press Vote For This City. If it does, tap Download City Guide to add it to your main screen. **3**

2 Tap a thumbnail under My City Guides to open a guide, then press Yes to log in or create an account, if you haven't already. The default map **1** is covered with dots and each colour represents an item in one of the category tabs: See, Eat, Sleep and Shop. **2** Press a tab to view only the dots for that category. Swipe down to expand the map; and swipe up and left to explore the local sights. **3**

3 Tap a thumbnail to open that section of the guide. **1** Swipe up for an article, **2** map and links. Press the bookmark icon to add it to your Favourites. **3** To access Favourites, tap the arrow in the top-left corner, **4** then the three-line hamburger menu, then My Favourites. The menu also has a 'Need to Know' section with transport, prices and phrases for each of your downloaded cities.



Our rating



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

TRAVEL

Packr

bit.ly/packr432



Here's another somewhat ill-timed travel app that's been released to coincide with the end of the holiday season. Packr is a smart packing checklist that uses artificial intelligence to help you plan. Tell it where you're going, where you're staying and what you'll be doing, and it'll calculate whether you should pack your sandals or your sou'wester. It's a great idea, but limited in practice. It doesn't let you edit the list it generates, and if you want to sync between iOS devices, you have to buy an in-app upgrade, starting at £1.99.



Our rating



NEW

FILE MANAGER

Astro File Manager

bit.ly/astro432



The popular Android file manager has been redesigned with new features – such as Cloud Hopping, which lets you move files between your cloud-storage services, as well as to and from your phone or tablet, your SD card and sharing-enabled devices on your Local Area Network (LAN). As ever, you can bookmark folders for faster access, create and extract ZIP files, view media and manage apps. The new Astro is easier to navigate than its cluttered rival ES File Manager, but we also found it to be slower.



Our rating



UPDATED

DOCUMENT SCANNER

Office Lens

bit.ly/lensdroid432

bit.ly/lensios432



Our favourite free Microsoft app now lets you scan multiple documents at once. Office Lens is completely free and effectively replaces your flatbed scanner by letting you convert hard-copy letters, receipts, wall posters and other physical documents into perfectly presented PDFs, photos, Word documents or even PowerPoint presentations. OCR (optical character recognition) is built in, so you can search for text in your saved scans, and files are automatically backed up to OneDrive and OneNote.



Our rating



HOME IMPROVEMENT

Home Solutions

johnlewishomesolutions.co.uk



Take the hassle and worry out of finding a builder or handyman with this new app from John Lewis. The much-loved department store is the UK's most trusted brand, according to pollster YouGov (bit.ly/brand432), so perhaps Home Solutions is its way of sprinkling a little trust dust on plumbers, electricians, decorators, gardeners and other tradespeople who sign up with the service. Use it to find a John Lewis-approved trade professional in your area, then book and pay for the job via the app, thereby avoiding any awkward conversations about cash. The service is currently rolling out to locations across the UK.



Our rating



NEW

MAPS & NAVIGATION

KoMoot

bit.ly/kodroid432

bit.ly/koios432



This app lets you create a detailed hiking or cycling itinerary to use offline – including turn-by-turn directions, topographic maps and a personal log. KoMoot's new version offers even more info on the go, including your current altitude and upcoming points of interest, and expands the planner to include features such as public toilets and e-bike charging spots. The update also brings native iPad support and a landscape option. The catch is that you only get your first region for free. That may be enough to cover a walking holiday, but if you're a regular adventurer, you'll have to fork out £3.99 for each additional region.



Our rating



UPDATED

5 NEW APPS WORTH PAYING FOR

PC TOOL

Mouse Mover

bit.ly/mousedroid432

bit.ly/mouseios432

Price: 89p (Android), £1.99 (iOS)

 **4.0.3**  **8**

Keep your PC screen awake by making it think your mouse is moving. There's no need to connect to your PC – you just put your mouse on a pattern. Don't stare at the patterns, though, or you'll start to feel very, very sleepy!



PHOTO FILTERS

Pictail Retro

bit.ly/pictail432

Price: £1.59

 **4.0.3**

Add filters while you shoot photos and video, or spruce up photos from your gallery, using this new app that's part of a series along with LimitedEdition and BlueHawaii.



SCIENCE

PhET Simulations

bit.ly/phet432

Price: 89p (Android), 99p (iOS)

 **4.4**  **9.1**

Bring physics alive with these



glorious simulations from the University of Colorado's Physics Education Tech team. Dozens of sims such as Bending Light and Gravity And Orbits are available to download and play offline.

MUSIC & RADIO

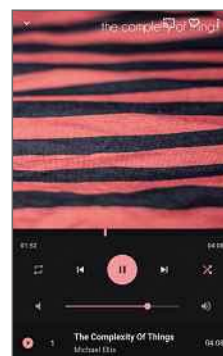
Style Music

bit.ly/style432

Price: £1.59

 **5**

Play music files or stream more than 50,000 global radio stations using this excellent open-source player. Advanced features include support for Chromecast and Last.fm, and the option to search for any station playing a particular song.



BATTERY TOOL

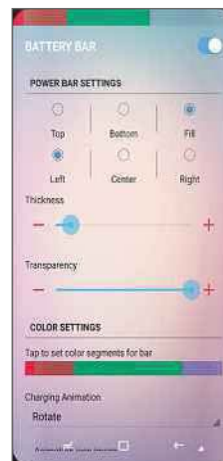
Battery Bar

bit.ly/battery432

Price: 59p

 **4.2**  **8**

Check your Android's battery level at a glance using this colour-coded 'energy bar'. You can customise the bar's size, transparency and position, and set animations to appear when your phone is charging.



Mouse Mover



Pictail Retro



PhET Simulations



Style Music



Battery Bar



Don't install...

British Accent Learn

bit.ly/accent432

 **4.1**

Is this app out to sabotage foreign speakers? Because inviting them to brush up their



English skills with "a plenty of British accent top tips" is just cruel. You'd have more luck learning English from Manuel the waiter than from these audio clips. The ads make the app almost unusable unless you cough up a £9.99 in-app purchase. Get ah't of it, as we say round here.

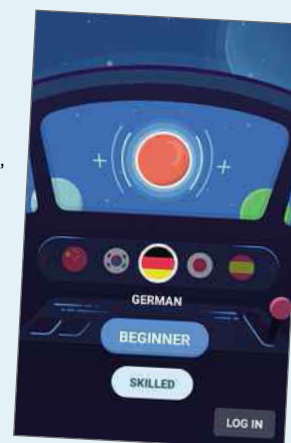
...Install this instead

Memrise

www.memrise.com

 **4.1**  **9**

Memrise used to be a broad educational app, but it now specialises in languages – and it's even better as a result. Learn one of 15 tongues – including Japanese, Russian and Arabic – by watching more than 30,000 videos of native speakers and interacting with new 'chatbots', which are designed to improve your conversational flow. You can also play hundreds of games at various levels of difficulty, all created and updated by a dedicated team of linguists who work side by side with Memrise developers to ensure variety and accuracy. Memrise is definitely worth a look if you want to broaden your cultural horizons. ■





Take a Screen Break

Give your eyes a rest from your display by taking our fortnightly challenge. Can you guess our fairy-tale emoji and solve our word puzzle?

**WIN A
WEB USER
MUG!**

Email your answers to
webuser@dennis.co.uk
- one correct entry
will win a
Web User mug



CAN YOU GUESS THE FAIRY TALES FROM THE EMOJI?

1



2



3



4



5



6



WEB USER WORD PUZZLE

Enter the answers in the grid to reveal a tech-related term in the highlighted column

- 1 Actor Renée, star of *Chicago* and *Bridget Jones's Diary*
- 2 Popular pet with breeds Silkie, Texel and Peruvian (6,3)
- 3 Wide-body aircraft, eg. Boeing 747 (5,3)
- 4 Norfolk market town and forest, location of the Dad's Army museum
- 5 Ancient Greek tragedian, author of *Oedipus Rex* and *Antigone*
- 6 Mayweather's opponent in August 27 Las Vegas boxing event
- 7 UK rock band fronted by Francis Rossi and Rick Parfitt (5,3)
- 8 UK Prime Minister, 1990-1997 (4,5)

1								
2								
	3							
4								
5								
	6							
7								
8								

COMPETITIONS

WIN 1 OF 3 PaintShop Pro 2018 Ultimate

You can get Photoshop-like results for less with PaintShop Pro 2018 Ultimate, the fastest, easiest version ever. There's an exclusive bonus collection of premium software, including Painter Essentials 5 to turn photos into works of art and AfterShot for RAW image editing. To enter, email your address to webusercomp@dennis.co.uk with 'paintshop' in the subject line. For more information, visit www.paintshoppro.com and follow [@CPaintShopPro](https://twitter.com/CPaintShopPro).



WORTH
£89.99
EACH

WIN A Synology DS216j NAS drive

Synology's DS216j NAS drive, which won Gold in our Group Test in Issue 430, is fantastic value for money. It has plenty of tools and features that you'd normally find only in more expensive models. It is also very fast at reading and writing data. To enter, email your address to webusercomp@dennis.co.uk with 'synology' in the subject line. For more information, visit www.synology.com and follow [@Synology](https://twitter.com/Synology).



WORTH
£161.13



FAQ

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

Our guide to Android Oreo

Google has released the latest update to its mobile operating system. **David Crookes** reveals whether it tastes as sweet as it sounds

Is this a new kind of biscuit?

Ah, we knew you'd bite. It is actually the latest version of the Android operating system – also known as version 8.0 – and, as with previous iterations, it's nicknamed after a sweet treat. This is the second time a confectionery brand has been associated with Android, the first being Android KitKat back in 2013. As always, though, Android is hoping the raft of new features it brings will be to your taste.



Android Oreo is named after the chocolate-wafer biscuit filled with cream

How different is it to previous versions?

Google has resisted giving its operating system a complete overhaul, but it's added a good number of features that should make Android easier to use and ensure it's more efficient at performing certain tasks. One of the first things you'll notice is the boot speed when powering up, which is twice as fast as before. Oreo also frees up the system's overall resources by intelligently minimising background activity in the apps you use the least, which should also give the battery life a boost.

What new features should I be looking out for?

From a visual perspective, the most notable addition is picture-in-picture (PIP) multitasking, which allows you to run two apps at once. This feature was

actually introduced in Android Nougat for Android TV, but this brings PIP to all devices running 8.0. It's been designed to work during video calls or while watching



Picture-in-picture lets you carry on watching a video while doing something else

a video. By placing either app in a small corner of the screen, you can chat with someone or continue watching videos while doing other things on your device, such as checking a map or an email.

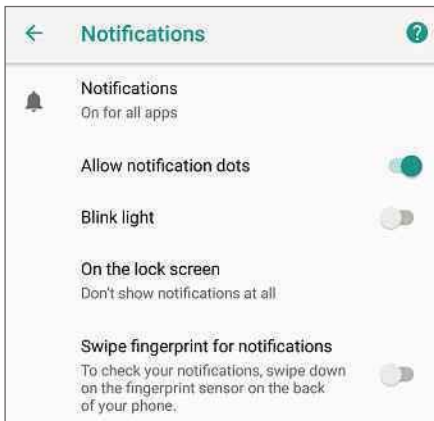
Which apps does picture-in-picture work with?

You can use picture-in-picture with YouTube, but you need a Red subscription, which isn't yet available in the UK. However, it works with videos in Chrome and more apps will use the feature in the near future. Don't worry about the PIP window getting in the way, either, because you can move it around the screen or dismiss it by dragging it off the bottom. There is also better audio thanks to new codecs that improve the sound quality through headphones and wireless speakers. This will enhance your video viewing.

Have there been changes to notifications?

There have indeed. Borrowing from iOS, Android Oreo has notification dots that appear on an app's icon whenever there





Android Oreo's notification dots let you see instantly which apps have updates

is an alert related to it. These let you see at a glance what is new and you can long-press an icon to see a preview of the alert before swiping it away. Unlike iOS, you won't see a number indicating, for instance, how many unread email messages you have. But there are new notifications channels that separate notifications deemed important by the developers from those that aren't. You can also fine-tune the notifications in the Settings app and use the new snooze function to delay them until you're ready to deal with them.

Do you get better overall control over Oreo, then?

Yes. The settings app has been redesigned, removing the slideout and three-line hamburger menus, and placing familiar options within different categories. You can check whether or not you are connected to a public Wi-Fi network, create a customisable lock-screen shortcut and use fingerprint-scanner gestures. Oreo also lets you manage the volume of the notifications and block them according to the channel in which they are placed: in the past, you've only been able to control them for specific apps.



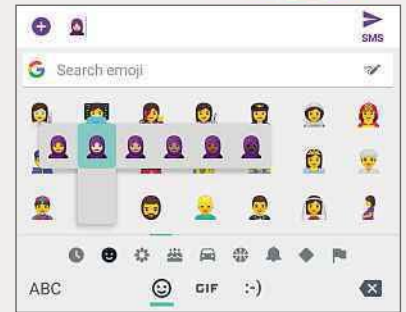
Oreo's new features make it easier to autofill and copy and paste text

Does Oreo improve the ability to handle text?

It does. Oreo's autofill function remembers your logins, credit cards, addresses and more so you can access your apps much more quickly. You have to grant it permission to do this but it will work well across devices and within

SAD FACE OR HAPPY FACE?

One of the biggest changes in Android Oreo is a redesigned set of emoji, which ditches the blobby old designs in favour of rounder versions. The emoji also include 69 new images ranging from an exploding head ("mind blown") and shushing face to a dinosaur and giraffe. Better representative of gender, race and religion, they are included in the Unicode 10 emoji set and increase the number of available images to more than 2,000. To see a full set online, visit emojipedia.org/google/new.



apps. There's also a more intelligent method of selecting text. Oreo picks up on the potential uses of the text you highlight. This means it will suggest going to Google Maps if you've selected an address or to the phone app if you've highlighted a telephone number.

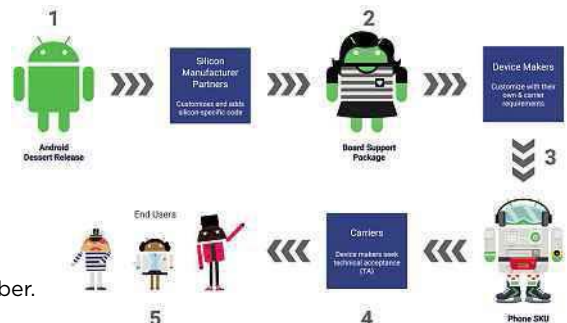
Are apps still a big part of Android's future?

Yes, but there's also an interesting new feature called Android Instant Apps. This lets you use apps in your browser without actually installing them. When you tap a link in a browser, Google Play checks whether there is an app that can open it. The link is then opened in the portion of the app needed to perform that action.

There are also tighter controls on the installation of apps (Google isn't saying how it achieves this) and more prominent security options in Settings, which you'll now find under Security and Location rather than buried deep. In other words, security is far more central to Android than it has been before.

Is there anything else I should know about?

You may be interested in a small addition to the camera – double tap for a 50% digital zoom, and tap icons to switch between videos and photos – as well as refined app shortcuts and widgets, and an adjustable night light. Of particular note is something called Project Treble.



Project Treble will hopefully get Oreo to as many devices as possible – soon

This is an attempt to get Oreo and future updates on as many devices as possible in the shortest possible time. One of the major problems with Android is that, unlike iOS, a new version isn't instantly available to all because device manufacturers have to retool it for their hardware, which costs time and money. Project Treble makes it easier for manufacturers to adapt Android for their existing devices.

So when can I try Oreo?

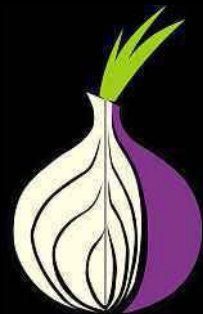
As always, it is being rolled out in stages but it should be available for your device by the end of the year (it was launched on 21 August). If you own one of the major handsets such as a recent Samsung Galaxy, a OnePlus 3 or 5 or an LG G5 or G6, then you should see it soon. Priority has been given to owners of Google's own phones including the Pixel, Pixel XL, Nexus 6P and Nexus 5X but joining the Beta Program at android.com/beta can grant you earlier access.

CAN YOU FIND THE OCTOPUS?

Android likes to hide an Easter Egg in its operating system and Oreo is no exception. To see it, open the Settings app, select System, 'About phone' and tap 'Android version' repeatedly until a large 'O' appears on the screen. Tap this continuously, then long-press to unlock the surprise.



STAY 100% ANONYMOUS USING TOR



COVER
FEATURE

Tor - what is it good for? Absolutely everything, says **Robert Irvine**, as he explains how to use the onion browser to stay completely private and secure online

It's hardly a secret that when you go online, your activities are followed - not only by Google, Facebook and Amazon, but by official surveillance teams, 'just in case' you're a criminal in waiting. In *Web User*, we often recommend privacy add-ons and software that block at least some web trackers, but if you really want to preserve your anonymity, Tor is the best option available.

This stealthy browser keeps your web activities safe from spammers and advertisers, hides your personal data from corporations and other web users, and lets you browse without being followed by identity thieves and stalkers. You can send

personal photos without having them intercepted, use social networks without being monitored, write genuinely anonymous blog posts and much more.

In this privacy special, we explain how to make the most of Tor's anonymity tools and ensure you stay safe when browsing what's referred to - somewhat misleadingly - as the Dark Web. We outline our essential dos and don'ts for using the browser and reveal some of the most interesting sites that can only be accessed through Tor.

And if venturing into the Dark Web sounds far too risky, be reassured by our first-hand experience on page 46.



YOUR TOR QUESTIONS ANSWERED

Wondering what Tor is for, or if using it will get you in trouble? Read on as we peel back the layers of the anonymous onion

WHAT IS TOR?

Tor (www.torproject.org) is an anonymity network that hides your identity as you browse the web, share content and engage in other online activities. It encrypts any data sent from your computer, so that no one can see who or where you are, even when you're logged into a website. Tor is an acronym for The Onion Router, and it was created by the US Naval Research Laboratory in the mid-Nineties.

WHAT'S IT GOT TO DO WITH ONIONS?

It's all about layers. The data from your computer is sent through a series of 'nodes' (other computers, also known as 'relays') run by millions of volunteers around the world, building up layers of encryption like the layers of an onion. Tor gives you a different IP address every time you send or request data, disguising your real one and making it nearly impossible for prying eyes to know where the data originated.

HOW DO I USE TOR?

The easiest way to use Tor is through its dedicated browser (bit.ly/torbrowser432), which is available for Windows, MacOS and Linux (it can be run from a USB stick if you don't want to install it on your computer). The Tor browser is based on Firefox, but disables plugins that could compromise your privacy and security. It won't clash with other software you have installed, but you may need to configure your antivirus program or firewall to allow it access



to the internet.

There's also a Tor app for Android, called Orbot (bit.ly/orbot432); and an operating system - Tails (tails.boum.org) - that's preconfigured to use Tor.

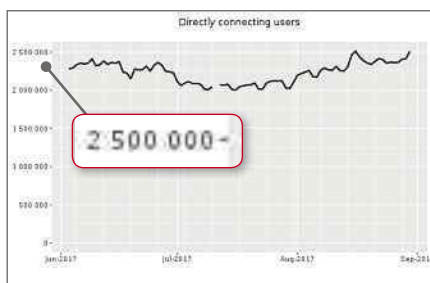
WHO USES TOR?

The police, the military, medical researchers, human-rights groups, abuse victims, whistleblowers, journalists and, increasingly, anyone else who wants to keep their online activities private or is concerned about cyber-spying. It is very popular among people in internet-censored countries such as Russia and the UAE, and counts Human Rights Watch among its past donors.

NSA whistleblower Edward Snowden is a big fan and says: "Without Tor, the streets of the internet become like the streets of a very heavily surveilled city. With Tor, we have private spaces and private lives, where we can choose who we want to associate with and how".



NSA whistleblower Edward Snowden is one of Tor's biggest supporters



Tor's latest figures show that it has 2.5 million daily users worldwide

HOW POPULAR IS IT?

The most recent figures (metrics.torproject.org) suggest Tor has around 2.5 million daily users, with Facebook's Tor-only website alone (see page 42) attracting more than a million visitors every month. The US has the most Tor users (19% of the total number) with the UK in seventh place (3.4%).

BUT ISN'T TOR A BIT DODGY?

Every medium, from the printed page to a standard browser, has the potential to be dodgy, but web services do not commit 'actions' - their users do. As with technology such as Bitcoin - Tor's preferred currency - Tor does not incite or condone illegal enterprises. On its website, it recognises that criminal

elements exploit anonymity, but points out: "Criminals can already do bad things... they already have lots of options available".

For every lawbreaker, there are numerous legitimate users, many of whom use Tor to great social benefit.

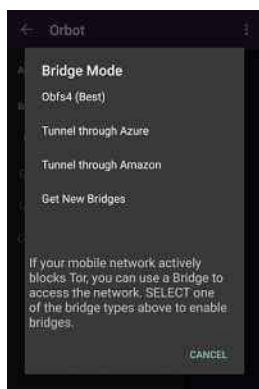
SO IT'S COMPLETELY LEGAL?

Yes, completely. The US Navy isn't in the habit of creating illegal software, and there's nothing dubious about wanting to browse in private. Nobody has ever been arrested or prosecuted solely for using Tor, only for what they used it to do, and Tor itself says in its legal FAQ that "it is not a tool designed or intended to be used to break the law" (bit.ly/legal432).

AND IT'S COMPLETELY SAFE?

As with many online tools, that depends on what you use it for. Many people have reservations about browsing with Tor because it provides access to the so-called Dark Web, where they fear they might stumble across disturbing and illegal content. However, Tor doesn't blithely offer you a directory of links so you can start exploring Dark Web sites - you need to know the exact web addresses, which usually consist of a jumble of 16 characters and the domain '.onion'. All the same, it pays to be vigilant and you should avoid opening suspicious files and links.

We explain what to do (and what not to do) in order to stay safe on Tor, on page 43.



Tor's mobile version for Android phones and tablets is called Orbot



Get set up and started with Tor

Tor can take you to places that a standard browser can't, but it's easier than you might think to use and far less intimidating than its reputation suggests. In this

Workshop, we explain how to get up and running with the browser, configure its most important settings and use its built-in tools to keep you private and secure online.

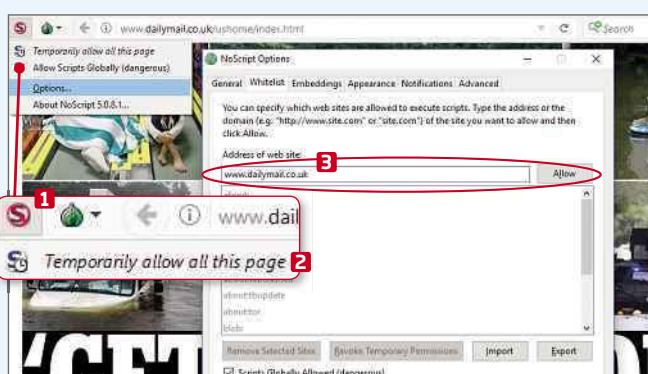
Tor Browser: bit.ly/torbrowser430 | 10 mins | Windows, MacOS, Linux



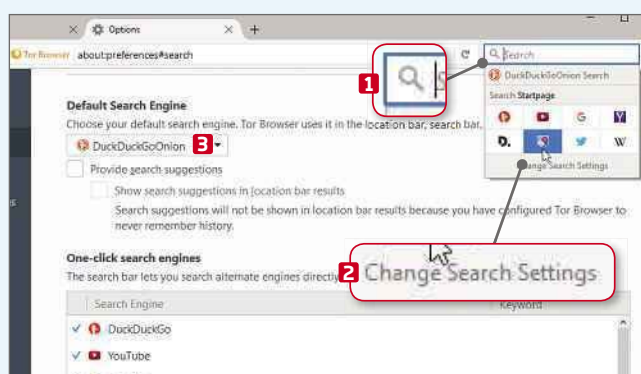
1 Install and run Tor, and opt to connect directly to the Tor network. Before you start browsing, click the onion icon to the left of the address bar. **1** Here, you can see and change the 'circuit' of nodes through which your connection is routed, and the IP addresses and countries used. **2**



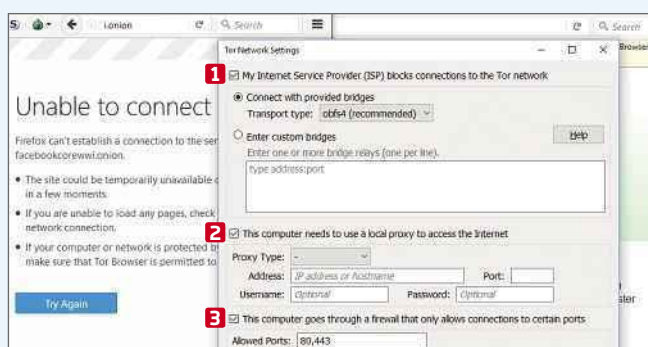
2 Click Security Settings to set a security level. Low is the default, **1** which enables all standard browser features but may leave you compromised. Medium **2** boosts security by turning off some risky scripts and media, while High **3** disables them all, and may leave the web looking rather bare.



3 The preinstalled NoScript add-on blocks some scripts. If you chose Medium or High security level, you can still run scripts on certain sites by clicking the 'S' button **1** and temporarily allowing them. **2** To create a whitelist of allowed sites, choose Options, Whitelist and enter the URLs. **3**



4 Tor's default search engine is DuckDuckGo, but you can click the search icon **1** to switch to another, such as the equally private Disconnect or Startpage, or the Tor-specific DuckDuckGoOnion. Click Change Search Settings **2** to set one of these as the default from the drop-down menu. **3**



5 As in any browser, Tor '.onion' sites are accessed via the address bar. If they won't load, click the onion icon and choose Tor Network Settings. Select the ISP option **1** to connect using secret entry points ('bridges'); or computer options to connect via a proxy **2** or alternative ports. **3**



6 HTTPS Everywhere, built into Tor, ensures you connect to secure, encrypted versions of sites. To avoid sharing data on unsafe connections, click the top-right menu button. Pick HTTPS Everywhere **1** and 'Block all unencrypted requests'. **2** Choose Show Counter **3** to see how well it's doing.



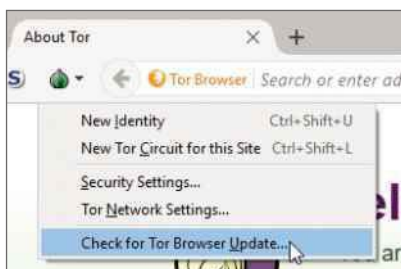
ESSENTIAL DOS AND DON'TS FOR TOR

There are lots of secret hacks for making the most of the Tor network as well as pitfalls to avoid. Here's how to be smart and safe

✓ DO Make sure Tor is kept up to date

Tor is much more secure than Chrome and Firefox but as with any piece of software, it's not impervious to attack. For example, the network was targeted in 2013 by a Trojan called Chewbacca, which stole banking details; and in 2016, it was revealed that the FBI had used specially created malware called Torsploit to 'deanonymise' Tor users and track their real IP addresses (bit.ly/torsploit432). There have also been cases of Tor exit nodes – the last relays that Tor traffic passes through before it reaches its destination – being used for malicious purposes rather than anonymous ones, and infecting users' systems.

Fortunately, Tor usually addresses such threats and vulnerabilities very swiftly, which makes it essential to keep the browser up to date. Every time you launch Tor, click the onion icon on the toolbar and choose 'Check for Tor Browser Update' (Tor updates itself periodically, but checking manually ensures you're using the latest version). Additionally, if you're using a service that involves sharing personal information, you should change Tor's security level to High, as explained in our Workshop opposite.



Update Tor regularly to safeguard it against the latest security threats

✗ DON'T Use Tor for torrenting

As a powerful privacy tool, Tor might seem like the perfect means of downloading and uploading files via BitTorrent and other peer-to-peer networks, but it absolutely is *not*! Using a torrent client bypasses Tor's protection



Although there's a 'Tor' in the word 'BitTorrent', please don't torrent in Tor

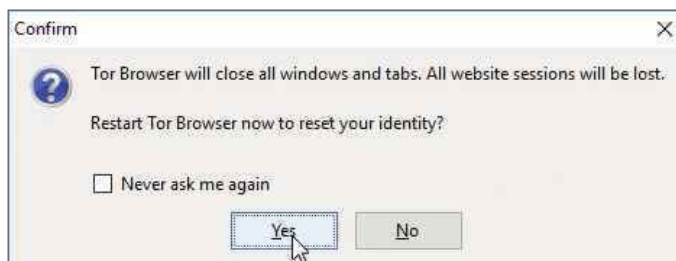
and blows your anonymity by sending your real IP address to the torrent service and other 'peers'. This allows them to identify you, the port you're using for torrenting and even the data you're sharing, if it isn't encrypted. They can then potentially target you with malware or even notify the relevant authorities (if you're sharing copyrighted material). Additionally, torrent traffic places a heavy strain on the Tor network and slows it down for others, so it's selfish as well as careless.

For all these reasons, Tor says file-sharing is "widely unwanted" and exit nodes are configured to block torrent traffic by default.

✓ DO Create a new identity when necessary

Tor does a great job of keeping you safe and anonymous, but you may still encounter websites that raise alarm bells – indeed, Tor may warn you that a site is trying to track you. If you're worried that your privacy has been compromised, click the onion icon on the toolbar and choose New Identity. This will restart the Tor browser and reset your IP address, so you can carry on browsing as a fresh user.

As we explain in our Workshop, opposite, you can also create a new Tor circuit, but this will only change your IP address for the current page, not the whole browsing session.



If you encounter anything suspicious, reset your identity and restart Tor

✗ DON'T Maximise the Tor window

Leave Tor browser windows at their default size because maximising them allows websites to determine the size of your monitor. This might not sound too worrying on its own but when combined with other information, it may provide the extra information websites need to identify you.

✓ DO Use a VPN alongside Tor

It's important to remember that Tor is a proxy rather than a VPN, which means it only protects traffic routed through the Tor browser. As we explained earlier, there are some risks to using the Tor network, especially when downloading torrent files and inadvertently connecting through a malicious exit node. You can boost your privacy and security by using Tor in conjunction with a VPN, to ensure all your data is encrypted and no logs

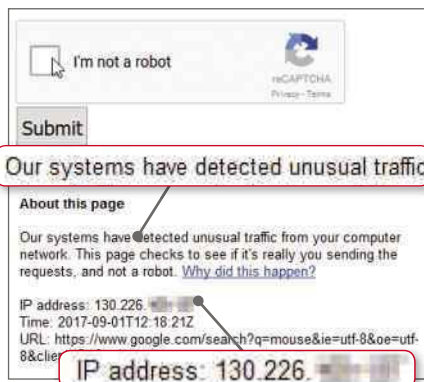


Stay totally anonymous and private by combining Tor with a VPN

are kept of your activities. Several VPNs offer features designed specifically for Tor users, including ProtonVPN (bit.ly/provpn432) – see Best Free Software on page 26 – which lets you access servers pre-configured to redirect traffic through the Tor network; ExpressVPN, which lets you sign up anonymously through its '.onion' website (expressobutiolem.onion); and AirVPN (airvpn.org), which routes traffic through the Tor network first and then through the VPN. None of these options are free – prices generally start at £5 per month – but they are faster, more flexible and more trustworthy than free VPN services.

X DON'T Search the web using Google

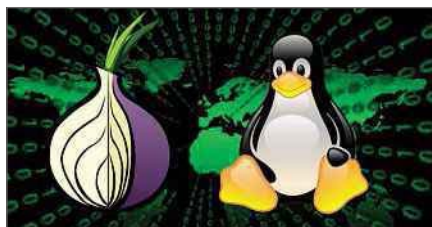
Google isn't known for respecting its users' privacy, so to continue using it in Tor (it's one of the available options) is rather self-defeating. Not only does Google still try to track you and record your searches (based on your exit node's IP address) but when it finds you're connecting in an 'unusual' manner, it gets very uppity about it. Try searching with Google in Tor and you'll continually get CAPTCHAs that ask you to prove you're not a robot. We recommend using either Tor's default search engine DuckDuckGo, its 'Onion' variant or Startpage (which uses non-tracked Google results), all of which come preinstalled alongside Google.



Google doesn't like you using Tor and will continually try to track you

✓ DO Consider running a Tor relay

Tor relies on its loyal and ever-expanding community to provide the relays that create the circuits that deliver the anonymity it's become (in)famous for. The more relays – or 'nodes' – there are running, the faster and more secure the Tor network will be. If you become a regular Tor user, consider giving something back to the community by sharing your bandwidth and running your own relay. You can either be a 'middle relay' – one of the two or more nodes that receives Tor traffic and then passes it on – or an 'exit relay'. Being a middle relay is much safer because if another user employs the Tor network to do something malicious or illegal, your IP address will not show up as the source of the traffic. In contrast, an exit relay can be identified as that source, which means people who run exit relays may have to deal with complaints and even legal attention. Therefore you shouldn't host an exit node from your home PC



Tor relays are best hosted on PCs running Linux rather than Windows

and, if you're sensible, not at all!

One further problem: you need to have a Linux computer running Debian or Ubuntu to host a reliable relay – see Tor's instructions at bit.ly/relay432. In Windows, you need to run a Linux distro as a virtual machine and set up your relay from there. It's a bit of a hassle, but at least it will keep your Tor traffic separate from the rest of your system.

X DON'T Share your real email address

It may sound obvious, but there's no point using Tor to stay anonymous if you sign up to a website using your real email address. It's like putting a paper bag over your head, then scrawling your name and address on it. A disposable email service such as MailDrop (maildrop.cc) or Nada (getnada.com), or the brilliant Fake Name Generator (www.fakenamegenerator.com) can be used to create a temporary address and/or identity for site registrations and keep your Tor persona separate from your standard web one.



Create a fake email address for signing up with services through Tor

✓ DO Use Tor for anonymous email

You can use your favourite email services in Tor – although pesky Google may ask you to verify your Gmail account – but the content of your messages won't be encrypted in transit. Tor will of course disguise where you are, but unless you're using a disposable email address (see above), anyone intercepting your messages will see your real address and, potentially, your name.

For total privacy and anonymity, you can use a Tor-enabled email service. Several of these have been closed down by law-enforcement agencies in recent years because they were linked to criminal activities, but using one is not illegal, nor does it place you under suspicion. The best and most trustworthy option is ProtonMail (protonmail.com), an end-to-end encrypted-email provider, launched by the CERN research facility in 2013.



ProtonMail's special Tor service keeps your emails completely private

Earlier this year, ProtonMail introduced a Tor hidden service specifically to combat the censorship and surveillance of its users. You can sign up for a free ProtonMail account at protonirockerxow.onion, but this limits you to 500MB of storage and 150 messages per day; to get advanced features, you need the Plus plan for €4 (£3.70) per month.

Alternatively, you could try Bitmessage, a free Desktop client that lets you send and receive encrypted messages using Tor, and can be run from a USB stick. It offers both standard (bitmessage.org) and Tor (bitmailendavkbec.onion) websites.

X DON'T Go overboard with browser add-ons

Because Tor is based on Firefox, it's possible to install your favourite add-ons to customise it to your preference, which makes sense if you are planning to use Tor as your default browser. Don't be tempted! Even if extensions aren't infected with malware (as some Chrome ones were recently found to be), they may seriously compromise your privacy.

Tor comes with two of the best protective add-ons preinstalled – NoScript and HTTPS Everywhere – and that's really all you need if your reason for switching to the browser is to be anonymous. Also, bear in mind that browsing with Tor can be slower than Chrome or Firefox because of its roundabout way of connecting, so overloading it with add-ons will further reduce your speed.



WHERE TO VISIT USING TOR

There are plenty of useful – and perfectly legal – Dark Web sites that can only be accessed through Tor. Here are 10 of our favourites

Facebook

www.facebookcorewwi.onion

Yes, we realise the irony: the social network renowned for harvesting its users' data for advertising purposes has a special private version that can only be accessed through Tor. You might wonder how this works – surely you can't be anonymous on Facebook or friends won't be able to find you (and vice versa). But the idea is to provide a secure and reliable method of communication for people worried about cybersurveillance. More than one million people use the hidden site, which is also available on Android (bit.ly/facebook432).



ProPublica

www.propub3r6espa33w.onion

Winner of four Pulitzer prizes – and the first online publication to win the award – this non-profit news site's



mission is to “expose abuses of power and betrayals of the public trust by government, business and other institutions”. Not only does ProPublica's ‘.onion’ site put paid to the notion that only dubious content can be found on the Dark Web, but it allows people in internet-censored countries to read its fearless investigative journalism via Tor, without fear of reprisal.

DuckDuckGo

3g2upl4pq6kufc4m.onion

As we've mentioned, DuckDuckGo is Tor's default search engine but it's also worth bookmarking its ‘.onion’ site, if only to see that the Dark Web hasn't wiped the smile from the happy logo's bill. Indeed, the privacy-loving bird thrives on the freedom and anonymity offered by the browser, letting you quickly search the web without being spied on. DuckDuckGo's ‘bang’ commands can be used to search

thousands of sites by typing, for example, !w for Wikipedia followed by a search term.

Intel Exchange

rrcc5uuudhh4oz3c.onion

Some discussion forums accessed via Tor are distinctly unpleasant, but if you're interested in conspiracy theories, leaked documents and unreported global events, Intel Exchange is one of the safest places to read and share information. Some threads are amusingly bonkers – ‘Cthulhu for President’, ‘Telekinesis – everyone can do it’ and ‘Building a spaceship’, for example – but by insisting users register and have their accounts verified, the forum generally avoids the spam, trolls and timewasters that plague many boards on the standard web.

Blockchain

blockchainbdgpkz.onion

You need to invest in cryptocurrency to buy and sell through hidden sites, and Bitcoin is by far the most popular option. Blockchain serves as a free virtual wallet for your currency and provides lots of useful data such as the current market price, graphs of Bitcoin-mining activity and details of transaction numbers. Unusually, for an onion site, it has an official HTTPS certificate, for peace of mind about your Bitcoin savings.



Flashlight

kxojy6ygyu4h6lwn.onion

Calling itself “an info beam in the Dark Web”, Flashlight gathers news about cryptocurrency, Tor-related projects and internet privacy in general, presenting it as a constantly updated feed. Interesting headlines when we visited included ‘Tor browser downloads are up in 2017’ and ‘Bitcoin price hits all-time high’.

Hidden Answers

answerstedhctbek.onion

Like Yahoo Answers for the Dark Web, this site lets you post queries about any topic you like and get a helpful – or at least honest – response from the

REPORTING ILLEGAL ACTIVITY

If you encounter something when browsing with Tor that you believe is illegal, you can report it while maintaining your anonymity. Crimestoppers has an Anonymous Online Form (bit.ly/crime432) specifically designed to let you pass on information about crime safely and securely: “We don't want to know your name so please don't tell us this”. Just select the crime from the drop-down menu and provide as much information as you can. If the illegal activity involves images or videos of child sexual abuse, you can submit an anonymous report to the Internet Watch Foundation (IWF, report.iwf.org.uk) or CEOP (www.ceop.police.uk). The IWF also has a set of useful links for reporting specific types of online offence, including online terrorism, human trafficking, revenge porn, suicide websites and copyright issues. Just because a site is hosted in the Dark Web rather than the surface one doesn't put it out of reach of the law.



You can report illegal activity to Crimestoppers using its anonymous form

community. Be warned that the no-holds-barred nature of

Hidden Answers means some of the discussion is rather dubious, and we certainly wouldn't click its hoax adverts. But there's some genuinely useful advice about security and privacy, and avoiding scams.

How Will You Tell the World?

rjzdt4z3z3xo73h.onion

"You have been chosen. You have always been awake. Seek and it shall be found" begins this enigmatic site, which dares you to make sense of its mix of diagrams, audio snippets and portentous statements. Is it a communication from aliens hidden on the Dark Web or a prank to fool Tor users into thinking they've uncovered a secret? Nobody has worked it out yet, but it's an intriguing riddle.

WikiLeaks

wlupld3ptjvsgwqw.onion

Julian Assange may have lost much of the goodwill he once enjoyed, but WikiLeaks remains one of the most important sources of uncensored political information. Although you can access its content in any browser, for security reasons the only way to submit documents is through Tor. Files are encrypted automatically during upload.

Privacy International

privacyintyqcroe.onion

This London-based charity promotes the Universal Declaration of Human



HOW I SURVIVED THE DARK WEB

Robert Irvine says:

“When I told colleagues that our next cover feature was about Tor, their reactions were a mix of concern and incredulity. “But isn't that really dangerous?” asked Colin, while Joel wondered if it was wise “to tell readers where to buy guns and drugs and, er, ivory”. It's certainly true that Tor is closely and irrevocably linked to the Deep Web or, more specifically, the section of it known as the Dark Web – “the online version of a murky corner of a Sixties East End pub” (*The Sun*, 12 March 2014). I admit I had my reservations when I first fired up Tor Browser to take a look around. Would I be bombarded by horrific images and criminals touting their wares? Were the police already alerted and on their way? Should I flee back to the safety of Chrome and cry: “You can have my private data, Google – it's not that interesting anyway!”? Well, no, as it turned out, because Tor is very much what you make it.

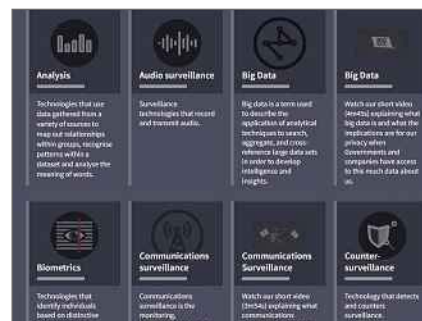
Yes, there are unsavoury (to put it mildly) ‘onion’ sites that can only be accessed through Tor, but as we've explained in this feature, there are also lots of useful and legitimate ones whose purpose is to allow free and unmonitored access, and sharing of information, not to wallow in and encourage depravity and criminality. To view dodgy sites, you need to actively seek them out and know their – usually very convoluted – ‘onion’ addresses; they don't simply pre-load themselves in the browser, beckoning you to the dark side. I'm well aware that I could use Google in any browser to quickly find photos of car-crash victims or ‘specialist’ pornography, but I don't because I have no desire to (and never have – honest, Mum!).

The purpose of Tor, as the developers themselves must be tired of saying, is to let you browse the web as you want without having every move you make tracked, your identity and location exposed, and your data harvested for the purposes of advertising, scamming and spamming.

I'm not saying you shouldn't be careful using Tor – as with many web tools, there are dangers if you aren't – but I managed to research and write this feature without any exposure to the ‘horrors’ of the Dark Web, and chose to sacrifice the anonymity that the browser bestowed on me to let you know I made it out safely, with these insights and pieces of advice to share with you.



Rights: “No one shall be subjected to arbitrary interference with his privacy, family, home or correspondence”. It's aim is to investigate the secret world of government surveillance and expose the companies enabling it. This onion site shares Privacy International's eye-opening reports and case studies, and explanations of the dangers of ‘big data’, and lets you donate to the charity via PayPal. ■



NEXT ISSUE

on sale Wednesday 4 October 2017

SPEED UP YOUR WI-FI

Strengthen your signal and download faster – wherever you are



PLUS...

PROTECT YOUR HOME

We review the best free home-surveillance software

BOOST YOUR BATTERY

Secret hacks that extend your phone's staying power

STOP USING FIREFOX

Why Mozilla's browser could be going down in flames

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Test your own SECURITY



Don't wait until it's too late to beef up your security. **Robert Irvine** recommends seven online tests to identify weaknesses now

Check if your accounts have been breached

If you suspect that you may have fallen victim to a hack, visit Have I Been Pwned? (haveibeenpwned.com), which catalogues all the email addresses and other data taken in high-profile breaches. Enter your email address in the search box and if it's found in the data dumps, a red warning will appear, revealing what was taken in the hack and recommending you change your password(s) immediately. You can also sign up for notifications of future breaches. At the time of writing, Have I Been Pwned? featured more than 4.7 million 'pwned' accounts and 232 'pwned' websites, including MySpace, Adobe and LinkedIn.



Well, this is less than reassuring - we've been pwned on eight breached sites

Test the strength of your passwords

There are lots of online tools that test the strength of your passwords, but make sure you use one that encrypts what you enter or you could actually



Oh no! Our password could be cracked instantly - we'd better change it

be risking your security. Our favourite is the Dashlane-sponsored How Secure Is My Password? (howsecureismypassword.net), which tells you how long your password would take a hacker to crack. If the answer is less than a minute, you should change the password as soon as possible.

Ensure your security software is working

Don't let malware infection be the first sign of a security hole. The Anti-Malware Testing Standards Organization (AMTSO, www.amtso.org) offers a Security Features Check that exposes potential weaknesses in your system's defences. The check consists of six tests, four of which involve downloading files that your PC should identify as malware and block automatically. These files aren't actually malicious but are designed to be detected as such, so if your anti-malware program lets one through, then you need to tighten your security settings.

Test your firewall for weaknesses

Firewalls generally run quietly in the background, so it's important to know that they're working properly.

To test yours, try to bypass it using the free online port scanner GRC ShieldsUP (www.grc.com/shieldsup). Ports should be closed by default, apart from port 80 (or 443), which is needed for web traffic. You can choose to test either Common Ports (only the most vulnerable ports) or All Service Ports (a thorough scan of 1,056 ports). Green or blue results mean that those ports are secure, while red ones show open ports that need to be closed.



Uh-oh! That red square means a port is open that shouldn't be

TEST YOUR OWN SECURITY KNOWLEDGE

Avoid being the weak link in your PC's protection by keeping your cybersecurity knowledge up to scratch.

There are lots of online quizzes that test your ability to spot online threats, including BT's Security Savvy test (bit.ly/savvy432), the OpenDNS Phishing Quiz (bit.ly/phishing432) and Silicon's Cybersecurity Quiz (bit.ly/cyber432).



Make sure your plugins are up to date

Security holes in Java, Adobe Reader and Flash put your personal data at risk, so ensure your plugins are up to date by using Qualys BrowserCheck (browsercheck.qualys.com). This scans your browser and its plugins to detect outdated versions and other security problems. Click the Fix It button next to scan results marked as 'insecure version' or 'update available' to install the required updates. The test works with all major browsers.

Check your Facebook security

Facebook now offers a Security Checkup tool that lets you review and lock down your account. Go to bit.ly/checkup432 and Facebook will tell you whether you're still logged into the social network in a browser or app you haven't used for over a month. You can also set up login alerts to be notified via email if your account is accessed from an unrecognised device or browser. ■

Best free PDF readers

Adobe Acrobat Reader is the best known PDF Reader, but is it the best? **Edward Munn** compares its five fiercest competitors



Sumatra PDF | sumatrapdfreader.org | ★★★★★☆
FEATURES ★★★☆☆ PERFORMANCE ★★★★★ EASE OF USE ★★★★★

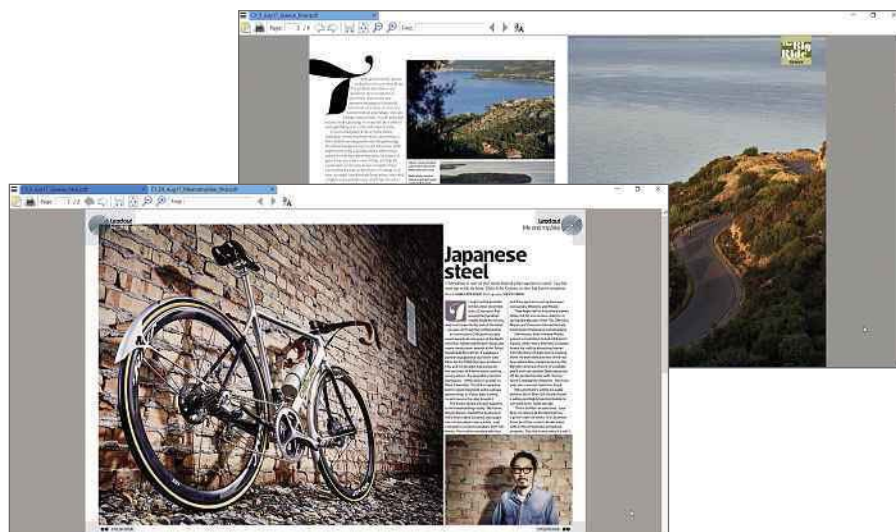
**WebUser
GOLD
AWARD**

What we liked:

It's not the most modern PDF reader or the most full-featured, but if you just want a fast, no-fuss, everyday tool for viewing PDFs (as well as ebooks and digital comics) on your PC, there's no better choice than Sumatra.

It's a lightweight program – the installation file is only 5MB – that's compatible with every version of Windows and is incredibly fast to load. Indeed, when we opened a range of different PDFs, it was the fastest program to launch every time. It can also be run directly from a USB stick.

But what makes Sumatra really stand out is its simple interface. The toolbar contains only the most important controls you need when viewing a PDF, for zooming in and out, navigating between pages and searching for words that appear in the document (along with buttons to print and open more files). Click the main menu button and you'll be presented with a range of useful options, such as the ability to display your document as facing pages and a book view, neither of which is available in the PDF-viewing tools of Chrome or Firefox.



Tabbed viewing is supported, so you can open multiple documents at once and easily switch between them, and there are useful keyboard shortcuts you can use to jump to the start or end of the document, zoom to a page's width, or change the view mode.

We don't normally need to annotate PDFs so weren't worried about Sumatra lacking this functionality, but there's a handy built-in shortcut to open the current document in Foxit Reader for moments when you need a program with more powerful tools.

How it can be improved:

Sumatra is the most dated-looking of our award winners and it could do with a facelift. It also lacks the annotation tools that you find in most of its rivals.

OUR VERDICT

Sumatra's simple, user-friendly interface doesn't overwhelm you with unnecessary features. It's also one of the fastest PDF readers you'll come across.

Foxit Mobile PDF | bit.ly/foxitm432 | ★★★★★

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

**WebUser
SILVER
AWARD****What we liked:**

Although they have the same developer and compete in the same round-up, Foxit Mobile PDF and Foxit Reader (see below) are very different tools. Foxit Mobile PDF is a

Windows app that's only available on devices running Windows 10 (and Android and iOS phones and tablets). As such, it lacks many of the features of its counterpart, but it's also faster and easier to use.

The simple toolbar provides quick access to a range of viewing modes including night mode, for reading in the evening; and various colour modes that make the words on a page easier to see. There's also a handy thumbnail view, which gives you an overview of your entire document at a glance.

Foxit Mobile PDF also includes a comprehensive range of annotation tools, so you can highlight, underline, draw, add stamps, insert text and add notes to your PDFs. Like Reader, it also lets you sign into services including Google Drive, Dropbox and OneDrive



for faster access to documents stored in the cloud.

How it can be improved

There's no tabbed interface or option to view a document as facing pages, both of which can be important when reading PDFs on a PC. We also found the unlabelled annotation icons a bit tricky to understand.

OUR VERDICT

Foxit Mobile PDF was really unlucky not to win our Gold award, and it certainly looks more modern than Sumatra. It's fast, easy to use and offers some great tools, but lacks some important viewing options.

Foxit Reader | bit.ly/foxit432 | ★★★★★

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

**WebUser
BRONZE
AWARD****What we liked:**

If we'd rated the programs in this round-up on features alone, then Foxit Reader would be the runaway winner. As well as letting you read PDFs, its comprehensive tools let you

annotate them, fill in forms and add signatures to your documents. You can even use Foxit Reader to create your own PDFs from scratch, or convert Word documents to PDFs.

Foxit Reader also lets you sign into various cloud-storage services including Dropbox, OneDrive and Google Drive, thereby allowing you to have faster access to your online files.

There are a lot of features to get to grips with, so you need to spend some time learning to navigate the program's ribbon menus. Like Sumatra, it lets you pick from a range of view options including facing pages and facing pages with a cover (book view), and there's also a handy Read Mode that you can use to hide some of the clutter in the menus above.

**How it can be improved**

Foxit Reader didn't wow us with its performance. It was slower to open than most of its competitors and we found the Google Drive integration so slow that it was almost unusable. There have also been widespread concerns about unpatched security flaws, although these have now been resolved.

OUR VERDICT

Foxit Reader provides an impressive range of free tools but they're overkill for most people and unless you need these advanced features, they make the program unnecessarily complicated for everyday PDF viewing.

BEST OF THE REST**Microsoft Reader**bit.ly/reader432

Like Foxit Mobile, Microsoft Reader is a fast, modern PDF reader that's available for free from the Windows Store. It was unlucky not to win an award, but it lacks on-screen controls for



zooming in and out – you need to hold Ctrl while scrolling the mouse wheel or pinch your fingers on the trackpad to zoom, which isn't for everyone. However, we did like its variety of view options and minimalistic interface.

Chromebit.ly/chrome432

Chrome is the lightest on features of all the tools in this round-up. There's no option to view pages side by side or add annotations, just a few buttons to help you

zoom in and out, and the option to search for words that



appear in the document. If you only occasionally need to open PDFs and don't want to install any additional software, it should serve you well.

Adobe Acrobat Readerget.adobe.com/uk/reader/

At first, Adobe Reader appears to be the most full-featured and straightforward of all the PDF readers in this round-up, but we have a major gripe with the fact that it makes it very difficult to tell which features

are free and which you need to pay for. Some



premium features are clearly labelled with 'Learn more' in the Tools pane, for example, while others only ask you to pay for an appropriate subscription after you've already clicked the apparently active button.

Make everything

self-destruct

Sharing private content online can be a worry because your data could end up in the wrong hands. **Edward Munn** picks the best tools for leaving no trace of your confidential files and chats

DESKTOP

Firefox Send

Firefox's handy new Send tool (send.firefox.com) makes sending large files quick and easy – you just drag them to your browser and share a link. What's more, because the files are set to self-destruct after they've been downloaded, you'll never have to worry about using up space in your cloud storage or remembering to delete old files that you've left online.

There's no need to set up a Send account or download any software to use the service. Just visit send.firefox.com in any browser (not just Firefox), and drag and drop files of up to 1GB in size to upload them and generate a secure, encrypted download link. Each link remains active for up to 24 hours or until the file is downloaded, at which point the link expires automatically.

You can review all your currently live files by refreshing send.firefox.com. If you need to share more than one file and want to use a single link, you can do so by archiving the files on your computer first, provided they don't exceed the 1GB file limit.

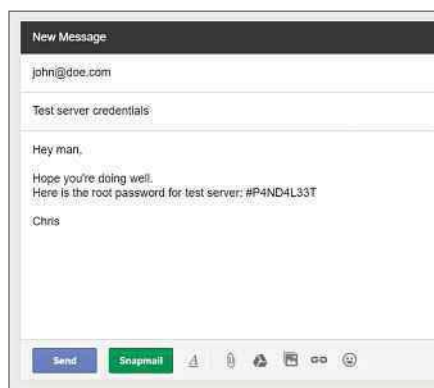
Firefox Send isn't much use for sharing files with more than one recipient, but a further upside of the expiring links is that you know when your recipient has received the file.



Firefox Send lets you send download links that expire as soon as they're used

Snapmail

There are plenty of services for sending self-destructing text messages from your phone, but finding an app that'll do the same when you send an email from your computer is a little trickier. One of our favourite tools is Chrome extension Snapmail, which lets you send emails



Send emails that disappear after 60 seconds with Snapmail



from Gmail that disappear automatically after 60 seconds. Install the extension from the Chrome Web Store (bit.ly/snapmail432) and when you compose a new email, simply click the Snapmail button instead of Send. The recipient receives a secure link to the message and once opened, it'll expire within one minute. The extension will only encrypt text, so if you want to send images or other attachments, then you're better off using Firefox Send.

SET YOUR COOKIES TO SELF-DESTRUCT

Self-Destructing Cookies (bit.ly/sdcookies432) is a handy Firefox extension that protects you from trackers by deleting website cookies as soon as you close the relevant tabs. The extension was last updated in March of this year, but support for it has been discontinued so it will only work with Firefox versions 54 and earlier. If you want something that'll work with the newest version of Firefox, try Cookie AutoDelete (bit.ly/cookieac432), which is also available for Chrome (bit.ly/cookieac432). This lets you whitelist the cookies that you trust as well as automatically deleting those you don't, whenever you close a tab.



Cookie AutoDelete removes all cookies except those you want to keep

PHONE & TABLET

Telegram

If you need to share passwords or other private information with loved ones, then Telegram's (telegram.org) Secret Chat gives you the confidence that this information won't end up in the wrong hands. Secret Chat not only offers end-to-end encryption, but also blocks forwarding of content and lets you set your messages, photos, videos and other files to self-destruct a specified amount of time after they've been read or opened.

To start a new Secret Chat on an Android device, open Telegram's main menu and select New Secret Chat. On iOS, tap the icon in the top-right corner in Messages, then choose New Secret Chat. Next, choose the recipient and set the self-destruct timer by tapping the clock icon (in the top bar on Android and in the input field on iOS), then choosing the desired time limit. Now, when you send a message or file, it'll

disappear according to this timer.

It's worth noting that a Secret Chat is device-specific, so if you start one on your Android phone, it'll only be visible there, not on your other devices. Any messages you send before setting the self-destruct timer will remain visible to the

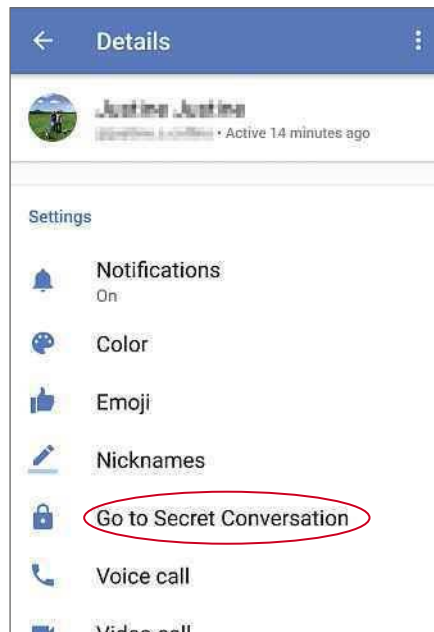
Telegram's Secret Chats can't be captured using screenshots

recipient unless you manually delete them. To do this, long-press the individual message (not the chat) and choose Delete. Photos sent with an expiry time of less than a minute are not available to download and screenshots are also blocked.

Telegram is undoubtedly one of the most secure options for sending self-destructing messages on your phone or tablet, but if you also want the option to protect a specific Secret Chat with a PIN code, try Viber (www.viber.com) for Android or iOS.

Facebook Messenger

If you want to send end-to-end encrypted, self-destructing messages, you don't even have to download



Use Facebook's Secret Conversations to send encrypted, self-destructing messages

a dedicated messaging app (such as Telegram) because both these features are now supported by Facebook Messenger. To open a 'Secret Conversation' in Messenger for Android, open a normal conversation with the person you want to share private information with, then tap the info button and choose 'Go to Secret Conversation'. Like Telegram, Messenger lets you send messages, photos and videos in Secret Conversations, but there's no support for other files.

To set the self-destruct timer, tap the stopwatch in the text-input field and choose the time when you want messages to disappear. Before typing your message, you'll see the text-input field clearly marked with 'disappearing message'. Unlike Telegram, there's no option to manually delete messages from the recipient's device that you didn't set to self-destruct, and recipients can still use screenshots to capture your self-destructing content.

iMessage

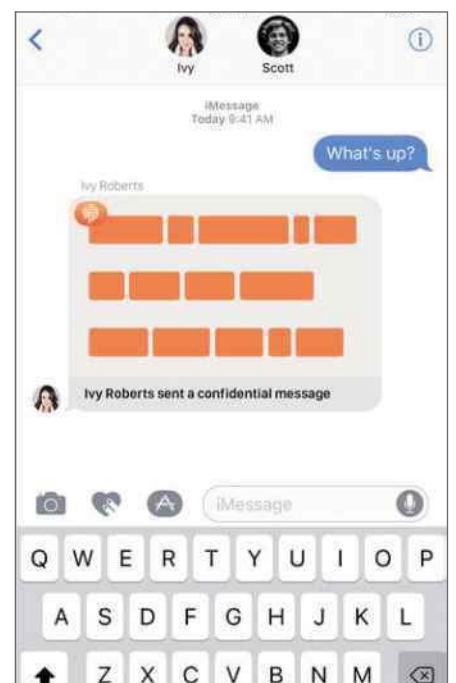
Apple iMessage's 'Invisible Ink' feature lets you make messages invisible until the recipient chooses to reveal them, but there's no option to set them to self-destruct, which means it only offers added fun and not security. However, it is possible to create self-destructing messages in iMessage by installing the third-party app Confide (getconfide.com/download). Tap the Apps icon in iMessage, then tap the Additional Apps option before tapping the '+' Store icon.



Once you're in the store, tap the search icon to search for Confide, then install it.

To send a self-destructing message with Confide, tap the Apps icon again, then swipe right until you see Confide. Select Get Started and you can then choose whether you want to send a self-destructing message or photo. After entering your message, tap Continue, then the Send button in iMessage. The message appears as an iMessage attachment on the recipient's device, unless they don't have Confide installed, in which case they'll see a link they can tap to install it. Swiping your finger across a message reveals it and you can only view each message once, after which it automatically self-destructs.

If you find the process of sending Confide messages in iMessage a little clunky, you can just use the Confide app directly, providing your recipient has it, too. It's also available for Windows, MacOS and Android using the same link. ■



Install Confide to send self-destructing messages in iMessage



Practical WebUser

16 pages of workshops, tips, projects and problem solving

Automate PC tasks with one click

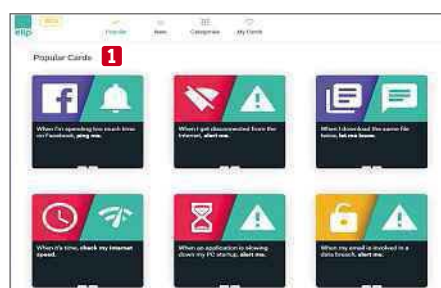
Ellp is a simple yet powerful free tool that saves you time by quickly automating many tasks on your PC. Here's how to get started with it

Ellp: www.ellp.com | ⌚ 10 mins | 🖥️ Vista, 7, 8, 10

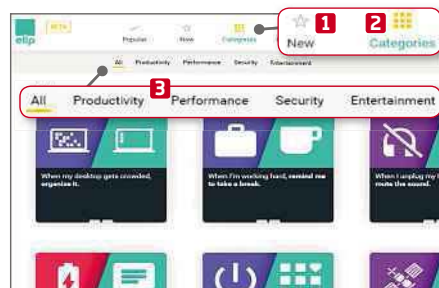
Ellp is billed as a rival to IFTTT (If This Then That, ifttt.com), but it offers better Windows integration and lets you quickly automate a number of everyday tasks via its growing selection of ready-made 'cards' (37 at the time of writing). These perform actions such as cleaning up files you've accidentally downloaded twice; displaying a warning

if your email address is involved in a data breach; opening a YouTube playlist when you plug in your headphones; and freeing up space when your hard drive is almost full. You can choose the tasks you want to use (they are sorted into categories), and edit them to suit your needs.

Ellp is currently still in beta but we found it to be stable and problem-free.



1 The first time you run Ellp, you'll be prompted to enter your name or nickname, although you can skip this step if you wish. You'll also be given the option to get early access to future Ellp cards by entering your email address. The program then loads a selection of popular cards. **1**



2 The bar at the top lets you view the newest additions **1** or explore the cards by category. **2** The choices on offer are All, Productivity, Performance, Security and Entertainment. **3** Browse the selection of cards until you find one that sounds interesting, then click it to find out more.



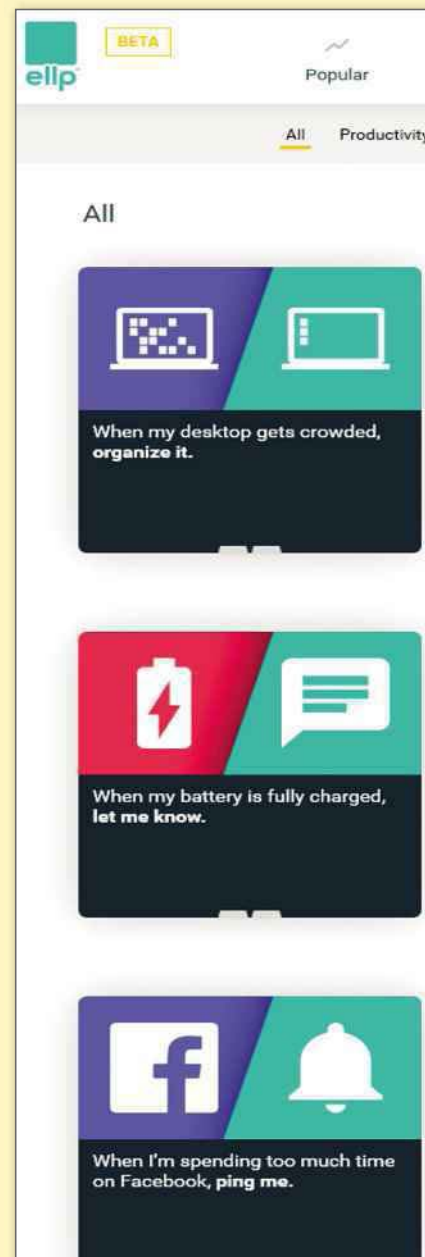
3 Each card offers a statement, with the action to perform in bold. For example, 'When my Recycle Bin is filling up, **keep it clean.**' You will often have the option to edit a selected task, such as specifying how old items in the bin need to be. **1** Click Activate Card **2** to action the task.



4 The sidebar on the right provides handy information and tips, such as the number of other people using a particular card. A congratulations message appears when you activate your first task and it suggests cards that other people use. **1** Edit the task or deactivate it by clicking Turn Off Card. **2**



5 Ellp has lots of PC-specific options. Under Productivity, there are cards that can be used to organise a crowded Desktop, **1** remind you when it's time to take a break, **2** and launch your favourite application when Windows starts. **3** If you use a laptop, Ellp can alert you when a new Wi-Fi network is detected. **4**





MY CARDS
All the cards you've activated can be viewed here for easy access

SETTINGS COG
Click the cog to enter a name or nickname, and add an email address

LIGHT
A yellow light appears underneath any active cards, so you can see at a glance which ones are in use

COLOUR CODING
The cards are all colour coded – Productivity is blue, Performance is red, Security is orange and Entertainment is purple

Hey there!
Welcome to your very own Ellp Card collection! Ellp Cards are built to automate your PC tasks in 3 easy steps:

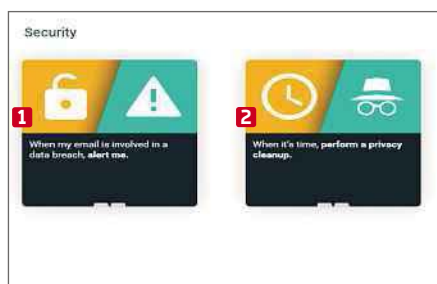
1. Choose an Ellp Card by clicking.
2. Edit the card settings to your preference.
3. **Activate** the card by hitting the activate button.

My Details

Name or Nickname

Email

Apply



6 The Security section has cards that tell you when your email has been involved in a security breach, **1** so you're prompted to change your password on the affected site. You can add multiple email addresses. You can also have the software perform a privacy clean-up **2** at specific times of the day.



7 The Entertainment section offers cards that mute playing sound when you unplug your headphones; **1** open the YouTube website when you plug them in; **2** or alert you when the International Space Station passes overhead. **3** Downloaded movies **4** or music **5** can be moved to preferred folders.



8 Ellp can also change your Desktop wallpaper whenever a specified site (such as Reddit Earth, NASA Image of the Day or Bing) posts a new image, **1** and download photos from Facebook that you've been tagged in. **2** If you like to leave your PC on overnight, Ellp can mute the sound when it's time for bed. **3**



Protect and maintain your hard drive for free

Paragon Hard Disk Manager Preview: bit.ly/para432 | ⌚ 30 mins | 🖥️ Windows 7, 8, 10

Paragon Hard Disk Manager has all the tools you need to run and maintain your hard drive, from the moment you buy it to the moment it dies. The software covers everything from making partitions (compartmentalising your hard drive so you can split it into separate virtual drives) and creating backups, to migrating your files to a new drive and, when it's reached the absolute end of its life, wiping the drive so you can safely dispose of it.

Although this is a preview version, and a paid-for upgrade is due for release later in the year, Paragon has stated that this version will stay free forever, as long as you don't need technical support.



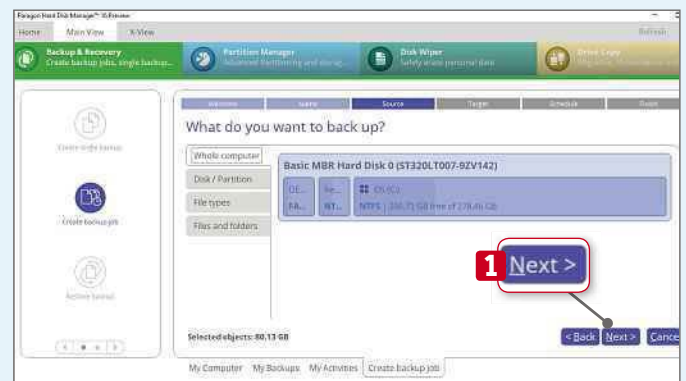
EXPERT TIP

Andy Shaw says

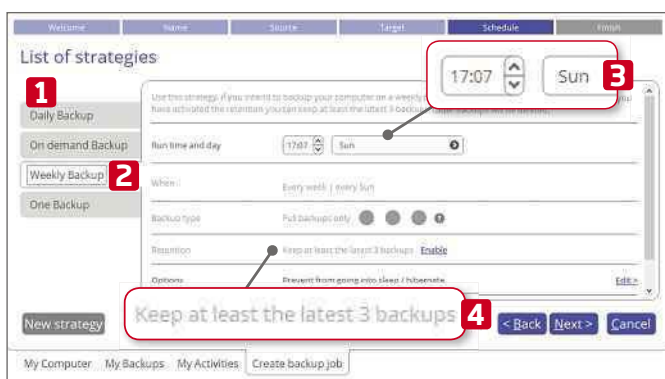
The software's Settings are available from the Home menu. These provide a bit more control over the way the program works but you should only tweak them if you know what you're doing. Below the Settings, you'll find the Recovery Media Builder tab, where you can create a backup drive you can boot from in case of emergencies.



1 The first tab in the software is 'Backup & Recovery', where you can perform one-off backups **1** or create a backup job. **2** The process for both is the same, but the backup job option adds a Schedule tab **3** to the bar across the top of the Wizard.



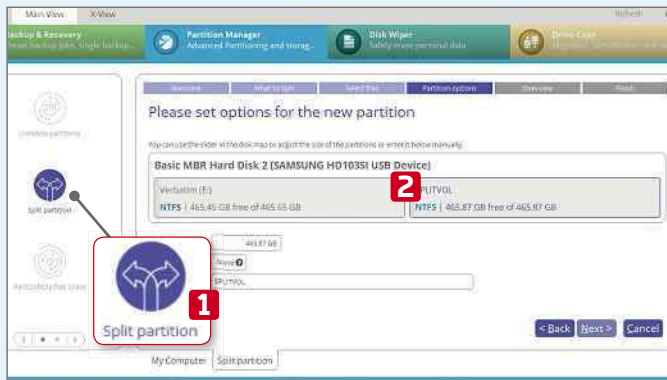
2 Work through each step of the wizard, choosing your options as you go. You're forced to click the Next button **1** after choosing the options on each tab, but once you reach the end of the process, you can move freely between the previously completed tabs if you want to go back and change any of the settings you selected.



3 The Schedule tab looks complicated but the settings are automatically populated when you select the frequency of the backup. **1** If you choose Weekly Backup, **2** for example, you'll need to set the time and day, **3** the type of backup (full or only incremental changes) and how many backups to keep. **4**



4 When backups have been set up or are running, you can see them in My Activities. **1** Click a job and a box pops up showing more information about it. From here, you can edit, delete, deactivate or initiate the job. **2**



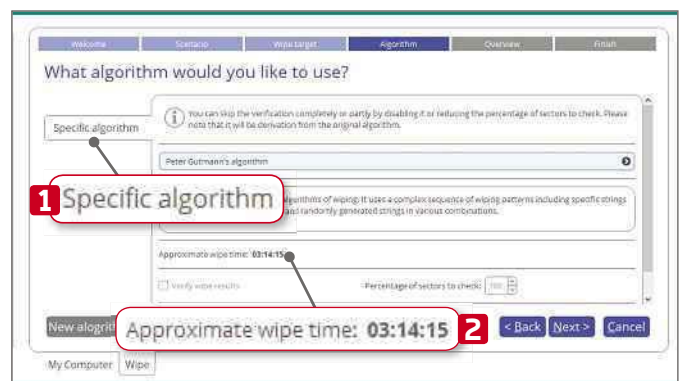
5 The Partition Manager tab works in much the same way. If you have a hard drive with a partition and want to create more, choose 'Split partition'. **1** The new sizes are chosen automatically depending on what you're copying across, or you can hover your mouse over the gap **2** and drag left or right to change their size.



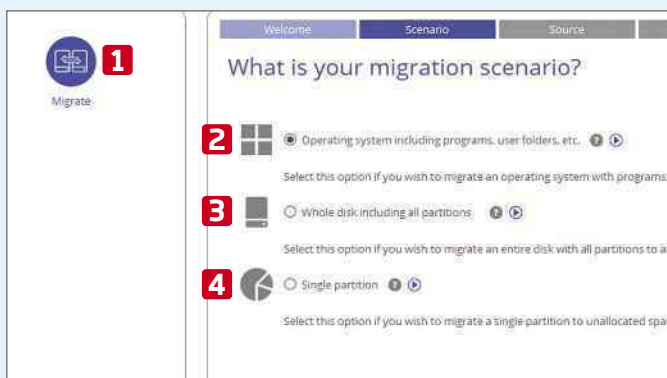
6 Choose whether to give the new partition a drive letter, so you can use it as a virtual drive in its own right. **1** If you change your mind, you can merge the partitions back together again. **2** The software also has a tool for recovering deleted partitions.



7 The Disk Wiper tab offers a couple of different scenarios. If you are removing a drive from your PC to throw away or pass on to someone else, choose 'Wipe out all the data'. **1** Or you can choose to only wipe the free space on your drive, **2** to thoroughly erase deleted files.



8 On the Algorithm tab, you can select the type of wiping you want to use, **1** which dictates how thoroughly the wipe is performed. Some wipes take longer than others, so keep an eye on the 'Approximate wipe time'. **2**



9 On the Drive Copy tab, the Migrate tool **1** lets you make an exact copy of a drive. This is handy if you want to replace a system drive without reinstalling Windows. There are options to copy only the OS and programs, **2** the whole drive **3** or just a specific partition. **4**



10 If you're installing the software to provide technical support to another person, you should encourage them to use the X-View tab. **1** This has a scrolling menu that works by topic, rather than broad function. The wizards are the same but they appear full screen, so they're easier to follow and harder to deviate from.



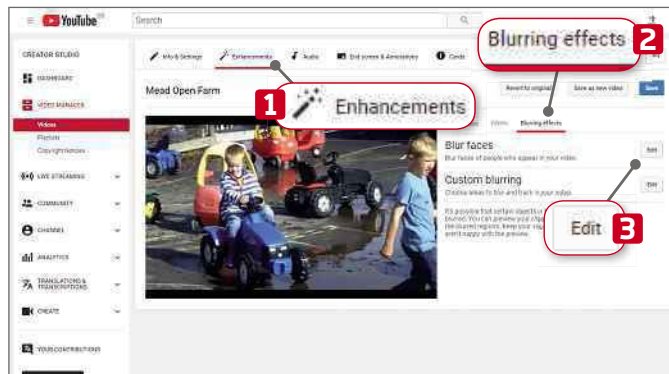
Blur details in your YouTube videos

It's great to share videos of your family and friends online but sometimes you'll find details in the background – or foreground – that you don't want people to see. YouTube has a new tool that automatically recognises faces and lets you pick

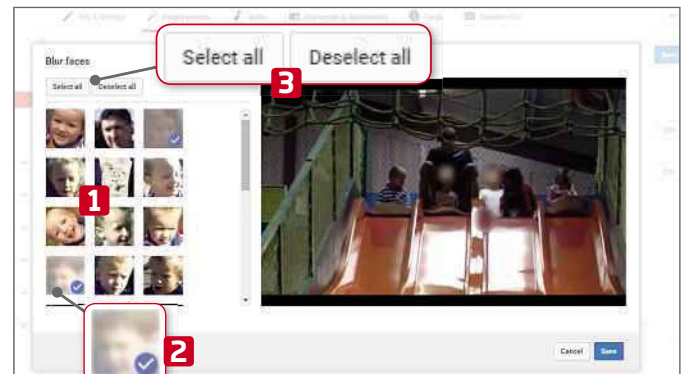
any you'd like to blur out. We also show you how to use the manual blurring tools for removing other details you don't want to share.



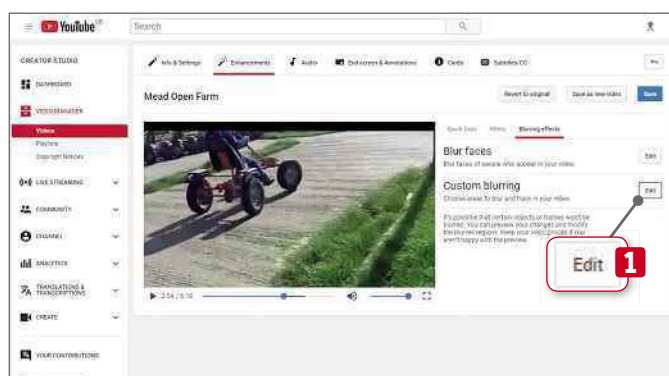
YouTube : www.youtube.com | 10 mins | Any browser



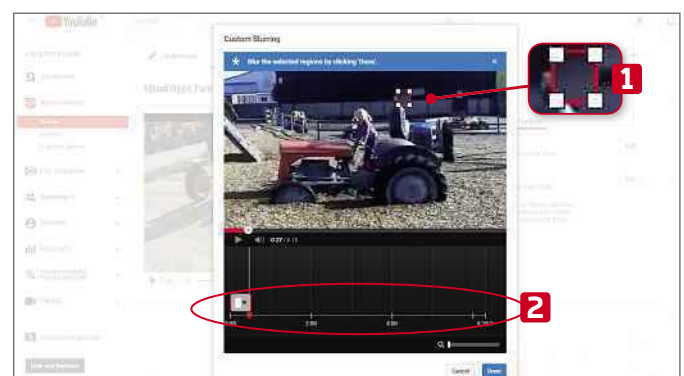
1 Find the video you want to edit (it has to be one you've uploaded to YouTube yourself) and click the Edit Video button. Select the Enhancements tab, **1** then 'Blurring effects'. **2** Click the Edit button **3** in the 'Blur faces' section.



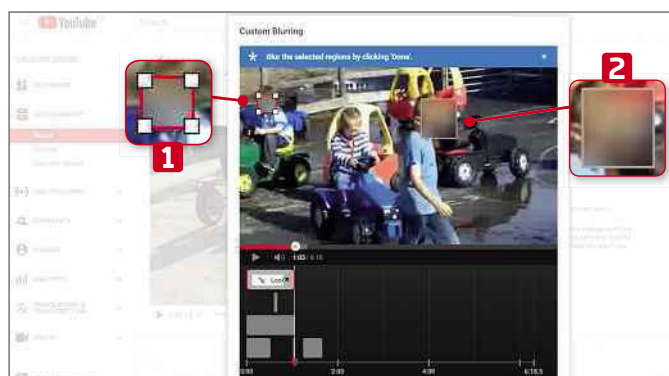
2 Google will process the video, looking for faces it can blur automatically. Thumbnails of these faces appear on the left. **1** Click to select any that you'd like to blur. **2** Alternatively, you can 'Select all' or 'Deselect all'. **3** Watch the video to make sure the correct faces have been blurred.



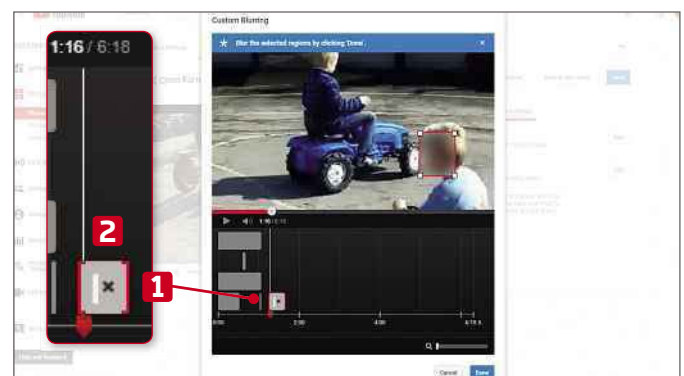
3 When you're happy with your blurs, click the Save button. The system isn't perfect so you may still find faces and other details – such as car registration plates or other text – that you'd like to blur. To pick out your own selections, click the Edit button next to 'Custom blurring'. **1**



4 The video will play in a new window. When you see something you'd like to blur, click and drag a box around it. **1** Continue playing the video and the box should follow the object around the screen. The length of time it appears on the screen is shown in the timeline below. **2**



5 You can blur more than one item at a time. When the next thing you want to blur appears, draw a box around it as before. **1** The other selections will turn grey **2** but you can still click to further adjust them if you need to.



6 You can also use the timeline to adjust the length of time a blur stays on screen. If a blur appears too early, go to the frame where you'd like it to start and drag the left side of the box that's highlighted red in the timeline **1** to the vertical line marking the current frame. **2** Click the Done button.



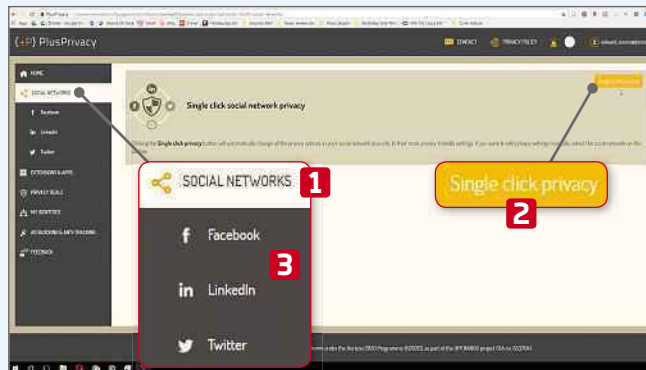
Manage all your private data in one place

PlusPrivacy is a handy new Chrome extension that lets you manage all elements of your online privacy in one place: you can optimise your social-media privacy settings with a single click; block ads and trackers; and create

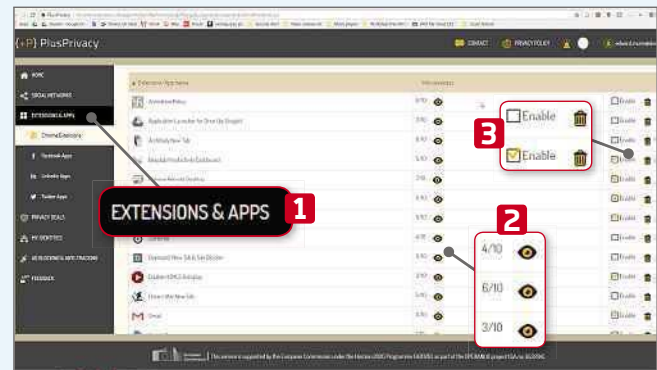
PlusPrivacy: plusprivacy.com | 10 mins | Chrome Android iOS

email aliases for signing up to websites.

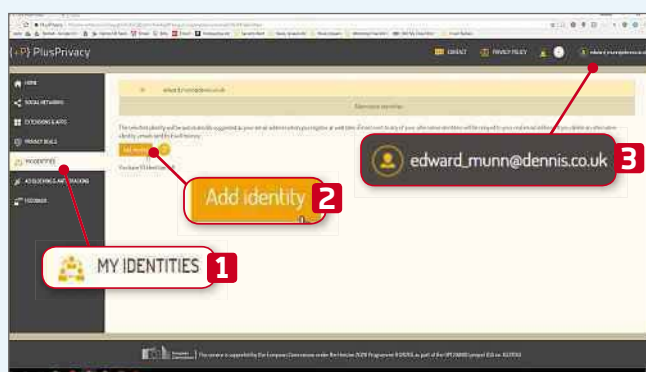
In the future, you'll be able to earn money by opting to share your info with participating websites.



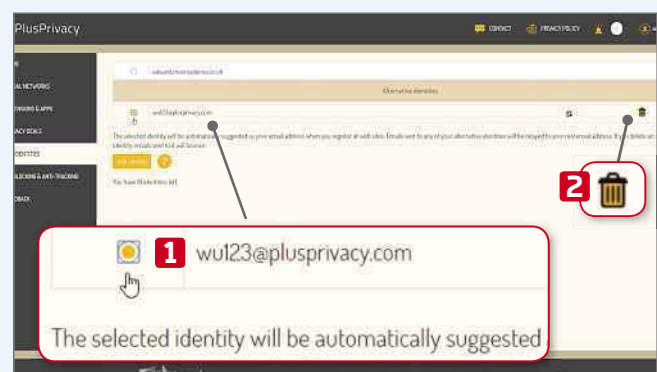
1 Set up an account, install the Chrome extension and open the Privacy Dashboard. Click Social Networks, **1** then 'Single click privacy' **2** to automatically set privacy settings; or use the Facebook, Twitter and LinkedIn buttons **3** to customise the privacy settings for each site individually.



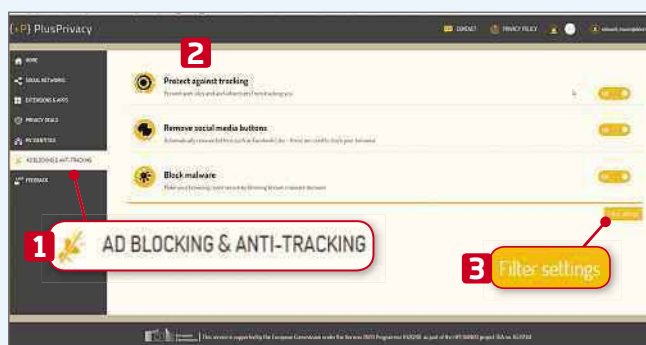
2 Click Extensions & Apps **1** to see Intrusiveness ratings for your Chrome extensions. **2** Use the buttons and tick boxes **3** to disable or delete any you don't want. Clicking Facebook Apps lets you check the permissions for all apps you've linked to the site and also lets you remove them.



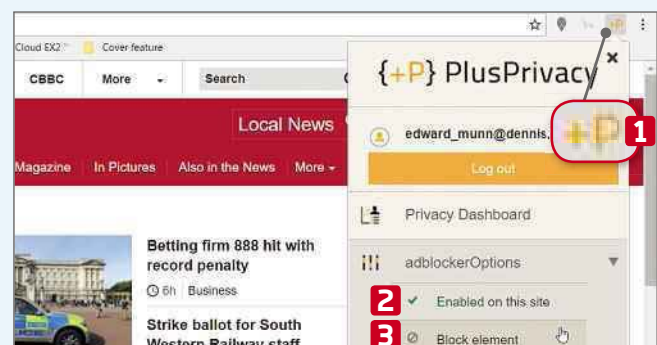
3 To protect your privacy when setting up online accounts, PlusPrivacy lets you create 19 alternative email addresses. Click My Identities, **1** then 'Add identity' **2** to choose a new email address. Emails sent to this address will be relayed to your genuine email inbox. **3**



4 When you reply, your email will appear to be sent from the new identity, rather than your real email address. Select an alternative identity **1** to have it automatically suggested when you sign up to websites. If you delete an identity, **2** emails will bounce back to the sender.



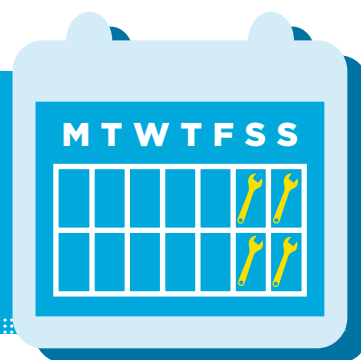
5 Click Ad Blocking & Anti-Tracking **1** and you'll see that the built-in ad blocker stops trackers, social-media buttons and malware by default. **2** Click the appropriate switches to disable these features or select 'Filter settings' **3** to manage filtered lists and whitelisted domains.



6 On a web page, click the PlusPrivacy button **1** then 'adblockerOptions' to temporarily disable it **2** or block specific elements. **3** When privacy-sharing incentives are launched, they'll appear in the Privacy Dashboard under Privacy Deals. Check bit.ly/deals432 for announcements.

Weekend Project


Get to grips with some serious PC DIY to boost your computer's performance



How to...

Switch your online backup service

Now that CrashPlan has shut its door to home users, **Wayne Williams** explains the ups and downs of switching cloud backup services



It's important to back up your personal files on a regular basis because you never know when disaster will strike. Corrupted files, crashes, hard-drive failure and malware attacks can all lead to your data being lost forever. There are plenty of backup tools and services to choose from – some free, others not – and you have the option of backing up your files locally (to another drive, over a network or to DVD) or to online services that keep your data in the cloud. The latter option is arguably better, because it means you can access and restore your files securely from anywhere, and your backup will survive disasters such as fire and theft.

If you already use an online backup service but want to switch to a different one, we show you how in this Weekend Project. If you don't currently have an online backup plan, we'll also show you how to get started.

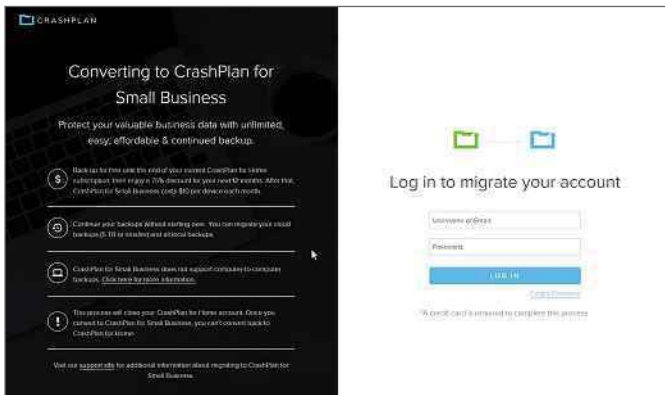
Options for CrashPlan users

CrashPlan for Home (www.crashplan.com) was one of the better cloud backup services, offering pretty much everything sensible PC users could wish for. However, parent company Code42 recently announced plans to shut down the popular service in order to focus on its more profitable business sector. The company is no longer offering new subscriptions, nor is it renewing existing

ones, and it will terminate the Home product for good in October 2018. If you're a CrashPlan for Home user, you'll need to take action and switch to another online backup service. Thankfully, Code42 has gifted all its subscribers a 60-day free extension to give them time to make the move elsewhere.

Code42 also has a couple of migration options for CrashPlan for Home users. The first is to simply switch to CrashPlan

for Small Businesses (you don't need to be a small business to use the service – individuals are just as welcome). This is the seamless option; if your backup is under 5TB it will be transferred across so you won't need to upload it again. You'll get the remainder of your current subscription for free, then 75% off the usual price for the following 12 months. CrashPlan for Small Businesses usually costs \$10 (around £7.66) a month for



Moving from CrashPlan for Home to CrashPlan for Small Businesses is very easy to do...

each device, and you can make the switch by going to bit.ly/crash432 and following the instructions.

If you don't want to move to CrashPlan for Small Businesses, the other option is to migrate to Carbonite (www.carbonite.com). It's a similar service to CrashPlan and users who make the switch won't be charged until their CrashPlan for Home subscription expires (for up to 60 days). On top of that, users are eligible for a 50% discount on either Carbonite for Home or Carbonite Core subscriptions. The basic version of Carbonite for Home is usually priced from \$59.99 (around £46) a year for one computer. To switch to Carbonite, go to bit.ly/carbo432 and enter the email address you use for CrashPlan for Home. Carbonite should recognise you and begin the migration process.

Of course, you're not obliged to use either service – you can back up your computer to wherever you like. Once your CrashPlan for Home subscription expires, all data backed up with the service will be automatically and securely deleted.



... and moving your backup from CrashPlan to Carbonite is equally straightforward

Switch to Backblaze

If you'd rather try something different, consider subscribing to Backblaze (www.backblaze.com). There's no reason why online-backup services should cost the earth, and Backblaze is among the better, more affordable solutions. Available for Windows and Mac computers, it costs just \$5 (£3.82) a month or \$50 (£38.24) per year, and provides unlimited cloud

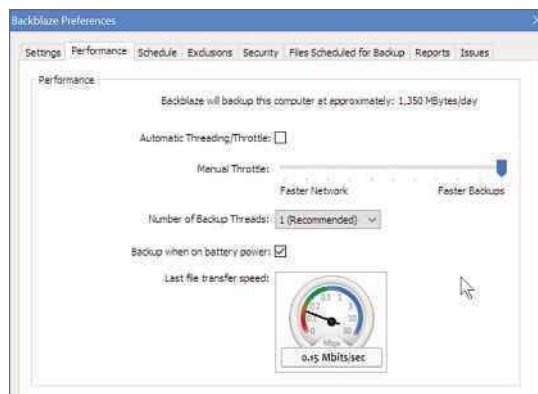
backups and no restrictions on file sizes or restores. You can access your files on an iPhone, iPad or an Android device and it supports two-factor authentication (2FA).

Unfortunately, there's no magic tool to migrate your backup from one service to another, so it makes sense to run backup services concurrently until your data has transferred from your PC to your new

service. We show you how to get started with Backblaze in our Mini Workshop, below.

Use an existing cloud service

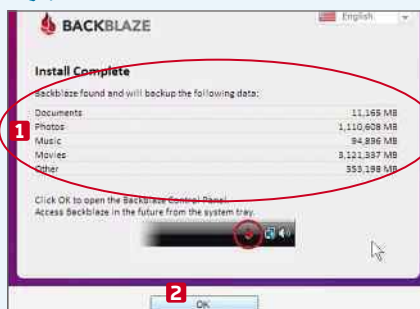
Cloud-storage services such as OneDrive and Google Drive are primarily designed for syncing files, but if you're already signed up, you could also use your account to back up your files. Arq (www.arqbackup.com) is a tool that can turn whichever service you choose into fully featured backup service.



If Backblaze backups are taking too long, you can adjust the upload speeds



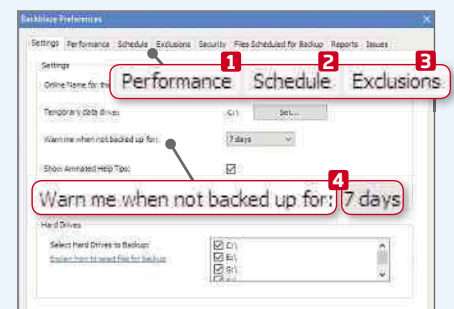
MINI WORKSHOP | Back up your hard drives with Backblaze



1 Before you start using Backblaze (www.backblaze.com), you'll need to sign up for a free account. Once that's done, the installer downloads. The program analyses your drives during the installation process (be patient, it takes a while), and reports on what it proposes to back up. **1** Click OK **2** to start the backup.







2 The software displays the number of files there are to back up, how many are remaining and the file currently being processed. **1** You can pause the backup at any time **2** and view the Restore Options. **3** Click Settings **4** to configure the software and change the drive(s) to include.



3 There are tabs to manage backup performance **1** and to set times for backups to occur. **2** This is set to Continuously by default. The software will automatically exclude items such as the Recycle Bin and system files, but you can add further exclusions. **3** Backblaze warns you if your PC hasn't been backed up recently. **4**

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3		Sky: Broadband	£28.99 (£20.00 for 12 months)	12 months	17Mbps max speed	∞ unlimited*	£240.00
4		Virgin: Broadband	£40.00 (£27.00 for 12 months)	12 months	50Mbps max speed	∞ unlimited*	£324.00

Terms & Conditions apply - see ISP sites for details

* Fair-usage or restriction policy applies.

Data supplied by www.broadbandgenie.co.uk. Correct as of 8 September 2017.

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Free Storage	5 GB with Amazon Prime	15 GB	2 GB+	15 GB+	10 GB	No	No	1 TB for 30 days	No	5 GB for 1 year
Paid Account Storage	1 TB, \$59.99/year	1 TB, \$9.99/month	1 TB, \$9.99/month	1 TB, \$6.99/month	\$0.05/GB per month	\$0.01/GB per month	\$0.007/GB per month	\$0.0039/GB per month	\$0.004/GB per month	\$0.023/GB per month
Upload Speed	Better	Better	Better	Better	Best	Best	Best	Best	Best	Best
Initial Upload Cost	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0.05/GB	\$0
Additional Costs for Transactions, Downloads, etc	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes
Restore Delay	None	None	None	None	None	None	None	None	3-5 Hours	None

Check which cloud service is best for Arq backups by comparing them on the website

It works in much the same way as the likes of CrashPlan and can back up your entire hard drive or just selected folders. Arq itself charges a one-time fee of \$50 (£38) per user, and you will need to consider upgrading your choice of storage service to a paid-for plan on top of that, because the amount of free space on offer probably won't be enough. Arq's features page (bit.ly/arqcompare432) provides a handy guide to supported services including Amazon Cloud Drive, Google Drive, Dropbox and OneDrive, so you can see at a glance how they compare for both free and paid-for storage.

If you're not sure whether Arq is able to perform everything you require from a backup tool, you can try it free for 30 days. We show you how to get started in our Mini Workshop, below.

How long will it take to back up a drive?

If you're switching to an alternative online

backup service or signing up to one for the first time, then you'll need to run a full backup, which will probably take a considerable amount of time to complete, depending on the speed of your internet connection and the number of files you need to back up.

To give you an idea of the sort of timescale you're looking at, Backblaze has a tool to check your bandwidth. To run its speed test, go to bit.ly/blst432 and it will measure your download and upload speeds, as well as ping and jitter, and give you an estimate of how much data you can expect to back up in a day. This is only a guide, though,

because speeds will vary depending on what other uploading and downloading you're doing at the same time. Uploads may also be slower with other backup services. Our upload speed was recorded as 7.8Mbit/s and Backblaze estimates that this allows us to back up 84GB per day. That means a full 1TB drive will take around 12 days to back up online. Carrying out a spot of housekeeping in advance, to remove duplicates and non-essential files, will help speed up the process and you might find uploads are faster at other times of the day (such as at night).

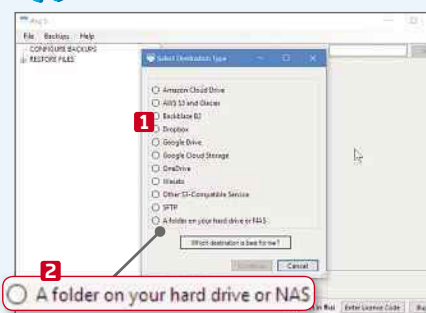
After the initial full backup is complete, only files that have changed will need uploading, and this will happen in the background. ■



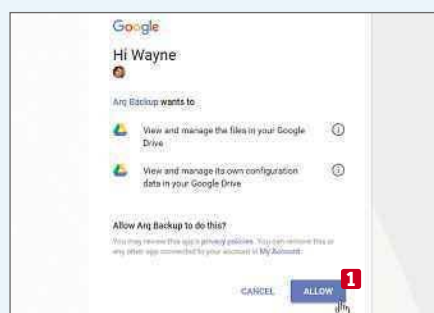
Backblaze can test your upload and download speeds to give you an idea of how long a full backup will take



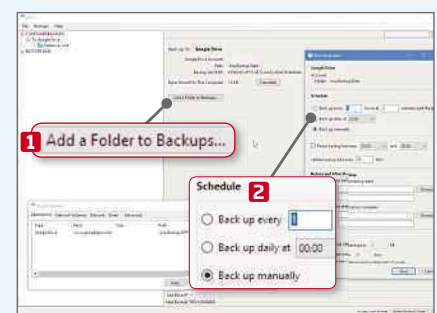
MINI WORKSHOP | Back up your PC to Google Drive with Arq



1 Download and install the Arq trial, then run it. Enter a username and email address, then click the Start Trial button. You're prompted to select a destination type. You can choose from any of the major storage services (such as Google Drive or OneDrive) **1** or a folder on your hard drive. **2**



2 Click Continue. If you selected an online service to back up to, you'll be able to sign into it. In this Workshop, we're backing up to Google Drive, so we just need to enter an email address (or phone number) and password. Arq then needs permission to manage files in Drive. **1**



3 In the pop-up window, select Set Up Backups. Enter a secure password (twice) that will be used to encrypt your data. By default, Arq will back up your system drive and then run hourly. You can select a different drive or add some folders instead. **1** The Edit Destination window lets you change the schedule. **2**

NEXT ISSUE

How To... Set up a free media server to stream films and music

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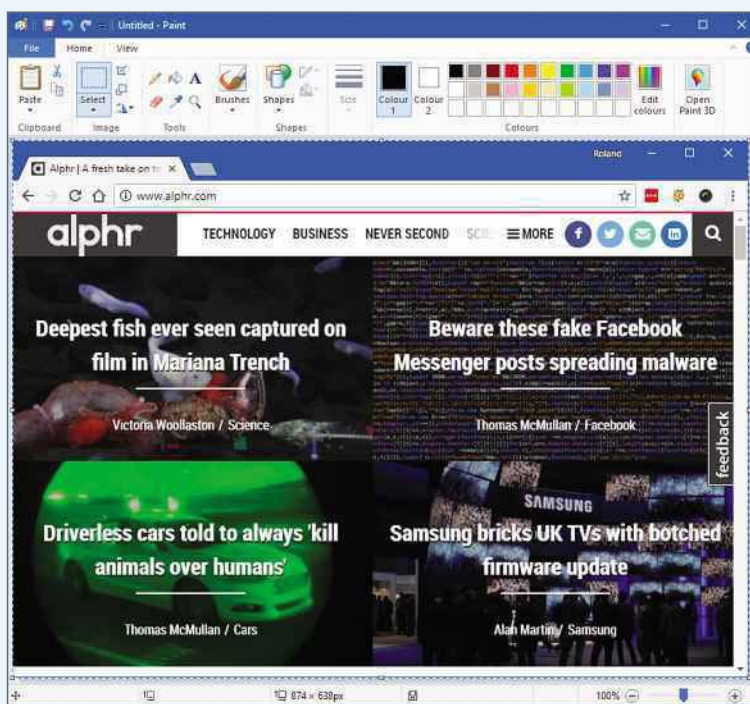
Web User Masterclass

Our experts show you how to take a screenshot, whether you want to capture selected areas, individual web pages or everything displayed on your monitor

Capture screenshots using shortcuts

Screen capture is an incredibly useful tool that lets you take a snapshot of anything that's displayed on your monitor, whether that's an image, a website, a receipt for something you purchased online or the settings for a particular program. Simply press the Print Screen key (sometimes shortened to Prt Scn) on your keyboard and the screen is copied to the clipboard as an image that can be pasted using Ctrl+V. You can paste it into any software that supports images, including Paint, Paint.NET, Word, WordPad, Photoshop and so on.

To capture just the active window, such as a web browser, press Alt+Print Screen. In Windows 10, you can also save the whole screen directly to the hard drive as a PNG file by pressing Windows+Print Screen. It will be saved to the Screenshots folder in your Pictures folder. Open the folder and double-click the screenshot to view it.



Press Alt+Print Screen to copy a window, then Ctrl+V to paste it anywhere

Use Windows 10's Game bar

Windows 10 has a feature called 'Game bar' that takes screenshots and videos when you're playing games. Start a game and press Windows+G to show the Game bar, then click the camera icon to take a screenshot. You can also perform this without launching the Game bar first, by pressing Windows+Alt+Print Screen instead. Game bar saves screenshots in the Captures folder of your Videos folder.



Use the Game bar to screenshot games and record videos, too

Capture web pages

Windows 10 provides an excellent way to capture web pages but it's far from obvious. Most web pages are larger than

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.

your browser's window and you have to scroll down to see them in their entirety. You could copy multiple images and stitch them together but this is unnecessary hard work.

The trick is to use the Edge browser and OneNote. Open Edge and, if you don't already have the OneNote extension, click the three-dot menu and click Extensions. Click 'Get extensions from the Store' and install OneNote Web Clipper.

Click the OneNote button and the whole page, even parts off the screen, are shown as an image. A menu offers options to save the whole page or select a region. Click the Clip button to save it to OneNote. Afterwards, click the 'View in OneNote' button or open OneNote via the Start menu to view the screenshot. Right-click it for Save and Download options.

Annotate grabs with Screen Sketch

Windows 10 Creators Update introduced Windows Ink Workspace, which is a collection of useful tools that



Use Screen Sketch in Windows 10 to grab and annotate screenshots



perform a range of tasks. One of the tools can grab the screen, annotate it, then save it to your hard drive. If you can't see the Windows Ink Workspaces button in the notification area at the right of the taskbar, right-click an empty part and select 'Show Windows Ink Workspaces button'.

Whenever you want to take a screenshot, click the button in the notification area, then click 'Screen sketch' in the panel. The ballpoint pen, pencil and highlighter tools let you draw on the screen, so you can highlight different areas or points of interest. Click the tool to select it and click it again to select the colour and line thickness. A crop button is available to select just part of the screen. Use the Save button to save the screenshot.

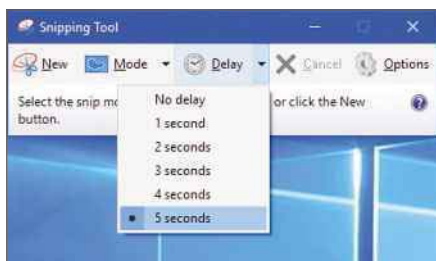
Crop screenshots before you grab them

There's another great tool in Windows 7 and 10. Go to the Start menu and find the Snipping Tool on the Accessories menu. It opens a small window with a toolbar on the Desktop.

The Snipping Tool is like a more powerful version of Screen Sketch and clicking the Mode button provides three options: Free-form Snip lets you draw a shape to crop to; Rectangular Snip lets you click and drag a box over the area to grab; and Windows Snip saves any windows you click. Click the scissors icon in the toolbar to snip the screen.

Like Screen Sketch, you can use various pens and highlighters to draw on the screen and annotate it. Click the Save button to save your screenshot to the hard drive; click the Copy button to save it to the clipboard for pasting into other applications. The Snipping Tool is particularly useful when you need to grab areas of the screen that fit an irregular shape.

Click the arrow next to the Delay button in the toolbar and you can grab the screen immediately or after a delay of 1-5 seconds. This is useful if you want to grab a menu that automatically closes if you click away. Set the delay, open the menu and, after a few seconds, the snip tool captures it.



Snipping Tool lets you capture what's on screen after a timed delay

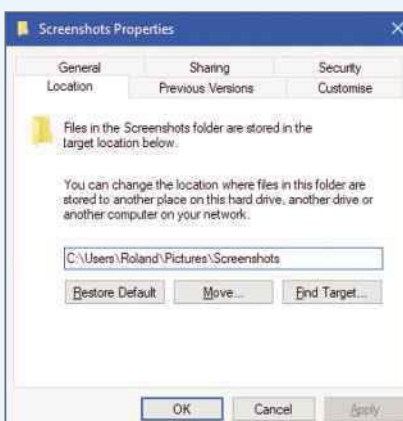
TAKE IT TO THE NEXT LEVEL

More advanced tips for when you're feeling brave

Move the Screenshots folder

Pressing Windows+Print Screen saves your captured image to the Pictures/Screenshots folder as a PNG file. If you want to save your screenshot to a different location, right-click the OneDrive icon in the notification area (it may be hidden in the pop-up tray) and click Settings. Go to the Auto-save tab and select the option to 'Automatically save screenshots I capture to OneDrive'. This is useful if you want to view or open your saved screenshots on another computer, phone or tablet. The screenshots are saved to OneDrive's Pictures folder.

Another method is to open your Pictures folder, right-click the Screenshots folder and select Properties in the menu that's displayed. Select the Location tab and use the Move button to place the Screenshots folder in another location on your hard drive. If you change your mind, the Restore Default button puts it back in its original place.



The location of the Screenshots folder can easily be moved

More screenshot tools

Microsoft provides several ways to grab screenshots in Windows, but screenshot tools from other companies often include extra options. For example, not all keyboards have a Print Screen key, particularly if they're not full size or have been designed for Apple machines, so you may want a tool that offers an alternative method.

Greenshot (getgreenshot.org)

is a free open-source tool that extends the Print Screen key's tools and offers many more output options. Click 'version history' on the downloads page to see the different types, including the latest beta and a portable version that extracts to the Downloads folder and doesn't need installing.

Run Greenshot to add an icon to the notification area, then click this and select Preferences to see all the keyboard shortcuts for capturing the screen, along with dozens of other settings. You can change the hotkeys by clicking the boxes and pressing your preferred key combination.

Print Screen doesn't normally capture the mouse pointer but Greenshot has an option to include it. When the screen – or part of it – is captured, a menu appears that lets you save the screengrab to Outlook, OneNote, Word, Dropbox, Paint, the printer and various other places.

Chrome screenshots

The Awesome Screenshot Chrome extension (bit.ly/awes432) has some advanced tools that make it useful for grabbing web pages. Click the toolbar button to display a menu with options to capture the visible part of the page, the entire page, a selected area and so on. It goes further than the OneNote method covered earlier.

The screenshot appears on a browser tab, and you can annotate it using a toolbar at the top. To blur sections, click and drag the Blur tool over them to hide personal information, such as an email address. Click Done and in the next window, in the 'Local save' section, you can save it to the hard drive or the clipboard, or send it to the printer.



The Awesome Screenshot add-on for Chrome lets you annotate your grabs

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



EMAIL

Never lose contacts in Windows 10

Q I recently bought a new PC and was impressed that the info in my mail folders automatically transferred from my old Windows 10 PC when I logged in. However, it didn't transfer my list of contacts. After several hours of wasted effort, I eventually did this manually, one contact at a time. So imagine my horror when the new PC had a problem, which it fixed, but in the process wiped all my contacts. I have now manually restored them again. How do I back them up?

Stuart McAinsh, via email

A Contacts are best stored online in Outlook People. Go to outlook.live.com in a browser, click the menu button in the top-left corner to show all the tiles and click People. It can also be accessed from Outlook.com email by clicking the people icon at the bottom of the sidebar.

Outlook People's tools can add and delete contacts, tidy up contacts, connect to social networks, view



Microsoft's online People app has options to import and export contacts

contacts by social network and more. The Manage menu lets you export and import contacts. Use 'Export contacts' to download a copy of your contacts to a PC or to restore contacts from a file on your hard drive.

All your Microsoft services and software use this contacts database, including the Mail and People apps on your PC. Press Windows+i to open the Settings app, then click Privacy and Contacts. Make sure that the switch to allow apps to access your contacts is turned on, and 'Email and accounts' is also set to On. Select Email in the sidebar and set People to On.

The Mail and People apps will now sync your contacts and you won't lose them because they're stored online.

listed as 2,000mA) through at least one of the ports. Prices vary, but we have seen them for under £20 at Maplin, Amazon and other retailers.

Do you really need to take a DVD writer on holiday? If you want to watch movies or listen to music, streaming is much easier. There are paid-for music-streaming services or you can upload your own music to Google Play Music (bit.ly/music432) and stream it to any computer, phone or tablet. If you are writing photos and videos to disc, save them in an online-storage service – OneDrive or Google Drive, for example – and write them to DVDs when you return home.

GENERAL PC

Secure your PC with Windows accounts

Q My PC is just over five years old and runs Windows 7 Home Premium. It was built for me at a local computer dealer and is very reliable. It was set up with one User Account with 'brian' as the Administrator. I have never felt the need to set up any further accounts or add a password because only my wife and I use the PC.

Normally, when I boot up my computer, it displays a couple of general screens before reaching the Desktop and being ready to use. Some time ago, it suddenly, on occasion, began to display another screen during the boot-up procedure. This screen has a button and doesn't progress to the Desktop until I've clicked it.

During the last couple of weeks, an additional screen – I believe it's the login screen if you have a password set up – has started appearing. I can't think why this is happening. I'm not aware of changing any settings in Windows and I've scanned with Avast Free (bit.ly/avas432), Malwarebytes (www.malwarebytes.com) and CCleaner (bit.ly/ccle432) to check for any problems. I am completely up-to-date with all Microsoft's updates to Windows 7.

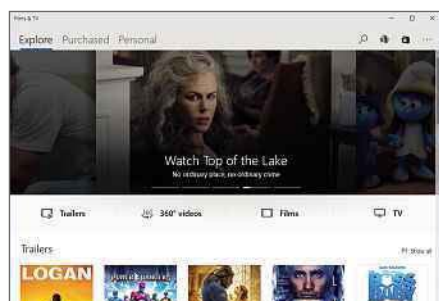
What could be causing this and are there any settings I should change?

Brian Walbey, via email

GENERAL PC

DVD writer for a tablet

Q For several years I have taken a small HP laptop and external Sony DVD writer on my holidays. However, following the current airline restrictions on weight, I bought a Linx 10 64-bit



Still watching DVDs? Try streaming movies and TV instead

Windows 10 tablet, which is much lighter, and have tried several external DVD writers, some powered by the tablet, others with a separate lead for an external power supply. They work at first but will not play or write DVDs, and shut down after a few minutes. Is this because the Linx tablet is 64-bit or simply that the tablet and DVD writer are not compatible?

Can you suggest a solution?

J Stirling, via email

A You're not alone in having problems getting CD/DVD writers to work with the Linx 10 tablet/laptop hybrid. The power output from the Linx 10 is insufficient for an external CD/DVD drive so you need a mains-powered USB hub that can deliver 2A (sometimes



The User Accounts tool lets you choose whether users need to enter a password

A If Windows has only one user account and a password hasn't been set, it should bypass the login screen and go straight to the Desktop. Type **control panel** into the search box and click it when it appears in the list. Open User Accounts and make sure there is only one Administrator account.

It shouldn't be necessary, but there is another way to specify that no password is required. Press Windows+R, type **netplwiz** and press Enter. Clear the tick in the box next to 'Users must enter a username and password to use this computer'.

We recommend that you set a password for your account and also create a second administrator account in User Accounts in the Control Panel. A second account means that you can access your computer if there is ever a problem with your first account. Setting a password may seem unnecessary for you and your partner but if the computer is stolen, you'll be glad you did. It's unlikely to happen, but you never know.

GENERAL PC Fix Windows updates

Q I am using Windows 10 Pro 64 and successfully applied the Creators Update six weeks ago. Just recently, however, I have experienced a problem with Windows Update. When it says there are updates ready to download and I click to 'Download now', the download-progress bar sticks at 1-3%. It stays this way for about five hours, at which point it reverts to saying there are updates ready to download.

I ran the Windows Update Troubleshooter and it told me that it had fixed all problems, but this isn't the case. My original problem is still the same. Any ideas on what I should do now? It used to work fine and I have not installed any

software or done anything to the computer since it was last working okay.

Colin Smedley, via email

A There are several steps to fixing Windows Update and we have had success with the following. Start typing **command prompt** into the search box and, when it appears, right-click it and choose 'Run as administrator'. Type **chkdsk c: /f**, then press Enter to check the hard drive. It says it can't do it right now, but press Y to check it on the next restart. Then restart Windows.

After it's finished, open a Command Prompt window again and enter these two commands, one at a time, pressing Enter after each one:

DISM.exe /Online /Cleanup-image /scanhealth

DISM.exe /Online /Cleanup-image /Restorehealth

Next, type **Control Panel** into the taskbar search box and click it when it appears in the results. Select Troubleshooting and click 'View all' on the left. Run Background Intelligent Transfer Service, Internet Connections, Windows Store Apps and Windows Update by clicking each one in turn.

Start typing **administrative tools** into the search box and click it when it appears. Choose 'Disk Cleanup', click 'Clean up system files', then select everything and clean. Restart

Windows. If Windows Update is still not working, repeat the entire process.

SOFTWARE

Access a locked Microsoft Money account

Q A very long time ago, I used Microsoft Money for all my finances. When Microsoft stopped maintaining the service, I switched to another money-management tool and I've now forgotten my Microsoft Money password. Is there any way I can find the lost password I used over 20 years ago to get access to my historical financial records? I tried a suggestion about five years ago but was unsuccessful.

Brian Alexander Todd, via email

A Microsoft Money was discontinued in 2009, although a Sunset version was made available so it could be used for a while longer. Getting Money to run at all is a problem because it's not compatible with recent versions of Windows unless you hack the Registry. You may get it running on an old PC with an old version of Windows, though.

Money may be locked with a Microsoft account password, so try using your password for Outlook, OneDrive or other Microsoft services. If that doesn't work, you're out of luck. There is no simple way to access Money files without the password, and this is intentional.

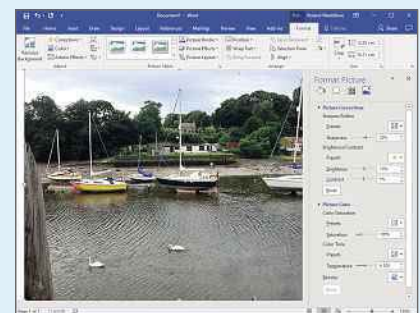
SOFTWARE

Edit photos in Word

Q My son is using Microsoft Word for a school project that involves a lot of photos. He's been using the Word tools to adjust the brightness, colour, contrast, cropping and so on, but this takes a long time. I wondered if there is an easier way to do this?

Paul Harris, via email

A Photo enhancement in Word is pretty good and includes tools for picture correction, colour, crop and rotate, and special effects such as shadow, reflection, glow and more. However, adjusting each photo is slow work if you have a lot of them. Paint.NET (www.getpaint.net) is a good free photo editor and its tools are more powerful than Word's, but it won't save much time and effort. The only way to make the job easier would be to use an automation tool. XnConvert (bit.ly/xnc432) is free and



No photo editor? Microsoft Word comes with its own photo-editing tools

offers a list of around 80 actions, such as resize, contrast, brightness, saturation, crop, sharpen and so on. If you have a bunch of photos with the same problem – such as being too dark – you can create a script in XnConvert to lighten them all simultaneously. It can also resize them and adjust the contrast at the same time. However, the actions you pick are applied to all the photos you select, so it is only useful if they all require the same adjustment.



This fortnight Roland has been trying out the new tools in Microsoft's latest test version of the Autumn Creators Update

Your Top Tips

Our pick of the best advice from our readers. To get help or offer it to others, visit forum.webuser.co.uk



TOP TIP

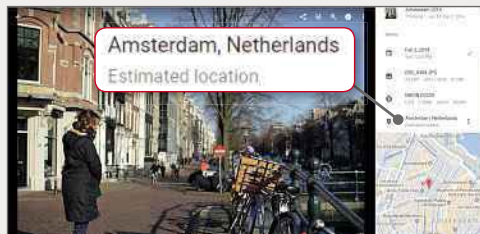
PHOTOS

Geotag your photos with Google Location History

A few issues ago, there was a tip about using the Google Location History timeline to retrace your movements on a particular date and even find the route you took to visit a particular place.

I've since discovered some more ways you can use this location data. If you want to see when you last visited a golf course, restaurant or hotel, just search for it in Google Maps, tap its business page and Google should tell you how many weeks or months it's been since you were last there. Tap the entry to see a detailed summary of all the dates for when you previously visited. This is much easier than scrolling endlessly through a timeline trying to work out when you last visited a place.

Another way to take advantage of Google storing your location data is to



Google estimates where your photos were taken by tracking location history

use the info to manage your photos. Provided you had your phone with you when you used your camera, you can upload all the snaps to Google Photos and it'll estimate the location based on their timestamps. It's a really handy tool if you want to type 'Paris, France' into Google Photos and see not only the snaps you took on your smartphone but also all those you took on a regular camera, without manually tagging them in any way.

Arthur Thomas, via email

EMAIL

Make Gmail's inbox clearer

My laptop has a high-resolution screen that makes the text in Gmail very small. For anyone like me who struggles to read the small text, there is a simple solution. Click the three-dot menu and click the plus button next to Zoom. A setting of 110% is fine for me, but you can go higher if you need to. This results in larger text and it is remembered every time you visit Gmail, but doesn't affect any other sites.

John Spiller, via email

KINDLE

Change default device on Amazon

When I bought a Kindle book on Amazon recently, the service wanted to send it to my old Kindle instead of my current Kindle Oasis. Fortunately, I noticed and changed the delivery to my current reader. To correct the problem, I selected

'Manage Your Contents and Devices' from My Account and selected the 'Your Devices' tab. I clicked Actions next to the Oasis, then 'Set as default device'. Once you've done this, all your ebooks should be sent to the right place.

FratPark, Web User Forums

SOCIAL NETWORKING

Stop Facebook pop-ups

Facebook recently introduced a new tool that I found really annoying. When someone posts a reply to a comment you make, a chat window pops up over the bottom half of the page. I am often in the middle of reading or commenting on something else when this happens, so it gets in the way.

I've found the setting to disable this - if the contacts sidebar isn't showing, click the cog icon in the bottom-right corner of Facebook to bring it up. Now click the cog again, then click Turn Off

Post Tabs. Click the cog and click Hide Sidebar if you want to close your contacts list again.

Paul Murphy, via email



Turn off Post Tabs to stop pop-up chat boxes in comments on Facebook

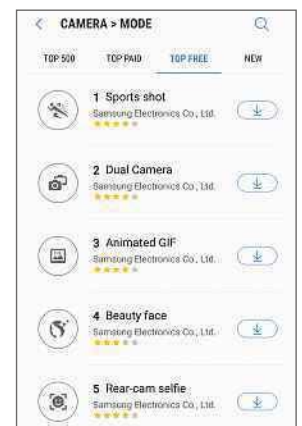
APPS

Add modes to Samsung's camera app

I love the camera on my Samsung S6 smartphone and only last week I discovered additional modes that can be downloaded for it. Simply open the camera app, swipe right and you'll see the standard list of modes including Auto, Pro, Panorama and 'Selective focus'. At the top of this page, tap Download to see lists for Top 500, Top Free, Top Paid and New.

My favourite free modes include:

'Sports shot', which helps you capture sharp images of fast-moving objects; 'Animated GIF', which takes pictures continuously to turn them into a GIF; and 'Rear-cam selfie', which automatically detects and focuses on your



Download extra camera modes such as 'Sports shot' and 'Rear-cam selfie'



face when using the better-quality rear camera. There are plenty to choose from!

Ryan Williams, via email

BROWSERS

Sort your bookmarks

If you've added a lot of bookmarks to Chrome, it can be difficult to find the one you want. Because they are stored in the order in which you created them, they may as well be completely random. To sort them into an order, go to the menu and click Bookmarks, then 'Bookmark manager'. Select any folder on the left and click the Organise button, then select 'Reorder by title'. This puts bookmarks into alphabetical order, which makes them easier to find.

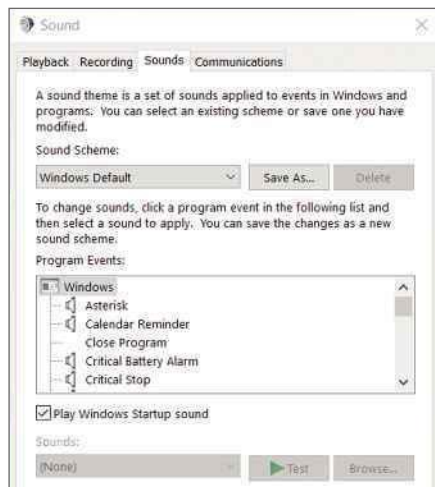
Tom Winston, via email

GENERAL PC

Change system sounds

Sometimes, installing a new Desktop theme can change the sounds for certain actions, such as emptying the Recycle Bin. To stop or amend the sounds you hear, go to Settings, Personalisation, Themes and then Sounds. You can then select 'No Sounds' or one of the other options on offer for each of the 'Program Events'. These instructions work in Windows 10 and similar settings should be available if you are using an earlier versions of Windows.

FratPark, Web User Forums



Click Sounds in the Themes settings page to customise Windows 10 system sounds

GENERAL PC

Sleep better at night

Several new reports claim that the light from computer, phone and tablet screens can keep us awake at night if we use those devices late in the evening. Apparently, the blue light they produce fools our brains into thinking it is midday and not time for bed. You can combat this and get a good night's sleep by turning on Windows 10's 'Night light', which makes



Turn on Windows 'Night light' and you may sleep easier at night

want to try it, open the Settings app (Windows+i) and click System. Select the Display category and turn on the switch for 'Night light' on the right. Click 'Night light settings' to adjust it.

Simon Kelly, via email

the screen slightly redder when you use your computer in the evening. I can't say I have noticed much difference myself but if you

BROWSERS

Use quick links to private browsing

If you don't want to be tracked on the internet, you can open an 'incognito window' in Chrome or use InPrivate in Edge. You don't have to open a browser window first – just right-click the icon on the taskbar and click 'New incognito window' or 'New InPrivate window'.

BLUNDER OF THE FORTNIGHT

WEBSITES

Quickly import sports fixtures to Google Calendar

If you're a sports fan, you may have recently used the calendar app on your smartphone to manually enter reminders for your team's fixtures for the forthcoming season. I spent several hours doing this and have only since discovered that there was a much faster way I could have imported them! Just go to your team's website, load the fixtures page and the chances are you'll find either a calendar file or a URL for the year's fixtures list. If you can't see one, search the web to see if anyone has created an unofficial one.

Next, on the Google Calendar website (calendar.google.com), click the down-arrow next to Other Calendars, then select 'Import calendar' or 'Add by URL', depending on the option you used above. Follow the instructions to complete the process and, once you've imported



Many sports teams let you download their fixture lists as calendar files

the list of events on the web version of Calendar, you'll be able to view them on any other device that uses Google Calendar. You should also receive alerts according to your default notification settings.

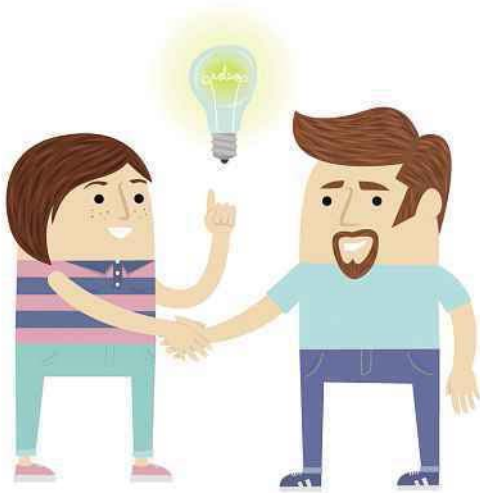
The only caveat is that at this early stage in the season, some fixtures might only have an estimated date and time. To avoid having the wrong information, you should regularly check back on the website.

Ed Wright, via email

Have you managed to fix a PC-related disaster?

If so, please send your story to webuser@dennis.co.uk





Readers' Helpdesk

Our pick of the best solutions posted on our reader forums. Visit forum.webuser.co.uk – it's friendly and free!

SECURITY

Why is Malwarebytes Free always running?

Q I use Malwarebytes (www.malwarebytes.com) as a standalone anti-malware scanner, but I've recently noticed that it seems to be running all the time, even though the free premium trial has ended. I wonder if it's actually doing anything other than using resources? Now I've got the full suite of Norton installed, is there any point in having Malwarebytes at all?

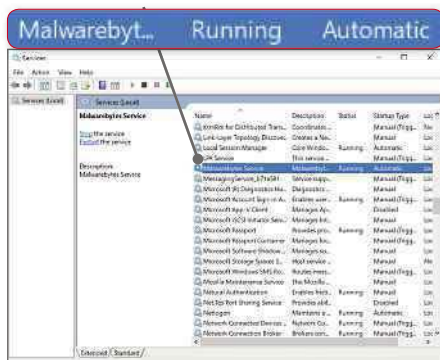
george29, Web User Forums

A Malwarebytes can detect PUPs (potentially unwanted programs) and PUMs (potentially unwanted modifications), which many antivirus programs don't, so for that reason it's worth keeping.

To stop Malwarebytes from launching automatically on startup, press Windows+R, type **services.msc** and press Enter. If the program is showing as Started and Automatic, right-click it and select Properties, then use the 'Startup type' dropdown menu to change its status to Manual. Click Apply, then Stop and OK. Close Services and it will no longer launch when you start your PC.

You can still use Malwarebytes to run a manual scan by launching the program from the Start menu.

Cantriel and Stewart40, Web User Forums



Use Services to stop Malwarebytes launching on startup

BROWSERS

Why won't Firefox become my default browser?

Q I'm not sure if this problem is specific to Windows 10, but I am getting an annoying box that keeps appearing, saying: "Firefox is not set as your default browser", even though it is! I've tried ticking the "Do not show again" box, but that doesn't stop it; if anything, it seems to be appearing more often. How do I stop this happening?

fossewayfella, Web User Forums

A Type **default** into the search box on the taskbar, then press Enter. The 'Default apps' page loads and you need to check what's showing for the 'Web browser' option. If it's anything other than Firefox – if it says Edge or Chrome, for example – click it and select Firefox as the default app.



Make sure your default browser is set in the 'Default apps' list

You should also open the Control Panel and choose Default Programs, then click the 'Set your default programs' link. From here, click Firefox and 'Set this program as default'.

lizzygraham and Stewart40, Web User Forums

GENERAL PC

What is this Windows Update?

Q Yesterday, in Reliability Monitor, I found an entry that read "Installation Successful: Windows successfully installed the following update: Application: 9WZDNCRFJBMP-Submission:1152921504626914423".

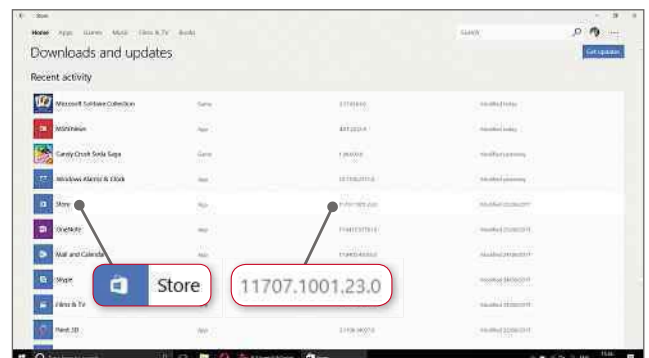
I have tried to find out what the update was for, but without any success. Can anyone help identify what it is?

rogerman40, Web User Forums

A This update is for the Windows Store. For some reason, some apps have appeared with the incorrect titles in Reliability Monitor

since August, and 9WZDNCRFJBMP is the title that appears instead of Store. Type Store into the Search bar and press Enter, then click the three-dot button and click 'Downloads and updates'. Here, you'll be able to see when the Store was last modified, which should match the information you see in Reliability Monitor.

lizzygraham, Web User Forums



Check when the Windows Store was last updated by going to 'Downloads and updates'

Star Email

Mug
winner



Left-handed people deserve more support

Let's get one thing straight: left-handed people are not 'southpaws'. This derogatory North American expression is more an insult than a simple synonym for a left-handed person, so I'm surprised to find your publication using it. This typifies the attitude of right-handers towards left-handed people, which is often a mixture of thoughtlessness and disbelief.

Take, for example, my work colleagues' anger whenever I leave the PC mouse on the left of the keyboard, and their



indignation when I point out that they only leave the mouse on the right because they're right handed, so I leave it on the left. "I'll leave it on the right if you put it on the left for me," I tell them.

I once swapped the left and right mouse buttons round, as described in your article, and left them like that for the next user. This caused untold chaos until I returned to work two days later. No one but my left-handed colleague realised what had happened, and she kept quiet, saying afterwards that watching staff try to 'fix' the computer was

the best entertainment she'd had for ages. I quietly switched the mouse buttons back on my return and said nothing. It was put down to a 'virus'.

Your article highlights the abysmal support for left-handed people. As you point out, Microsoft doesn't provide a left-handed cursor, and I haven't been able to find one for my MacBook. A few welcome third-party programs are available for making modifications, but why should we have to go to such lengths to switch even basic functions?

The "left-handed keyboard" in your article is nothing of the sort. A true left-handed keyboard – and any other left-handed device for that matter – would be a mirror image of the right-handed version. This illustrates the fundamental error in right-handers' understanding of left-handedness.

Ian Robinson, North London

Being a cuddy wifter is alright with me

While catching up with back issues of *Web User* after the holidays, I was pleased to read your advice on 'browsing the web left-handed' in Issue 430.

To be fair, I've never experienced any difficulty in being a lefty, especially when using my computer. The keyboard I learned to use in my working days went everywhere with me. I was even allowed to keep it when I retired. When PCs came along, it wasn't a problem because the keyboards were the same.

Whenever I use a computer at my local club, I always adjust the mouse to left-handed settings. Usually, I'd restore its right-handed settings before leaving, but one day I thought, what the hell, let the next person change it back. Oh dear me. The next person couldn't get the mouse to work and when I arrived, the club's resident technician was practically on hands and knees begging me not to do it again. I'm the only lefty there.

Web User's tip to 'move the scrollbar to the left' appeals to me. It's never been a problem as it is, but I'll give it a try. The rest of the tweaks and adjustments are probably unnecessary for me, but I'd like

to thank Wayne Williams for a good read. It was much appreciated.

When I was younger, I used to play outside left at football and bat right-handed at cricket. Does that make me an odd 'cuddy wifter' as we lefties are known in the North East? I also like the Aussie version 'mollydooker' although, as with much slang, its origin is uncertain.

George, Web User Forums

Some ciphers are unbreakable

Regarding the recent letter from Wilf about ciphers (*Inbox*, Issue 429), I would like to point out that there are several unbreakable ciphers. The best known is the one-time pad or Vernam cipher. If used correctly, this is impossible to crack. Messages encrypted using the TypeX cypher machine, which improved

Quiz Answers: Issue 431

1 Toilet Duck



2 Dove Hand Wash



3 Cathedral City Mature Cheddar



4 Birds Eye Fish Fingers



5 Apple iPad



6 Microsoft Xbox



WINNER!

Geoff Pyke
wins a Web
User mug



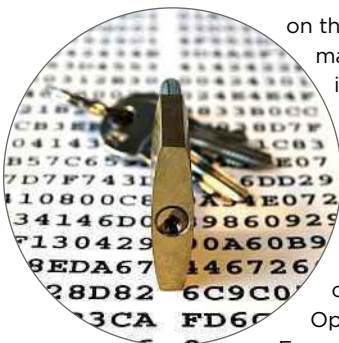
WORD PUZZLE

Snapchat



“My 69 interests supposedly include DJs, Amazing (whatever the hell that means), and Comics”

Turn to page 74 to find out what's making Barry mad this issue



on the famous Enigma machine, are also incredibly secure, if not technically unbreakable. Then there are the meaningless codes created by Leo Marks of the Special Operations

Executive (SOE). What does “see you at the White Horse at 7pm Tuesday” mean? Is that the real location, time and day?

John Kent, London

Auto-playing adverts have a negative effect

In response to Barry Collins' column in Issue 431 about Facebook's noisy auto-playing adverts. This so-called “feature” is absolutely disgusting, not to mention dangerous.

I wake up early, but my wife doesn't, and this ridiculous unwanted feature wakes her up and makes her angry with me. Can you imagine what people would say if your car beeped loudly at any time of the day or night whenever someone approached it or if another car got close to it?

We're already sick and tired of TV commercials that blast out too loud whenever they appear on the screen. I've worked in advertising for many years, but I

have never been in favour of this type of awful, antisocial behaviour. I guarantee that this type of advertising doesn't result in more sales;

on the contrary, it has a very negative effect, and yet advertising idiots still use it to compensate for their incompetence!

Claude Legrand, via email

Caught on Street View

Regarding your request for readers who appear on Google Street View: my partner was snapped in his home city of Aracaju in north-west Brazil a couple of years ago. In the image, you can see him resting from building work in the shade



in a back street in a residential part of the city. These Google people really do get everywhere, although personally I take your advice and try to avoid them whenever and wherever I can.

David Collins, via email

Why I'll pass on a password manager

Password managers (Issue 431) aren't all they're cracked up to be. LastPass can't handle three-stage authentication systems, and one of the sites I use doesn't allow you to save logins and passwords. Instead, it provides a one-time security number that I have to input to access the site. LastPass also tries to save things that aren't the username or password.

I recently removed Kaspersky from one of my computers because it kept telling me that almost every site, including Amazon, had an unsigned certificate.

I installed Norton

instead, which has a password security vault. The problem is that I always close my browser when

I've finished my browsing session, and the vault closes too. This means that whenever I relaunch my browser, I have to sign back into the vault.

Martin Fletcher, Thorpe Hesley



No justice for victims of eBay car scams

I recently watched a very interesting TV programme that investigated eBay scammers. It's well worth watching if you can still find it on the ITV Hub catch-up service. Why eBay didn't stop these scams or make people aware of what was going on is beyond me. Most of the people in the programme had bought cars through what they thought was a genuine eBay page, parting with their money on what seemed to be genuine

purchasing forms, only to find that they had been conned when the car wasn't delivered. One lady said she'd been saving for years to buy a camper van that looked like one of the old VW types, only to find that she had been ripped off. It was heartbreaking to watch. The victims were of all ages.

The criminals were caught but were handed down what I can only describe as laughable terms of imprisonment for offences that, according to the police, amounted to millions of pounds. The top man only got five years, which means he'll probably only serve three and a half years with remission. All the money had left the UK, so it couldn't be recovered, which means the victims will only receive a pittance, if anything, from recovery sales under the Proceeds of Crime Act (POCA). Needless to say, I shall avoid online sales of cars from now on.

fossewayfella, Web User Forums



Tell us more about Tor

Thank you John Lockett for setting me straight about Tor (Inbox, Issue 431).

I certainly didn't mean to cause offence by suggesting that using it was overkill, and I can assure you that I don't find online surveillance “amusing”. I have never seen the need to use Tor, but I accept the explanation that it's useful for accessing content that might otherwise be unavailable. Perhaps Web User should publish a feature educating the rest of us about the benefits of using Tor.

Brandon Flynn, via email

Web User says: Funnily enough, Brandon, we've been thinking along the same lines. Turn to page 40 for our complete guide to using Tor.

Not impressed by Netflix

Your article about Netflix was very interesting, but I'm still not convinced that I should subscribe. It costs £6 a



month, which might not sound like much but it adds up to £72 a year. That's on top of the £147 we're forced to pay for the TV licence, even though I rarely watch the BBC now that *Bake Off* has moved to Channel 4. I'm not sure Netflix has enough interesting programmes to justify that extra cost – it mostly

seems to be "gritty" American dramas and the type of rubbish comedy films that nobody ever rented from video shops in the old days. I did sign up for a free trial but cancelled after a week because I was worried that I'd forget and get charged when the trial ended. Still, I'm sure there are plenty of people who like it and are happy to subscribe.

Colin Birch, via email

Give us free mobile Wi-Fi during downtime

My broadband has been down since 7am this morning, and my provider predicts that it won't be fixed until 5pm. Meanwhile, my home security system is inactive, my NAS is down, I can't access Amazon Video or TV catch-up on my smart TV and I have to connect my PC to the internet over my phone's Wi-Fi hotspot, using data I have paid for.

Isn't it time ISPs showed some good will and commitment towards their customers by providing everyone with a mobile Wi-Fi router, such as MiFi, that could be activated at no extra charge when their internet is down? After all, we're paying for a service we can't use. Surely, the technology must be available to allow mobile Wi-Fi to be used for free during those times.

I appreciate that many people can't receive mobile broadband, so this solution wouldn't be of benefit to them,

but I'm sure it would enable lots of households to maintain an internet connection during

disruptions to their broadband. I don't see why I should have to pay twice for the service.

Ethel Trueman, Dudley



ARE YOU EXCITED BY THE LAUNCH OF THE iPhone 8?

Nope. It's a long time since the Morgan pulse has quickened at the prospect of a new piece of kit. The iPhone simply doesn't offer good value for money.

Richard Morgan

Yawn. Another incremental update that won't be as good as Android. I use a Huawei P9 Lite phone and a Samsung Galaxy Tab A 10.1in tablet.

Phil Graham

No, Android is the best. I have a Samsung Galaxy A5 and a fantastic array of free apps that work well.

Geoffrey Boow

I'm an Apple slave. I wouldn't go near Android. I prefer iOS and the apps that you can't get on Android.

Ramos Fae Samos

Not really. Since buying my first iPad Pro 9.7 last year, my iPhone usage has dropped significantly.

Scott Alexander Winchester

DO YOU LIVE IN ANY OF THE AREAS EARMARKED FOR 1Gbps TRIALS (bit.ly/trial432)?

Sadly not. The most BT can offer me is 3Mbps. I get 200Mbps from Virgin.

Jenny Jacks @JenJacks3

I wish they'd sort out the parts of London that are stuck on ADSL2 first.

Martin Phillp

The trial closest to me is in Bristol, and that's still a hundred miles away!

Colin Wallace

What about Wales? Cardiff was the location of one of the two original

fibre/copper trials. Why are we not on this fibre trial?

Iain Kenworthy-Neale

A NEW SURVEY SAYS HALF OF BRITONS USE AD BLOCKERS. DO YOU?

I have four ad-blockers running, and I never see an advert – only websites telling me I have ad blockers running.

Gavin Green

I use uBlock (www.ublock.org) and it works well. I only wish they'd make one for phones that's as effective! I get lots of adverts at the bottom of my screen.

Lynn Sharpe

I use the 'Friendly for Facebook' app (friendly.io) and I never see ads. It's brilliant. I really object to being forced to view advertising all the time, and I object even more to targeted ads.

Carolyn Crumpton

I was a big fan of Adblock, but it's pretty useless in Edge. Full-page ads get through every time. It's fine in Opera, though.

Jason 'Boz' Bowyer

WHAT WAS THE LAST 'HOW TO?' QUESTION YOU ASKED ON GOOGLE?

Ironically it was 'how to de-Google my Android phone'.

goldmaster @imthegoldmaster

How to eat with chopsticks. I got a reasonably good answer and a couple of videos, too.

Maxx @2bMaxx

'How to put on a wetsuit'. I think the real answer was 'lose weight', but I was hoping for some arcane trick to get that zip done up!

Robin Hart-Jones @Roblex

I searched YouTube to find out 'how to poach eggs in a microwave'.

Brian Brown

! Page 404



Barry Collins comes up with a likeable way Twitter can solve its cash crisis

A penny for your tweets

If there's one thing Twitter is brilliant at – other than exposing what an astonishing waste of atoms Katie Hopkins really is – it's losing money.

In the last 'quarter' alone, Twitter managed to lose \$116m on earnings of \$574m. That's the equivalent of opening a shop where every item costs you £1 to make and selling it for 80p. It's losing money hand over fist.

Part of the reason for this is because Twitter is terrible at advertising. I've just opened Twitter on my phone and the first 'promoted' tweet I see in my timeline is a video of a 20-year-old *Game of Thrones* star selling Converse trainers. I'm a 40-year-old father of two. I'm more likely to buy a hardback edition of Katie Hopkins' autobiography than a pair of trendy trainers.

If you want to see how clueless Twitter is about your 'interests', go to the Twitter website, click your profile icon, then Settings & Privacy and Your Twitter Data, and then click your list of interests. My 69 interests supposedly include DJs (I once tweeted about Jimmy Savile), Amazing (whatever the hell that means) and Comics (I've not bought one since Jimmy Savile was still allowed to make regular appearances in them).

How does Twitter get out of this financial black hole? Well, if there's one thing other than generating debt that Twitter excels at, it's championing people and causes. If you're a football fan like me, you can't fail to have been touched by little Bradley Lowery, the super-smiley six-year-old lad who tragically died from a rare type of cancer earlier this summer.



His parents have done an amazing job of fundraising via social media, setting up charity games and all sorts. Wouldn't it be a great thing if you could support causes like this with something more meaningful than a 'like'? What about a 'penny like' button where you donate

“ I'm more likely to buy a hardback edition of Katie Hopkins' autobiography than a pair of trendy trainers ”

a penny to whoever made the tweet? It's such a trivial amount that it's the kind of thing you could do without thinking,

but when you see tweets getting hundreds of thousands or millions of likes – as many of those concerning Bradley Lowery did – then the sums involved become substantial.

It's not only charities that could reap the benefits of penny likes. New tech products could use penny likes as a means of crowdfunding, in a similar fashion to the way they use Kickstarter and other such sites to get products off

the ground today. Campaigns or causes – such as the benefit fund for the victims of Grenfell Tower fire or the campaign to save net neutrality – could use it as a rapid way to raise funds. People could even use it as a means to raise money to run for Parliament, levelling the advantage of the main political parties who have been failing us for years, and potentially releasing this country from their stranglehold.

How does Twitter make money from all this? Well, it can either take a commission at the point of purchase, selling us, say, 100 penny likes for £1.15. Or it can take a slice if and when the recipients decide to withdraw the funds, much like the crowdfunding sites take a fixed percentage of the revenue pledged by backers.

It might not be enough to fill a \$100m loss every quarter, but it would go some way to mending the damage. Now, who's going to give me a penny like for my campaign to buy Katie a new house in Pyongyang?

ENJOYED THIS ISSUE?

GET THE NEXT ONE EARLY!

Thank you for reading this issue of *Web User* – we hope you found the tips and advice useful. The good news is that you don't have to wait too long for the next issue. If you subscribe to *Web User* by **Monday 25 September (8pm)***, you'll receive it through your letterbox before it's available in the shops!

What's inside the next issue:

COVER FEATURE: SPEED UP YOUR WI-FI

PLUS:

- Hidden hacks for extending your battery life
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- Stop using Firefox

AND...

Best middle-click tricks

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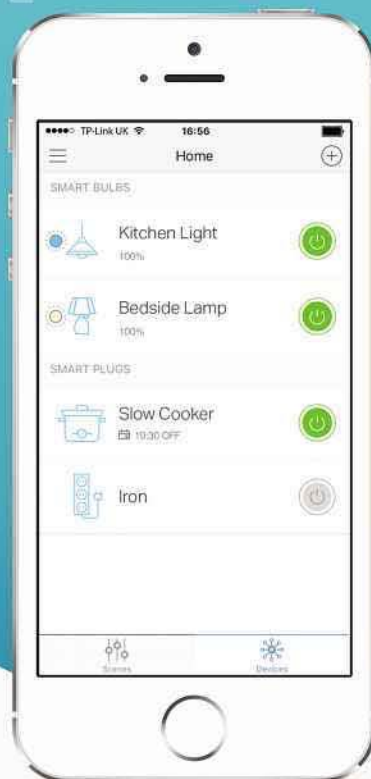
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